The Pennsylvania State University

The Graduate School

College of Education

CHARACTERISTIC PREDICTORS OF PARENTAL STRESS IN SPECIAL NEEDS CHILDREN ADOPTED OUT OF THE U.S. FOSTER CARE SYSTEM

A Thesis in

Counselor Education

By

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Submitted in Partial Fulfillment
of the Requirements
for the Degree of

Doctor of Philosophy

May 2007

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ABSTRACT

This study examined relationships between characteristics of children adopted from the U.S. foster care program and measures of parenting, personal, and marital stress in their adoptive parents. An innovative Internet based data collection platform was used by 81 parents from across the U.S. recruited by their children's clinicians. Participants completed instruments related to demographic, social, emotional, and behavioral characteristics of their children along with self-report measures of parenting stress, marital stress, and personal mental health. Measures were also completed related to parent-child communication and parent-child relationship quality. As hypothesized bivariate analysis resulted in associations between aggressive-oppositional behavior, social competency, and hyperactivity-inattention behaviors with parent-child communication, relationship quality, parenting stress, and parental depression. The demographic predictor of total number of abuses children experienced prior to permanent adoption was correlated with parental depression and marital distress in parents. Measures of aggressive/oppositional behavior, social competence and hyperactivity/inattention contributed to 33% of the variance in the scores measuring parent-child communication. It appeared that social competency influenced parent-child communication in a unique way. Aggressive/oppositional behavior, social competence, and hyperactivity-inattention also influenced the quality of the parent-child relationship (14.5% of the variance) and parental depression (R square = .197). Earlier studies on the post adoption adjustment of children and stressors in their parents are discussed as well as implications for treatment and future research in the development of more effective strategies for working with this population.

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ACKNOWLEDGEMENTS

This dissertation could not have been possible had it not been for the support of many people in my life. For those who are not mentioned on this page, please know that your care for me is forever etched on my heart and no words sufficiently describe my appreciation. That having been said, thank you Drs. Bierman, Niles, and Trusty, my committee, for all the guidance, support, and time you invested in me during my days as a doctoral student. Special thanks to Dr. Jim Herbert, Committee Chair/ Advisor. You taught me about research, teaching, and persevering despite the curve balls life tosses our way. Patient support came from my colleagues and friends at Counseling Alternatives (John Kenyon, Anne Kenyon, Joyce Fonash, and Linda Erickson) for the entire seven years that I was a part time partner and fulltime student. Thanks guys and O.K. I'm back to fulltime practice now so everyone can breathe. My husband, Bob, and son Rob along with his fiancée Kristen, and my daughter, Fallecia, sacrificed much during this time. Their love and patience went above and beyond so we're going to Disney to celebrate. Thank you my beloved ones. Finally there are two people who are no longer on earth but nonetheless profoundly influenced me to complete this dream. After battling personal struggles, reaching recovery, and basking in family reconciliation, my father George Pessolano died at age 68 in March, 2004. Before he died he apologized for not being able to see me finish this degree. I assured him he would be with me always in spirit. My mother Janet Prink Pessolano then became ill with cancer, courageously fought the good fight until July of 2006, and, also at the age of 68, decided to move on with dignity to her next "adventure". She did not have to apologize to me for not hanging around. We both knew that she lived deeply within my soul always. To them this dissertation is dedicated.

Chapter I

INTRODUCTION

Although the majority of adopted children (Borders, Black, & Pasley, 1998; Borders, Penny, & Portnoy, 2000; Burrow, Tubman, & Finley, 2004; Eley, Deater-Deckard, Fombonne, Fulker, & Plomin, 1998; Festinger, 2002; Lansford, Ceballo, Abbey, & Stewart, 2001; Grotevant, Ross, Marchel, & McRoy, 1999; Haugaard, 1998; Smith, 2001; Wilson, 2004) including those with developmental disorders (Glidden, 2000) appear to have relatively few problems, some research has found that even in non-clinical samples of adopted children there is a 2-5 times higher rate of referral for clinical mental health services (Sharma, McGue, & Benson, 1998) and adopted adolescents appear to be at higher risk in behavioral and emotional problems than their adolescent non-adopted peers (Miller, Fan, Christensen, Grotevant, & van Dulmen, 2000). In addition there is also a smaller group of adopted children that manifest significant pathology even when placed in healthy child rearing environments (Haugaard, 1998; Howe, 2003; Howe & Fearnley, 2003; Wilson, 2004). A number of studies (Lansford, Ceballo, Abbey, & Stewart, 2001; Livingston-Smith, Howard, & Monroe, 2000; McDonald, Propp, & Murphy, 2001; Rosenthal & Groze, 1994) describe this group as special needs adoptees and report that some externalizing behaviors exhibited by these children are stealing, lying, torture of animals, self and other physical abuse, fire setting, excessive controlling, and manipulative behaviors. Often these behaviors are restricted to home with few incidents reported in other settings such as school and clubs (Simmel, Brooks, Barth, & Hinshaw, 2001). Child behaviors are not the only factors that affect the adjustment and stability of the adopted

child and the family. Erich and Leung (2002) found that the type of abuse experienced prior to placement as well as whether the child was part of an adopted sibling group also affected parental perceptions regarding the functioning of the family post adoption.

This study attempted to increase knowledge about this subgroup of adopted children who struggle in their homes and are at risk of further placement disruption due to extreme behavioral and emotional problems. In addition the types and levels of stress in adoptive parents of special needs children were investigated because, it is within the adoptive parent/adopted child relationship that these children are expected to grow and heal from past pathological care. These were important objectives because currently there are no clearly established models or interventions that have delineated protocols or strategies to help the children and parents in this population (Chaffin, Hanson, Saunders et al., 2006; Spratt, 2000). Effective intervention development is essential because children who manifest such disruptive and destructive behaviors increase their risks of continued maladaptive patterns into adulthood (Caspi, Elder, & Bem, 1987), poor physical health status and health outcomes across the life span (Feeney, 2000), poor cognitive development (Petterson & Albers, 2003), and social development (Kochanska & Murray, 2002).

This chapter will outline some of the issues specific to the population of special needs adopted children removed from biological parents, placed in foster homes, and then permanently adopted into adoptive families. Reasons for observed poorer outcomes will be presented and then the relatively few studies conducted directly with children and adoptive families will be discussed. Finally studies on the impact of special needs adoption on the parents of these children will be addressed. During the

discussion various terms and their definitions related to this particular population will be explained.

Reasons for the Poorer Outcomes for Special Needs Adopted Children

Special needs adoption refers to the placement of a child into a permanent stable home after that child has experienced some form of child abuse or neglect, is from a minority background, or has a physical, emotional, or psychological disability that makes him or her difficult to place for adoption. Children who come into the U.S. foster care system at an older age are also considered special needs adoptees because there is a shortage of prospective adoptive parents who are willing to adopt older children.

Etiological reasons for the presence of the symptoms previously presented in adopted children born and raised in the U.S. are identified as birth family history of physical, sexual, and emotional abuse (Dunber & Motta, 1999; Ford et al., 2000; Groza & Ryan, 2002; McDonald, Propp, & Murphy, 2001; U.S. Department of Health and Human Services (US DHHS), 2004), serious neglect (U.S. DHHS, 2004), and prenatal exposure to toxic chemicals such as but not limited to alcohol and cocaine (Barth & Needell, 1996; Bishop, Murphy, Quinn, Lewis, Grace, & Jellinek, 2001; Brown, Bakersman, Coles, Platzman, & Lynch, 2004; Mc Nichol & Tash, 2001; Ornoy, Michailevskaya, & Lukashov, 1996). In addition, children who experienced emotional and physical rejection on the part of a birth parent while birth siblings were not rejected (preferential rejection) (Dance, Rushton, & Quinton, 2002; Rushton & Dance, 2003) and children who were actively rejected with or without sibling rejection had serious

behavioral and emotional problems in adjustment to their adoptive families (Howard, Livingston-Smith, & Ryan, 2004).

These children typically are removed from their birth families by government entities such as Children and Youth Services or Child Protective Services in order to shield them from further harm. Once removed from the birth family, these children enter the U.S. foster care system and birth family reunification and rehabilitation services are initiated. If agency services to the birth parents are not successful the children are eventually placed for adoption in permanent homes. Unfortunately the US foster care system, devised to protect children, can also cause unintended harm as many foster children experience *placement instability* (Webster, Barth, & Needell, 2000). Placement instability refers to the experience of living in multiple foster homes during the process of and/or after termination of birth family parental rights. Placement instability can also occur however once a child is placed for permanent adoption.

According to Festinger (2001) a*doption disruption* occurs when the adoptive parent returns the child back into the public foster care system and terminates the adoption process for the child within their family. *Disruption* is the term used prior to the legal finalization of the adoption. *Dissolution* is the term used once an adoption is legally finalized but the adoptive parents decide they can no longer parent the child and as a result, he or she is returned to the foster care system. The disruption rate of adoptions for these special needs adopted children has been relatively stable, between 10-20% over the past 15 years (U.S. Department of Health, 2004). In children 12-18 years of age the disruption rate approaches 13.5% and reasons identified for disruption

have included the special needs of the children due to emotional, psychological, and behavioral issues.

Webster, Barth, and Needell (2000) found increased changes in foster home placements were associated with increased behavioral problems in foster children and difficulties in placement for permanent adoption. When children are placed in the foster care system at an older age they may have issues related to placement security and allegiance to birth family members that can become quite problematic. This is especially the case when they are stuck in the process of their birth parents' termination of parental rights and court ordered placement in permanent foster or adoptive homes (Edelstein, Burge, & Waterman, 2002).

Long stays in foster care and low permanency outcomes could be somewhat understood for children removed from birth homes due to some form of abuse and for older children who unfortunately are not as sought after as infants (Sullivan & Freundlich, 1999). Less understood however, is data regarding infants placed in the US foster care system who also experienced stays in foster care that were excessively long and fraught with multiple placements in various foster homes despite being freed for permanent adoption (Kemp & Bodony, 2000). Even more disconcerting, Kemp and Bodony found that African American boys were significantly less likely then Caucasian children and girls of any color to achieve placement permanence.

Periods of transition (i.e. visitation with birth family members, moves to a new school, change from elementary to middle school etc.) for adopted children (Groza & Ryan, 2002) were found to be associated with an increase in particularly troublesome behaviors in the children and this association occurred regardless of whether the child

was a US special needs adoptee or an internationally adopted child. Groza and Ryan were quick to point out however, that parents of both types of adopted children reported high levels of satisfaction with the adoption despite high levels of challenging behaviors in their children. In addition, Fisher, Burraston, and Pears (2005) found that placement instability was lessened and greater permanency in placement was achieved for US foster and adoptive children when the use of an intensive early intervention treatment program was employed.

Recent statistics from the U.S. Department of Health (2004) indicated that of the estimated 517, 000 children in foster care as of September 30, 2004, 20 % (102,777) had the goal of permanent adoption, 8 % (40,832) had the goal of permanent foster care and 9% (46,679) had not yet established a permanency goal. In fiscal year 2004 (most recent statistics available), approximately 65,000 children had birth parental rights terminated and 52,000 children transferred out of foster-care and into permanent adoptive homes. Unfortunately, on September 30, 2004, there were still 118, 000 American children waiting to be adopted out of the US foster care system. This figure does not include adolescents over the age of 16. How long did they wait? The most recent statistics available on waiting time from the US Department of Health indicated that in fiscal year 2004 the mean number of months that children waited to be adopted into a permanent home was 43.8 months and waiting times ranged from less then 1 month to 5 or more years.

Many children adopted out of the U.S. foster care system bring into their foster and adoptive families a history of exposure to prior environments within birth families with caregivers that have not met their needs appropriately (Peters, Atkins, & McKay,

1999). *Attachment* has been defined as "the bond between a child and his mother that once formed, continues despite separation independent of either overt manifestations of attachment behavior or the contingencies implicit in ongoing mother-child interaction" (Ainsworth, Blehar, Waters, & Wall, 1978, p.18). Attachment between child and primary caregiver is formulated and sustained by *good enough parenting* where the child begins to trust that his or her needs for nourishment, protection, and regular safe physical contact occur. When children's primary needs for safety, healthy food, nurturing touch, and appropriate stimulation have not been adequately or consistently met by a loving caregiver, a disorder of attachment may occur within the child (Ainsworth, 1969; Bowlby, 1969).

In addition to the serious externalizing, behavioral, emotional, and psychological symptoms discussed earlier, another characteristic of these children is the unique strategies that they adopt in order to ensure, albeit not competently, personal safety and protection in a dangerous environment (Singer, Doornenbal, & Okma, 2004). Moss, Cyr, and Dubois-Comtois (2004) reported that maltreated children developed one of three maladaptive attachment patterns. They either attempted to control their caregivers in a punitive way acting aggressively at times, with attempts to deliberately humiliate the caregiver or, they attempted to control caregiver activities by acting over-compliant and overly helpful. The third pattern of attachment behavior was characterized by confused thinking and disorganized behavior. Howe and Fearnly (2003) discussed these coping strategies as overly controlling behaviors that were devised in the unhealthy or dangerous birth family environment in order to help the child effectively survive within the hostile family lifestyle. When placed in healthier

adoptive family homes, these same children will exhibit the same dysfunctional survival behaviors used earlier. If adoptive parents are not educated in the ways in which the child has needed to cope in the hostile environment, they will misinterpret these behaviors as a rejection of them and their care for the child. Whereas children may indeed be rejecting adoptive parents, these parents must become aware of the underlying reasons for their behaviors.

Studies on Adopted Children

Studies have been done with children from other countries adopted by families in the U.S., Canada, or the UK (Mainemer, Gilman, & Ames, 1998; O'Conner, Rutter, & the ERA Study Team, 2000; Zeanah, 2000). A pervasive theme in these studies was exposure to impoverished orphanage environments in their countries of origin. While obviously a serious worldwide dilemma and responsibility, for the purpose of this study the remainder of the discussion will focus on special needs children who are adopted out of the foster care system within the US unless otherwise noted.

Some researchers have questioned (Festinger, 2002; Groze, 1994; McDonald, Propp, & Murphy, 2001; Priel, Melamed-Hass, Besser, & Kantor, 2000; Rosenthal & Groze, 1994; Smith, 2001; Valdez & McNamara, 1994) whether emotional and behavioral problems of the special needs adopted child are due to dynamics that develop when the child is placed in a new adoptive home. Perhaps the fit between the child and new parents, especially the mother, may be problematic. Groze (1994) compared clinical and non-clinical samples of adopted children with special needs and found no significant differences between the two samples with the exception of parental expectations. The parents in the clinical sample held higher expectations about their children's behavior and

adjustment than the comparison sample parents. Groze opinioned that these high expectations became a major stressor in the adoptive family system and aggravated stress already present due to the child's behavioral problems. In a more recent study, (Erich & Leung, 2002) adoptive parents perceptions of family functioning post the placement of an adopted child were low compared to the behavioral ratings that they filled out on their children which showed no differences to birth children's scores. Adoptive parents' expectations about family functioning may have been unrealistically high.

Priel, Melamed-Hass, Besser, and Kantor (2000) found that lower levels of self-reflectiveness in adoptive mothers were associated with maternal perceptions of higher levels of externalizing behaviors in their children. The researchers concluded that these mothers had high expectations of their children as well as of themselves as parents. Healthy marriage and a realistic level of expectation (McDonald, Propp, & Murphy, 2001) were two parental characteristics also mentioned as influential in the positive outcome of a special needs adoption.

Festinger (2002) studied 516 special needs adopted children in and around the city of New York. Her results indicated that adoptive parents of these children expended enormous amounts of time, energy, and dedication in meeting the needs of their children and therefore dissolutions were rare. She did however make a strong case for more intensive comprehensive counseling services and respite relief time in order to assist parents in their support of the child. Adopted children in her study had many serious needs as well as emotional and psychological difficulties. Erich and Leung (1998) explored child and adoptive parent characteristics that contributed to either higher or lower levels of functioning post-finalization of the adoption. Child characteristics that

affected family functioning in the new adoptive family were: abuse prior to adoption, prior disrupted adoptions, part of a sibling group, need of special education services, and serious behavior disorders. Interestingly, parental characteristics that were associated with lower family functioning were higher maternal income and higher father's educational attainment. Families that functioned particularly well were ones where the mother received at least monthly outside support from a religious or spiritual resource, fathers had lower education levels resulting in more time at home, and more siblings lived in the home. In addition, families who were able to take advantage of available treatment and support resources, and who spent significant time addressing family issues and problem solving, had higher levels of family functioning post adoption of a special needs child.

The integration of mental health services for these children into regular traditional social services is essential for a positive outcome within these families (Schneiderman, Connors, Fribourg, Gries, & Gonzales, 1998). Unfortunately in some areas in the U.S., the provision of mental health services and other intervention programs for children in foster care are limited due to funding, lack of cooperation and collaboration among treatment providers, few Medicaid approved clinicians, and lack of appropriate services (Staudt, 2003). Although the children monitored in Staudt's (2003) study were in regular foster and kinship foster care (guardian is a relative of the child) services, a number of intriguing results regarding the utilization rates of mental health and other treatment services for this population were discovered. Similar to Kemp and Bodony (2000) who found that African American boys stayed in foster care longer than White children, Staudt found that children of color received significantly less services

than children who were White. Another disturbing finding was that children who were in the guardianship of a relative did not receive the same treatment opportunities of children who were in regular foster care. Since most of the children adopted out of the U.S. foster care system spend significant time in foster homes or other substitute family facilities while awaiting the procedures of the court system, the findings of Staudt are directly relevant to adopted children as well. Further research needs to be done regarding these issues in order to address whether the differences in treatment provision were due to tax base issues, racism, or other factors.

The belief that emotional and behavioral problems encountered in some special needs adoptions as predominantly due to the child's prior history of abuse and neglect is not shared by all researchers and clinicians. Smith (2001) challenged the belief that adopted children have more problems than those born into families and stated that parents' attitudes and feelings about the child were responsible for serious emotional or behavioral difficulties seen in this population. He called adoption a "smokescreen for other family pathology of hate and rejection" (p. 496). Grotevant, Dunbar, Kohler, and Esau (2000) urged clinicians and researchers alike to understand that adoptive identity stems not only from the experience of adoption for the individual but also from the contexts related to the family environment and the contexts that occur in the greater world and environment outside of the family. In addition Leon (2002) encouraged all professionals who work with adopted individuals to view the difficulties some adoptive families experience as related to the social stigma and the contextual factors that exist in the American culture. Supporting Leon's caution was a study that looked at the psychiatric records of adopted children and non-adopted children (Mulcare & Aquinis,

1999). The authors discovered that adopted children who had the exact same behavior issues as their non-adopted peers were evaluated more critically and ascribed differential diagnoses that were more serious.

Leon points out that in other non-western cultures, the practice of adoption has traditionally been considered natural and a normative part of society. He challenged the field to act in ways that reduce the losses felt in the adoption triad (birth parents, adoptive child, and adoptive parents) and to assist all triad members and our society in general to resist views of adoption stereotypes.

Parental Impact of Special Needs Adoptions

Although, as Smith believes, pathology in the adoptive parents may be the case in some instances, and as Leon challenges, some of the losses in adoptive families may stem from contextual and stereotypical factors, recent studies have documented that otherwise healthy parents at initial assessment pre-adoption, have shown increased levels of stress (McCarty, Waterman, Burge, & Edelstein, 1999; McGlone, Santos, Kazama, Fong, & Mueller, 2002) and psychopathology (Finley & Aguiar, 2002) post-placement of a special needs adopted child. McGlone et al. (2002), in their study of parents of special needs adopted children, reported much of the parents' stress was due to the interaction with their adopted children that the parents judged as counter-therapeutic to the children. Bird, Peterson, and Miller (2002) found parents who reported significant distress related to adoption strain, attributed the stress to the effects of their children having lived in prior birth and foster homes. The authors felt that these parents were faced with previously learned maladaptive relationship patterns of the children, and despite the children's ingrained behaviors, they struggled to find ways to

build healthy and trusting relationships. In addition, parents who identified more distress were found to use emotion-focused styles of coping (i.e., distancing one's self for protection, minimization, or wishful thinking) rather then problem-focused strategies. The authors questioned whether children's behaviors perceived as destructive and hateful by parents demanded a similar coping response.

A few studies have investigated the needs of these families and have proposed interventions as well (Becker-Weidman, 2006; Kramer & Houston, 1999; McCarty, Leung, Erich, & Fanenberg, 2005; Racusin, Maerlender, Sengupta, Isquith, & Straus, 2005). The studies have been conducted on small samples of children from this population and have been exploratory in nature as the focus on this population is in its infancy. The few studies cited will be further discussed in the next chapter.

Parents' Needs

Support and intervention services for parents who choose to foster or adopt special needs children are obviously needed. Parents of special needs adopted children need assistance to help the child heal from the maltreatment of pre-adoptive and birth family environments but there has been limited research conducted on how to assist adoptive parents or treatment specialists in fulfilling this objective (Erich & Leung, 1998; Horner, 2000). As a way to address these problems, children and their adoptive parents may require education, training, and actual service interventions to assist in the solidification of their adoptive family relationships as well as to establish a family environment of health, stability, and growth. Although treatment interventions have been established for these children and their families, they have been controversial (Taylor, 2002; Welch, 1988) and quite possibly premature (Hanson & Spratt, 2000;

Mercer, 2005; Spratt, 2000) because techniques have been unorthodox and not empirically proven to be effective. In addition, concerns have been raised about the safety of children in that some of the techniques used by a subset of professionals have caused harm to children (Chaffin et al., 2006). Since systematic research regarding the needs and characteristics of special needs adopted children, their parents, and family system characteristics has been minimal, the evaluation and design of focused and effective interventions have not occurred or have had methodology issues.

Conclusion

The previously cited literature adequately describes the characteristics of special needs adopted children although significantly less literature exists regarding characteristics of parents who choose to adopt them. Research has also been informative regarding the post-placement needs of these children (Barth & Miller, 2000; Brooks, Allen, & Barth, 2002; Cuddeback & Orme, 2002; Edlestein, Burge, & Waterman, 2002; Henry, 1999; Horner, 2000; Rosenthal, Groze, & Morgan, 1996; Sullivan & Freundlich, 1999). Little information exists about stress, relationship dynamics, or family environment concerns that may impact special needs adopted children and their parents although studies suggest that interventions need to be long term (Brooks, Allen, & Barth, 2002) and should whenever possible include collaboration between the adoptive and birth families of the child (Grotevant, Ross, Marchel, & Mc Roy, 1999; Sykes, 2001). Clinically based sources (Cline & Helding, 1999; Federici, 1988; Gray, 2000; Hughes, D., 1997; 1998; Keck & Kupeckney, 1995; 2002; Levy & Orlans, 1998; Thomas, 1997) report that parents interacting with these children feel used, controlled, deceived, battered, and abused themselves by the child.

They indicate that parents report anger and rage emerge in themselves even though prior to the placement they were healthy high functioning individuals. Indeed studies done with birth families where children manifested serious behavioral problems including behaviors that attempted to control and punish parents have found that these behaviors are associated with attachment insecurity in the children (Moss, Cyr, & Dubois-Comtois, 2004).

This study explored in depth the consequences on parents as a result of adopting a special needs child. The general hypothesis was that characteristics of the children, in part based on their pre-adoption histories, impact parents and how they experience stress. This was an important hypothesis to investigate because before effective evidence based interventions can be developed, comprehensive knowledge of the sources for increased family turmoil and parental stress for special needs adoptive families is required. It is hoped that results from studies like this one can become foundational parts of the literature that serve as a stepping stone to further develop focused, evidence based, and effective parent training protocols and family therapy intervention strategies with this particular population. In addition research in this area should be helpful in reducing the disruption rate among this already seriously traumatized subgroup of adopted children.

Chapter II

REVIEW OF THE LITERATURE

This study focuses on characteristics of special needs children who have been adopted out of the U.S. foster care system as well as stresses and strains their adoptive parents describe as a result of their placement in the family. First, characteristics of these children will be presented as they pertain to unique issues and negative outcomes that sometimes occur in adoptive families. In addition, available studies that investigated post adoption services and interventions to assist these parents and children will be presented followed by the purposes and research questions of the current study.

Special Needs Adopted Children: Identified Characteristics

Research indicates that some children who have been adopted out of the U.S. foster care system are at higher risk for referral for psychiatric services (Peters, Atkins, & McKay, 1999; Schneiderman, Connors, Fribourg, Gries, & Gonzales, 1998; Sharma, McGue, & Benson, 1998) and, in fact, make up 5-10% of all children served in outpatient mental health settings and compose 10-15% of all children in inpatient psychiatric settings (Howard, Livingston-Smith, & Ryan, 2004). In addition, these children when adopted in their teen years (Miller, Fan, Christensen, Grotevant & Van Dulmen, 2000) have twice the risk of emotional and behavioral problems than their non-adopted peers.

Difficulties these children face often stem from their pre-adoptive experiences, including prenatal exposure to alcohol and other substances (Barth & Miller, 2000; Barth & Needell, 1996; Brown, Bakerman, Coles, Platzman, & Lynch, 2004; Haugaard,

1998; McCarty, Ornoy, Michailevskaya & Lukashov, 1996; Wilson, 2004) and negative experiences with birth families or foster families (Howe, 2003; Howe & Fearnley, 2003; Howard, Livingston-Smith, & Ryan, 2004). Simmel, Brooks, Barth, and Hinshaw (2001) noted in their study that behavioral problems in the children seemed to occur primarily in the home setting. These troublesome behaviors are typically externalized and often reported among special needs adopted children (Avery, 1999; Bird, Peterson, & Miller, 2002; DeRoberts & Litrownik, 2004; Groze, 1994; Livingston-Smith, Howard, & Monroe, 2000; McGlone, Santos, Kazama, Fong, & Mueller, 2002; Penzerro & Lein, 1995; Reilly & Platz, 2003; Simmel, Brooks, Barth, & Hinshaw, 2001). Externalizing behaviors are ones that offend or aggress against another person (Mash & Terdal, 1997; Maughan and Cichetti, 2002). Some common examples of externalizing behaviors are stealing, lying, open defiance, physical or verbal aggression, fire setting, destruction of others' property, manipulative behaviors and sexual acting out.

Many children adopted from the foster-care system exhibit self abuse as well as excessive temper tantrums (DeRoberts & Litrownik, 2004; Livingston-Smith, Howard, & Monroe, 2000). High rates of antisocial behavior characterize many maltreated foster and adopted children (Ge et al., 1996; Grotevant, van Dulman, Dunbar et al., 2006; Herrenkohl, E., Herrenkohl, R., & Egolf, 2003; Joseph, 2001; Rhee & Waldman, 2002; Rogers, Buster, & Rowe, 2001; Stoolmiller, 1999). Other behaviors have also been noted in these children. Social and peer interaction problems (Groza & Ryan, 2002; Livingston-Smith et al., 2000), hypervigilance and symptoms of Post Traumatic Stress Disorder (Dunber & Motta, 1999; Livingston-Smith et al, 2000) as well as sleep and

affect regulation issues, enuresis and encopresis, lack of self-esteem, and retreat into fantasies (McGlone, Santos, Kazama, Fong, Mueller, 2002; Singer, Doornenbal, & Okma, 2004) have been identified. McGlone and his colleagues (2002) also found that some of the children in that study were characterized by over compliant behavior and depressive symptoms as well as disorders of attachment.

The limited studies conducted on this subset of adopted children indicate that child outcomes are less positive for them than other adoptees who do not appear to exhibit the same characteristics. Although there has not been an abundance of research in this area, some investigations that have sought to clarify issues that are unique to this population of troubled children and the adoptive families that seek to provide care and stability for them. These investigations will be now be discussed and summarized.

Possible Explanations for the Poorer Outcomes of Special Needs Adopted Children

Explanations for poorer emotional and behavioral outcomes for this subset of adopted children have focused in four investigative areas: child factors; pre-adoptive birth family history; adoptive parent factors; and adoptive parent-adopted child relationship factors. Findings from studies conducted directly on families with special needs adopted children will be addressed first in each section and then, if warranted, findings related to families in general regardless of biological or adoptive status will be presented.

Child Factors

Child factors have been shown to affect outcomes for children placed in permanent homes for adoption. The presence of serious developmental disabilities, behavioral and emotional difficulties, and cognitive problems have all been identified

as child factors that increase stress in the adoptive family once the child is placed. A limited number of studies have been conducted on U.S. foster and adopted children who were removed from birth families due to abuse and neglect (Dunber & Motta, 1999; Erich & Leung, 2002; Festinger, 2002; Ford et al., 2000; Groza & Ryan, 2002; McDonald, Propp, & Murphy, 2001). Finley and Aguiar (2002) found that adoptive children's pathology developed within their abusive or neglectful birth homes were correlated with increases in pathology in their adoptive homes post-placement. Simmel, Brooks, Barth, & Hinshaw (2001) found that adopted children exposed to neglect, abuse, and prenatal substance abuse had increased risks for developing Attention Deficit Hyperactivity Disorder (ADHD), Oppositional Defiance Disorder (ODD), and other externalizing behavior problems. Further analysis revealed that externalizing behaviors in children adopted out of the foster care system were two to four times higher than the rate in the general population and ADHD symptom levels were double that of the general population. The investigators reported that adopted children exposed to substance abuse and poor prenatal care were likely to develop externalizing symptoms while children placed in multiple foster homes had increased odds of developing ADHD and ODD.

Livingston-Smith, Howard, and Monroe (2000) conducted an exploratory study of the issues of at-risk adoptive children that were associated with behavior problems. In their sample of 292 domestically adopted children they reported that half or more of children exhibited externalizing behaviors characteristic of conduct disorder such as lying, manipulative behavior, defiance, verbal aggression, violation of family norms, peer interaction problems, tantrums, physical aggression, and destruction of property.

Approximately 40% of children in the study demonstrated additional attachment issues such as rejection of affection and withdrawal. A significant minority of children engaged in additional serious behaviors such as sexual acting out (27%), illegal activities (22%), sexual aggression (11%), fire setting (17%) and suicidal behavior (21%). In addition, 45% of families surveyed expressed interest in the dissolution of the adoption. A preponderance of externalizing symptoms was also reported by Simmel et al. (2001) in their study of 1, 268 adoptive parents of 1,396 domestically adopted children.

Antisocial behavior in maltreated foster and adopted children (Ge et al., 1996; Grotevant, van Dulmen, Dunbar et al., 2006; Hall & Geher, 2003; Herrenkohl, E., Herrenkohl, R., & Egolf, 2003; Rhee & Waldman, 2002; Rogers, Buster, & Rowe, 2001; Stoolmiller, 1999) has been investigated but Joseph (2001) issued warnings about this literature and indicated that there are multiple flaws in the methodologies of the studies. Hall and Geher (2003) found elevated scores on aggressive behavior and delinquent behavior scales on adopted and foster children who were clinically diagnosed with Reactive Attachment Disorder. Grotevant et al. (2006) found that adoption status was not a factor in aggressive antisocial behavior but was a factor that interacted with gender in non-aggressive antisocial behavior. Ge et al. (1996) reported that antisocial behavior in adopted children and adolescents was associated with negative reactions to behavior on the part of the adoptive parent. Rhee and Waldman (2002) conducted a meta-analysis of 51 twin and adoption studies to explore antisocial behavior related to criminality. Relevant to this discussion, their results indicated that, parental warmth and sensitive parenting, as well as child behavior, mediated antisocial

behavior in adopted children. Children who experienced placements outside of their biological homes showed higher levels of deviant behavior correlated with the increased number of placements (Herrenkohl, E., Herrenkohl, R., & Egolf, 2003).

Birth/Pre-adoptive Environmental Factors

Another focus of study has been on pre-adoptive environment/ birth family history of the child and how such factors predict child outcomes after placement in permanent adoptive homes. Numerous studies (Dunber & Motta, 1999; Erich & Leung, 2002; Festinger, 2002; Ford et al., 2000; Groza & Ryan, 2002; McDonald, Propp, & Murphy, 2001) have found that the presence of a birth family history of physical, sexual, or emotional abuse was associated with increased behavioral problems post adoption as well as poorer outcomes of adjustment. Serious neglect in birth families (Peters, Atkins, & McKay, 1999) as well as exposure to birth family members or caregivers who did not meet the child's needs appropriately was also associated with increased behavior problems in children post placement.

Preferential rejection occurs when a child in a sibling group is singled out by parents for negative treatment (Dance, Rushton, & Quinton, 2002). Children who have experienced preferential rejection in birth families have been found to have poorer outcomes once placed in their permanent adoptive homes (Dance & Rushton, 2005; Dance, Rushton, & Quinton, 2002; Rushton & Dance, 2003). Preferential rejection as well as other types of emotional abuse or neglect have long been found to be associated with negative and poorer outcomes for children regardless of the birth, foster, or adoptive status of the family (Allen et al., 2003; Dance et al., 2002; Hamilton, 2000; Lieberman, Doyle, & Markiewicz, 1999; Waters & Cummings, 2000; Waters,

Hamilton & Weinfield, 2000; Waters, Merrick, Treboux, Crowell, & Allerscheim, 2000; Waters, Weinfield, & Hamilton, 2000; Weinfield, Sroufe, & Egeland, 2000).

Another pre-adoptive factor cited in the investigative literature on adjustment post adoption has been identified as placement instability or multiple placements (Bird, Peterson, & Miller, 2002; Edelstein et al., 2000; Erich & Leung, 1998; Festinger, 2002; Groza & Ryan, 2000; Simmel et al., 2001; Webster, Barth, & Needell, 2000). Edelstein et al. and Webster et al. (2000) found that increases in foster home placements were associated with increases in behavior problems in children and Groza and Ryan (2000) found similar increases in behavior problems when children had multiple transitions while in placement. Prior disruption in an adoption was associated with lower child functioning in a subsequent permanent adoption (Erich & Leung, 1998) and children with multiple foster home placements had increased odds of developing Attention Deficit Hyperactivity Disorder and Oppositional Defiance Disorder (Simmel et al., 2001).

Some researchers (Singer, Doornenbal, & Okma, 2004) as well as many clinicians who have worked with this population (Howe, Dooley, & Hinings, 2000; Howe & Fearnley, 2003; Hughes, D., 1997; 1998; 1999; Keck & Kupeckney, 1995; 2002) believe that special needs adopted children develop behavioral and emotional strategies that are problematic initially for the purpose of survival in dangerous birth/ pre-adoptive environments. Their stance is that poor adjustment of children in subsequent adoptive homes is at least in part due to the lack of awareness on the part of adoptive parents and treatment personnel in regard to these dynamics.

Adoptive Parent Factors

In addition to child factors and birth history/pre-adoptive environmental factors, a limited number of studies have focused on adoptive parent factors and the influence of these factors in promoting positive outcomes for children post adoption. Studies have provided some limited evidence that parental factors such as parental mental health, marital stress, and parenting stress may be associated with poorer or better outcomes with children post adoption. These studies will now be reviewed and summarized. Since there are only a few studies that have targeted specifically adoptive parents and families, literature relevant to these factors on families in general will also be presented.

Negative parental perceptions and unrealistic expectations (Erich & Leung, 1998; Groze, 1994; Peters, Atkins, & McKay, 1999; Priel, Melamed-Hass, Besser, & Kantor, 2000; Reilly & Platz, 2003; Valdez & McNamara, 1994) were associated with poorer outcomes in adopted children. Adoptive parents who had higher levels of education and higher maternal income had children that had poorer adjustment and outcomes post adoption and Erich and Leung hypothesized that these parents had expectations that were unrealistic for their children. Avery (1999) found unrealistic expectations and lack of adequate post adoption support were two major factors identified by adoptive parents as obstacles to a successful special needs adoption. In addition, mothers with lower levels of self-reflectiveness tended to report higher incidences of externalizing behaviors (Priel et al., 2000).

Harsh parenting practices on the part of permanent foster parents (DeRoberts & Litrownik, 2004) and adoptive parents (Ge et al., 1996) were associated with increased

behavioral and emotional problems in their children. Interventions that taught therapeutic and sensitive parenting practices (Cross et al., 2004) resulted in a dramatic improvement in children's problematic emotional and behavioral issues.

The mental health and emotional coping strategies of adoptive and foster parents (Bird, Peterson, & Miller, 2002; Dozier, Stovall, Albus, & Bates, 2001; Mc Glone, Santos, Kazama, Fong, & Mueller, 2002) have been important factors cited in the few studies examining parental influences on adopted child outcomes. Adopted children had better outcomes when parents used problem solving coping strategies and had healthy self-esteem (Bird, Peterson & Miller, 2002), and when parents had the experience of a healthy attachment with their own parents (Dozier, Stovall, Albus & Bates, 2001). High clinical levels of distress in parents were associated with poorer functioning in their adopted children (McGlone et al., 2002).

Research studies investigating biological family depression and other mental health issues report that parenting ability is often associated with negative child outcomes (Herring & Kaslow, 2002; Martins & Gaffin, 2002; Pauli- Pott, Mertesacker, & Beckman, 2004; Huth-Bocks, Levendosky, Bogat, von Eye, 2004; Petterson & Albers, 2001; Stanley et al, 2004; Hay & Pawlby, 2003; Asbury, Dunn, Pike, & Plomin, 2003). In addition, when mothers recollected their own mothers as insensitive (Kretchmar & Jacobvitz, 2002), abusive (Banyard, Williams, & Siegel, 2003; De Lillo & Danashek, 2003; Milan, Lewis, Ethier, Kershaw, & Ickovies, 2004), or abandoning (Schuengel, Bakersman-Kranenburg, & van IJzendoorn, 1999) their caretaking of their offspring was affected resulting in negative outcomes. Anxiety (Whaley, Pino, & Sigman, 1999), personal stress (Scher & Mayseless, 2000), and stress related to

impoverished conditions (Yeung, Linver, Brooks-Gun, 2002) have been shown to negatively impact parents and predict negative outcomes for children.

Marital stress is another parental factor that has been linked to negative child outcomes in adoptive families. Parents of special needs adopted children have reported that the strain of the adoption and the child's behavior problems increased pressure on the marital unit (Bird et al., 2002; McGlone et al., 2002). Additionally, Gibbs, Barth and Houts (2005) found that adopted children had better adjustment outcomes when placed in families where parents were in a healthy and functional marriage. Recent studies on the effects of marital strain and child adjustment (Davies et al., 2002; Papp, Cummings, & Schermerhorn, 2004; Schudlick & Cummings, 2003) all confirm that marital stress negatively affects child emotional security.

An adoptive parent factor that has been studied more intricately than others is parenting stress. Elevated levels of stress in parenting a special needs adopted child have been repeatedly found in numerous studies (Barth & Miller, 2000; Bird et al., 2002; Brooks, Allen, & Barth, 2002; Burrows, Tubman, & Finley, 2004; Cuddeback & Orme, 2002; Eanes & Fletcher, 2006; Edlestein et al., 2002; Erich & Leung, 1998, 2002; Finley & Aguair, 2002; Groza & Ryan, 2002; Howard, Livingston-Smith, & Ryan, 2004; McDonald et al., 2001; McGlone et al., 2002; Reilly & Platz, 2003; Wright & Flynn, 2006).

Bird, Peterson, and Miller (2002) investigated increased stress and distress in adoptive parents who sought support. They identified factors in newly placed children, adoptive parents, and the adoptive family environment that contributed to family distress. Children who were older and those identified as having multiple special needs

at the age of the placement were found to be in more distressed families. In addition, the number of children in the adoptive home and inability of the adoptive parents to locate the past background of the child also contributed to stress levels.

Secondary stressors labeled by the investigators included recurrent and chronic conflicts between parents and adopted children, as well as difficulties bonding with their children. In addition, developmental and mental health problems in the children, as well as financial expenses associated with the adoption process contributed to parental distress and their motivation for seeking support. The study also showed that parents who had lower self-esteem and lower levels of mastery (e.g. the extent to which a person's life choices are perceived to be within the individual's control) showed higher levels of distress and an increased tendency to use emotion-focused coping strategies rather than problem-focused coping strategies. Emotion-focused coping strategies are those used by individuals in order to regulate emotions stimulated by a particular crises or problem. Examples of emotion-focused coping strategies are avoidance or denial of the problem, distancing or separating oneself from the problem issue or person, and wishful thinking. Problem-focused coping strategies are ones that attempt to manage the crises or problem rather than the associated emotions. Examples of problem-focused coping strategies are concrete problem solving, reaching out for additional services to manage the crises, and changing behavioral patterns to adjust to crises or needs in a positive way. These authors emphasized the need for better preparation of parents who intend to adopt children who have been severely traumatized and therefore attachment challenged so that these parents would be in

better positions to respond to the intense needs of the children with less impact on their own mental health and stress levels.

McGlone, Santos, Kazama, Fong, and Mueller (2002) investigated psychological distress in adoptive parents of special needs children. They affirmed that although most adoptive families, including those with special needs adopted children, do well, a significant portion of adopted children remain challenging to parents. As noted earlier, this situation results in increased stress levels and high levels of dissatisfaction in the adoption process. McGlone et al. surveyed 25 sets of adoptive parents of 35 children who were seriously traumatized in their birth homes via neglect, abuse, or prenatal substance abuse by the birth mother. Although most parents scored low on the parental distress scale of the Parenting Stress Index (PSI) (Abidin, 1995), 40% of the parents' scores were elevated on the parent-child dysfunctional interaction and difficult child subscales. It was also reported that the greater parental stress, the less family cohesion. Interestingly, there was no correlation between children's behavior problems and family cohesion. One of the unique behaviors of their children that adoptive parents reported was the child continually playing the mother against the father. These authors indicated that their study revealed child characteristics alone, parent adjustment issues, family characteristics, and parent-child interaction factors each contributed to psychological distress in the parents. Child behaviors or characteristics that were particularly stressful included lying, stealing, physical and verbal aggression, temper tantrums, hyperactivity, inattention, threats of violence, threats to self, sleep problems, lack of self-confidence, retreat into fantasies, other internalizing problems, enuresis, encopresis, and chronic medical problems.

Parental adjustment problems included extra work load, new routines, figuring out the child's food preferences, suddenly becoming the parent of an older child, restructuring the home life, and increased press on the marriage. Parenting a special needs adopted child resulted in higher reported levels of stress (Cuddeback & Orre, 2002; Finley & Aguair, 2002; Hudson & Levasseur, 2002) and resulted in increased requests for respite services, increased identification of psychiatric issues in the parents and increased dissatisfaction in parenting. When adoptive parents reported they had no or low control in parenting their adopted child (Guzell & Vernon-Feagans, 2004), higher levels of parental stress were reported. In addition, the types of abuse adopted children experienced were correlated with reports of parenting stress (Erich & Leung, 2002). Parenting stress for this population was associated with lack of both family support and qualified professional helpers sensitive to adoptive family issues (Barth & Miller, 2000; Bird et al., 2002; Brooks, Allen, & Barth, 2002; McDonald et al., 2001; Reilly & Platz, 2003), serious externalizing behavior difficulties of the children (Eanes & Fletcher, 2006; Erich & Leung, 1998), and less effective coping and problem-solving strategies (Gibbs, Barth, & Houts, 2005; McGlone et al., 2002).

Adoptive Parent-Adopted Child Relationship Factors

The last area to be discussed regarding possible explanations of poor outcomes for special needs adopted children in permanent homes focuses on the adoptive parent-adopted child relationship itself. Bird, Petterson, and Miller (2002) found that parents reported difficulty in the relationship between themselves and their adopted child that was related to unhealthy behavior and relationship patterns that the children learned since birth and throughout their pre-adoptive environments. Other

studies however point to an interaction that occurs between the social and relationship patterns the child presents and the response to those patterns and behaviors on the part of the adoptive parents (Ge et al., 1996; O'Conner, Deater-Deckard, Fulker, Rutter, & Plomin, 1998). Additional parent-child interaction factors (McGlone et al., 2002) were identified as the following: child lying was stressful to parents, inadequate communication via lack of disclosure and withdrawal, lack of remorse, extreme anger, playing mother against father, child's disobedience, child not listening, child's stubbornness, and pushing rule limits. Another aspect related to the parent-child relationship that was noted was that communication problems between the child and the adoptive parent were unsatisfactory (McGlone et al., 2000). Some parents had low tolerance for children's expression of emotional needs via crying, clinginess, or strong need for attention. Post- tests at one year showed little change in the scores and the authors indicated that higher stress in the families was correlated with adoption disruptions. They recommended increased support for families as well as better screening, more partnerships between specialists and families, and incorporating stress management training in the placement process.

Attempts to Improve the Outcomes for Special Needs Adoptees

Studies on post-adoption services for at risk adopted children indicated that although parents remained fairly stable there was some frustration identified due to lack of family support systems and qualified professional helpers (McDonald, Propp, & Murphy, 2001). Barth and Miller (2000) reported on the state of empirical evidence regarding the effectiveness of existing post-adoption services for families adopting a special needs child. Although they acknowledged that studies that have investigated the

impact of post-adoption services are starting to emerge, of the few outcome studies reported (i.e. The Adoption Preservation Program of Illinois, Iowa PARTNERS-Post Adoption Resources, PAFT-Post Adoption Family Therapy and a collaborative effort of the Medina Children Services and Home builders of Tacoma, WA) several tentative trends for effective treatment indicate that:

- Short-term interventions were not enough
- Parent support groups and effective respite care were essential
- Family-focused are more suitable than individual-focused interventions

Barth and Miller strongly encouraged further research particularly as applied to family- focused interventions that resulted in positive outcomes. They mentioned that intensive family preservation services and systemic family therapies could be helpful to the special need adoptive family but they would have to be adapted for the unique circumstances that these families encounter. The authors mention Multisystemic Therapy (MST) as a model that has been empirically proven to promote positive outcomes for children who engage in delinquent and conduct disordered behaviors. Attachment focused therapies, such as holding therapy, are mentioned but since very few efficacy studies have been performed, Barth and Miller caution readers about possible traumatic effects of such treatment and inappropriateness for older adopted children.

The Early Intervention Foster Care Program (EIFC) (Fisher, Burraston, & Pears, 2005) demonstrated positive outcomes and increased permanent placements for foster children in care in the state of Oregon. The authors indicated that the EIFC intervention was team-oriented and focused specifically on children’s disruptive

behaviors which are those behaviors that are associated most commonly with interrupted placement. The interventions for both foster and adoptive parents included specific and intensive parent training, daily check in phone calls with a behavioral specialist, 24-hour crises intervention, and weekly parent support groups. Concurrently, children receive individual counseling as well as weekly behavioral play-group. Outcome evaluation revealed that there were high retention rates for children in the study as well as decreased negative disruptive behaviors and increased positive relationship skills.

A brief intervention study (Juffer, Bakermans-Kranenburg, & van IJzendoorn, 2005) was conducted with families who adopted infants. Initial coding indicated that many children were at risk for disorganized attachment strategies but post-intervention many of the children categorized as disorganized shifted to a secure attachment style. Investigators taped mother-infant dyads and then offered feedback to mothers regarding ways to engage in sensitive care with their infants. These mothers were also given a book about infant development to read. A second group of mother-infant dyads were given only the book to read. In this second group none of the infants shifted from disorganized to secure attachment patterns. Juffer, Bakermans-Kranenburg, and van IJzendoorn (2005) believed that the intervention of the taped feedback reduced frightening or frightened maternal behavior which in other studies previously cited had been associated with disorganized attachment in children. These authors stated, “our study provided evidence that attachment disorganization may be influenced by nurture processes or environmental factors: disorganization in infants can be changed through parenting interventions.” (p.272)

Although comparative intervention models to address maltreatment of adopted children are limited, Toth, Maughan, Todd-Manley, Spagnola, and Cichetti (2002) found that approaches which focus on the parent-child attachment relationship represent an important "point of entry" to address maltreatment issues. In comparing the effectiveness of a Preschool Parent Psychotherapy Model (PPP) (Toth, Maughan, Todd-Manley, Spagnola, & Cichetti, 2002) to a Psycho-educational Home Visitation Model (PHV) results indicated better outcomes using PPP. The PHV Model is grounded in the developmental psychosocial growth approach to treatment which views family situations as resultant of ecological, contextual, and cultural factors. PHV uses psycho-educational approaches and cognitive behavioral techniques (CBT) to focus in improvement in parenting skills. The PPP model is an outgrowth of the infant mental health field and posits that high quality in the parent-child attachment relationship is essential for fostering healthy and positive child development. PPP is grounded in attachment theory and views negative or poor quality in the mother-child relationship as due to unresolved past issues of the parent. Thus therapists use the current mother-child relationship to increase insight in the mother about the negative relational internal working model that she has from her own attachment relationships. Unlike individual therapy the client is not the parent or the child but instead the relationship that exists between the parent and the child.

Both interventions had positive effects on the parents and children in the study but the most marked decreases in maltreatment occurred in the PPP group. Additionally after intervention, parents in the PPP group had less negative relational representations which meant that they experienced a reduction in the negative internal statements that

they made regarding their relationships with others. Children in the PPP group had an increase in positive representations of themselves which meant that they experienced an increase in the number of positive thoughts or feelings they had about themselves.

Other researchers investigating efficacy of treatments for maltreated children (Borrego, Urquiza, Rasmussen, & Zebell, 1999; Chaffin, 2004; Nicholson, Anderson, Fox, & Brenner, 2002; Thomlinson, 2003) have concurred with Toth et al. (2002) that the most effective outcomes for children occurred when the parent-child relational interaction was treated as the target for intervention regardless of theoretical orientation.

Conclusion and Focus of This Study

When infants and children experience healthy child rearing practices, they mature into well adjusted adolescents and adults (Main, Kaplan, & Cassidy, 1985; Maughan & Cicchetti, 2002; Milan, Lewis, Ethier, Kershaw, & Ickovies, 2004; NICHD Early Child Care Research Network, 2004; Pauli-Pott, Mertesacker, & Beckmann, 2004). When infants and children do not experience healthy child rearing practices on the part of their primary caregivers, their development can become impaired resulting in negative outcomes throughout the life span (Caspi, Elder, & Bem, 1987; Feeney, 2000; Meins et al., 2001; 2002; Peterson & Albers, 2003; Stroufe, Carlson, Levy, & Egeland, 1999; van Izjendorn et al., 2000).

Children who have been removed from birth families and then placed in foster care and or subsequently adopted have experienced unhealthy child rearing (Dunber & Motta, 1999; Ford et al., 2000; Groza & Ryan, 2002, McDonald, Propp, & Murphy, 2001; US DHHS, 2004) and consequently they are at high risk for serious behavior

problems (Lansford, Ceballo, Abbey, & Stewart, 2001; Livingston-Smith, Howard, & Monroe, 2000; McDonald, Propp, & Murphy, 2001), and interpersonal and social difficulties (Kochanska & Murray, 2000; Singer, Doornenbal, & Okma, 2004). Adoptive parents report that care for these children is difficult and negatively affects parental functioning (Bird, Peterson, & Miller, 2002; Erich & Leung,1998; Festinger, 2002; Finley & Aquiar, 2002) and family environment (McGlone, Santos, Kazama, Fong, & Mueller, 2002). Further clarification and research that examines interventions to ameliorate negative outcomes for these children as well as improving functional parenting skills for these caregivers is needed.

The current state-of-the art suggests that only a few studies have looked at multiple factors affecting child outcomes in adoptive families and, of these studies, most have examined child factors brought into the new family or the increased stresses that have an impact on parents as a result of the adoption. There has been little exploration regarding other parental factors such as mental health or personal stress, marital stress, or adoptive parent-adopted child relationship factors that could influence outcomes either positively or negatively. The few studies that have been conducted indicate that high expectations on the part of adoptive parents appear to be associated with child adjustment in the family (Erich & Leung, 2002; Groze, 1994; Priel, Melamed-Hass, Besser, & Kantor, 2000).

Livingston-Smith, Howard, and Monroe (2000) found that 45% of the parents in their study expressed interest in the dissolution of an adoption. Since placement instability further exacerbates attachment, emotional, and behavioral problems of these

children (Kemp & Bodony, 2000; Sullivan & Freundlich, 1999; Webster, Barth, & Needell, 2000), strategies to assist adoptive families with these issues are essential. Studies involving both birth family members and adoptive family members reported similar conclusions that healthier outcomes for children occurred when parents were well adjusted and mentally healthy and when there was high quality within the parent-child relationship (Barnyard & Miller, 2000; Brooks, Allen & Barth, 2002; Burt, van Dolman, Carlivati et al., 2005; Davis, Harold, & Goeke-Morey et al., 2002; Dozier, Stovall, Albus & Bates, 2001; Erich & Leung, 1998; Groze, 1994; Hay & Pawlby, 2003; Koneig, Cicchetti, & Rogosch, 2000; Martins & Gaffan, 2000). Therefore, strategies that assist parents to achieve for themselves optimum mental, emotional, and physical health, and strategies that improve the quality of the parent-child relationship are possible avenues to promote child health and stability. The best way to find out how to help parents in families with a special needs adopted child is to conduct research with those particular parents.

The existing research literature discusses the stressors that parents experience upon the placement of a special needs child into their home (Bird, Peterson, & Miller, 2002; McGlone et al., 2002) but these studies do not adequately address whether stressors experienced come from the actual placement of the child or if any stressors were present before the child was placed and then exacerbated upon the placement. Priel et al. (2000) concluded that increased stress in adoptive families may be related to parental misperceptions of family functioning because scores on behavioral indexes of their children did not match up with parent reports of family dysfunction. Further

investigation of parental stress thus appears to be one area of research that may provide important guidelines in the support of these families.

This study is exploratory in nature and strives to further clarify and increase information about stress that occurs in adoptive families when a special needs child is placed permanently within it. Foster children placed into adoptive families come with issues and problems that resulted from their pre-adoptive history and investigation of that history and the level of psychosocial dysfunction that results could be useful in further understanding child effects on parental stress. In addition, parents' experiences of stress from the placement may vary and therefore gaining a clearer picture of parents' varied responses to stress would be useful in devising more focused interventions. Given this rationale, the specific research questions as well as the hypothesis for this study follow:

Research Question 1: Do parents who have adopted special needs children with severe behavioral and emotional problems experience increased mental health issues, parental stress, and marital stress?

The hypothesis related to this question is that adopted children who exhibit higher levels of behavioral and emotional difficulties will have adoptive parents who score higher on measures of mental health issues, parental stress, and marital stress.

Since it appears that the quality of the parent-child relationship has an influence on outcomes of children and their families in general, this study will also examine child factors that may potentially influence this relationship as well as the quality of communication that occurs within this relationship. Related to this aspect, the other general research question relevant to the current study can be stated accordingly:

Research Question 2: How do child characteristics (child age, child gender, the number of prior placements, total number of abuses, aggressive-oppositional behavior, social competence and hyperactivity/inattention relate to reported parent-child communication and parent-child relationship quality in parents who have adopted a child out of the US foster care system?

Specific hypothesis for this question are:

Hypothesis 1: Children's ages, gender, number of prior placements, and total number of abuses experienced prior to permanent adoptive placement will influence the quality of communication and the quality of the relationship between the children and their parents.

Hypothesis 2: Children with higher levels of aggressive-oppositional behavior will have higher levels of difficulties in communication and relationship with their parents.

Hypothesis 3: Children with lower levels of social competence will have higher levels of difficulties in communication and relationship with their parents.

Hypothesis 4: Children with higher levels of hyperactivity-inattention will have higher levels of difficulties with communication and the relationship with their parents.

Finally, this study sought to further explore and increase clarity about the effects noted in the literature on parent mental health, parenting stress, and marital stress upon the placement of a special needs child. Using this information as a framework for generating hypotheses the third and final research question follows.

Research Question 3: How do child characteristics (child age, child gender, number of prior placements, total number of abuses, aggressive- oppositional behavior, social

competence, and hyperactivity/inattention, impact parental mental health, parental stress, and marital stress?

Hypotheses specific to this question are:

Hypothesis 1: Children's ages, gender, number of prior placements and total number of abuses will influence parental reports of their own mental health, parental stress, and marital stress.

Hypothesis 2: Children with higher levels of aggression-oppositional behavior, lower levels of social competence and higher levels of hyperactivity/inattention will have parents who report higher levels of mental health issues, parental stress, and marital stress.

Chapter III

METHOD

This chapter will describe study participants, recruitment and research procedures, and data analysis assumptions. In addition, scale constructs and their operational measurements, descriptions of the independent and dependent variables, evaluation of theoretical assumptions used when applying statistical procedures, and the major research questions of interest will be explained.

Participants

Participants were 103 American-born parents with special needs children who were adopted out of the U.S. foster care system and who sought treatment services for their children due to parent perceived attachment issues. Parents were identified by clinicians who were members of the Association for the Treatment and Training for Attachment in Children (ATTACh). ATTACh is an international organization of clinicians and facilities specializing in attachment focused treatment as well as parents who have struggled with attachment challenges with their children (see Appendix A for information about this organization). An inquiry by this investigator to the ATTACh organization (Personal Communication, Lynn Wetterberg, Director ATTACh, 3/2/2007) related to the demographic characteristics of parents affiliated with ATTACh clinicians revealed that the organization does not have demographic data recorded or available. Therefore similarities or differences of this sample of parents to the population of parents affiliated with an ATTACh clinician could not be assessed. Clinicians affiliated with ATTACh were contacted because this organization has established standards of safe and ethical practices in treatment of attachment issues. Only clinicians who worked in the

U.S. were sent study materials. Twenty-three participants were eliminated from the analysis because they did not complete all of the survey measures which resulted in missing data for several of the dependent variables. Therefore, the final data set for analysis included 81 participants.

Participating parents ranged in age from 27- 65 years with a mean age of 42.9 years (SD = 7.5). There were no African American or Native American parents in the sample. The sample's racial composite included 94% European American participants, 1% Asian American participants, 3% Latino American participants, and 3% Multiracial American participants. There were 70 women and 11 men who took part in the study. Participant education levels were as follows: 11% graduated from high school, 26% completed some college coursework, 15% attained a two-year college degree, 17% attained a four-year college degree, 24% attained a Masters degree and 7% attained a doctoral degree. Thus this sample was a highly educated group. Parents were not asked to answer any questions about their residence. Rather, recruitment letters and postcards were mailed to ATTACh clinicians and facilities across the United States.

Child ages ranged from 4-12 years old, with a mean age of 8.7 years (SD = 2.3). The racial composite of the children was as follows: 11% African American, 62%European American, 5% Asian American, 3% Latino American, 1% Native American, and 19% Multiracial American. There were 44 boys and 37 girls. Twenty seven children were identified as a different race than their adoptive parents, thus experiencing a transracial adoption. Children were placed in their adoptive homes between the ages of birth and 12, with the mean age of placement being 4. Using U.S.

Department of Health and Human Services categories, parents identified the types of special needs their children exhibited upon adoptive placement. These included: 1) older child, 2) developmental needs, 3) fetal alcohol exposure, 4) prenatal drug exposure, 5) sibling group affiliation, and 6) minority status. Sibling group affiliation identified as a special need indicated that children had birth siblings in care that also needed to be fostered or adopted at the time of the targeted child's adoption but no inquiry was made in this study to clarify whether these adopted parents did in fact also adopt the birth siblings of their child. Children had a range between none and six special need categories (M = 2.8).

Children were also assessed to have a variety of clinical diagnoses that ranged from none and nine different diagnoses (M = 2.3). Table 1 outlines the breakdown of special need categories of adopted children while Table 2 contains a breakdown of clinical diagnoses of the children as identified by their parents. The average age at finalization of the adoption was 5.4 years old with a range between five months to 12 years old.

Table 1: *Number and Percentages of Children with Special Needs*

Type of Special Need	n	Percentage
Older Child	30	37
Developmental Problems	63	78
Fetal Alcohol Exposure	23	28
Prenatal Exposure to Drugs	38	45
Minority Identification	26	32
Part of a Sibling Group	45	56
Other	6	7

Table 2

Number and Percentages of Diagnoses in Children

Diagnosis	n	Percentage
Oppositional Defiance Disorder	26	32
Conduct Disorder	6	7
Post Traumatic Stress Disorder	37	46
Reactive Attachment Disorder	51	63
Bipolar Disorder	13	16
Clinical Depression (unipolar)	9	11
Asbergers Syndrome	4	5
Pervasive Developmental Disorder	1	1
Obsessive Compulsive Disorder	10	12
Other Diagnosis	14	17

Recruitment

The Board of Directors of ATTACh supplied the investigator with a national mailing list of clinicians and affiliated treatment centers in the U.S. They also provided a written endorsement of the study that encouraged clinicians to participate in the recruitment process. A draft copy of the letter is in Appendix B. Using the mailing list provided by ATTACh, the endorsement letter was sent directly to clinicians and U. S. affiliated facilities in March 2006. The letter clarified that only families who adopted a child with a current age between 4-12 years old from the U.S. foster care system and were receiving services from an ATTACh affiliated provider were eligible for the

study. Approximately one week after the endorsement letter was sent a second letter from the investigator was mailed to clinicians. This letter referenced the endorsement letter from ATTACh and asked clinicians to solicit participation from adoptive parents who they were treating. The letter had a script that clinicians were asked to read to potential study participants. A copy of this letter is in Appendix C. Potential participants included parents who were receiving professional services from the clinician. Parents who agreed to participate were provided further written instructions that explained how to access the study via a secure Internet website through http://www.psychdata.com. In order to gain access to the website, parents were provided a pass code, "wiseparent." This pass code was printed on a card with further instruction that stated, "If you are part of a couple parenting a special needs adopted child, you are both invited to fill out the questionnaires separately. Directions on the site will explain how to construct an anonymous identification number for you and your partner's surveys for analysis purposes." A draft copy of the information post card is in Appendix D. Participants could access the website at their own convenience. This website offered a secure web platform for online data collection. Additional information about this secure website follows in the next section.

Upon logging onto the site, participants were given an individualized respondent ID number and an informed consent page appeared. The informed consent page included information about the principal investigator and her advisor, the purpose, nature and procedures of the study, a statement of possible risks and benefits of participation, expected duration of the survey, information about confidentiality, and who to contact if the participant had questions or complaints while involved in the

study. In addition, the informed consent stated that participants had to be 18 years or older in order to be eligible. There was no compensation for involvement, participation was voluntary, and they could terminate their involvement at any time during the study without risk of penalty.

Upon reading the informed consent, participants viewed the following statement: “Clicking on the ‘Continue’ button indicates that you have reviewed this informed consent, understand it fully, and agree to participate in the study. If you do not wish to continue your involvement in this study close this window on your computer to exit.” If a participant clicked on the ‘Continue’ button, he or she was forwarded to the beginning of the demographic questionnaire and proceeded through the study materials. If a participant clicked on the icon to close the window, he or she was directed out of the Psychdata site. A copy of the Online Informed Consent Form can be reviewed in Appendix E.

At regular intervals during the period of active data collection, the principal investigator checked on the status of the survey and incoming data. In an effort to increase response rate, a second mailing of letters and postcards were sent to all clinicians in June 2006 and a third and final mailing of letters and post cards were sent out in July 2006. The third mailing also informed clinicians that the study would end precisely at 12:00 AM on August 30, 2006. The Psychdata.com platform collated data from surveys which the investigator downloaded into a Microsoft Excel (Microsoft Office, 2003) spreadsheet file and then subsequently transferred into a SPSS (Statistical Program for the Social Services, Version 14) data file. Only data responses were downloaded from the site and each parent participant was number coded for record

keeping purposes as no identifying information was requested in the design of this study. When two parents of the same adopted child filled out the measures of the study on the website, matching those records occurred through the parents' identification of the first and last letter of their child's first name and the first and last letter of the street that they live on. In this way, participant identification was kept anonymous but matching of two parents for the same child was possible. Although the study intended to investigate perceptual differences between parents, only three couples completed the survey and, as a result, the analysis planned to compare mothers' responses with fathers' responses was not possible. Once data were downloaded, they were checked for accuracy. This process as well other preliminary analyses required steps before the main research questions could be assessed. Information regarding these procedures is included in a subsequent section of this chapter.

Psychdata.com Website

Psychdata is a secure website for online research in the social sciences. Information about the site can be accessed through its website: http://www.psychdata.com. There are numerous mechanisms that site developers have employed in order to keep data collection secure and confidential (Psychdata, 2005). Each investigator who uses Psychdata is given a unique identification number and only that individual is permitted along with a password, to download completed surveys or other documents from the site. In addition, only eligible study participants are given an access code specific to the investigator's study in order to complete related surveys. Encryption much like with the use of credit cards over the web is used to preserve participant confidentiality. No participants are permitted to download any part of the study

questionnaires thus protecting the rights of authors who give permission to investigators to use copyrighted materials for research. Psychdata.com is designed to meet IRB research standards and all data collected at the site are fully backed up so that loss of important data will not occur.

Psychdata was chosen as the collection data resource for this study because of its ease and flexibility of use and through Internet access, the likelihood of obtaining a national sample would result. The hope was that ATTACh registered clinicians across the United States would encourage eligible parents to sign on to the website and participate in the study.

Despite these anticipated advantages, there are some drawbacks when using online data collection, the most prominent being sample bias (Best & Krueger, 2004). By virtue of collecting data online, participants from a designated population can be reached more easily on one hand but other participants from the population may not have access to the Internet. Thus, the sample ran the risk of being self-selected rather than a probabilistic sample. In this study only adoptive parents with special needs children who have enough financial resources to have access to the Internet were included and, to some extent, generalizability to the population of adoptive parents of special needs adopted children is limited. In addition, parents with differing levels of technological competence may not have been receptive to completing the study on line. Given that the Psychdata platform was designed to be user friendly for participants with rudimentary knowledge of Internet communication, it was hoped that use of the Psychdata platform in and of itself would encourage participants to complete the study.

Despite the problem of sample bias, the advantages of accessing a larger sample of parents, and, obtaining national representation outweighed the drawbacks.

Study Design

Multiple regression models can be helpful in explaining the relative influences of certain factors on a particular effect or set of effects (Schroeder, Sjoquist, & Stephan, 1986). With regard to this study, understanding the relative influences of child psychosocial dysfunction on parental stress was explored using a multiple regression design. Correlation and multiple regression procedures were used to explore sources of parental stress of mothers and fathers of special needs adopted children. The analysis to compare responses of mothers to responses of fathers was abandoned due to lack of a sufficient number of participants and therefore no further discussion will be addressed related to that analysis.

Procedure

Once participants had access to the website, reviewed the Informed Consent form and proceeded with the study, they completed a series of research scales in the following order: *Demographic Questionnaire, Social Health Profile* (Conduct Problems Prevention Research Group (CPPRG), 1992), Teacher Observation of Child Adaptation (TOCA-R) (Werthamer-Larson, Kellam, & Wheeler, 1991), *ADHD Rating Scale IV* (DuPaul, 1991), *Parent-Child Communication Scale* (Fast Track Program/ PSU, Permission to use, Dr. Karen Bierman, 1/2006), *Parent Questionnaire* (Fast Track Program/ PSU, Permission to use, Dr. Karen Bierman, 1/2006), *CES-Depression Scale* (Radloff, 1977), *Inventory of Parent's Experiences* (Crinc, 1983), and the *Dyadic Adjustment Scale* (Spanier, 1976). Parents were able to skip questions and still reach the end of the questionnaire as per their

rights explained on the Informed Consent and required by the IRB. Parents could also start and return to the questionnaire according to their individual preferences. The site enabled them to make confidential identification numbers and pass codes so that they could get on the site as many times as they desired in order to complete the questions. Once participants completed the survey, a thank you note appeared and indicated appreciation for the time and effort to complete the survey.

Constructs and Measures

Construct Domain I: Family/Child Demographics

Demographic Information Questionnaire. The Demographic Information Questionnaire (items 1-32) devised by the investigator included questions about parent age, gender, education, ethnicity, race, employment status, family structure, ages of all the children, and differentiation between adopted and birth children. The questionnaire also asked participants to provide information about the targeted child (child being brought in for treatment) that prior research indicated appeared to affect adjustment post adoption. These demographic variables were child current age, gender, number of prior placements, and total number of abuses experienced. Additional questions asked parents to identify relevant categories of special needs of their children as per the United States Department of Health and Human Services (USDHHS) categories, diagnostic labels given to their children from prior clinicians, and types of treatment that their children received as well as age at placement into the home and child age at finalization of the adoption.

Using recorded time documented through the Psychdata program itself, the average time needed to complete the on-line instruments was approximately 45 minutes

with a range between 23 minutes and 65 minutes. This measure and the entire online questionnaire are in Appendix F.

Construct Domain II: Child Behavior/Emotional Problems

Teacher Observation of Child Adaptation- Revised (TOCA-R). The TOCA-R was originally intended for use by teachers to identify high risk children in the classroom but the item questions are very similar to other questionnaires specifically written for parents and the language is not as clinical as other questionnaires which was thought to be an advantage of the instrument for use with parents in this study (K. Bierman, personal communication, April 17, 2006). Therefore, with the author's permission, the Authority Acceptance subscale from the TOCA-R was used in this study because prior investigations (Ge et al., 1996; Grotevant, van Dulmen, Dunbar et al., 2006; Herrenkohl, E., Herrenkohl, R., & Egolf, 2003; Joseph, 2001; Rhee & Waldman, 2002; Rogers, Buster, & Rowe, 2001; Stoolmiller, 1999) found antisocial and disruptive behavior to be associated with poor adjustment in children post adoption.

The Authority Acceptance subscale consisted of ten items that described behaviors indicative of resistance to acceptance of rules and directives of those in charge of the child. Examples of these items were "takes other's property" and "has trouble accepting authority." The Cronbach's alpha reliability score for this subscale in this study was .92. For a summary of Cronbach's alpha reliability scores of all the measures used in this study see Table 3.

Social Health Profile: The Social Health Profile (SHP) assessed social competence including the quality and overall ability for social interaction parents observed in their children. This scale assessed prosocial behavior and emotional regulation. Examples of

prosocial behaviors included “very good at understanding other people’s feelings” and “can give suggestions and opinions without being bossy.” Examples of items that measured emotional regulation included “expresses needs and feelings appropriately” and “can calm down when excited or all wound up.” Two additional questions asked parents to describe the degree to which their child is liked versus disliked by their peers. The word “peers” was substituted for the original word which was “classmates” in order for parents to respond about their children’s peer relationships both outside and inside the classroom setting. The total number of items on this measure was 25. Each item was rated on a 6 point scale ranging from 0 (*Almost Never*) 1 (*Rarely)*, 2 (*Sometimes*), 3 (*Often*), 4 (*Very Often*), 5 (*Almost Always)*. Items were summed to produce an Authority Acceptance score and a Social Competence score. See Appendix F for this measure in the online questionnaire.

In reviewing the Social Health Profile, it was decided to use the Social Competence Subscale because it incorporated the constructs of emotional regulation and prosocial behavior which have been studied in the literature in regard to children (Kochanska, 2002; Kochanska, Forman, Aksan, & Dunbar, 2005; Laible & Thompson, 2000), maltreated children (Finzi, Cohen, Sapir, & Weizman, 2000; Koenig, Cicchetti, & Rogosh, 2000; Maughan & Cicchetti, 2002; Shields & Cicchetti, 1998) and children who have been adopted (Livingston-Smith, Howard, & Monroe, 2000; NICHD Early Child Care Research Network, 2004).

ADHD Rating Scale IV. The ADHD Rating Scale –IV (DuPaul, Power, Anastopoulos, & Reid, 1998) was originally developed by DuPaul (1991) for use with community-based samples of children. Both parents and teachers filled out versions of the scale that

were based on the DSM criteria for Attention Deficit Hyperactivity Disorder and results indicated sufficient reliability existed. In the original study there was a robust delineation between boys and girls and Cronbach's alpha coefficients ratings were .94 for the total score and test-retest reliabilities after four weeks using Pearson Product Correlation coefficients was .94. There were also high correlation coefficients reported between the ADHD Rating Scale and other observational methods of measurement of attention and hyperactivity, such as work productivity and academic achievement, indicating some evidence for concurrent and discriminant validity. DuPaul, Anastopoulos, Shelton, Guevremont, and Metevia (1992) continued in validation and further development of the scale. Eventually, these and other investigators formulated the scale into its current version (DuPaul, Power, Anastopoulos, & Reid, 1998) which has four additional items then the original 14 item version and has been updated to encompass the DSM-IV criteria for ADHD.

In their comparative analysis on various methods and measures for assessment of ADHD, Pelham, Fabiano, and Massetti (2005) summarized reliability and validity data on both parent and teacher forms of the ADHD Rating Scale-IV. Internal consistency reliability of the parent version ranged between .86 and .92. Test-retest Pearson's Product Correlation coefficients ranged between .70 to .86 and interrater reliability was between .40 - .59. In addition, concurrent reliability in a comparison of the ADHD Rating Scale IV- Home Version to the Connor's Rating Scale-Parent Version was between .68 and .84. Convergent and discriminant validity between subscales indicated moderate correlations with observations of on task behaviors and academic productivity. Cronbach's alpha reliability for the total scores was .94.

Extensive normative data on this scale was found in the manual but of note was the authors' description of the samples used to develop and refine the Home Version of the ADHD Rating Scale-IV. According to the manual, 4,860 children and adolescents between the ages of 4 and 20 from 22 different school districts across the U.S. were rated by their parents using this scale. Sampling included parents of children from various racial backgrounds and socioeconomic statuses. Dr. DuPaul (personal communication, February, 2006) and Guilford Press, the publisher of the scale granted permission to use the ADHD-IV Rating Scale in this study. The entire ADHD Rating Scale IV is in the online questionnaire in Appendix F.

The ADHD Rating Scale–IV - Home Version (DuPaul et al., 1998) included 18 items representing various behavioral indicators of ADHD according to DSM-IV diagnostic criteria. Parents responded to each item by indicating that they observed the behavior "Never or Rarely", "Sometimes", "Often", or "Very Often". A total scale score was used in this study including 9 items in all reflecting inattention and impulsivity such as "Does not seem to listen when spoken to directly" and "Loses things necessary for tasks or activities". There are 9 items reflecting hyperactivity such as "Leaves seat in classroom or in other situations in which remaining seated is expected" and "Talks excessively." Each item was rated on a four point scale, 0 (*Never or rarely*), 1 (*Sometimes*), 2 (*Often*), and 3 (*Very Often)*. Item scores were summed to create an overall rating for ADHD type of behaviors.

Construct Domain III: Quality of Parent-Child Relationship

Parent-Child Communication-Parent Report. The Parent-Child Communication–Parent Report was adapted from the Revised Parent-Adolescent Communication Form of the Pittsburgh Youth Study (Loeber, Farrington, Stouthamber-Loeber, & Van Kammen, 1998; Thornberry, Huizinga, & Lowber, 1995) and further developed by members of the Fast Track Prevention Study (McCarty & Doyle, 2001; McMahon, Jones, & Kim, 1997; Rains, 2004) in order to measure parents' perceptions of how accessible they are to their children's communication attempts and skills. This scale was not copyrighted and thus was available for use in this study. The scale consisted of 20 items (questions 76 - 95 on the continuous on line version), each rated on a 5 point scale: "Almost Never", "Once in a While", "Sometimes", "Often", "Almost Always". The total scores of this measure were used in the study as a measure of the construct of quality of parent-child communication.

Examples of items on this instrument included "Are you very satisfied with how you and _____ talk together?", and "Do you encourage _____to think about things and talk about them so that he/she can establish his/her own opinion?", "Are there things you avoid discussing with _____?", "Are there certain topics which you do not allow _____to discuss with you?", "Does _____try to understand your point of view?", and "Does _____keep his/her feelings to him/herself rather than talk about them with you?" Items were summed to create total scores and higher scores indicated better parent-child communication. The Cronbach's alpha reliability score for the total test scores in this study was .52. See Appendix F for the questions in this measure.

The Parent Questionnaire. Since this investigation sought to explore and identify behaviors of parents that either contribute or disintegrate the quality of parent-child relationships the Fast Track Prevention Project Parent Questionnaire with permission was used (Karen Bierman, personal communication, January 26, 2006). This instrument, adapted from the Parent Practices Scale developed by Strayhorn and Wiedman (1988) measures the quality of parent-child interactions.

The Parent Questionnaire contained 25 items reflecting the use of appropriate/consistent discipline, warmth/involvement, harsh/physical discipline, and inter-parental consistency (for two parent families only). The total score was used for this study as an overall measure for parent-child relationship quality. The first 11 items asked parents to identify the frequency with which they engaged in specific parenting practices using a 5-point scale: 0 (*Never),* 1 (*About once a week or less*), 2 (*More then once a week but less they once a day*), 3 (*One or two times a day*), and 4 (*Many times a day*). In the second part of the scale parents were asked to estimate a portion of time they experienced various outcomes in interaction with their children. using a 5-point scale: 0 (*Never*), 1 (*Less than half the time*), 2 (*About half the time*), 3 (*More than half the time*), and 4 (*All of the time).*

Examples of items from this scale were “If you tell your child s/he will get punished if s/he doesn’t stop doing something and s/he keeps doing it, how often will you punish him/her?”, “How often do you and your child talk or play with each other, focusing attention on each other for five minutes or more, just for fun?”, “How often do you tell your child that you may leave him or her if he or she doesn’t behave better?”

and “Of all the times that you talk to your child about his or her behavior, what fraction are disapproval?” Questions from the Parent Questionnaire are located in Appendix F. The Cronbach’s alpha reliability score for the total scores obtained in this study was .60. Overall this measure assessed the quality of parent-child interactions.

Construct domain IV: Parenting Stress and Mental Health

CES-Depression Scale. Previous literature review indicated that parents were significantly stressed as a result of adoption of a special needs foster child. In order to assess parental stress, the Center for Epidemiological Studies-Depression Scale (CES-D scale) (Radloff, 1977), a well-known and highly validated measure of depression in the general population, was used. This scale contains 20 items. Examples are “I felt that I was just as good as other people,” and “I talked less then usual”. Individuals indicated the frequency that they felt or behaved a certain way over the past week. Each item was rated using a 4-point scale: 0 (*Rarely or none of the time (less than 1 day)*), 1 (*Some or a little of the time (1-2 days*)), 2 (*Occasionally or a moderate amount of time (3-4 days*)), and 3 (*Most or all of the time (5-7 days*)). Scores ranged from 0-60 with higher scores indicating the presence of more depressive symptoms. The National Institute of Mental Health granted permission to use the CES-D scale for this dissertation study as it was developed by Radloff for that agency and was intended to be used in the public domain.

The CES-D scale has been used extensively as a measure of depression specifically with parents of troubled or difficult children (Burt et al., 2005; Ceballo, Lansford, Abbey, & Stewart, 2004; Roxburgh, 2005; Spotts, et al., 2005; Tarabulsy et al., 2005; Waizenhofer, Buchanan, & Jackson-Newsom, 2004; Wood, Repetti, &

Roesch, 2004; Yoder & Hoyt, 2005). Cronbach's alpha reliability estimates in the studies cited above were between .81-.94 with the exception of Spotts et al., (2005) who reported .68. This investigation explored women's mental health in Swedish mothers who gave birth to twins. Since the CES-D was developed in the U.S., use of it with people of a different country and culture may explain why lower internal consistency estimates were reported in the Spotts et al. study. The CES-D was used as a measure of parental depression in the Fast Track Prevention Project as well and technical reports indicated that alpha coefficients for that study ranged from .87-.89 for the normative sample and .88-.90 for the control sample. The Cronbach's alpha reliability score for the measure in this study was .95. CES-Depression scale questions are in Appendix F.

Inventory of Parents' Experiences. The Inventory of Parents' Experiences measured the degree to which parents felt supported by social systems and how satisfied they felt in parenting a child. The measure was developed by Keith Crnic, who gave permission for its use in this investigation (Keith Crnic, personal communication, February, 6, 2006).

The scale contained 38 items (items 143-181), the first 19 of which explored parents' perceptions about their social support networks in both home and, if applicable, work settings. Examples of items are, "In a typical week how many times do you talk on the phone with your friends?" and "How helpful are family members to you (as babysitters, sources of information, sympathetic ears)?" Fast Track technical reports (2002) indicated that currently there are no scoring protocols for this part of the measure. Given the potential for important data on the needs of parents of special needs adopted children related to social networks and support, these items were

retained with the last half of the total measure which explored parent satisfaction in social life, support networks, and various life situations such as household responsibilities and availability of support. Responses were coded on a four-point scale and scored accordingly: 0 (*Very Dissatisfied*), 1 (*Somewhat Dissatisfied*), 2 (*Somewhat Satisfied*), and 3 (*Very Satisfied*). Examples from the parenting satisfaction part of the instrument were "How satisfied are you with your involvement in your neighborhood?" and "How satisfied are you with your involvement in organized groups (church, social, educational, sports groups)?" The Cronbach's alpha reliability score obtained on the total measure scores in this study was .88. The questions from the Inventory of Parent's Experiences are in Appendix F.

Dyadic Adjustment Scale. The Dyadic Adjustment Scale (DAS) (Spanier, 1976) is a measure of marital stress and satisfaction. The DAS contains 32 items that provides overall indices of marital satisfaction and marital stress. The total DAS score was used. Spanier reported that the Cronbach's alpha for the total scale was .96. With regard to validity reports, Spanier found support for the DAS as this measure highly correlated with another marital adjustment scale. Although no studies using the DAS with adoptive parents were found, it has been used to examine marital or dyadic adjustment in relationship to parenting stress (Corrigan, 2003; Goldberg, Michaels, Lamb, 1985; Ladweig & White, 1984) and child behavior problems (Harrist & Ainslie, 1998).

Corrigan (2003) reported reliability alpha coefficients for the Fast Track longitudinal study of .95 for the normative sample and .93 for the control sample on the overall scale score. No data regarding individual subscale scores were reported. Ladewig and White (1984) reported a similar total scale coefficient of .90. Multiple

studies reported in the manual (Spanier, 2001) indicated that the DAS showed internal consistency ranging from .84-.96 for the total measurement score. Eleven week test-retest reliabilities shown in a number of studies cited in the manual indicated that for the total score the correlations were .96. The Cronbach's alpha reliability score on the total scores for this measure for this study was .73.

Questions 182 to 196 on the continuous on line version asked participants to indicate the extent of agreement or disagreement between themselves and their partners in a variety of topical areas. The possible choices were "Always Agree", "Almost Always Agree", "Occasionally Disagree", "Frequently Disagree", "Almost Always Disagree", and "Always Disagree". Examples of areas were "Religious matters" and "Philosophy of life."

Examples from items 197-203 included questions 198 and 200, "How often do you or your mate leave the house after a fight?" and, "Do you confide in your mate?" Response choices for these questions were "All the Time", "Most of the Time", "More Often Than Not", "Occasionally", "Rarely", and "Never." The DAS was scored following the specifications included in the manual (Spanier, 2001).

In the clinical setting the raw scores are converted into T- scores but in the analysis of the data in this study the total score sums were used as a continuous measure. Lower scores on the DAS total scale indicate more marital distress and dissatisfaction while higher scores indicate higher levels of dyadic adjustment and satisfaction. The entire DAS measure can be reviewed in Appendix F.

Table 3

Cronbach's Alpha Reliability Scores for Independent Variables and Dependent Variables Measures

Scale or Subscale	*Reliability Estimate*
TOCA-R Authority Acceptance	.92
SHP Social Competence Subscale	.84
ADHD Rating Scale IV- Home Version Total Scores	.94
Parent-Child Communication Scale (PC) Total Scores	.52
Parent Questionnaire (PQ) Total Scores	.60
CES-Depression Scale	.95
Inventory of Parents' Experiences (IPE) Total Scores	.88
Dyadic Adjustment Scale (DAS) Total Scores	.73

Data Analysis

Power analysis. An a priori power analysis was conducted using G* Power (Faul & Erdfelder, 1992) a web-based statistical program designed to calculate power. Power of a statistical test is the probability that it will yield statistically significant results. (Cohen & Cohen, 1983; Field, 2005). Therefore examination of power is important in order to know the probability that a test of the null hypothesis would find an effect that existed in the population. This probability provides an estimate to which a false null hypothesis would be rejected. In testing for an overall significant F value that would be used in the multiple regression for this study, the F-Test for Multiple Correlation and Regression (MCR) calculation was used. Given the predication model

for six independent variables, a medium effect size of 0.15 with alpha = .001 and desired power at .95 (lambda=35.1000; critical F(5,228) = 4.2642) the total sample size needed would be 234. This number represented a very conservative estimate for the predicted model. On the other hand, using the minimal power estimate of .80 that is acceptable in social science research (Cohen & Cohen, 1983) (lambda=13.80; critical F(5,86)=2.3205) and a less stringent alpha at .05, the minimum total sample size needed would be 92. Since this study explored issues that could have significant impact on children with serious behavioral and emotional problems, who come into their adoptive families, keeping Type II error as low as possible constitutes an important consideration. Obtaining the number of participants to keep power sufficiently high in the study also presents a practical challenge. Using these parameters, the intent was to recruit between 92-234 parent participants for this investigation. Although the actual number obtained for the study, as described in the next section, fell within the desired number of participants (103), the final usable sample size was reduced to 81.

Preliminary analysis. Data were collected and then downloaded from the www.psychdata .com website into a Microsoft Office Excel spreadsheet (Microsoft Office, 2003). These data were then transferred into an SPSS data file (Statistical Program for the Social Sciences [SPSS] Version 14, 2005). A total of 138 parents initially registered with the website but 25 registrants did not complete survey instruments thus reducing the number to 113. Of this group, nine participants completed the survey questionnaire but their children's ages were either younger or older than the stated age range criteria of the study (age 4-12) and another participant was excluded because the adopted child was from Russia and not from the U.S. foster

care system. These eliminated cases further reduced the sample to 103 and, of this number, 81 persons completed all of the survey data while 22 completed some portion of the survey items. All incomplete surveys were removed from the final data set leaving a final sample of 81.

Missing Values. The pattern of missing values from specific instruments from the 81 cases of complete surveys was then calculated using the Missing Values Analysis (MVA) function. This analysis revealed that none of the item scores had more than 3% of their values missing until participants started to provide responses to the Dyadic Adjustment Scale (DAS). At this point, the number of missing values increased and in fact the DAS had more missing data than any of the other scales. This outcome suggested that the pattern of missing data was not random. Although most DAS items had less than 5% of missing values one subscale, Dyadic Satisfaction, had 7.4% missing values and taken collectively this resulted in 12.3% of items for the total score of missing values. Most likely, the missing data in this scale occurred due to participant fatigue in response to the length of the online survey.

In accounting for missing values, Tabachnick and Fidell (2001) contend that almost any procedure is appropriate when missing data do not exceed more than 5% of the entire data set. Given that the percent of missing values constituted .7% of the entire data set, it was well below the 5% guideline suggested by these authors.

Since most of the missing data for item scores up to the DAS were less than 3% no adjustment needed to be made for this missing data. However, for the DAS measure the percentage of missing values for two scales exceeded 5%. One option for dealing with this issue was to remove the DAS from the study as a variable. Cohen and Cohen

(1983) suggested however that missing values were less critical when the data were missing from a dependent variable rather than an independent variable. This is because dependent variables represent the outcome or effect of independent variables. They indicated that dropping cases due to incomplete data is not desirable either however because the smaller the sample, the less power in statistical robustness. Since the DAS was included in the study design as a dependent variable to measure parent marital stress, it was decided to keep the variable in the data and follow their recommendation to substitute the appropriate subscale mean that contained missing values.

Statistical Assumptions. Data were checked and examined to determine if the assumptions of parametric statistics were tenable. Most of the variables are continuous and measure the interval level which is needed for parametric analysis. An important consideration when using parametric statistics is the assumption that data are derived from normally distributed populations. In order to test this assumption, histograms and box plots were produced to visually inspect the data in all the scales used for independent and dependent variables. Visual inspection of frequency histograms for each variable indicated that data were not normally distributed in at least two cases. For example, the CES-D scale was positively skewed and truncated and the DAS total scores scale were also positively skewed.

Box plots of all of the scales used in the study were also inspected to look for outliers. Plots of the independent variables revealed no outliers in the child's current age, total number of abuses, Authority Acceptance subscale or the ADHD Rating Scale total scores. There were outliers however in the SHP Social Competence subscale and the prior placements measure. Plots of the dependent variables indicated that the

Dyadic Adjustment Scale total scores and the Parent Questionnaire total scores had outliers that were of concern. Outliers can be problematic when using parametric statistics because extreme values can seriously influence the distribution of scores which then, if analyzed without adjustment for the outliers, results in inaccurate results (Chen & Popovich, 2002).

A number of statistical tests were recommended to explore the degree to which outliers influenced the distribution of sample (Field, 2005; Tabachnick & Fidell, 2001). Using tests built into SPSS Mahalanobis Distance values were calculated on all the scales that had outliers observed in the visual inspection of the boxplots. For the independent measure Social Competence, the Mahalanobis Distance value was 7.46 which is less than 15, the number that Field (2005) roughly recommended using as a guide for this test. This indicated that the outlier in this scale was not overly influential in the distribution. For the independent measure of prior placements and the dependent measures of the DAS and the Parent Questionnaire many of the values had scores that were greater than a conservative cut off recommended by Field (2005). Thus, this test was not very helpful in interpreting which scores might be excessively influential to the sample characteristics. Cook's Distance values for outliers (Field, 2005) were also calculated for these scales and revealed that none of the distance values were greater than 1.0 indicating that none of the values in either of these scales excessively influenced the distribution of the sample.

Several authors (e.g., Cohen & Cohen, 1983; Field, 2005; Tabachnick & Fidell, 2001) underscore the importance of inspection of boxplots and other graphical means before making decisions about keeping or eliminating outliers. Using this rationale, a

comparison of correlation matrices was done when the outliers were retained in comparison to when they were excluded. When the correlation between the SHP Social Competence subscale score and the Parent-Child Communication total score was calculated including the outliers, r equaled -.599 ($p < .001$). When the outliers were removed r equaled -.531 ($p < .001$). Since this change in correlation (-.068) was quite small the outliers were retained. The correlation between prior placements and the Parent-Child Communication total scores including the three outliers resulted in a statistically non-significant r which equaled -.224. Removal of the two outliers in calculating the correlation value, resulted in a change of r to -.235 which was statistically significant at $p<.05$. Since the number of prior placements has been noted in the literature to play a significant role in the adjustment of adopted children in their permanent family and although the correlation without the outliers increased the correlation slightly and made it significant, the outliers were retained in the distribution.

For the Parent Questionnaire which had one outlier, the correlation between total score and the Authority Acceptance subscale was -.345 ($p < .001$). When the outlier was removed the correlation became -.344 ($p < .001$). Thus, the elimination of this one outlier score did not appear to change significantly the distribution of the measurement scores. The DAS scale had two extreme outlier scores (cases 21 and 24) and the correlation of the DAS with the outliers included and the SHP Authority Acceptance subscale was -.086 ($p > .05$). When the outliers were eliminated from the analysis the direction of the relationship changed (.062) but this value was also statistically non-significant. Thus, the outliers were retained in the distribution.

Cohen and Cohen (1983) presented their case for keeping outliers in the sample data if at all possible because, "such an exercise may produce insight into the phenomena under study. Even when error can be assumed, if outliers are few (less than 1% or 2% of *n*) and not very extreme, they are probably best left alone" (p.128).

As a further evaluation of adhering to data being normally distributed, each variable was also inspected with regard to skewness, kurtosis, and skewness over standard error of skewness ratio. Skewness refers to the symmetry of a distribution and whether cases or scores within the distribution are piled up on one side of the mean or not. In a normal distribution there is perfect symmetry and the mean of the distribution is located in the center. When a variable does not have a mean that is in the center of the normal curve, the distribution is skewed (Tabachnick & Fidell, 2001). A positively skewed distribution describes one where there are too many scores or cases on the left side of the mean and the right tail of the distribution is too long. A negatively skewed distribution indicates that there are too many scores on the right of the mean and the left tail is too long. Kurtosis refers to the peakedness of a distribution and whether a particular variable reveals a distribution curve that looks too peaked with short, thick tails, or too flat with long thin tails at either end. The curve for a normal distribution always has skewness and kurtosis values equal to 0. Therefore, the farther away these values are from zero, the greater the asymmetry and, in essence, the greater indication that the data are not normally distributed. In converting skewness values to z scores (Field, 2005) a comparison can be made regarding the level of skewness in sample data to the normal distribution. If skewness values divided by the standard error of the skewness is equal to or greater than 1.96 ($p < .05$), the distribution of those scaled

scores are markedly different than the normal distribution. For observed skewness, kurtosis, and skewness over skewness standard error values refer to Table 4.

Table 4

Skewness and Kurtosis Values for All Scales Used in the Study

Scale	Skewness	Kurtosis	Skewness/ SE Skewness
TOCA-R Authority Acceptance Subscale	-.262	-.879	0.98
SHP Social Competence Subscale	-.517	-.026	1.93
ADHD Rating Scale IV- Home Version	-.449	-.623	1.68
Parent-Child Communication Scale (PC)	-.231	-.202	0.0007
Parent Questionnaire (PQ)	-.075	-.231	0.28
CES-Depression Scale	.997	.232	3.73
Inventory of Parents' Experiences (IPE)	-.060	-.334	0.22
Dyadic Adjustment Scale (DAS)	3.107	16.567	10.90

The independent variable scales skewness values ranged from -.262 to -.517 and the dependent variable scales skewness values except for the DAS ranged from .012 to -.563. The DAS scale had a skewness value of 3.107 but when outlier cases 21 and 24 were eliminated from the scale the DAS skewness value became -.315.

None of the independent variable scales had skewness/skewness SE equal to or greater than 1.96 but dependent variable scales greater then 1.96 included the CES-D Scale and the Dyadic Adjustment Scale (DAS). The skewness/skewness SE of the DAS when cases 21 and 24 were eliminated became 1.08 which brought the distribution more into a normal shape. Clearly, for some of the scales in this study based on the skewness values the assumption of a normal distribution was not met.

The Shapiro-Wilks test of normality was conducted on all the independent and dependent variable scales to further clarify if the sample distributions were significantly different than a normal distribution. Use of this test along with visual inspection of the histograms and box plots of each scale is recommended as a check on normalcy (Field, 2005). A significant test indicates that the sample distribution is not normally distributed whereas a non-significant test indicates that it is probably normal. None of the tests for any of the independent or dependent variables were significant which meant that all of the scales according to this statistical test had relatively normal distributions. The Shapiro-Wilks test values are presented in Table 5.

Table 5

Shapiro-Wilks Test for Normality for Independent and Dependent Variables Scales and Subscales

	Shapiro- Wilks
TOCA-R Authority Acceptance Subscale	.965
SHP Social Competence Subscale	.968
ADHD Rating Scale IV Total Scores	.962
Parent-Child Communication Scale (PC) Total Scores	.987
Parent Questionnaire (PQ) Total Scores	.980
CES-Depression Scale (CES-D)	.890
Inventory of Parents' Experiences (IPE) Total Scores	.988
Dyadic Adjustment Scale (DAS) Total Scores	.723

Note. * Values significant at $p < .001$

Homoscedasticity. Homoscedasticity of score variance is another assumption that must be met when interpreting correlational and regression analysis (Cohen &

Cohen, 1983; Tabachnick & Fidell, 2001). The assumption of homoscedacity is that the variability in scores for one continuous variable is about the same as all values of another continuous variable. Heteroscedasticity, the failure of homoscedacity, results from distributions of one or more of the variables being non-normal. Levene's test was calculated for the total scores of each of the dependent variables with gender entered as a factor. None of the values were significant indicating that the assumption of homoscedacity was met. Levene's test was also calculated for the total and subscale scores of the independent variables with child age entered as a factor. None of the values were significant indicating that the variances of the independent measures met the assumption of homoscedacity. Levene statistics based on the mean values of all the variables can be reviewed in Table 6.

Table 6

Levene's Test of Homogeneity of the Variance of Independent and Dependent Variables Based on Mean

Scale	Levene Statistic
TOCA-R Authority Acceptance Subscale	2.40
SHP Social Competence Subscale	3.22
ADHD Rating Scale IV- Home Version Total Scores	.26
Parent-Child Communication Scale (PC) Total Scores	1.88
Parent Questionnaire (PQ) Total Scores	1.46
CES-Depression Scale Scores	2.28
Inventory of Parents' Experiences Total Scores	.01
Dyadic Adjustment Scale Total Scores	3.58

Independence. The last assumption that was tested in this pre-analysis of the data was independence or orthogonality. Tabachnick and Fidell (2001) explain that independence is the "perfect nonassociation between variables" (p.8). When two variables are independent, knowing the value of one variable does not help to predict the value of another variable and the correlation between them is zero. Pearson Product Moment correlations were calculated for the independent variables of child age, gender, prior placements, total number of abuses, SHP Authority Acceptance subscale, SHP Social Competence subscale, and ADHD Rating Scale- IV total scores. The correlation matrix for these variables are in Table 7.

Table 7

Correlations for Independent Variables of Child Current Age, Child Gender, Prior Placements, Total Number of Abuses, Social Health Profile Authority Acceptance Subscale, Social Health Profile Social Competence Subscale and ADHD Rating Scale IV Total Scale Scores

	Child Current Age	Child Gender	Prior Placements	Total # Abuses	TOCA-R Authority Acceptance Scores	SHP Social Competence
Child Gender	-.02					
Prior Placements	.24*	.12				
Total # of Abuses	.07	.15	.29**			
TOCA-R Authority Acceptance	.14	.28*	.39**	.46**		
SHP Social Competence	.10	.05	.17	.17	.65**	
ADHD Rating Scale -IV Total Scale Scores	.09	.03	.06	.24*	.56**	.59**

** p < .01; * *p* < .05

The correlation coefficient between the ADHD Rating Scale IV total score and the TOCA-R Authority Acceptance score was significant at .56 ($p < .001$). In addition, the ADHD score was also significantly correlated with the SHP Social Competence score ($r = .59$, $p < .001$). Another significant correlation occurred between the TOCA-R, Authority Acceptance, and Social Competence subscales ($r = .65$, $p < .001$). This indicated that there was redundancy between them and that the risk of multicollinearity existed. Schroeder, Sjoquist and Stephan (1986) defined multicollinearity as a problem that arises "whenever two or more independent variables used in a regression are not independent but are correlated" (p.71). However, the level of inter-correlation that emerged was in the expected range. Despite some overlap reflecting the tendency for aggressive-oppositional, hyperactive-inattentive, and prosocial regulated behaviors to co-vary, these distinct dimensions of social adjustment were retained in the model to explore the level of shared versus unique variance they explained in parental stress and parent-child relationship quality. Pearson Product Moment correlations were also calculated for all the total score scales of the dependent variables. These correlations are shown in Table 8. The Parent-Child Communication Scale was correlated with the Parent Questionnaire ($r = .42$, $p < .01$) to a moderate degree and to a lesser degree the Inventory of Parents' Experiences ($r = .29$, $p < .05$). The CES-Depression Scale was correlated to a modest degree with the Parent Questionnaire and the Inventory of Parents' Experiences. The Parent Questionnaire was also modestly correlated with the scores on the Inventory of Parent's Experiences. The magnitude of correlations was relatively low, reducing any concerns regarding redundancy.

Table 8

Correlations for the Parent Child Communication Total Scores, Parent Questionnaire Total Scores, CES-Depression Scale Scores, Inventory of Parents' Experiences Total Scores, and the Dyadic Adjustment Scale

	Parent Child Communication	Parent Questionnaire	CES-Depression Scale	Inventory of Parents' Experiences
Parent Questionnaire	.42**			
CES-Depression Scale	-.18	-.31**		
Inventory of Parents' Experiences	-.29*	.28*	-.39**	
Dyadic Adjustment Scale	-.05	.12	-.08	.21

*Note: * p< .05; **p< .01*

Adjustments and Transformations of the Data

Even though statistical tests failed to indicate that the CES-D Scale and the Dyadic Adjustment Scale (DAS) did not follow normality assumptions, visual inspection showed that the CES-D scale had a pile up of scores on the left of the distribution, and the skewness over standard error ratio indicated a positive non-normal distribution. The concern about skewness of these two distributions had to do with the legitimacy of conducting parametric statistics if they did not meet the assumption of a normal distribution. Field (2005) reported that transformations of distributions can often facilitate a shift to a more normal one and thus the CES-D Scale scores were transformed using the square root function in SPSS. This improved the skewness values and the distribution took on a more normal distribution.

The DAS total score scale was also positively skewed and therefore those scores were also transformed using the square root function. Skewness for the DAS as a result of this transformation was reduced to 2.36, and the skewness/skewness standard error reduced to 0.83. Kurtosis was reduced as well to 11.7.

Variables

The independent variables were child age, child gender, prior placements, total number of abuses experienced prior to placement in the permanent adoptive home, aggressive-oppositional behavior, social competence, and hyperactivity/ inattentive behavior problems. Child age, child gender, prior placements, and the total number of abuses prior to permanent placement were derived from parents' responses on the demographic questionnaire. Aggressive behavior was assessed with TOCA-R Authority Acceptance scale scores with higher scores representing higher levels of aggressive-

oppositional behaviors. Social competence was measured with the scores on the SHP Social Competence subscale with higher scores representing more competence. Hyperactivity/inattentive problems were measured by the total scores on the ADHD Rating Scale-IV with higher scores representing higher levels of inattentive and impulsive child behaviors as observed by parents.

The dependent variables were quality of parent-child communication, parent-child relationship quality, depression, parenting stress, and marital stress. The quality of parent-child communication was operationally defined as scores obtained on the Parent-Child Communication–Parent Report Scale, with higher scores representing better communication quality between parent and child. The quality of parent-child relationships were assessed with the Parent Questionnaire with higher scores indicating healthier, appropriate, and consistent discipline as well as warmth and involvement with the child. Parental depression was operationally defined by the CES-Depression Scale, with higher scores reflecting a greater number of symptoms of clinical depression. Parenting stress was operationally defined as lower scores on the Inventory of Parent's Experiences scale and marital stress was operationally defined as lower scores Dyadic Adjustment Scale.

Scores on all the reported scales or subscales were entered into a computer based statistical program (Statistical Package for the Social Sciences (SPSS 14.0, 2005) and descriptive statistics were compiled. The independent variables derived from the demographic questionnaire (age at placement, gender, number of abuses) were dummy coded as well and entered into the regression analysis. The number of prior placements was treated as a continuous variable within the regression calculations. The

relationships between the variables were then examined. Scatter plots were calculated between the independent variables and the dependent variables to see if there were any multivariate outliers in need of attention. On visual inspection none were observed.

The research questions and the methods used in this investigation follow:

Research Question 1:

Do parents who have adopted special needs children with severe behavioral and emotional problems experience increased mental health issues, parental stress, and marital stress?

The hypothesis for this research question was that adopted children who exhibit higher levels of behavioral and emotional difficulties will have parents who score higher on measures of mental health issues (increased problems), and lower in measures of parental stress and marital stress (increased parenting and marital stress). Descriptive statistics conducted on the data related to all the scales and histograms in comparison with the normal curve were inspected. In addition, bi-variate correlation analysis was also completed as a preliminary method to explore associations and directions between all the variables of interest.

Research Question 2:

How do child characteristics (child age, child gender, the number of prior placements, total number of abuses, aggressive-oppositional behavior, social competence and hyperactivity/inattention) relate to reported parent-child communication and parent-child relationship quality in parents who have adopted a child out of the U.S. foster care system?

The first hypothesis for Research Question 2 was that children's ages, gender, number of prior placements and total number of abuses experienced prior to permanent adoptive placement will influence the quality of the relationship between the children and their parents. Subsequent hypotheses were that children with higher levels of aggressive-oppositional behavior, lower levels of social competence, and higher levels of hyperactivity-inattention would have increased difficulties in communicating with their parents as well as increased problems within the relationship with their parents.

Multiple regression procedures were used to analyze these data. The independent variables placed into the regression equation were child age (X1), child gender (X2), number of prior placements (X3), total number of abuses (X4), aggressive-oppositional behavior (X5), social competence (X6), and hyperactivity/inattentive behavior (X7). The dependent variables (Y) were the scores on the Parent-Child Communication –Parent Report and Parent Questionnaire. It was hypothesized that the independent variables will show a significant level of shared and unique variance with the dependent variables as child history and concurrent behavior problems are expected to impact parent-child relationship quality and parenting experiences. The estimated coefficient on each independent variable was calculated while holding all other independent variables constant. In the first analysis, Y was the Parent-Child Communication scores and in subsequent analysis Y was the Parent Questionnaire scores. Since the independent variables were a mixture of categorical factors and continuous factors, standardized coefficients were used in order to determine which independent variables had the greatest impact on the dependent variables. The coefficient of multiple determination was calculated in order to measure

the percentage of the variation in the dependent variables that could be explained by the variations in the independent variables taken together. This same methodology was used with the Parent Questionnaire total scores. Using this methodology, the relative strength of influence of each of the independent variables was determined.

Research Question 3:

How do child characteristics (child age, child gender, number of prior placements, total number of abuses, aggressive- oppositional behavior, social competence, and hyperactivity/inattention, impact parental mental health, parental stress, and marital stress?

There were two hypotheses for Research Question 3 and they were the following:

Children's ages, gender, number of prior placements, and total numbers of abuses will influence parental reports of their own mental health, parental stress, and marital stress. Children with higher levels of aggression-oppositional behavior, lower levels of social competence, and higher levels of hyperactivity/inattention will have parents who report higher levels of mental health issues, parental stress, and marital stress.

For this analysis the dependent variables were parental mental health as measured by the CES-Depression Scale, parenting stress as measured by the Inventory of Parent's Experiences, and marital stress as measured by the Dyadic Assessment Scale. As in the prior analysis each independent variable was inserted into the regression equation in order to assess relative strengths in predicting dependent variable outcomes.

Chapter IV

RESULTS

This chapter will provide a descriptive analysis of the study sample and information used to test the assumptions associated with the multiple regression analysis required of the major research questions of interest. Subsequent to this discussion, results of the analysis pertinent to the three major research questions will be presented.

Sample Demographic Characteristics

The sample consisted of 81 parents of children, aged 4 -12, adopted out of the U.S. foster care system. Parents' ages ranged from 27- 65 years old with a parental mean age of 42.9 years. There were approximately six times more female parents who participated then male parents. The sample parents were fairly educated as over half of them obtained at least a two-year college degree. The majority of parents were of European American ancestry with the remaining parents identified as Asian American, Latino American, or Multiracial American racial groups.

Although there were no parents who identified as African American or Native American, children from these racial categories as well as from the Multracial identity category encompassed approximately 31% of the children. A significant percentage of the parents reported that they adopted a child different from their own racial background. The parents reported on 44 male children and 37 female children. The children were placed with permanent adoptive parents at the mean age of 4 and the mean number of prior placements before entering the permanent home was 3. The

children had anywhere from 0 - 6 special needs and had been assigned a range of 0 - 9 diagnoses. Table 9 provides a summary of demographic data related to the sample.

Parents filled out measures related to child and family demographics, social health and behavior of the children, mental health and stress indicators related to the parents, and parent-child communication and relationship issues. The sample means, standard deviations, and variances for all measures used as independent and dependent variables are in Table 10.

Table 9

Personal Demographics Description of Sample

	n	% of sample	*M*	*SD*
Parents	81			
Age			42.9	7.5
Gender				
Female	70	86		
Male	11	14		
Race/Ethnicity				
African American/Black	0	0		
Asian American	1	1		
European American/White	76	94		
Latino American	2	3		
Native American	0	0		
Multi or Biracial American	2	3		
Education Level				
High School Graduate	9	11		
Complete some College	21	26		
Two Year Degree	12	15		
Four Year Degree	14	17		
Masters Degree	19	24		
Doctoral Degree	6	7		
Children				
Ages	81			
Current			8.7	2.3
At Time of Placement			4.0	2.9
At Time of Finalization			5.3	2.9
Gender				
Female	37	46		
Male	44	54		
Race/Ethnicity				
African American/Black	9	11		
Asian American	4	5		
European American/White	50	62		
Latino American	2	3		
Native American	1	1		
Multi or Biracial American	15	19		
Different from Parents' Race	27	33		

Table 10

Sample Means, Standard Deviations, and Variances for Independent and Dependent Variables

Variable	n	Mean	Standard Deviation	Variance
Child Current Age	81	8.70	2.34	5.49
Child Gender	81	1.45	.50	.25
Prior Placements	81	2.82	2.81	7.92
Total Number of Abused Experienced By Child	81	2.59	1.70	2.87
Authority Acceptance Subscale	81	25.20	10.67	113.94
Social Competence	81	26.62	7.91	62.68
ADHD Rating Scale IV Home Version Total Scores	81	32.90	12.66	165.24
Parent Child Communication Report	81	55.50	7.59	57.70
Parent Questionnaire	81	60.06	7.73	59.68
CES-Depression	81	13.69	12.26	150.22
Inventory of Parent's Experiences	81	58.72	15.81	250.13
Dyadic Assessment Scale	81	71.09	6.58	43.32

Some of the instruments used in the study had clinical level data available. In order to present and clarify further characteristics of the parents and children, raw scores were reviewed within the clinical parameters of relevant scales and converted to T scores or percentiles if appropriate. The CES-Depression scale uses raw data of participants for scoring in clinical settings. The range of scores on the CES-Depression scale is from 0 - 60. Radloff (1977) indicated that the closer an individual's score is to 60, the more depressive symptoms the person experiences. Parents in this study who completed the CES-Depression scale did not exhibit a large number of depressive symptoms. The range of scores for parents in this sample was 0 -50 and the mean was 13.69.

Marital distress as measured by the Dyadic Adjustment Scale (DAS) becomes clinically significant with a T score of 30 or less (Spanier, 2001). Total raw scores of participants were converted to T-scores and these T-scores ranged from 20 - 61. The mean of the total T-scores for parents on this scale was 26.28. The scores on the scale were positively skewed with the bulk of parents' total scores down in the clinical level of marital stress and dissatisfaction. This distribution of this sample of adoptive parents showed that they reported experiencing significant marital distress.

ADHD Rating Scale -IV- Home Version scores reflected parents' perceptions of their children's symptomatic behavior. Parents' reports indicated that their adopted children showed a significant amount of clinical dysfunction. Subscale and total scores for each child were calculated and transformed to T- scores according to the appropriate age-normed scales for males and females (DuPaul, Power, Anastopoulos, Shelton, & Reid, 1992) and then percentile scores were determined. Of the 103 children

of parents who completed the ADHD Rating Scale-IV-Home Version, 71 children had scores that fell in the 90th or above percentile. An additional 10 children had scores in the 80th – 89th percentile. Subscale percentile scores were determined as well and for the Inattention subscale, 63 children fell in the 90th percentile or above and 17 fell in the 80th - 89th percentile. For the Hyperactivity/ Impulsivity subscale, 62 out of 103 children fell in the 90th percentile or above and an additional 17 children fell in the 80th to 89th percentile. Using the total scores the percentage of children who fell in the 80th percentile or greater for this scale was 79%. Clearly, parents reported that their children exhibited serious behavior problems.

The remaining scales used in the study were developed for research investigations and clinical cut offs or guidelines were not available.

Research Question 1: Do parents who have adopted special needs children with severe behavioral and emotional problems experience increased mental health issues, parental stress, and marital stress? The hypothesis postulated that adopted children who exhibit higher levels of behavioral and emotional difficulties had adoptive parents who's scores on measures of mental health issues, parental stress, and marital stress indicated increased levels of difficulties. A bivariate correlation analysis described below was conducted to investigate this question.

Bivariate Correlation Analysis

In order to test this question, Pearson Product Moment correlation coefficients of the relevant variables of interest were calculated and are presented in Table 11.

Table 11

Correlations for the independent variables of Child Age, Child Gender, Prior Placements, Total Number of Abuse,, Authority Acceptance Subscale Scores, Social Competence Subscale Scores, and ADHD Rating Scale IV Total Scale Scores(ADHD) with the dependent variables of Parent Child Communication Scale Total Scores(PC), Parent Questionnaire Total Scores (PQ), CES-Depression (transformed) Scores (CES-D) , Inventory of Parents' Experiences Scale Total Scores (IPE), Dyadic Adjustment Scale (transformed)Total Scores(DAS).

	PC	PQ	CES-D (transformed)	IPE	DAS (transformed)
Child Age	.07	-.20*	.02	-.06	-.19
Child Gender	-.06	-.05	.04	.12	-.09
Prior Placements	-.23	-.11	.11	.07	-.05
Number of Abuses	-.19	-.07	.19*	.04	.21*
Authority Acceptance	-.52**	-.34**	.43**	-.16	-.06
Social Competence	-.60**	-.28**	.30**	-.31**	-.12
ADHD	-.40**	-.10	.29**	-.19*	-.06

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

As noted in this table, there were no statistically significant correlations between Child Current Age, Child Gender, or Prior Placements with any of the dependent variables. The demographic variable, Total Number of Abuses however was significantly correlated with Dyadic Adjustment Scale total scores which assessed marital stress ($r = .21$; $p < .05$) and CES-D scores which measured parental mental health/depression ($r = .19$; $p < .05$). Although these associations were significant the correlations were relatively low.

Parents' ratings of their children on the Authority Acceptance subscale were associated with parents' self-reports of depression ($r = .43$, $p < .01$), reported scores on the Parent-Child Communication scale ($r = -.52$, $p < .01$) and the Parent Questionnaire ($r = -.34$, $p < .01$). In addition, parents' ratings of their children on the Social Competence Subscale and the ADHD Total scale were associated with parents' ratings of parent-child communication problems. Problems with social competence and elevated scores on the Parent Child Communication Scale had a correlation of

$-.60$ ($p < .01$). This finding meant that when parents viewed their children as having less social competence they also saw elevated problems in parent-child communication. Parents ratings of the children on the Social Competence subscale also correlated with reported scores on the Parent Questionnaire total scores to a moderate degree ($r = -.28$, $p < .01$). ADHD total scores of the children as observed by the parents were negatively correlated with scores on the Parent Child Communication –Parent Report Scale

($r = -.40$, $p < .01$). When parents identified many of the symptoms of ADHD in their children they also scored numerous difficulties in parent child communication.

Children's scores on the Social Competence subscale and the ADHD Rating Scale-IV total scores were moderately correlated with paternal reports of depression ($r = .30$ and $r = .29$ respectively) at the .01 level of significance. In addition, Social Competence subscale scores also were correlated with parenting stress ($r = -.31$, $p < .01$). When parents observed their children to have lower social competence they reported higher scores on the Inventory of Parents' Experiences Scale (IPE).

In sum, data from the study indicated that when parents reported their children had a higher number of abuses in the pre-adoptive environment they reported increased stress in marital relationships and increased symptoms of depression. When parents reported higher levels of aggression/oppositional behavior and impulsivity-inattention issues they also felt more depressed and had more problems in communication and relationship quality with their children. Also ADHD symptoms were correlated with higher difficulties in parenting stress although this was a small association. When they observed their children to have less skill in social competence, they indicated increased difficulties in communication and the relationship with their child as well as increased stress in parenting as measured by IPE total scores.

Research Question 2: *How do child characteristics (child age, child gender, the number of prior placements, total number of abuses, aggressive-oppositional behavior, social competence and hyperactivity/inattention) relate to reported parent-child communication*

and parent-child relationship quality in parents who have adopted a child out of the U.S. foster care system?

Research Question 3: How do child characteristics (child age, child gender, number of prior placements, total number of abuses, aggressive- oppositional behavior, social competence, and hyperactivity/inattention) impact on parental mental health, parental stress, and marital stress?

For these two questions multiple regression analysis was used. Prior to reporting the multiple regression results for each research question, a discussion of the assumptions underlying this procedure will be presented.

Assumptions of Multiple Regression Analysis

Multiple regression, as a statistical procedure, requires that the following assumptions be met (Field, 2005; Tabachnick & Fidell, 2001): non-zero variance, no perfect multicollinearity, no correlation of predictors with external variables, heteroscedasticity, normally distributed errors, independence, and linearity. In addition, predictor or independent variables used in multiple regression procedures must be either quantitative or categorical. The variables included in this study are all quantitative or categorical and a review of variances of all of the predictor variables determined that none of the variances equaled zero indicating that the assumption of non-zero variance was met. In order to assess the effects of external or third variable influences partial correlation coefficients were reviewed for each of the regression equations. Before

discussion of the multiple regression analysis, an explanation of the checks done on the data to confirm the remaining assumptions were met will be presented.

Multicollinearity was a concern in terms of the scales used in the multiple regression equations. Correlations revealed that two of the independent variables (Social Competence and Authority Acceptance) were correlated with each other over .6 which is the guideline Field (2005) recommended as a critical value that would indicate serious multicollinearity issues. In addition, Variance Inflation Factor (VIF) values and tolerance values were calculated and inspected to assess collinearity. VIF values greater than 10 and tolerance values less than .1 indicate serious problems and a violation of the assumption of no multicollinearity. No VIF value exceeded 10 and no tolerance values were less than .1. Therefore, although there were concerns about the high correlation value, multicollinearity was considered to be within an acceptable range to continue with the multiple regression procedures. The tolerance and VIF values can be reviewed in Appendix – G.

Field (2005) recommended that Durbin- Watson values be inspected to make sure that the variables included in multiple regression analysis meet the assumption of heteroscedacity. Scores less than 1 and greater than 3, are of concern and imply that the scale does not meet this assumption. All of the Durbin-Watson values for all of the regression equations were greater than 1 and less then 3 indicating that all scales met this assumption. Durbin-Watson values can be reviewed in Appendix H.

In addition, plots of regression standardized residuals for each multiple regression equation were inspected for linear characteristics in order to make sure the data fit the assumption of linear relationships. All of the residual plots showed linear relationships indicating that the data adequately met this assumption. Plots of regression standardized residuals are in Appendix K.

Multiple Regression Analysis

The second research question addressed the relative strengths of child characteristics that influenced parental stress in parents who have adopted special needs children. Multiple regression procedures using the standard method of simultaneous entrance of variables (enter) was used. Simultaneous entry of the independent variables seemed like the logical method to employ since the prior literature review did not indicate any rationale for a specific ordering. A model comparison approach however was also implemented in order to zero in on the relative contributions for each of the factors in the overall regression equation. The first block of factors inserted were the demographic factors of Child Age, Child Gender, Prior Placements and Total Number of Abuses the child experienced prior to permanent placement in the adoptive home. These demographic factors were inserted first given the limited literature indicating these factors were important in understanding stress in adoptive parents. These factors became the basic model and then the other independent variables (Authority Acceptance, Social Competence, and ADHD-IV Total Scores) were added together for step two of the regression.

From Step 1 to Step 2 of the regression analysis, a more complex model was developed and the overall F statistic as well as indices of goodness of fit and the R^2 value also called the coefficient of determination were calculated. Comparisons between models were subsequently assessed and the relative contributions of each of the independent variables in predicting dependent variables were determined. If the overall F test was significant then individual t scores related to predictor betas were reviewed to identify which of the independent variables or predictors were statistically significant in predicting the outcome variable. Results of the regression analysis done to explore the contribution of child demographic factors on the dependent variables for Research Questions 2 and 3 will now be discussed.

Regression Analysis for Research Question 2, Hypothesis #1: Children's ages, gender, number of prior placements, and total number of abuses experienced prior to permanent adoptive placement, will influence the quality of communication and the quality of the relationship between the children and their parents.

These demographic factors appeared to have no influence on parents' reports of parent-child communication issues as measured by the total scores of the Parent Child Communication Scale. R^2 was .066 which indicated that the demographic factors accounted for only approximately 7% of the variance in this basic model. The overall F statistic and the individual t statistics for each of the demographic variables were not significant.

Likewise, demographic characteristics did not have an influence on the parent-child relationship as measured by the Parent Questionnaire. The R^2 statistic was .048 indicating that only approximately 5% of the variance was accounted for by child age, gender, prior placements, and number of abuses. The overall F statistic and all of the t scores were not significant.

Regression Analysis for Research Question 3, Hypothesis #1: Children's ages, gender, number of prior placements, and total number of abuses experienced prior to permanent adoptive placement will impact parents' self-reported levels of mental health issues, parental stress, and marital stress.

In three different regression analyses, demographic characteristics of the children were entered into the equation and regressed on measures used to assess parents' levels of mental health issues via depression (CES-D), parenting stress (IPE), and marital stress (DAS). Although the demographic variable of total number of abuses was correlated with both parental depression and marital stress (see page 87), it did not emerge as a significant unique predictor in the multiple regression analysis for either parental mental health, parental stress or marital stress. See Table 12 for summary regression statistics related to the demographic factors as predictors for all outcome variables.

Table 12

Regression Analysis for Child Demographic Factors on Dependent Variables

	B	SE B	*B*
Parent-Child Communication			
Child Age	-.044	.381	-.014
Child Gender	-.267	1.795	-.018
Prior Placements	-.475	.334	-.179
Total Number of Abuses	-.583	.563	-.127
Parent Questionnaire			
Child Age	-.623	.384	-.189
Child Gender	-.552	1.770	-.036
Prior Placements	-.133	.335	-.048
Total Number of Abuses	-.171	.548	-.037
CES-Depression			
Child Age	-.007	.090	-.009
Child Gender	.052	.414	.014
Prior Placements	.038	.078	.059
Total Number of Abuses	.190	.128	.176
Inventory of Parents' Experiences			
Child Age	-.496	.794	-.074
Child Gender	3.359	3.660	.106
Prior Placements	.384	.693	.068
Total Number of Abuses	.157	1.133	.017
Dyadic Adjustment Scale			
Child Age	-.052	.030	-.211
Child Gender	-.183	.142	-.157
Prior Placements	-.010	.026	-.047
Total Number of Abuses	.097	.044	.277

Construct Domain II: Child Behavior/Emotional Problems and Construct Domain III Quality of Parent-Child Relationship

The measures that came under the Child Behavior/Emotional Problems construct were identified independent variables of Authority Acceptance, Social Competence, and ADHD Rating Scale-IV Total Scores. The Authority Acceptance subscale was used to measure aggressive-oppositional behavior in children. Elevated scores on that scale indicated higher levels of aggressive and oppositional behaviors. The Social Competence subscale was used as a measure of general competency in relationships. Higher scores on that scale indicated higher levels of social skill. The ADHD Rating Scale IV- Home Version was used to measure hyperactivity and inattention in children. Higher scores on that measure meant higher levels of hyperactivity and inattention in children. These variables were found to be useful in explaining the variance in some of the dependent measures. A discussion of their influences on the outcome variables will be presented in the following sections for each of the different measures and associated constructs. Similarly, measures used to investigate the Quality of Parent-Child Relationship construct were the Parent Child Communication- Parent Report and the Parent Questionnaire will also be discussed in a later section.

Research Question 2, Hypothesis #2: Children with higher levels of aggressive-oppositional behavior will have higher levels of difficulties in communication and the relationship with their parents.

Research Question 2, Hypothesis #3: Children with lower levels of social competence will have higher levels of difficulties in communication and relationship with their parents.

Research Question 2, Hypothesis #4: Children with higher levels of hyperactivity-inattention will have higher levels of difficulties with communication and relationship with their parents.

The Parent-Child Communication Report –Parent Version (PC) and the Parent Questionnaire (PQ) were used to measure the quality of communication and the relationship between the parent and child. Higher scores on the PC indicated that parents observed that their children had a higher quality of communication with them and higher scores on the PQ indicated that parents observed that the relationship between them and their children to be of a higher quality.

Scores on the Authority Acceptance subscale, Social Competence subscale and the ADHD Rating Scale-IV total scores were added to the basic model that included only child demographic factors and the R-squared statistic increased from .066 to .399 indicating that approximately 40 % of the variance in this model was accounted for by the predictor variables. The difference in the R^2 value from the earlier model was .333 which indicated that the addition of Authority Acceptance, Social Competence, and ADHD scores accounted for approximately 33% of the variance. The overall F statistic was 6.345 ($p<.001$) and only the Social Competence subscale scores had a significant t score ($t= -3.318$, $p<.001$). Coefficient correlations were reviewed. Zero-order, partial,

and part values for the Social Competence scores were -.61, -.38, and -.31 respectively. All other partial and part coefficients for all other variables were between -.139 and .047. The Adjusted R- Squared value was .336, similar enough to the R-Squared value indicating that there was a possibility that this model could generalize to other samples from the population. Thus, it appeared that lower levels of social competence in the children for this sample contributed uniquely to the variance on the measure of parent-child communication quality in addition to the contribution that all three predictor variables presented. Please see Table 13 for summary statistics on this regression procedure.

Scores from the Authority Acceptance, Social Competence and ADHD total scales were added to the earlier model that included only child demographic factors and regressed on scores from the Parent Questionnaire which was the measure used to assess parent-child relationship quality. The R^2 statistic increased from .048 to .193, an increase of .145. This indicated that the three additional scales added to the model accounted for approximately 15% of the variance on the Parent Questionnaire. The overall F statistic was significant ($F = 2.456$, $p < .05$) but the only predictor variable that was significant was Authority Acceptance ($t = -2.462$, $p < .05$) indicating that this scale contributed uniquely to the variance on the PQ beyond the influence that all three predictor variables presented. See Table 14 for summary statistics on this regression procedure.

Table 13

Regression Analysis of Predictor Variables on Parent-Child Communication

	B	SE B	*B*
Step 1			
Child Age	-.044	.381	-.014
Child Gender	-.267	1.795	-.018
Prior Placements	-.475	.334	-.179
Total Number of Abuses	-.583	.563	-.127
Step 2			
Child Age	.054	.313	.017
Child Gender	-.603	1.561	.040
Prior Placements	-.165	.290	-.062
Total Number of Abuses	-.112	.512	-.024
Authority Acceptance	-.134	.116	-.189
Social Competence	-.449	.135	-.466***
ADHD Rating Scale	-.006	.077	-.010

Note R^2 = .066 for Step 1; R^2 Change Step 2 =.333 (p<.001). ***p<.001

Table 14:

Regression Analysis of Predictor Variables on Parent Questionnaire

		B	SE B	*B*
Step 1				
	Child Age	-.623	.384	-.189
	Child Gender	-.552	1.770	-.036
	Prior Placements	-.133	.335	-.048
	Total Number of Abuses	-.171	.548	-.037
Step 2				
	Child Age	-.579	.362	-.175
	Child Gender	.950	1.570	.061
	Prior Placements	.229	.334	.083
	Total Number of Abuses	.439	.567	.095
	Authority Acceptance	-.323	.131	-.446*
	Social Competence	-.158	.154	-.162
	ADHD Rating Scale	.152	.088	.248

Note R^2 = .048 for Step 1; R^2 Change Step 2 =.145 ($p<.05$). *$p<.05$

Construct Domain IV: Parenting Stress and Mental Health as Measured by CES-Depression Scale, Inventory of Parent's Experiences and Dyadic Adjustment Scale

Research Question 3, Hypothesis #2: Children with higher levels of aggression-oppositional behavior, lower levels of social competence, and higher levels of hyperactivity/inattention will have parents who report higher levels of mental health issues, parental stress, and marital stress.

The CES-Depression (CES-D) scale measured parental depression while the Inventory of Parent's Experiences (IPE) measured the degree to which parents felt supported by social systems as well as how satisfied they were in the parenting role. The Dyadic Assessment Scale (DAS) measured dyadic strength and stress within the marital or couple relationship.

As mentioned earlier none of the child demographic predictor variables appeared to be significant unique contributors to parental self- reports of mental health issues/depression as measured by the CES-D scale. When the Authority Acceptance subscale, Social Competence subscale, and ADHD Rating Scale IV total scores were added to the regression equation the R^2 statistic was .197 indicating that all the predictors in the model accounted for 19 % of the variance on the CES-D. The overall F statistic was significant ($F=2.529$, $p< .05$) and the only predictor that had a significant t score was the Authority Acceptance subscale scores ($t=2.522$, $p<.05$). The zero order correlation of the coefficient for the Authority Acceptance scores was .43 and when all other factors were controlled, the partial coefficient correlation was .29. The part correlation for

Authority Acceptance was .27. Although the Social Competence scores and the ADHD total scores had zero order coefficient correlations of .31 and .29 respectively, their partial correlations after controlling all other predictor variables were -.002 and .030 respectively which indicated that these factors had limited influence on this outcome variable within the predicted model. Their part coefficient correlations were -.001 and .027 as well. Authority Acceptance subscale scores then appeared to contribute in a unique way to the variance in depression scores. See Table 15 for regression summary on this procedure.

Table 15

Regression Analysis for Predictor Variables on CES-Depression Scale

	B	SE B	*B*
Step 1			
Child Age	-.007	.090	-.009
Child Gender	.052	.414	.014
Prior Placements	.038	.078	.059
Total Number of Abuses	.190	.128	.176
Step 2			
Child Age	-.029	.084	-.038
Child Gender	-.270	.407	-.075
Prior Placements	-.033	.078	-.051
Total Number of Abuses	.003	.132	.003
Authority Acceptance	.077	.030	.456*
Social Competence	.000	.036	-.002
ADHD Rating Scale	.005	.021	.037

Note R^2 = .041 for Step 1; R^2 Change =.156 ($p<.05$). *$p<.05$

For the measure of parenting stress all of the predictor variables were regressed on the scores of the Inventory of Parents' Experiences (IPE). The R^2 value was .135 indicating that the predictor variables accounted for 13% of the variance on the IPE but the overall F statistic was not significant (F=1.608. p = .147). None of the t scores of the

individual predictors were significant. See Table 16 for summary statistics on this regression.

Table 16

Regression Analysis of Predictor Variables on IPE

	B	SE B	*B*
Step 1			
Child Age	-.496	.794	-.074
Child Gender	3.359	3.660	.106
Prior Placements	.384	.693	.068
Total Number of Abuses	.157	1.133	.017
Step 2			
Child Age	-.356	.765	-.053
Child Gender	4.191	3.697	.133
Prior Placements	.711	.705	.126
Total Number of Abuses	.843	1.197	.089
Authority Acceptance	-.139	.277	-.094
Social Competence	-.609	.325	-.303
ADHD Rating Scale	.031	.187	.024

Note R^2 = .022 for Step 1; R^2 Change Step 2 =.113

Likewise for the measure of marital stress, the DAS, the R^2 value was .136 indicating that the predictor variables accounted for 14 % of the variance on this measure

however the overall F statistic and the t scores of the individual predictors were not significant. Summary statistics for this regression are noted in Table 17.

Table 17

Regression Analysis for Predictor Variables on DAS

	B	SE B	*B*
Step 1			
Child Age	-.052	.030	-.211
Child Gender	-.183	.142	-.157
Prior Placements	-.010	.026	-.047
Total Number of Abuses	.097	.044	.277
Step 2			
Child Age	-.050	.031	-.203
Child Gender	-.162	.149	-.139
Prior Placements	-.004	.028	-.021
Total Number of Abuses	.114	.049	.326
Authority Acceptance	-.006	.011	-.100
Social Competence	-.005	.013	-.064
ADHD Rating Scale	-.001	.007	-.020

Note R^2 = .115 for Step 1; R^2 Change Step 2 =.021

In sum, results from the multiple regression analysis revealed that none of the demographic variables for this sample of children and parents contributed in a unique fashion to the variances of parental mental health, parenting stress, or marital stress.

Authority Acceptance and Social Competence scores as well as ADHD total scores did contribute significantly to the variance found in the parent-child communication and parent-child relationship quality measures. Whereas Social Competence Subscale scores influenced the variance on the measure of parent –child communication in a unique way, Authority Acceptance subscale scores was the unique contributor in parent's reports of parent-child relationship quality. None of the predictors contributed in a unique way to the variances of the outcome measures for parenting stress or marital stress.

The implications of results from the study in both the clinical setting and in research applications as well as the strengths and limitations will be discussed in the next chapter.

Chapter V

DISCUSSION

There is mounting evidence that children traumatized by harsh parenting practices, abuse, neglect, rejection, and abandonment in the earliest years of their lives experience long-term negative outcomes that not only impact themselves and their relationships but also the greater society in which they live (Herrenkohl & Russo, 2001; Koenig, Cicchetti, & Rogosch, 2000; McGroder, 2000; Nix et al., 1999; Zho et al., 2002). This study attempted to shed some light on a minority of these children, those who are identified as special needs adopted children. This chapter will focus on clinical and research implications of the results found in this investigation as well as strengths and limitations of this study.

Overview of Study Results

The emotional and behavioral difficulties of children who have been removed from birth families due to abuse, neglect, or abandonment of some kind has been well defined in the research literature (Dunber & Motta, 1999; Ford et al., 2002; Livingston-Smith, Howard, & Monroe, 2000; McDonald, Propp, & Murphy, 2001; U.S. Department of Health and Human Services, 2004) and the adoptive parents in this study revealed similar difficulties in their children. Children had anywhere from 0 - 6 special needs with the mean being 2.8. They were also labeled or diagnosed by clinicians with anywhere from 0 - 9 different diagnoses with the average number of diagnoses being 2.5. In

addition, many children were identified as having attachment problems (63%) as well as other special needs and issues, in part, due to the inordinate number of prior placements before landing in their permanent adoptive homes. These children certainly fit the criteria of special needs adopted youth (U.S. Department of Health and Human Services [US DHHS], 2006) and showed many similarities to other groups of special needs adopted youth reported in the literature (Barth & Needell, 1996; Erich & Leung, 1998; Festinger, 2002; Grotevant, Ross, Marchel, & Mc Roy, 1999; Howard, Livingston-Smith, & Ryan, 2004).

Placement instability or movement from foster home to foster home or even from adoptive home to adoptive home was reported by parents to occur on average of three placements with a range from 0 (adoption at birth) to 14. The one child who experienced 14 placements was 10 years old at the time of her permanent adoptive home placement which was finalized one year later. Placement instability is an important variable to consider as some prior studies showed (Edelstein, Burge, & Waterman, 2000; Sullivan & Freundlich, 1999; Webster, Barth, & Needell, 2000) that movement from placement to placement was associated with increased behavioral problems in children. Within the current study, however, the number of children's prior placements was not correlated with the Social Health Profile (SHP) and the ADHD Rating Scale IV. This finding was surprising given that children with multiple placements have been identified as exhibiting a high number of externalizing behaviors (McDonald, Propp, & Murphy, 2001; Simmel, Brooks, Barth, & Hinshaw, 2001; Webster, Barth, & Needell, 2000) including those

behaviors evident in the ADHD Rating Scale IV, Authority Acceptance subscale and Social Competence subscale. Reasons for this discrepancy are unknown but perhaps one possibility is that prior studies were conducted on families recruited from state protective services organizations rather than through children's clinicians as in this study. In addition, the higher number of participants in other studies may also have contributed to findings related to prior placements and behavioral difficulties. As this study noted, a moderate correlation between number of prior placements and scores on the Authority Acceptance subscale was found. Parents reported higher levels of aggressive and oppositional behaviors as the number of placements increased which supports concerns in the literature that having a child go from placement to placement is counter-indicated.

The type and number of abuses (Erich & Leung, 2002) experienced prior to adoption also predicted increased post-adoption emotional and behavioral problems in other studies. In this study, most parents reported that their children experienced more than one incident of abuse, neglect, or abandonment and the mean number of abuses experienced by children was between two and three. Thus, this sample was very similar to other samples reported in the literature with regard to types and numbers of abuse experiences (Barth & Needell, 1996; Bishop, Murphy, Quinn, Lewis, Grace, & Jellinek, 2001; Brown, Bakersman, Coles, Platzman, & Lynch, 2004; Dunbar & Motta, 1999; Ford et al., 2000; Groza & Ryan, 2002; McDonald, Propp, & Murphy, 2001; McNichol & Tash, 2001; Ornoy, Michailevskaya, & Lukashov, 1996; U.S. Department of Health and Human Services [US DHHS], 2006).

In this sample, however, total number of abuse experiences reported by parents correlated only with the dependent variable of parental depression and the correlation was small. Again the lack of associations between the total numbers of abuses and the other dependent variables in the study may have been because these children were receiving treatment at the time of this study. This study did yield some important findings about child characteristics other then those demographic in nature and their impact on parental stress. As predicted, results showed that children with lower levels of social competence had parents who reported increased difficulties in parent-child communication. In addition, children who were reported to have elevated levels of aggressive and antisocial disruptive behaviors had parents who reported lower quality parent- child relationships and less satisfaction in parenting the child. These findings are consistent with prior research (Lansford, Ceballo, Abbey, & Stewart, 2001; Livingston-Smith, Howard, & Monroe, 2000; McDonald, Propp, & Murphy, 2001; Rosenthal & Groze, 1994; Simmel, Brooks, Barth, & Hinshaw, 2001) showing that these were factors identified in children who had difficult adjustments post adoption.

In addition to lower levels of social competence and increased aggressive and oppositional behaviors, the high levels of inattention and hyperactivity reported in the children in the sample may have impaired their abilities to communicate and understand effectively. Although the ADHD measure used in this study was not found to contribute in a unique fashion to the communication and quality of relationship variables, parents may have felt that their children's disruptive behavior represented actions that were done

deliberately or defiantly in willful noncompliance. Children who have high levels of ADHD symptoms, however, are neurologically impaired (Bromley, 2006; Halperin & Schultz, 2006; Nigg & Casey, 2005; Pollak, 2005) in their ability to attend, sustain focus, and utilize impulse control. Therefore, parents need to be fully educated in the symptoms of ADHD and how such behaviors should be seen within the framework of neurological impairment rather than as a personal affront to parental authority.

Children's scores on the Authority Acceptance subscale affected parents' perceptions of the quality of parent-child relationship and how satisfied they were in parenting their adopted child. This subscale measured symptoms of aggression and the level of acceptance of authority figures and rules in their children. Parents who felt that their authority was continually challenged may have undoubtedly felt less satisfied and rewarded in the parent- child relationship.

A surprise of the study was that child demographic characteristics of age, gender, and prior placements, shown in earlier investigations (Bird, Peterson, & Miller, 2002; Dunber & Motta, 1999; Erich & Leung, 2002; Festinger, 2002; Ford et al., 2000; Groza & Ryan, 2002; McDonald et al., 2001) to affect parental stress and satisfaction were not born out in this investigation. The total number of abuses experienced by a child was correlated with parental depression and marital stress and this result did corroborate earlier studies findings.

A possible explanation for the lack of replication regarding prior placements, age, and gender could be that parents in this investigation were currently in treatment with

their children and may have felt more prepared and supported in parenting their child. These were families who had a significant amount of time in parenting their children whereas many participants in earlier studies were newer to the special needs adoptive parenting experience. Preparation of the parents in this study prior to the placement of their child may have been more extensive than the parents who participated in the earlier investigations.

Aggressive and oppositional behavior, lower levels of social competence, and higher hyperactivity-inattention symptoms were not found in this study to affect parenting stress or marital stress. In addition, the only non-demographic child factor that predicted any of these parental dependent variables was Authority Acceptance which influenced parental depression. These findings were inconsistent with prior studies (Erich & Leung, 2002; Groza & Ryan, 2002; Howard, Livingston-Smith, & Ryan, 2004; Livingston-Smith, Howard, & Monroe, 2000; McDonald et al., 2001; Mc Glone et al., 2002; Reilly & Platz, 2003) and perhaps one explanation may have to do with the lower number of participants and different outcome measures used in this study. Few of these earlier studies used instruments that specifically assessed parental and marital stress. In some studies parents were asked about marital or parental stress in general as part of a demographic questionnaire (Livingston-Smith, Howard & Monroe, 2000; Reilly & Platz, 2003) or a face-to-face interview (McGlone et al., 2002) or a few questions about marital or parental stress were embedded in an instrument used to assess family functioning (McDonald, Propp, & Murphy, 2001).

The measures for marital and parental stress used in this study were specifically developed to explore various dimensions of each type of stress and therefore may have provided more accurate analysis of these factors than the use of few or broader global questions. The use of only a few questions or one broad general question concerning a construct raises concerns about the reliability of the instrument and its accuracy in measuring the desired construct. Without reliability and validity procedures on these questions the possibility of Type I error, the conclusion that there is a genuine effect when in fact there is not (Field, 2005), is increased. On the other hand smaller sample sizes such as in this study increases the chances of Type II error or conclusions that an effect does not exist when in fact it does. Even though the reliability of the measurement tools used in this study were acceptable, the final sample size was just below the acceptable range for adequate power identified in the power analysis. Therefore the smaller sample size may have increased the chances for Type II error.

Another explanation for these findings in regard to marital distress may be that the instrument used in this study did not tap into stress in the relationship that was directly related to adjustment to a special needs adoption or the disruptive behaviors of the adopted child. Scores on the Dyadic Adjustment Scale (DAS), the instrument used to measure marital stress in this study, showed that many parents in the sample experienced marital strain and stress but the areas of stress reported had to do with couple interactions or relationship satisfaction within the dyad. In looking over the DAS questions (Appendix F, Questions 182-213) none of the areas explored focused directly on stress

that originated due to parenting problems or disruptive behaviors of children. Therefore the scores on the DAS for this sample were relatively elevated but the marital stress parents reported stemmed from issues separate from the special needs adoption such as financial problems or differences in values for example.

Johnston and Mash (2001) reviewed the literature related to children with conduct and inattention-hyperactivity issues and reported that study results are mixed in regard to such behaviors in children and their impact on marriages. Although the studies they reviewed were of birth families, their interpretations of the literature may be pertinent to adoptive children with disruptive behaviors as well. They wrote:

> Szatmari, Offord, and Boyle (1989) reported that, in a community sample, parents of children who met criteria for ADHD did not report more marital problems then controls. Similarly, although Camparo, Christenson, Buhrmester, and Hinshaw (1994) found that parents of sons with ADHD blamed their sons more for family problems, reports of marital functioning did not differ between these families and controls. Thus although the bulk of the evidence suggests a link between ADHD and marital dysfunction, these findings are not entirely consistent. (p. 189)

They go on to discuss the results of additional studies of families with children with ADHD comorbid with high and low aggression and conduct disorders in children. Once again they found that the evidence is mixed about such child behaviors and effects on parental functioning and marital stress. They conclude that the inconsistency across studies in the literature "suggests caution in assuming that marital dysfunction is exclusively related to comorbid conduct problems in families of children with ADHD. Indeed, the inconsistencies in this area preclude firm conclusions regarding associations

between either ADHD or conduct symptoms and marital difficulties in children with ADHD." (p. 190)

Maternal depression (McCarty, Zimmerman, DiGiuseppe, & Christakis, 2005; Herring & Kaslow, 2002; Petterson & Albers, 2001; Stanley, Murray, & Stein, 2004) was shown to have deleterious effects on the early cognitive, emotional, and motor development of children. Stanley, Murray, and Stein (2004) observed a lower frequency of contingent positive responses and a higher frequency of contingent negative responses in depressed mothers toward their infants. Pauli-Pott, Mertesacker, and Beckmann (2004) also found that depression, anxiety, and levels of social support for the mother affected security versus insecurity in infant attachment and infant emotionality. During periods when they lacked social support, mothers who were depressed and/or anxious reported being less competent and sensitive during infant interactions and, as a result, negative emotionality in their infants increased. Elgar, Waschbusch, McGrath, Stewart, and Curtis (2004) studied 30 mother-child dyads over eight consecutive weeks and found an interaction effect between maternal mood fluctuations and child disruptive behaviors. Children's impulsive and overactive behaviors resulted in maternal fatigue as evidenced by increased frustration, depression, anxiety, and dissatisfaction in parenting the child.

An earlier study on mother-child dyads with children diagnosed with ADHD (Sacco & Murray, 2003) found that conduct problems such as bullying or disrespectful behaviors, more than hyperactive and impulsive behaviors, contributed to less satisfaction and stress in the relationship. In addition, when mothers attributed positive traits to their

children, despite the behavioral problems, they were more satisfied in their parenting and showed less depression. Results of this study support Sacco and Murray's findings that the spouse/partner relationship and relationship with their child was negatively impacted as ADHD symptoms and oppositional behaviors occurred. Results showed that more then the ADHD symptoms of aggression and oppositional behaviors occurred.

Early Childhood Trauma as Common Link in Symptom Constellation

Education about childhood trauma and various origins of impulsivity, inattention, social skill deficits, and defiant oppositional behaviors is important for adoptive parents to understand. Recent studies on children who have been physically abused (Pollak, Vardi, Bechner & Curtin, 2005), sexually abused (Weinstein, Staffelback, & Biaggio, 2000), or otherwise neglected or maltreated (Teicher et al., 2003) in the early years of life indicate that they experience brain structure changes that are long-lasting and may contribute to the symptom constellation of ADHD as well as other affect and behavioral regulation issues. For an excellent review of the effects of early relational trauma on brain development, affect regulation, attention and other cognitive, emotional, and social outcomes readers should review the analysis provided by Schore (2001). He presents data on how external regulation by caring and consistent caregivers sets the stage for brain development that promotes the individual's ability to internally regulate affect, cognition, behavior, and impulse control. Consistent caring provided by parents/caretakers is important because such regulation abilities are what appear to be impaired in children with ADHD as well as social skill deficits and

aggressive/oppositional behaviors. In addition to other pertinent findings related to brain development, Schore reported on a number of studies linking early childhood abuse and neglect to problems in the orbitofrontal area of the human brain which has been implicated in aggressive behavior and the development of antisocial personality characteristics.

The use of positron emission tomography (PET) scans and functional magnetic resonance imaging (fMRI) procedures have located neurological structures believed to be the origins of emotion, affection, affect regulation, executive functioning, and attachment (Chugani, Behen, Muzik, Juhasz, Nagy, & Chugani, 2001; Chugani, & Chugani, 2002; Davidson, 2000; Joseph, 1999; Schore, 1994; 1997; 2003). In addition, this new technology is also elucidating the effects of stress hormones like cortisol during pregnancy for the mother and fetus (DePietro, 2004) and post-natal effects in the life of the newborn infant (Glaser, 2000; Gunnar, Morison, Chisholm, & Schuder, 2001; Huebner & Thomas, 1995; Lewis & Ramsay, 2005; Maestripieri, 2001). Cortisol elevations in response to stress have been found in children older than infancy as well and appear to impair that part of the brain responsible for executive functioning (Blair, Granger, & Peters-Razza, 2005) which has been implicated in the diagnosis of ADHD.

These new imaging devices have increased our knowledge about the limbic structures in the brain and, in particular, the importance of the amygdalla in processing emergency or dangerous stimuli in the environment (Shapiro & Applegate, 2000). Studies have shown that individuals who have experienced adverse conditions from

abuse or neglect remain on high alert status most of the time resulting in chronic flooding of stress hormones to the neurological system which contributes to impairment in sustained attention and impulse control. Evidence from PET scans and fMRIs has shown that in deprived situations or experiences of maltreatment (Glaser, 2000; Gunner, Morison, Chisholm, & Schinder, 2001) or neglect (De Bellis, 2005), infants' brains are altered in permanent ways that affect their ability to function emotionally, psychologically, physically, cognitively, and socially (Blair, 2002; Schore, 1994; 2003).

Jones (2002) urged researchers and clinicians alike to take care when working with children who present with symptoms of inattention, impulsivity, mood disorders and dysregulation problems. Recent neuroscience studies on the brain suggest that both prenatal and postnatal traumatic experiences may disrupt neural development in ways that reduce executive functioning and attentional control. Although there is consensus in regard to the overall symptom constellation associated with ADHD, there appears to be multiple pathways to the behaviors. He cites early childhood trauma and ineffective parental regulation of affect and other early infant needs as possible pathways, in addition to known hereditary factors. Erdman (1998) some years earlier reported on speculative findings that inattention, impulsivity, and social skill deficits in children could be viewed contextually as a response to parental attachment issues. Howard, Livingston-Smith, and Ryan (2004) noted that for some of the special needs adopted children in their study, the symptoms of ADHD and ODD seemed to overlap with symptoms of PTSD and exposure to trauma. They raised the question about whether these children were being given the

appropriate type of treatment. These findings and speculations are highly important in regard to research and interventions related to this population of children, as they clearly fall into the category of children who are highly traumatized in pre-adoptive environments.

Implications for Clinical Practice

Results of the study may be helpful in pointing out directions for clinicians working with this population as there are only a few studies in the literature that focus on treatment intervention outcomes with the special needs adopted child population. Although intervention studies on birth families provide some guidance in addressing parent-child relationship problems and child development concerns, they may not necessarily generalize to special needs adoptive families. For example, a meta-analytic study concerning length of treatment to address these problems conducted by van IJzendoorn, Juffer, and Duyvesteyn (1995) reported short-term interventions (several months) as more effective than longer term interventions (one year or more). In contrast, McDonald, Propp, and Murphy (2001) in their study of treatment specific to special needs adopted children found that short-term interventions were not sufficient to support change in children's attachment challenges and disruptive behaviors. Given that the problems reported by the parents were complex and impacted them individually in terms of their own mental health and within the relationship with the child, longer term treatments that can address the family issues in a comprehensive manner over time are most likely needed.

The limited literature available on treatment outcomes and interventions with this specific population (Becker-Weidman, 2006; Goodwin, 1996; Kramer & Houston, 1999; Myeroff, Mertlich, & Gross, 1999) suggests that since children adopted out of foster care are often abused children, appropriate family treatment needs to enter at the point of the parent-child relationship (Borrego, Urquiza, Rasmussen, & Zebell, 1999; Chaffin, et al., 2002; Nicholson, Anderson, Fox, & Brenner, 2002; Thomlinson, 2003; Toth, Maughan, Todd-Manley, Spagnola, & Cichetti, 2002) in order to facilitate a healthy and secure relationship to a safe consistent caretaker. Although this relationship is important in the adjustment of the adopted child within a new family structure it may not be enough. In addition to family-based strategies, children may also need to receive additional therapy that focuses on social skill development as well as control of impulses and inattention. Clinical practice needs to focus on interventions that specifically target the reduction of these characteristics in children and the improvement in the parent-child relationship concurrently.

In looking first at working on the level of the family system with family-based intervention strategies particularly with the special needs adopted child, a problem arises in that there is very little research on effective ways to do so. Parents have often found that traditional ways clinicians work with families do not seem to impact or improve the behavior and emotional state of the multiply maltreated special needs adopted child. Due to this incongruity there have been clinical practices developed which have had only limited evaluation or no evaluation whatsoever. Unfortunately some practices have been

hurtful to children and even contributed to death (Hanson & Spratt, 2000; Spratt, 2000). The practices most under scrutiny have been those that fall under the category of coercive strategies. Some coercive strategies that clinicians have engaged in are forced holding (Crawford, 1986; Welch, 1988), blanket wrapping, forced feeding and drinking of water, and rage stimulation/reduction techniques. Practice parameters for this population of children have been established (AACAP, 2005) and the American Professional Society on the Abuse of Children (APSAC) Task Force (Chaffin et al., 2006) explored the issues intensively prior to publishing their report.

The APSAC Task Force fairly pointed out that the controversial therapies, such as those listed above have thrived with this population of parents because traditional clinical treatment in truth has had very limited success. As each traditional strategy is tried and fails parents become more desperate to try these types of controversial techniques. The members of the report also discussed that in truth there are some clinicians who work with this population who do not use coercive techniques yet find some limited success in working with this population (Becker-Weidman, 2006; Dozier, Stovall, Albus, & Bates, 2001; Hughes, 2004). Further studies are needed to evaluate the efficacy of these interventions so that more focused, effective, and safe techniques that target parent-child relationship issues can be instituted.

In addition to treatment interventions that focus on concrete problem solving and relationship-building within parent-child dyads, attention to the ADHD symptoms and trauma based issues needs to occur. Children need to have comprehensive psychiatric

evaluations by specialists who are familiar with the interface of trauma, inattention, and hyperactivity issues so that appropriate child strategies can be identified and implemented into the total treatment protocol. In some situations, medication management should be implemented as a primary step that can help stabilize children in their adoptive families. The development of healthy communication skills should be part of counseling protocol that occurs at both the individual child- and family-systems levels.

Providing parents with effective strategies to assist their children in gaining control over inattention/hyperactivity and aggressive/oppositional behaviors should also be an essential aspect of treatment because these behaviors often hamper parents and children in developing healthier relationships and contribute to increased parental depression. In providing these interventions clinicians and those who work with adoptive families supporting a special needs child may need to take a more active approach in developing and implementing more support structures for parents. Giving parents the opportunity to attend one parent support group once a month may not be enough to relieve parents of stresses that go along with dealing with their special needs adopted child. Regular and funded respite services as well as other therapeutic supports for the child and family in the community should be developed. For example, daytime supervision services when child behavior results in a temporary school suspension or when children cannot attend the regular school program due to serious behavioral or emotional issues would be helpful. In addition, periodic weekend activity programs for children and teenagers that provide some relief to parents would assist as well. Given

that parents differ in their stress tolerance levels and the nature and degree of disruptive behaviors that contribute to this stress, flexibility in providing these services is needed. Whereas one family might benefit from a high need child going off to a summer camp for a few weeks, another family may need more frequent but less lengthy respite periods from their child.

Assessment of family needed services and then their procurement must occur from the beginning of the placement throughout the post-placement process. Even if parents feel that the need for counseling or family therapy does not exist initially, relationships with people who run those services should be encouraged and initial contacts facilitated. Parents should also be encouraged and financially supported in obtaining counseling services for themselves in dealing with the stresses that ensue both individually and within marriages as a result of the intense efforts it sometimes takes to support a special needs adopted child in the home.

Future Research

Initially, this research study was designed to assess differences in parental stress within same family dyads. However, given that data were only available for three couples, it was impossible to ascertain differences that may exist. Clearly, research is needed to examine these differences and to assess how they may impact differentially within each parental dyad. There is some clinical literature that indicates that mothers' experiences of parenting adopted special needs children are quite different than fathers' experiences with the same child (Keck & Kupeckney, 1995; 2002). Focusing specifically

on parental differences between mothers and fathers might promote more effective involvement by couples. For example, if mothers and fathers of the same child better understand how they react to the stressors of caring for a special needs adopted child in the home they may be in a better position to support each other and work more in team fashion. In addition, taking time to assess and then strategize about the needs of the couple in maintaining the health of their marital relationship could in the long run further positively support the special needs child in the family system. Since the response rate of couples in this study was low the provision of incentives for couples who respond to invitations to join a relevant study might be helpful in increasing participation rates.

In addition more investigations into the ways adoption of a special needs child and his or her behavior problems impact directly and indirectly on the marital relationship need to be conducted. Clarification about the mechanisms for how these factors interrelate and the directionality of the effects would be immensely helpful for clinicians working with these families post adoption as well as those specialist who prepare parents for fostering and adopting special needs children.

This study focused on children aged 4-12 who were adopted out of the U.S. foster care system. There are many other groups of adoptive families that no doubt have different needs and different experiences that could be helpful in formalizing provision of services and support. For instance, American-born children adopted at birth who have only been in their adoptive placements could be quite different than children evaluated in this study. Although not pulled out of the data for this investigation, of the 81 parents

who completed the online survey, 27 parents adopted a child that was a different race than themselves. Families parenting within a transracial adoption may be very different than other families studied in this investigation because, in addition to all the issues and needs of the children from their prior birth experiences, issues of culture, race, and identity are important and should also be explored. Other characteristics that could be investigated include families where the adoptive child is older, born in a different country, exposed to alcohol and other drugs prenatally, or developmentally disabled.

Another area of possible future research could be in instrumentation development and validation. Some of the measures used in this study were experimental in nature and therefore reliability and validity information was scant. The age range of children within this investigation was limited as well due to some of the instruments being valid for only the 4 to 11 years of age range.

Beyond these content areas, future research might also rely on obtaining data via web-based platforms such as Psychdata.com. Given the low cost of obtaining a national database and the ability to obtain data in a secure and confidential way, it offers decided advantages over traditional survey methods that rely on a paper and pencil format. Since schools throughout the U.S. are teaching children how to access and utilize the Internet, data collection and analysis could include information directly from the children about their experiences with foster care, adoption, and birth family issues.

Strengths of Study

There were a number of innovative strengths that occurred in this study. First, the entire study was Internet based and survey instruments were stored on an internet site where parents were encouraged to sign on at their convenience in order to fill out the questionnaire. Participants could also log off and then create a confidential pass code that was known only by the participant in order to get back on to work through study materials. The informed consent was also on the site and all information was protected for confidentiality. These features contributed positively to the response rate and enabled the procurement of a national sample.

Included in the design of the study were a number of instruments measuring various factors that resulted in more complex analysis regarding the relationships of the constructs of interest. Instruments used for many of the constructs were highly standardized and validated as well as comprehensive in exploring the construct of interest. For example the use of the Dyadic Adjustment Scale to assess marital stress provided much information as it assessed many different dimensions of the marital relationship. The use of standardized measurement tools as well as analysis of power in order to obtain an expected effect size were two aspects of the study that served to limit Type II error.

Lastly, another strength of the study, was that it targeted a clinical sample of special needs adoptive children directly dealing with issues of pre-adoption factors,

parent-child relationship issues, parental factors, and attachment thus contributing to a literature base that is still relatively small.

Limitations of Study

There were a number of limitations and weaknesses in this study that should be recognized. First, the number of parents who took part in the study was relatively small for the number of variables that were explored. Reasons for this low number of participants could be that the online survey was long and parents became fatigued and thus signed off the site prematurely. The analysis of missing data values confirmed that it was not random and more likely increased as the participant completed survey information. Another reason for the low numbers of participants could be that parents were simply overburdened and the thought of participating in such a study may have been rejected by them. The relatively small number of parents who participated may have increased the chances of Type I error which is concluding that there are genuine effects when in reality there are not. Therefore this study should be considered exploratory in nature and conclusions drawn from it qualified due to the small sample size. In addition, future studies that employ on line data collection should keep participant fatigue in mind and find the balance between attempting to get large amounts of information and keeping the survey short to promote more participant completion.

Another limitation of the study is that not every adopted parent in the U.S. had access to the internet or was internet savvy although more and more communication and transmission of data is being done in web-based formats. Therefore,

generalization to all adoptive parents should be done with caution as results may only be representative of adoptive parents who are financially secure and educationally adept at accessing web based materials.

Also of note is that none of the measures used in the study included a social desirability measure. Social desirability is a personality trait that describes the tendency of study participants to complete measures of self-reports in a socially positive manner (Paulhus, Harms, Bruce, & Lysy, 2003; Paulhus & Levitt, 1987; Paulhus & Reid, 1991). It is possible that scores that reflected parents' perceptions about themselves may be elevated in a positive way that does not truly reflect reality. This criticism seems especially relevant to the Parent Questionnaire that addressed behaviors of parents in facilitating or deteriorating parent-child relationships and the CES-D scale that measured parents' perceptions of their own levels of depression. Since the only source of parent and child information was taken from parents themselves this limitation needs to be considered regarding the results of the study.

Lastly, a word of caution is in order about the generalizability of these results. The sample obtained in this study undoubtedly was a clinical sample and therefore results need to be interpreted within that frame of reference. Inferences about any adopted child group except those adopted children who were removed from their birth homes due to abandonment, abuse, or neglect, and who have been adopted out of the U.S. foster care system would not be appropriate or ethical. Many U.S. adoptions of children proceed easily and without any of the behavioral and emotional issues that were discussed in this

study. Parents and children in this investigation clearly met a certain criteria labeled ‘special needs adoption’ and circumstances that are associated with that label do not apply to the multitude of other domestic adoptions in the U.S. which proceed trouble free.

Conclusion

This study employed both descriptive and inferential statistics in order to better understand attributions of parental stress among families with special needs adopted children. Results clearly showed that symptoms of inattention, hyperactivity, aggression, and oppositional behaviors impact the overall quality of the parent-child relationship. In addition, parents’ levels of depression were also impacted to some degree by children’s behavior problems. These result implied then that treatment interventions for this population should occur at both the family-system level to assist parents and children in developing high quality parent-child relationships and on the individual child level to assist in the reduction of problematic symptoms that impair post adoption adjustment. Additionally, respite services to support parents during particularly difficult situations are also needed.

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Appendix A

Information about ATTACh

About ATTACh

The Association for Treatment and Training in the Attachment of Children (ATTACh) is an international coalition of parents, professionals and others working to increase awareness about attachment and its critical importance to human development. Attachment, the "give-and-take" relationship between a child and his or her parents or primary caregiver is the foundation for a child's healthy behavioral, social, emotional and neurological development. A healthy attachment teaches a person to trust and to form healthy relationships throughout his or her life. Children with attachment disorder typically are unable to trust or form healthy relationships with their parents or others.

A 501(c)(3) nonprofit organization, ATTACh was founded in 1989 by leaders in the children's mental health field to address critical family and social needs related to attachment and bonding. ATTACh is an advocate for clinical education, training, research, and standards for safe and ethical practice. ATTACh also promotes accurate diagnostic classifications in the mental health field, generates public policy discussions and offers family support. Membership in ATTACh is open to any therapist, parent or individual interested in attachment issues.

ATTACh's mission is to:

Inform and educate people about the importance of healthy attachment for successful child, family and societal development.

Monitor and influence the use of effective and appropriate treatment in cases where attachment has been adversely affected.

Be a supportive resource for professionals who provide services to families and children with attachment difficulties

Influence public policy and the need for social change regarding family-oriented issues that can affect the attachment process. Such issues include family leave, child care, child custody, adoption, foster care, early childhood illness and hospitalization, and child management philosophies and techniques.

As an interdisciplinary membership organization, ATTACh respects a diverse spectrum of therapies designed to build and/or strengthen attachments and encourages research and collaboration on attachment issues and treatment. ATTACh maintains standards of ethics and practice that call for clinical and other professional members to operate within their respective codes of ethics and non-clinical members to exercise good judgment based on the best interest of the child and family. The ATTACh Registration Process further ensures parents and

others that the professional members listed agree to comply with ATTACh's Professional Practice Manual, safety principals and basic assumptions about attachment therapies. To qualify for registration, professionals must submit a statement describing how they treat patients, as well as copies of any professional licenses and certifications they hold.

While not a referral organization, ATTACh serves as a credible resource for accurate, up-to-date information about attachment issues and treatment options for parents and professionals. Information is available through the membership newsletter Connections; at training sessions and the Annual ATTACh Conference, and by calling 866-453-8224 (toll free).

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ATTACh Professional Practice Manual

CONTENTS

INTRODUCTION

ATTACh, the Association for Treatment and Training in the Attachment of Children, is an international organization of families and professionals concerned about children who have experienced breaks in their attachment during the first few years of life. A primary focus of ATTACh is to educate the public about attachment issues in order to improve both prevention and treatment efforts. Therefore, since its establishment in 1989, a major undertaking of ATTACh has been to gather accurate information related to the field of attachment for dissemination to professionals and parents.

Children expressing severe symptoms related to attachment disruptions have frequently not responded to traditional interventions. These children have developed strong defenses that are highly resistant to change. Attachment and bonding therapy includes an array of treatment strategies which continue to

evolve and expand. A rich diversity of therapeutic approaches is essential in treating children with attachment problems. Responsible practitioners in any mental health discipline serving children with severe emotional and behavior problems, including attachment and bonding therapists, do so with the utmost attention to the psychological and physical well being and safety of the children and adults involved.

Building upon our original statement of ATTACh's mission, vision, and philosophy, over the last 10 years, ATTACh has developed a series of guidelines for its clinical members to provide direction in the rapidly developing field of attachment and bonding work. These include: Professional Standards of Practice published in 1997, Basic Assumptions published in 1999, and Safety Principles published in 2001. It is imperative for therapists providing attachment and bonding services to be ethical, responsible and accountable for their work. Members of ATTACh are expected to follow these standards and guidelines in addition to those of the member's own professional association(s).

It has been our experience that these guides have been helpful to both parents and clinicians seeking information about attachment and bonding services. Should you need more information, please do not hesitate to contact us:

MISSION

ATTACh recognizes and promotes healthy attachment and its critical importance to human development.

VISION

ATTACh will be the international leader in the education and promotion of attachment theory and services.

PHILOSOPHY

ATTACh values and interdisciplinary membership of professionals and families who care about healthy attachment and are dedicated to helping those with attachment difficulties.

ATTACh expects clinical and professional members to operate within their respective codes of ethics and non-clinical members to exercise good judgment based on the best interest of the child and family.

ATTACh promotes a continuum of services to enhance the quality of attachments ranging from primary prevention and education, to specialized treatments.

ATTACh respects a diverse spectrum of intervention models designed to build and/or strengthen attachments.

ATTACh believes therapeutic interventions should always be based on sound differential diagnoses.

ATTACh encourages research, education and collaboration to continually increase knowledge of and improvement in attachment theory.

ATTACh BASIC ASSUMPTIONS

The primary goal of treatment with children and adults with attachment problems is to enable them to form healthy attachment relationships with their current and future families, and to resolve the dysfunctional feelings and behaviors developed in response to the early attachment breaks. Members of ATTACh represent a variety of treatment models about which there is a range of consensus. The following are basic assumptions about which there is general agreement.

WHAT WE BELIEVE ABOUT ATTACHMENT:

1. Attachment is the fundamental building block of development, without which all other stages of development will be distorted. It impacts cognitive, neurological, social and emotional functioning. If a child does not establish basic trust in the early months, he/she may not form the type of reciprocal, responsive relationships necessary for effective functioning in areas such as marriage, parenting, therapy, education and employment. Attachment disruptions often place a child at high risk for other serious problems.

2. Security of attachment is on a continuum.

3. Attachment can occur between a child and a primary caregiver in a variety of alternative family constellations such as a foster family or an adoptive family.

Attachment difficulties can occur in any family constellation; such as birth, adoptive, foster, step, etc.

4. Healthy attachment relationships include trust, empathy, reciprocal behaviors, attunement, communication, touch, and both physical and emotional closeness. Attachment therapy emphasizes these aspects of relationships among all participants: parents and child, parent and parent, therapist and child, and therapist and parents.

5. Unresolved issues about early traumatic experiences which have interfered with the formation of secure attachments may need to be explored and resolved so the child and/or family can be receptive to experiencing trust and the formation of sincere, secure, reciprocal relationships/attachments.

WHAT WE BELIEVE ABOUT CHILDREN:

1. The child's primary attachments prenatally and during the first years of life provide the foundation for personality development.

2. A break or trauma in a child's in utero bond or early attachments often interferes with his/her ability to form subsequent attachments, and negatively influences the child's beliefs and behaviors about future relationships. Each child is a unique individual and may express attachment difficulties in a variety of ways.

3. Appropriate attachment treatment and parenting can relieve the effects of a break or strain in primary attachment.

4. Every child needs to grow up in a consistent, safe and nurturing environment which promotes healthy attachments.

WHAT WE BELIEVE ABOUT FAMILIES:

1. The bulk of the work of healing attachment difficulties occurs at home, between the parents and the child.

2. Crucial to treatment progress is the parent's commitment to keeping the child in the family.

3. Parents deserve complete and unbiased information on a continuing basis and in a supportive manner.

4. Families dealing with attachment difficulties need understanding and support from a variety of resources for their unique challenges.

WHAT WE BELIEVE ABOUT ATTACHMENT THERAPY:

1. Attachment therapy is hard work for everyone involved.

2. This difficult work must occur within a therapeutic atmosphere that conveys safety, protection and hope and provides empathy and comforting to all family members as the work proceeds.

3. Both the child and the family must have a developmentally appropriate understanding of the therapeutic processes and goals.

4. Discovering the child's individual inner working model (beliefs about self, others and environment) is important for therapeutic success. The child can be helped to change negative life perceptions, and as a result change their responses to events and relationships.

5. As attachment and treatment are on a continuum, interventions should be flexible and specific to the needs, history and cognitive-emotional state of each member of the family.

6. Attachment therapy requires a family systems approach. The heart of this disorder is the child's relationship with their primary caregiver. Working with the family system is essential to the success of the child's treatment. It is insufficient to treat the child's clinical issues as the mechanism for forming an attachment with the primary caregiver. These issues did not cause the attachment disorder, and therefore correcting them is not sufficient to correct the disorder.

7. Parents may have problems which have to be understood and addressed if they are to help their child resolve attachment and other problems.

8. Parents and professionals together need to educate the various systems involved in a child's life and advocate for adequate funding.

WHAT WE BELIEVE ABOUT EVALUATION OF ATTACHMENT THERAPY:

1. There is value in conducting long term follow-up and assessment of outcomes.

2. We support and encourage research to improve our ability to assess and treat children and families.

ATTACh PROFESSIONAL STANDARDS OF PRACTICE

I. DEFINITION OF ATTACHMENT THERAPY

Attachment therapy is a therapeutic process that is designed to promote, develop, or enhance a reciprocal attachment relationship and meets the criteria of that therapeutic process as defined and developed by ATTACh.

II. CONDUCT OF THE PRACTITIONER

Individuals involved in the treatment process conform to the highest level of ethical and professional standards as signified by the following:

A. Practice conducted in compliance with state/providence rules/laws. Practice will conform to the code of ethics of the state/providence licensing and/or certifying body.

B. The practitioner will adhere to legal and professional standards as related to confidentiality.

C. Practitioners will practice within their area of competence and in keeping with their level of training.

D. Practitioners will be aware of and work towards resolving their own biases and issues that affect the manner in which they work.

E. Clinical practitioners will utilize training, supervision and/or peer consultation and therapy for support and continued skill development.

F. Clinical practitioners will present to clients treatment options, and their possible benefits and limitations.

G. Parents are essential members of the treatment team. The practitioner should always approach a family and child with respect and without blame. They should support, not undermine, the authority and values of the parents during therapy sessions, providing them with relevant information about the treatment process and offering every opportunity to ask questions.

H. When indicated, it is the responsibility of the clinical practitioner to encourage the child's parents/guardians to educate the family/community network (for example, case workers, neighbors, religious groups, day care workers, schools,

law enforcement officers) about the nature and function of the family's attachment difficulties. If the parents request, and if appropriate, the practitioner may assist in this process.

I. Clinical practitioners will strive to be aware of their potential influence in the area of past memories and their need for special care in the handling of new disclosures.

J. Attachment practitioners are committed to contributing to development of a valid and reliable body of scientific knowledge based on research.

K. ATTACh members have an ethical obligation to report a breach in the Standards of Practice to the Ethics Committee; this should be preceded by informal attempts at resolution with the practitioner in question.

III. STANDARDS OF THERAPEUTIC PROCESS

ATTACh is committed to establishing effective clinical practice, within a framework of ethical standards.

A. Clinical practice for ATTACh members must be based on the following goals:

1. To maintain the best interest and safety of the child and family

2. To strengthen and enhance the family unit

3. To use the most effective techniques to provide the desired clinical outcome

4. To utilize input of those involved in the therapeutic process including the parents and child

B. Clinical practice procedures for ATTACh members may include but are not limited to the following:

1. Thorough assessment, including the following as indicated:

a. History of treatment
b. Psychological history
c. Educational history
d. Medical history
e. Attachment and social history including breaks/disruptions in attachment.
f. Developmental history (including prenatal and birth)
g. Family functioning
h. Intellectual and cognitive skills and deficits

2. Diagnosis or description of problem includes:

a. Differential diagnosis (this may include any or several DSM or ICD diagnoses)
b. Attachment symptomatology
c. Breaks in attachment history

3. Treatment planning

a. Is guided by assessment and diagnosis
b. Defines therapeutic modalities
c. Clarifies for relevant parties (i.e., parents, referral sources, therapeutic/foster parents, follow-up therapists, and child when appropriate) the rationale for the intervention; the respective roles and responsibilities of each person involved.
d. Utilizes a treatment team of other significant persons in the child's life when indicated.
e. Includes informed consent from client and parents prior to treatment as an essential element of treatment planning. Therapeutic contracting should also occur during treatment.
f. Builds on the strengths of the child and family
g. Includes measurable goals
h. Is reviewed and updated regularly

4. Treatment process

a. Attachment therapy emphasizes relationships among all participants, including:

i. Trust
ii. Empathy
iii. Reciprocal behaviors
iv. Attunement
v. Communication
vi. Touch
vii. Physical and emotional closeness
viii. Humor and playfulness

b. Parents and children are active members of the treatment team working to develop healthier patterns of interacting and communicating.

c. The family's emotional response to the therapy needs to be monitored, as well as the child's. Parents may have problems which must be understood and addressed if they are to help their child resolve attachment problems.

d. When there are differences between the parent(s) and practitioner, the practitioner and parent(s) will actively work to resolve them.

e. The practitioner needs to take an active and directive stance in working with the child and family on core issues that the child and family may find difficult to address. Because the child's defenses against healthy relationships are so strong, therapeutic interventions may be confrontational and challenging and may involve holding, touch, or physical proximity, while never losing sight of everyone's need to feel and be safe.

f. Holding as a therapeutic technique provides a multi-sensory experience that refines attunement, facilitates emotional reciprocity and honesty, enhances empathy responses, allows the child to experience emotional openness in a safe

way, and reenacts the holding nurturing experience of infancy; all of which provide a corrective cognitive-emotional experience.

g. The practitioner with the parents is in charge of the session and of the child, in a nurturing, safe, and empathic manner. The adults take the lead in attachment therapy and are always observing and responding to the feelings and needs of all family members.

h. When exploring unresolved issues, treatment will take into account past and present family dynamics. Issues regarding birth parents will be addressed in a respectful and honest manner. Treatment will differentiate the new parent relationships from the old ones.

i. Interventions should be flexible and specific to the needs and emotional state of each member of the family; and both the family's and child's response to therapy will be monitored.

j. A central therapeutic activity is for the child and family members to experience and then express their emotional responses to past and present situations that are interfering with attachment.

k. Each child and family is unique, and a variety of therapeutic techniques may be utilized based on the child's history and inner working model; and on parent's abilities and style.

l. The practitioner may model and elicit various cognitive-emotional states in order to facilitate the child's integration of cognition to emotion.

m. There is no known medication for attachment disorder. Children may sometimes need medication for coexisting conditions; however inappropriate or over-medication may thwart the therapeutic process.

n. Parent-child interactions that are central to establishing a healthy attachment, (i.e. eye contact, physical contact, tone of voice, smiles, other non-verbal communication and gestures) are central to the interactions of therapy. These interactions may be exaggerated with the child to produce a therapeutic effect.

o. In those cases when family members decide that they are unable/unwilling to work toward forming a secure attachment, a practitioner will, after careful work and evaluation, respect a family's choice and offer an alternative treatment plan.

5. Parenting Process: The practitioner assists the parents in developing parenting strategies and philosophies which support the development of healthy attachments. The practitioner serves as a consultant to the parents on issues and interventions, including but not limited to the following:

a. supporting the parents' authority and need to maintain control over the family environment, while assisting the child to feel safe enough to relinquish his/her compulsive need to be in control.

b. increasing the child's readiness to rely on the parent for safety, help, comforting, nurturing

c. encouraging a positive, supportive, family atmosphere

d. encouraging a high level of nurturance

e. encouraging structure and limits

f. increasing reciprocal, positive interactions between parent and child

g. helping the child make choices that are in his own best interest, and in the best interest of his family, and to accept the consequences of those choices

h. helping parents become emotionally available for their child as healthy and safe individuals. This may include examining their own issues, such as the marital relationship, infertility, grief and loss, childhood trauma, etc.

i. helping families and children develop reasonable expectations of success

6. Discharge planning

a. Will begin at intake

b. Goals and progress will be reviewed regularly and at the completion of therapy

c. Follow-up therapy will be recommended when appropriate

IV. VIOLATIONS OF STANDARDS

If these standards are violated by a member of ATTACh, the Ethics Committee reserves the right to take appropriate actions. These may include, but are not limited to requiring the member to submit a protocol and to cooperate with any licensing body. A resignation or removal from the organization does not automatically terminate a current ethics investigation.

ATTACh SAFETY PRINCIPLES

ATTACh members are expected to apply the information they receive from ATTACh and other sources within a context of safety. As this principle is applied, the resulting strategies and procedures used by each member will be designed to monitor and safeguard the psychological, emotional, and physical well-being of everyone involved in the intervention process.

The touchstone that underlies all of ATTACh's safety principles is "...do no harm." The following principles provide examples of how this fundamental axiom would be applied. These principles do not represent an exhaustive list, but are presented in order to provide the clinician or parent guidelines for the multitude of individualized situations that might arise.

1. All participants involved in an intervention will ensure that the physical and emotional health and welfare of everyone involved in an intervention are monitored at all times.

2. Each person will be responsible for seeing that effective steps are taken to adjust or terminate an intervention process when there is any indication that someone's psychological or physical safety may be being compromised.

3. The child will never be restrained or have pressure put on them in such a manner that would interfere with their basic life functions such as breathing, circulation, temperature, etc.

4. Parents and/or other appropriate individuals should observe, participate in, and/or monitor the therapy process being utilized.

5. Touch will always be appropriate and used for therapeutic purposes. Sexual touch is never appropriate.

6. Therapeutic interventions will be carefully selected to protect the child from physical pain.

7. No form of shaming, demeaning, or degrading interaction is acceptable as a therapeutic intervention.

8. Treatment options, such as holding, paradoxical interventions, and "sitting," should never be used as punishment for perceived misbehavior.

It is never possible to anticipate all situations where the issue of the well-being of participants might be, or might become, an issue. Therefore everyone involved in the intervention process with a child and family is expected to use good clinical judgment coupled with good common sense. The following questions can be used throughout treatment to assist practitioners and parents in their decision-making process:

1. What am I trying to accomplish with this particular child and/or family?

2. Will this intervention contribute to what I am trying to accomplish?

3. Is there a less intrusive or less restrictive intervention that will accomplish the same purpose?

4. What, if any, safety issues should I consider when selecting an intervention for a child and their family?

5. What are the treatment implications when deciding not to use a specific intervention with a particular child and family?

6. How do I provide effective treatment interventions while at the same time maximizing the well-being and safety for everyone involved in the intervention process?

7. Is everyone involved in the intervention informed and appropriately prepared to carry out his or her part of the process?

8. Is the intervention being considered consistent with the Standards of Practice, Basic Assumptions, and Safety Principles of ATTACh?

9. Is the intervention being considered within the standards of practice, and ethical standards of the professional organization and licensing or certification body of each individual involved?

ATTACh ETHICS COMMITTEE

ATTACh has created an Ethics Committee comprised of three members, at least one current board member and two either from the board or from the membership at large, to carry out its mission. The purposes of the Ethics Committee are to:

1. Educate membership and the larger community to standards of ethical professional practice.

2. Ensure responsible use of the standards of practice in making decisions and taking appropriate actions.

3. Protect its members against exploitation and injustice.

4. Discipline its members when unethical conduct is found to exist.

To make an ethics complaint, the complainant must submit the Declaration of Complaint: Ethics form in duplicate and attach all required documentation. These documents should be mailed to:

ATTACh
4218 Roanoke Suite 220
Kansas City, MO 64111

Declaration of Complaint: Ethics

Two copies of the Declaration of Complaint, together with a brief statement about the complaint, should be filed with ATTACh Ethics Committee. Additional persons joining the above named complainant in these charges should be listed on an attached sheet with addresses and phone numbers.

I, _____, the complainant, hereby file a complaint for consideration by the ATTACh Ethics Committee against:

Name of Respondent_____

Address of
Respondent_____
_____

Phone of Respondent _____

I charge the above party with demonstrating unethical conduct through a violation or violations of the ATTACh Professional Standards of Practice. I have read the ATTACh Professional Standards of Practice, and agree to abide by the conditions set forth in them. I pledge to treat all associated materials and processes confidentially. I understand that adjudication data may be accessed by approved researchers and reported in aggregate form. Identifying information will be treated as confidential.

Signature _____
Date filed_____
Address of Complainant_____
_____

Phone number of Complainant _____

Data to be Furnished by Complainant

This complainant must provide the following information related to the complaint in a separate statement to be attached to this required Declaration of Complaint form:

1. Statement of Complaint. This brief and specific statement should identify the conduct that violates the ATTACh Standards of Practice. It need not include all the evidence the complainant is prepared to present, but it should serve as a clear and complete statement of the charges being made against the respondent. The statement must cite the pertinent sections of the standards.

2. Action taken to press the complaint through other channels. The statement should identify any other actions taken to seek redress in this matter. Many states have state licensure laws that may provide a channel for filing a complaint of unethical or unprofessional conduct; if such a complaint has been

filed, state what has been done and what the outcome has been. If legal action is under way, state the status of the matter.

3. Sources of evidence. The complainant should list individuals who may be in a position to substantiate the facts and should also list any documentary sources of information that support the complaint. Presentation of these witnesses and documents is the responsibility of the complainant.

Application Instructions

In 2001 ATTACh initiated a registration process for clinicians and agencies. The purpose of the registry is to:

• provide more credibility to the term "attachment therapist,"
• provide more credibility to your knowledge and attachment training,
• give parents and other professionals access to names of potential treatment agencies and clinicians
• allow parents and other professionals to contact you directly
• supply you with a support and communication network to exchange information and/or ideas

As of July 1, 2002 only registered members of ATTACh have be given as resources to inquiries for clinical services. In an effort to assist families and workers to make informed decisions, ATTACh will print your registration information on our website; and mail out this same information to inquiries who ask. If you wish to be part of ATTACh's resource listing of registered clinicians and agencies, please submit the following documents. Requirements are subject to change. Please check the website prior to submission.

Registering agencies must submit the complete packet of information about all staff whom will be working with attachment clients, identifying the lead clinician. Clinicians working in a registered agency who wish to be listed separately and receive membership benefits need only pay the membership fee. Clinicians in private practice and clinical employees of non-registered agencies must submit the entire packet of information to become registered.

Appendix B

Letter of Endorsement from ATTACh

95 W. Grand Ave., Suite 206 Lake Villa, IL 60046	Local: 847-355-3506 Toll free: 866-453-8224 Fax: 847-356-1584

Date:

Dear Treatment Provider,

This letter is being sent from the Board of Directors of the national ATTACh organization with a request that you give serious consideration to participating in a research study being conducted by Lois A. Pessolano Ehrmann at the Pennsylvania State University. She is exploring various characteristics of children who have been adopted out of the USA foster care system and the sources of stress that their parents may report. Her purpose in investigating these issues is that eventually she hopes to identify more targeted and effective treatment interventions in order to promote the successful adoption of these most vulnerable children. We at the board endorse this study as she is conducting it through the resources of Penn State University, a research I program and is attempting to solicit a national sample. One of the common concerns or complaints that we hear at various conferences and trainings is that the work we do has no empirical basis or that there are no efficacy or effectiveness studies to demonstrate that what we do really works with the children we provide services to. This repeated concern about research in this area is another reason why the board had decided to endorse this particular study.

Your involvement in the study would simply be to identify families who meet the criteria for the study and to pass onto the parents you identify the information needed for them to access the study questionnaires over the Internet. Lois Pessolano Ehrmann will be forwarding to you a letter which further explains the purposes and procedures of the study and postcards with the access information for parents within the next week.

Sincerely,

Board Members of ATTACh

Appendix C

Follow Up Letter to ATTACh Registered Clinicians and Facilities

Date:

Dear Treatment Provider or Facility Director,

Thank you in advance for consideration of participation in the study that I am conducting on adopted children and their parents. Enclosed are postcards containing access information to the study website that you can give to eligible parents at your center.

The purpose of the study is to explore characteristics of children who have been adopted out of the US foster care system, who have special needs and attachment challenges and the sources of stress that may affect their parents. The study questionnaires ask only the parents to provide observations and responses to different measurement questions.

All parents, 18 years old and older, who have adopted a child who currently is between the ages of 4 and 12 years old from the USA foster care system and who are presenting at your agency or treatment facility for services are eligible. Both parents of a child can participate in the study because one of the questions to be explored in the study is whether adoption strains affect mothers differently than fathers. The study questionnaires are confidential so that parents will be able to be as candid as they wish.

Your part in this is simple but ever so important. If you identify families over the next few months eligible for the study, I would appreciate you letting them know about the opportunity and passing to them the post card with the study information. Please say the following to a prospective parent: 'I am a clinician member of the national Association for Treatment and Training in the Attachment of Children, which is an organization striving to make sure that attachment challenged children are treated by safe and ethical treatment practices. This organization has endorsed a study done by a researcher named Lois Pessolano Ehrmann of the Pennsylvania State University. She is doing a study on the needs of parents who have adopted traumatized children out of the US foster care system. I would like to give you this post card with information regarding this study and invite you to take part in the study via the Internet. Participation in the study is totally voluntary and you will in no way be penalized if your decision is to not be in the study." Then simply pass the post card to the prospective parent. That's it! Simple but incredibly important.

If you would like to know the results of the study once it is completed or if you have any questions about the study please contact me at the number or email identified below.

Once again, thank you for your support and participation in the recruitment process of this investigation.

Sincerely,

Lois A. Pessolano Ehrmann MA, LPC, CAC-Diplomate
Doctoral Student and Principal Investigator
The Pennsylvania State University
Email: lae136@psu.edu Phone: (814) 404- 0286

Appendix D

Sample Post Card Access Information to Psychdata.com Study Site for Participating Parents

Welcome to the Adopted Children/ Adoptive Parents Study!!

Thank you for your willingness to be part of an important study investigating characteristics of special needs adopted children and sources of stress for their parents. This study is affiliated with the Pennsylvania State University in State College, PA and is a dissertation study for Lois A. Pessolano Ehrmann the principle investigator. The study materials are on a secure research management website called Psychdata.com. You can join the study and complete the questionnaires by logging onto the following website:

http://----------

Upon getting to this website you will be asked to type in the specific code for this particular study. The code to be typed in is:

wiseparent

Only individuals who have been given this code are permitted on this website which is why after you have accessed and filled out all the materials you are asked to destroy this card. Adoptive parents over the age of 18 who have adopted a special needs attachment challenged child between the ages of 4 and 12 are eligible to participate in this study. If you are part of a couple parenting a special needs adopted child, you are both invited to fill out the questionnaires separately. Directions on the site will explain how to construct a confidential identification number for you and your partner's surveys for analysis purposes. Once you submit your responses on the website they are protected because the only person who will have access to them is the principal Investigator Lois A. Pessolano Ehrmann. If you have any questions about the study or how to access the materials you can call Lois at (814) 404-0286 or email her at lae136@psu.edu. Thanks for your participation!

Appendix E

Online Implied Informed Consent

ORP USE ONLY: IRB# Doc.#
The Pennsylvania State University
Office for Research Protections
Approval Date:
Expiration Date:

Implied Informed Consent Form for Social Science Research
The Pennsylvania State University

Title of Project: Identifying the Stressors of Parents of Special Needs Attachment Challenge Children Adopted from the US Foster Care System.

Principal Investigator: Lois A. Pessolano Ehrmann
The Pennsylvania State University
Department of Counselor Education, Counseling Psychology Rehabilitation Services
CEDAR Building
University Park, PA 16802-3110
Phone: 814-865-3427
Email: lae136@psu.edu

Advisor: James T. Herbert, PhD
The Pennsylvania State University
Department of Counselor Education, Counseling Psychology Rehabilitation Services
314 CEDAR Building
University Park, PA 16802-3110
Phone: 814-863-3421
Email: jth4@psu.edu

Other Investigator(s):

1. **Purpose of the Study:** The purpose of this research is to gain information about special needs children that are adopted from the US foster care system and the stress that their parents may have as a result of the adoption.

2. **Procedures to be followed:** You will be asked to fill out questions first about your adopted child and then about yourself and your feelings or thoughts about your adopted child and other aspects of your life.

3. **Discomforts and Risks:** Since some of the questions do ask about personal habits exhibited in day to day interactions with your child and about your child's behavioral issues there may be some discomfort in taking part in this study. This risk however is minimal as you have already discussed many of these issues with the clinician you are seeing for the treatment of your child.

4. **Benefits:** A possible benefit to you could be a gain of knowledge or clarity about your own reactions to your adopted child. The benefits to society include helping professionals and other parents in better understanding the needs of adopted parents when their adopted children have special needs or problems.

5. **Duration/Time:** It will take about 30 to 45 minutes to complete the survey in one sitting. The study will be conducted for approximately two months.

6. **Statement of Confidentiality:** Your participation in this research is confidential although since this is an online survey there are risks that prevent me from guaranteeing 100% that no breech of confidentiality will occur. A breech of confidentiality could occur in the transference, download and storage of electronic data. Your confidentiality will be safe to the degree permitted by the technology used. Specifically no guarantees can be made regarding the interception of data via the Internet by any third parties. The use of the Psychdata.com web site however does increase safety in terms of unauthorized individuals gaining access to the materials. The survey does not ask for any information that would identify who the responses belong to. If you have a partner who is taking part in the survey you will be asked to identify your child's first and last initial of his or her first name and the first and last initial of the street you live on so that matching your survey to your partner's can be done but anonymity can be preserved. All survey responses will be downloaded and printed out by the principal investigator but all study documents will be kept in secure files and only the investigator will have access to the records. The Office for Research Protections and the Social Science Institutional Review Board may review records related to this project. In the event of any publication or presentation resulting from the research, no personally identifiable information will be shared because no identifying information is being collected.

7. **Right to Ask Questions:** You can ask questions about this research. Contact Lois A. Pessolano Ehrmann at (814) 865-3427 or (814) 238-8384 Ext. 4 or (814) 404-0286 with questions. You can also call any of these numbers if you have complaints or concerns about this research. If you have questions about your rights as a research participant, or you have concerns or general questions about the research, contact The Pennsylvania State University's Office for Research Protections at (814) 865-1775. You may also call this number if you cannot reach the research team or wish to talk to someone else.

8. **Payment for participation:** There is no payment for participating in this study.

9. **Voluntary Participation:** Your decision to be in this research is voluntary. You can stop at any time. You do not have to answer any questions you do not want to answer. Refusal to take part in or withdrawing from this study will involve no penalty or loss of benefits you would receive otherwise.

You must be 18 years of age or older to take part in this research study.

Clicking on the Continue button implies that you have read the information in this form and agree to take part in the research. Completion and return of the survey is considered consent to participate in this research. Clicking on Box 2 ends your participation at this point. You should print out a copy of this form for your records. Please check the desired box:

CONTINUE

Appendix F

Entire Online Questionnaire

Identifying the Stressors of Parents of Special Needs Adopted Children

Online Implied Informed Consent
Implied Informed Consent Form for Social Science Research The Pennsylvania State University

Title of Project: Identifying the Stressors of Parents of Special Needs Attachment Challenged Children Adopted from the US Foster Care System.

Principal Investigator:
Lois A. Pessolano Ehrmann
The Pennsylvania State University
Department of Counselor Education, Counseling Psychology, and Rehabilitation Services 327 CEDAR Building
University Park, P A 16802-3110
Phone: 814-865-3427
Email: lae136@psu,edu

Advisor:
James T. Herbert, PhD
The Pennsylvania State University
Department of Counselor Education, Counseling Psychology and Rehabilitation Services
314 CEDAR Building
University Park, P A 16802-3110
Phone: 814-863-3421
Email:jth4@psu.edu

I. Purpose of the Study:
The purpose of this research is to gain information about special needs children that are adopted from the US foster care system and the stress that their parents may have as a result of the adoption.

2. Procedures to be followed:
You will be asked to fill out questions first about your adopted child and then about yourself and your feelings or thoughts about your adopted child and other aspects of your life.

3. Discomforts and Risks:
Since some of the questions do ask about personal habits exhibited in day to day interactions with your child and about your child's behavioral issues there may be some discomfort in taking part in this study. This risk however is minimal as you have already discussed many of these issues with the clinician you are seeing for the treatment of your child.

4. Benefits:
A possible benefit to you could be a gain of knowledge or clarity about your own reactions to your adopted child. The benefits to society include helping professionals and other parents in better understanding the needs of adoptive parents when their adopted children have special needs or problems.

5. Duration/Time: It will take about 30 to 45 minutes to complete the survey in one sitting. The study will be conducted for approximately two months.

6. Statement of Confidentiality: Your participation in this research is confidential although since this is an online survey there are risks that prevent me from guaranteeing 100% that no breech of confidentiality will occur. A breech of confidentiality could in the transference, download, and storage of electronic data. Your confidentiality will be safe to the degree permitted by the technology used. Specifically no guarantees can be made regarding the interception of data via the Internet by any third parties. Use of the Psychdata.com web site however does increase safety in terms of unauthorized individuals gaining access to the materials. The survey does not ask for any information that would identify who the responses belong to. If you have a partner taking part in the survey you will be asked to identify your child's first and last initial of his or her first name and the first and the first and last initial of the street you live on so that matching your survey to your partner's can be done but anonymity can be preserved.
All survey responses will be downloaded and printed out by the principal investigator but all study documents will be kept in secure containers and only the investigator will have access to the records. The Office for Research Protections and the Social Science Institutional Review Board may review

records related to this project. In the event of any publication or presentation resulting from the research no personally identifiable information will be shared because no identifying information is being collected.

7. Right to Ask Questions: You can ask questions about this research. Contact Lois A. Pessolano Ehrmann at (814) 865-3427 or (814) 231-0940 Ext. 4 or 404-0286 with questions. You can also call any of these numbers if you have complaints or concerns about this research. If you have questions about your rights as a research participant, or you have concerns or general questions about the research, contact Pennsylvania State University's Office for Research Protections at (814) 865-1775. You may also call this number if you cannot reach the research team or wish to talk to someone else.

8. Payment for participation: There is no payment for participating in this study.

9. Voluntary Participation: Your decision to be in this research is voluntary. You can stop at any time. You do not have to answer any questions you do not want to answer. Refusal to take part in or withdrawing from this study will involve no penalty or loss of benefits you would receive otherwise.

You must be 18 years of age or older to take part in this research study.

Clicking on the Yes and Continue buttons implies that you have read the information in this form and agree to take part in the research. Completion and return of the survey is considered consent to participate in this research. You should print out a C(this form for your records.

If you do not wish to continue and do not wish to take part in this research simply click on 'No'.

*1) Do you want to continue to participate?

0 Yes Continue 0 No

2) Thank you for your willingness to answer the questions in this study. If a question is confusing, please mark the response that makes the most sense to you. In order to preserve confidentiality and anonymity please type in the first and last letter of your child's first name.

3) Please also type in the first and last letters of the street that you live on.

4) Age of Child

5) Gender of Child

0 1= Male 0 2= Female

6) Ethnicity of Child: 0 1 Latino 0 2 European 0 3 African 0 4 Asian

7) Race of Child:

0 1 African American (Black) 0 2 European American (White) 0 3 Latino American (Hispanic)

0 4 Asian American 0 5 Native American 0 6 Mixed Race! Biracial Other (Please Specify) _____

8) Your education level is: 0 1 High School
0 2 Technical School
0 3 Some College
0 4 Two Year Degree (Associates) 0 5 Four Year Degree (Bachelors)
0 6 Masters Degree
0 7 Doctoral Degree

9) Is your partner also a participant in this study 0 Yes 0 No

10) Your gender is 0 Male 0 Female

11) Your age is _____

12) Your ethnicity is: 0 1 Latino
0 2 European
0 3 African
0 4 Asian
0 Other (Please Specify) _____

13) Your Race is:
0 1 African American (Black)
0 2 Caucasion American (White)
O 3 Asian American
0 4 Latino American
0 5 Native American
0 6 Multi-racial/Biracial
0 Other (Please Specify) _____

14) Please type in the age of this child when he or she was placed with you: _____

15) Please type in the age of this child when the adoption was finalized:_____

16) Please indicate the number of placements this child experienced prior to placement in your home:

17) If there are any other siblings in the home please identify their gender, age, and whether they are adopted or birth children (example: female, 14, adopted; male, 15, birth):

Please check all that apply.

16) What types of experiences are you sure that your child experienced in the BIRTH FAMILY ENVIRONMENT?

- 0 Physical abuse defined as any type of physical injury or attack on the child which resulted in bruises, breaks, contusions, wounds, etc.
- 0 Sexual abuse defined as inappropriate physical touch in the private areas of the body.
- 0 Emotional abuse defined as blaming the child for negative experiences of the parent or other family members making the child inappropriately responsible for the health and well being of the other children or the parents in the family.
- 0 Abandonment defined as leaving the child alone or with others for long periods of time and then not contact child or caregivers with an explanation or to make alternative arrangements.
- 0 Neglect defined as failure to provide food, clothing, medical care, adequate mental and physical stimulation, or protection to the child.
- 0 Other, please explain in the box below.

19) If you checked the 'Other' box in the previous question please type in your response here.

Please check all that apply.

20) What are special needs of your child?

- 0 Older child defined as a child who was over five years old when available for adoption.
- 0 Developmental needs as defined as physical, intellectual, or emotional age does not match with chronological age.
- 0 Fetal alcohol related neurological issues such as Fetal Alcohol Syndrome, or Effects.
- 0 Prenatal exposure to drugs of abuse such as but not limited to cannabis, cocaine, heroin, Methamphetamine
- 0 Minority background or mixed racial heritage.
- 0 Part of a sibling group.
- 0 Other, Please explain in the following question.

21) If you checked 'Other' in the previous question, please explain in the box provided.

22) In the clinical work with your child has any professional diagnosed your child with any of the following (please check all that apply):

- 0 Oppositional Defiance Disorder (ODD)
- 0 Conduct Disorder
- 0 Post Traumatic Stress Disorder (PTSD)
- 0 Reactive Attachment Disorder (RAD)
- 0 Bipolar Depression
- 0 Clinical Depression
- 0 Dythymic Disorder
- 0 Asberger's Disorder
- 0 Pervasive Developmental Disorder (PDD)
- 0 Obsessive Compulsive Disorder (OCD)
- 0 Other (Please explain in the next question)

23) If you checked "Other" in the previous question please explain in the box provided.

24) In the clinical work with your child please check off the types of treatment that has been provided in the past prior to this current intervention.

- 0 Individual talk therapy with the child only in the session room.
- 0 Family talk therapy with at least the child and parents in the session room.
- 0 Parents only sessions
- 0 Cognitive Behavioral
- 0 Therapy or Regular Play Therapy
- 0 Art Therapy
- 0 Other

25) If you select 'Other' please indicate the treatment type in the box provided.

Please indicate your observation of the effectiveness of any of the types of treatment that your child has had **in the past**

		1- Very Helpful	**2- Somewhat Helpful**	**3- Not Helpful at All**
26)	Individual Talk Therapy with the child only in the session room	**O**	**O**	**O**
27)	Family Talk Therapy with at least the parents and child in the session room	**O**	**O**	**O**
28)	Parental sessions only	**O**	**O**	0
29)	Cognitive Behavioral Therapy	**O**	**O**	**O**
30)	Regular Play therapy	**O**	**O**	**O**
31)	Other	**O**	**O**	**O**

32) Please add any other details about your family or your adopted child that you feel is important for the investigator to know.

For each statement please indicate the number that best applies to this child.

Statement: For each statement, please indicate by circling the number that best applies to this child.	**0 Almost never**	**1 Rarely**	**2 Some times**	**3 Often**	**4 Very Often**	**5 Almost Always**
33) Friendly	O	O	O	O	O	O
34) Takes other's property	O	O	O	O	O	O
35)Yells at others	O	O	O	O	O	O
36) Fights	O	O	O	O	O	O
37) Stubborn	O	O	O	O	O	O
38) Controls temper when there is a disagreement	O	O	O	O	O	O
39) Lies	O	O	O	O	O	O
40) Is helpful to others	O	O	O	O	O	O
41) Breaks rules	O	O	O	O	O	O
42) Resolves peer problems on his or her own	O	O	O	O	O	O
43) Teases classmates	O	O	O	O	O	O
44) Breaks things	O	O	O	O	O	O
45) Harms others	O	O	O	O	O	O
46) Has trouble accepting authority	O	O	O	O	O	O
47) Initiates interactions with others	O	O	O	O	O	O
48) Plays with others	O	O	O	O	O	O
49) Expresses needs and feelings appropriately	O	O	O	O	O	O
50) Has social contact with others	O	O	O	O	O	O
51) Thinks before acting	O	O	O	O	O	O
52) Can calm down when excited or all wound up	O	O	O	O	O	O
53) Avoids social contact	O	O	O	O	O	O
54) Very good at understanding other peoples feelings	O	O	O	O	O	O
55) Can give suggestions and opinions without being bossy	O	O	O	O	O	O
56) Is liked by peers	O	O	O	O	O	O
57) Is disliked by peers	O	O	O	O	O	O

Click on the Number in the Column that Best Describes the Child

	0 Not at All	1 Just a Little	2 Pretty Much	3 Very Much
58) Fails to give close attention to details or makes careless mistakes in schoolwork	O	O	O	O
59) Fidgets with hands or feet or squirms in seat.	O	O	O	O
60) Has difficulty sustaining attention in talks or play activities.	O	O	O	O
61) Leaves seat in classroom or in other situations in which remaining seated is expected.	O	O	O	O
62) Does not seem to listen when spoken to directly.	O	O	O	O
63) Runs about or climbs excessively in situations in which it is inappropriate.	O	O	O	O
64) Does not follow through on instructions and fails to finish work.	O	O	O	O
65) Has difficulty playing or engaging in leisure activities quietly.	O	O	O	O
66) Has difficulty organizing tasks and activities	O	O	O	O
67) Is "on the go" or acts as if "driven by a motor".	O	O	O	O
68) Avoids tasks (e.g. school work, homework) that require sustained mental effort.	O	O	O	O
69) Talks excessively.	O	O	O	O
70) Loses things necessary for tasks or activities.	O	O	O	O
71) Blurts out answers before questions have been completed.	O	O	O	O
72) Is easily distracted.	O	O	O	O
73) Has difficulty awaiting turn.	O	O	O	O
74) Is forgetful in daily activities.	O	O	O	O
75). Interrupts or intrudes on others.	o	O	O	O

Please use the child's name in the blanks below and circle the most accurate number for each item	**1 Almost Never**	**2 Once in a While**	**3 Some-times**	**4 Often**	**5 Almost Always**
76) Can you discuss your beliefs with _____ without feeling restrained or embarrassed?	O	O	O	O	O
77) Is _____ a good listener?	O	O	O	O	O
78) Can _____tell how you are feeling without asking you?	O	O	O	O	O
79) Are you very satisfied with how you and _____talk together?	O	O	O	O	O
80) Does _____ try to understand your point of view?	O	O	O	O	O
81) Are there things you avoid discussing with _____?	O	O	O	O	O

82) Do you discuss child-related problems with _____?	O	O	O	O	O
83) Does _____ insult you when he/she is angry with you?	O	O	O	O	O
84) Do you think you can tell _____ how you really feel about some things?	O	O	O	O	O
85) Does _____tell you about his/her personal problems?	O	O	O	O	O
86) Does _____ keep his/her feelings to him/herself rather than talk about them with you?	O	O	O	O	O
87) Does _____hide being angry?	O	O	O	O	O
88) Do you encourage _____ to think about things and talk about them so that he/she can establish his/her own opinion?	O	O	O	O	O
89) If _____ is upset, is it difficult for you to figure out what he/she is feeling?	O	O	O	O	O
90)Does _____ let things pile up without talking or dealing with them until they are more than you and he/she can handle?	O	O	O	O	O
91) Does _____ let you know what is bothering him/her?	O	O	O	O	O
92) Are there certain topics which you do not allow _____to discuss with you?	O	O	O	O	O
93) Does _____admit mistakes without trying to hide anything?	O	O	O	O	O
94) Can _____have his/her say even if you disagree?	O	O	O	O	O
95)Do you and _____come to a solution when you talk about a problem?	O	O	O	O	O

The following questions have to do with things that your child does and ways that you react to your child. Please the frequency of occurrence that best fits your experience with your child.

		0- Never	1 -About Once a Week or Less	2 -More then Once a Week but Less than Once a Day	3 -One or Two Times a Day	4-Many times Each Day
96)	How often do you read to your child?	O	0	O	O	0
97)	How often do you praise your child by saying something like "Good for you" or "What a nice thing you did", "Thank you", or 'That's good going".	0	0	0	O	0
98)	How often do you tell your child about your own experiences by saying something like, "I just saw a pretty bird outside" or "I exercised so hard that I got really tired" ?	0	O	0	0	0
99)	How often do you and your child talk or play with each other focusing attention on each other for five minutes or more just for fun?	0	0	0	0	0
100)	How often do you and your child engage in make-believe play, where you each play the part of a character and together make up a story to act out with each other?	0	0	0	0	0
101)	How often do you and your child laugh together?	O	O	O	O	O
102)	How often do you wish you didn't have to spend so much time with your child?	O	O	0	O	O
103)	How often do you tell your child you may leave him/her if he/ she doesn't behave better?	O	O	0	O	O
104)	How often do you tell your child that he/she is bad or that he/she is not as good as others?	O	O	O	O	O

105)	How often do you get to do something special with your child that he/she enjoys?	O	O	O	O	O
106)	How often do you play sports, hobbies, or games with your child?	O	O	O	O	O

Now we know that when parents spend time with their children some of the time things go well and some of the time they don't go well. Please identify by selecting the most accurate number the fraction or proportion of the time that things turn out different ways.

		0- Never	**1 -Less than Half the Time**	**2 -About Half the Time**	**3 –More than Half the Time**	**4- All the Time**
107)	When you and your child set out to do something fun what fraction of the time does it actually turn out to be fun?	O	O	O	O	O
108)	What fraction of the time are you too worn out and exhausted to do something fun with your child?	O	O	O	O	O
109)	Of all the times that you talk to your child about his or her behavior, what fraction are praise?	0	O	O	O	O
110)	Of all the times that you talk to your child about his or her behavior, what fraction are disapproval?	O	O	O	O	O
111)	When you give your child a command or order to do something, what fraction of the time do you make sure your child does it?	O	O	O	O	O
112)	If you tell your child he/she will get punished if he/she doesn't stop doing something and he/she keeps doing it, how often will you punish him/her?	O	O	O	O	O
113)	How often does your child get away with things that you feel should have been punished?	O	O	O	O	O
114)	How often do you get angry when you punish your child?	O	O	O	O	O

115)	How often do you think that the kind of punishment you give your child depends on your mood?	O	O	O	O	O
116)	How much of the time do you feel confident that you can change or correct your child's misbehavior?	O	0	O	O	O
117)	How often do you feel you are having problems managing your child in general?	0	O	O	O	O
118)	How often is your child able to get out of a punishment when he/she really sets his/her mind to it?	O	O	0	O	O

For the following two questions if you are not part of a two parent family please click on NA=Not Applicable

		0- Never	**1 -Less than Half the Time**	**2 -About Half the Time**	**3 -More than Half the Time**	**4 -All the Time**
119)	If there is a discipline problem how often do the two of you (parents) agree on what to do?	O	O	O	O	O
120)	If there is a discipline problem, how often do you generally go along with what your partner has done?	O	O	O	O	O

Please select the number that most closely describes your experience with your child.

		0- Never	**1 -Less than Half the Time**	**2 -About Half the Time**	**3 -More than Half the Time**	**4-All The time**
121)	How often when you discipline your child does he/she ignore the punishment?	O	0	O	O	O
122)	How often do you have to discipline your Child repeatedly for the same thing?	O	O	O	O	O

Below is a list of ways you might have felt or behaved. Please click on the response that most accurately reflects often you have felt this way during the past week

		0 -Rarely or None of the Time	1 -Some or a Little of the Time (1-2 Days)	2 - Occasionally or a Moderate Amount of Time (3-4 Days)	3 -Most of the Time (7 Days)
123)	I was bothered by things that usually don't bother me.	O	O	O	O
124)	I did not feel like eating; my appetite was poor.	O	O	O	O
125)	I felt that I could not shake off the blues even with help from my family and friends.	O	O	O	O
126)	I felt that I was just as good as other people.	O	O	O	O
127)	I had trouble keeping my mind on what I was doing.	O	O	O	O
128)	I felt depressed.	O	O	O	O
129)	I felt that everything I did was an effort.	O	O	O	O
130)	I felt hopeful about the future.	O	O	O	O
131)	I thought my life had been a failure.	O	O	O	O
132)	I felt fearful.	O	O	O	O

Choose the best answer that fits for you.

		0 -None at all or Less then One Hour	1 -Between One and Five Hours	2 -Six to Ten Hours	3- More then five hours Five Hours
147)	About how much time were you away from your child in the past two weeks for social reasons (for example, going to the movies or sporting events or visiting friends)?	O	O	O	O

Choose the response that most fits for you.

		0- None	1 – Once	2 -Two to Four Times	3 -More than Five Times
148)	In a typical week, about how many times do you talk to your friends on the phone?	O	O	0	O

149) When you are happy is there someone you can share it with- someone who will be happy just because you are?

0 0 No
0 1 Yes

150) Do you have family in the area?

0 0 No

0 1 Yes

Please select the answer that best fits your situation.

		0 -Your Parents	1 -Your Partner's Parents	2 -Brothers or Sisters	3-Others
151)	Who are your family members in the area?	O	0	O	O

152) If you selected 'Others' in the previous question please identify who that is:

	0 Never/once or twice a year	1 Less then once a month	2 Less then once a week	3 More then once a week
153) How often do you talk to your parents on the phone?	O	O	O	
154) How often do you visit in person with your parents?	O	O	O	
155) How often do you talk or visit with your in laws or other family members?	O	O	O	

156. Do you now have a relationship with a spouse or partner? Do you expect it will continue for the years to come?

0 **I don't have a relationship: Skip to # 15**	**1** **I don't expect the relationship to last**	**2** **I feel the relationship probably will last**	**3** **I feel the relationship definitely will last**
O	O	O	O

157. How satisfied are you with your relationship with your partner?

0 **Very dissatisfied**	**1** **Somewhat dissatisfied**	**2** **Somewhat satisfied**	**3** **Very satisfied**
O	O	O	O

158) How helpful are family members to you (as babysitters, sources of information, sympathetic ears?

0 **Not at all helpful**	**1** **A little helpful**	**2** **Somewhat helpful**	**3** **Very helpful**
O	O	O	O

159) At present do you have someone who you can share your most private feelings with?

0 **No**	**1** **Yes**
O	O

If you are currently employed answer questions 17-19:	**0** **Not at all**	**1** **A little bit**	**2** **Somewhat**	**3** **Very Involved/ Interested**
160) How involved are you with your coworkers?	O	O	O	O
161) How interested are your coworkers in your non work activities (e.g. families, hobbies, etc.)?	O	O	O	O

162) How does your present job or work situation affect other parts of your life (e.g. family responsibilities, leisure time)?

0	**1**	**2**	**3**
Very negative-It really caused problems	**Somewhat negative – It causes some problems**	**Somewhat positive- It makes things somewhat better**	**Very positive-it really makes things better**
O	O	O	O

How satisfied are you with…….	**0 Very dissatisfied**	**1 Somewhat dissatisfied**	**2 Somewhat satisfied**	**3 Very satisfied**
163) the availability of professional persons (nurses, doctors, social workers, etc.) to talk to about your child?	O	O	O	O
164) the availability of people to too if you were to have bad or angry feelings about your child?	O	O	O	O
165) the availability of family or friends to talk to whose advice you trust?	O	O	O	O
166) the chores that are part of childcare (feeding, bathing and cleaning up rooms and/or messes?	O	O	O	O
167) your amount of household responsibility ?	O	O	O	O
168) the amount of time you get to yourself?	O	O	O	O
169) the amount of time you are away from your child for social reasons?	O	O	O	O
170) your involvement in your neighborhood?	O	O	O	O
171) your involvement in organized groups?	O	O	O	O
172) the amount of phone contact you have with friends?	O	O	O	O
173) the availability of someone to share with when you are happy/feeling good?	O	O	O	O
174) the availability of someone to share honestly with when you are upset or angry?	O	O	O	O
175) the amount of contact you have with your parents?	O	O	O	O
176) the amount of contact you have with in-laws or other relatives?	O	O	O	O
177) the amount of help family members provide?	O	O	O	O
178) the availability of someone to share your most private feelings with?	O	O	O	O

If you are currently employed answer questions 179-181:	0	1	2	3
179) the amount of involvement that you have your coworkers?	O	O	O	O
180) the effect your work situation has on the other parts of your life (e.g. family responsibilities, leisure time)?	O	O	O	O
181) your entire life situation when you take everything into consideration?	O	O	O	O

:

Most persons have disagreements in their relationships. Please indicate below the approximate extent of agreement or disagreement between you and your partner for each item on the following list.	**5 Always Agree**	**4 Almost Always Agree**	**3 Occasionally Disagree**	**2 Frequently Disagree**	**1 Almost Always Disagree**	**0 Always Disagree**
182) Handling family finances	**O**	**O**	**O**	**O**	**O**	**O**
183) Matters of recreation	**O**	**O**	**O**	**O**	**O**	**O**
184) Religious matters	**O**	**O**	**O**	**O**	**O**	**O**
185) Demonstrations of affection	**O**	**O**	**O**	**O**	**O**	**O**
186) Friends	**O**	**O**	**O**	**O**	**O**	**O**
187) Sex relations	**O**	**O**	**O**	**O**	**O**	**O**
188) Conventionality (correct or proper behavior)	**O**	**O**	**O**	**O**	**O**	**O**
189) Philosophy of life	**O**	**O**	**O**	**O**	**O**	**O**
190) Ways of dealing with parents or in-laws	**O**	**O**	**O**	**O**	**O**	**O**
191) Aims, goals, and things believed important	**O**	**O**	**O**	**O**	**O**	**O**
192) Amount of time spent together	**O**	**O**	**O**	**O**	**O**	**O**
193) Making major decisions	**O**	**O**	**O**	**O**	**O**	**O**
194)Household tasks	**O**	**O**	**O**	**O**	**O**	**O**
195) Leisure time interests and activities	**O**	**O**	**O**	**O**	**O**	**O**
196) Career decisions	**O**	**O**	**O**	**O**	**O**	**O**
	0 All the Time	**1 Most of the Time**	**2 More often than Not**	**3 Occasion-ally**	**4 Rarely**	**5 Never**
197) How often have you discussed or have you considered divorce, separation or termination of your relationship?	**O**	**O**	**O**	**O**	**O**	**O**
198) How often to you or your mate leave the house after a fight?	**O**	**O**	**O**	**O**	**O**	**O**
	5 All the Time	**4 Most of the Time**	**3 More often than Not**	**2 Occasion-ally**	**1 Rarely**	**0 Never**
199) In general, how often do you think that things between you and your partner are going well?	**O**	**0**	**O**	**O**	**O**	**O**
200) Do you confide in your mate?	**O**	**O**	**O**	**O**	**O**	**O**

	0 All the Time	1 Most of the Time	2 More Often than Not	3 Occasionally	4 Rarely	5 Never
201) Do you ever regret that you married (or lived together)?	O	O	O	O	O	O
202) How often do you and your partner quarrel?	O	O	O	O	O	O
203) How often do you and your mate get on each other's nerves?	O	O	O	O	O	O
		4 Every day	3 Almost Every Day	2 Occasion-ally	1 Rarely	0 Never
204) Do you kiss your mate?		O	O	O	O	O
		4 All of Them	3 Most of them	2 Some of Them	1 Very Few of Them	0 None of Them
205) Do you and your mate engage in outside interests together?		O	O	O	O	O
How often do the following occur between you and your mate?	0 Never	1 Less Than Once a Mon.	2 Once or Twice a Month	3 Once or Twice a Week	4 Once a Day	5 More Often
206) Have a stimulating exchange of ideas	O	O	O	O	O	O
207) Laugh together	O	O	O	O	O	O
208) Calmly discuss something	O	O	O	O	O	O
209. Work together on a project	O	O	O	O	O	O
These are some things about which couples sometimes agree or disagree. Indicate if either item caused differences of opinions or were problems in the past few weeks.	0 Yes	1 No				
210) Being too tired for sex	O	O				
211) Not showing love	O	O				

212) The points on the following line represent different degrees of happiness in your relationship. The middle point "happy" represents the degree of happiness of most relationships. Click on the circle below the phrase which best describes the degree of happiness, all things considered of your relationship.

0 Extremely Unhappy	1 Fairly Unhappy	2 A Little Unhappy	3 Happy	4 Very Happy	5 Extremely Happy	6 Perfect
O	O	O	O	O	O	O

213) Which of the following statements best describes how you feel about the future of your relationship? Write the statement number in the box.

5. I want desperately for my relationship to succeed and would go to almost any length to see that it does.
4. I want very much for my relationship to succeed and will do all I can to see that it does.
3. I want very much for my relationship to succeed and will do my fair share to see that it does.
2. It would be nice if it succeeded but I can't do much more than I am doing now to keep the relationship going.

1. It would be nice if it succeeded but I refuse to do any more then I am doing now to keep the relationship going.
0 My relationship can never succeed and there is no more that I can do to keep the relationship going.

Appendix G

VIF and Tolerance Values for Final Regression Models

Model		Tolerance	VIF
Parent Child Communication:	Child Current Age	.923	1.083
	Child Gender	.853	1.173
	Prior Placements	.750	1.334
	Total Abuses	.723	1.382
	Authority Acceptance	.334	2.990
	Social Competence	.445	2.196
	ADHD Total Scores	.558	1.792
Parent Questionnaire	Child Current Age	.932	1.072
	Child Gender	.878	1.139
	Prior Placements	.767	1.303
	Total Abuses	.747	1.338
	Authority Acceptance	.341	2.932
	Social Competence	.455	2.199
	ADHD Total Scores	.542	1.847
CES-Depression	Child Current Age	.932	1.072
	Child Gender	.878	1.139
	Prior Placements	.767	1.303
	Total Abuses	.747	1.338
	Authority Acceptance	.341	2.932
	Social Competence	.455	2.199
	ADHD Total Scores	.542	1.847
Inventory of Parent's Exp.:			
	Child Current Age	.932	1.072
	Child Gender	.878	1.139
	Prior Placements	.767	1.303
	Total Abuses	.747	1.338
	Authority Acceptance	.341	2.932
	Social Competence	.455	2.199
	ADHD Total Scores	.542	1.847
Dyadic Adjustment Scale:			
	Child Current Age	.913	1.095
	Child Gender	.863	1.159
	Prior Placements	.756	1.334
	Total Abuses	.714	1.401
	Authority Acceptance	.373	2.681
	Social Competence	.505	1.980
	ADHD Total Scores	.595	1.681

Appendix H

Durbin- Watson Values as Test for Heteroscedasticy

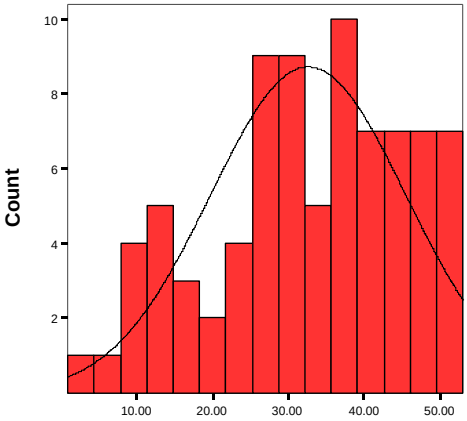
Model	Durbin-Watson Value
Parent Child Communication	1.997
Parent Questionnaire	2.102
CES-Depression (Transformed)	1.901
Inventory of Parent's Experiences	1.850
Dyadic Adjustment Scale (Transformed)	1.924

Appendix I

Histograms of Independent and Dependent Variables

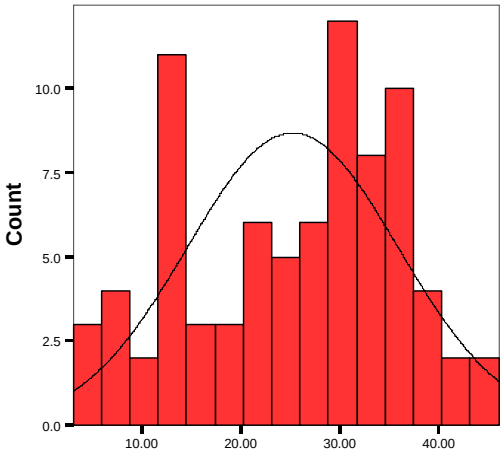
Histogram of Independent Variable Hyperactivity/Inattention

ADHD Rating Scale IV



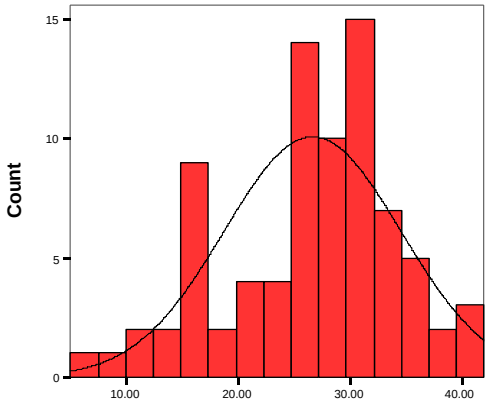
Histogram of Independent Variable Agressive/Oppositional Behavior

Authority Acceptance Scale



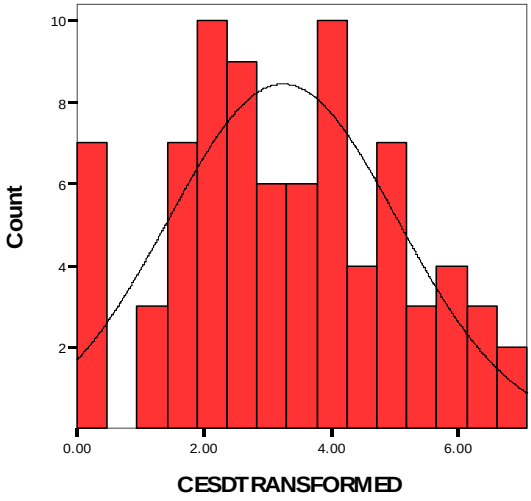
Histogram of Independent Variable Social Competence

Social Competence Scale



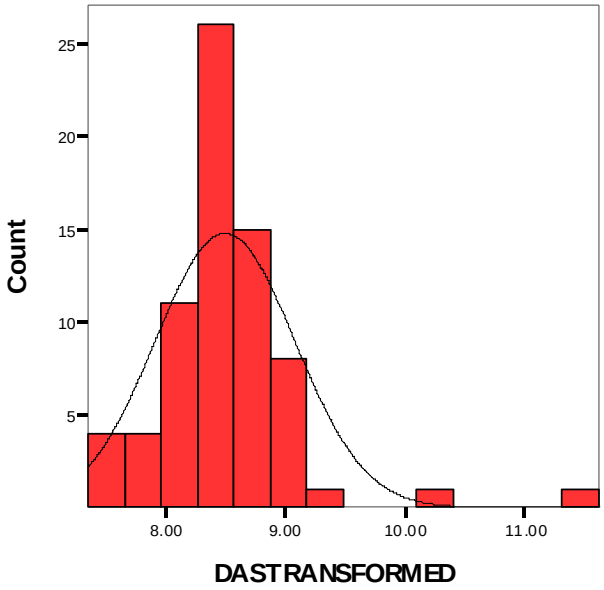
Histogram of Dependent Variable Parental Mental Health

CES-Depression Scale



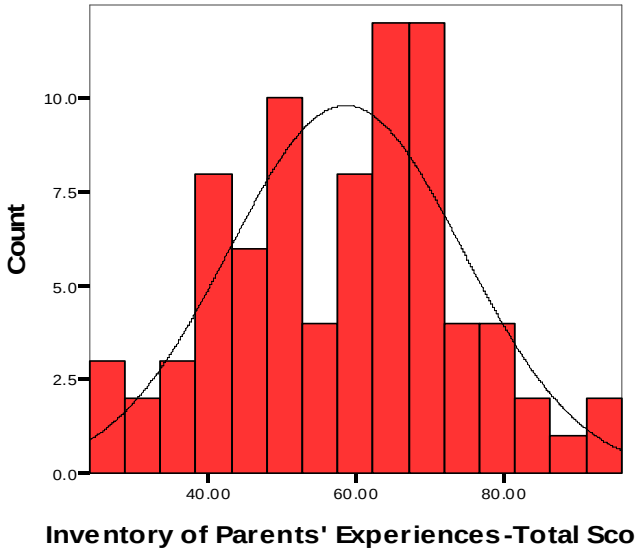
Histogram of Dependent Variable Marital Stress

Dyadic Adjustment Scale Total Scores



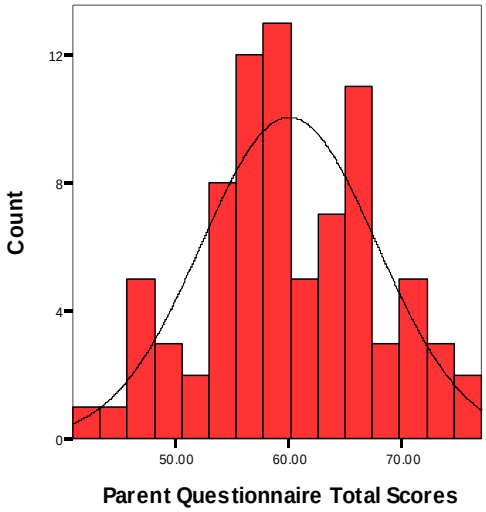
Histogram of Dependent Variable Parenting Stress

Inventory of Parenting Experiences Total Scores



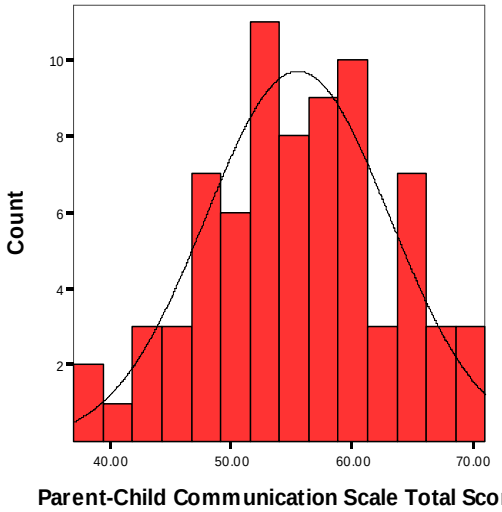
Histogram of Dependent Variable Parent-Child Relationship Quality

Parent Questionnaire Total Scores



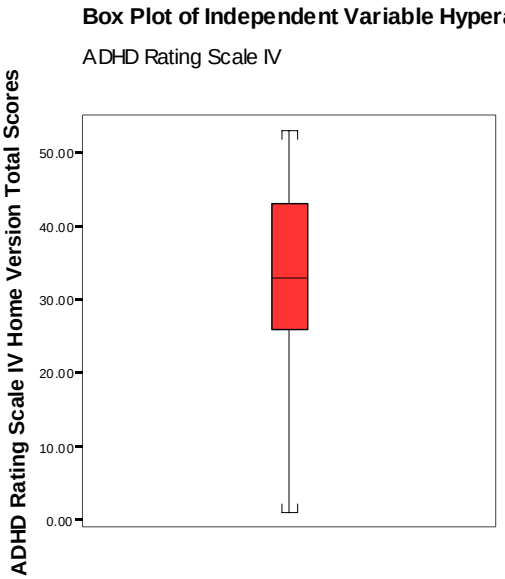
Histogram of Dependent Variable Parent-Child Communication Quality

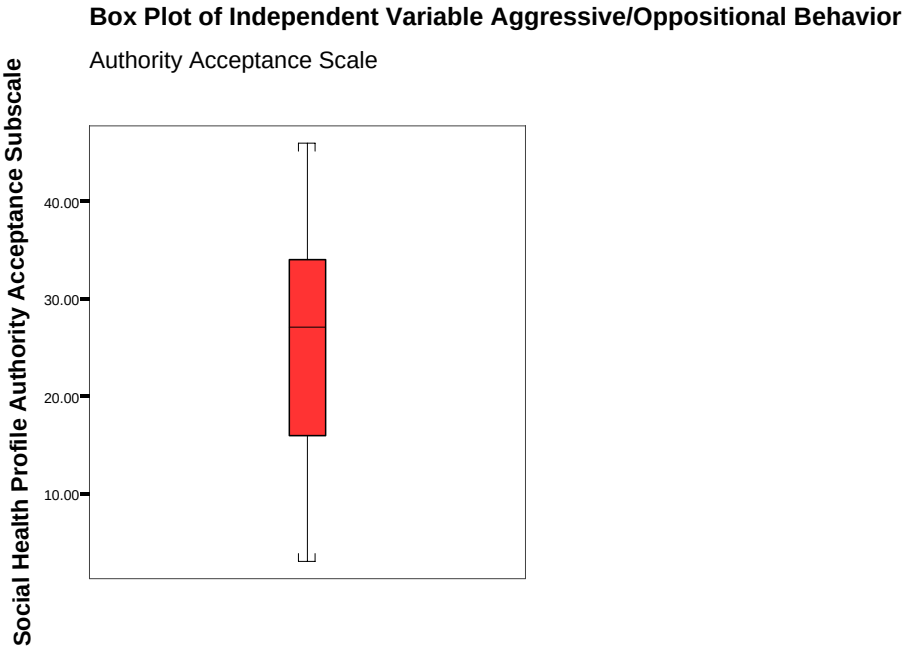
Parent-Child Communication-Parent Report Total Scores



Appendix J

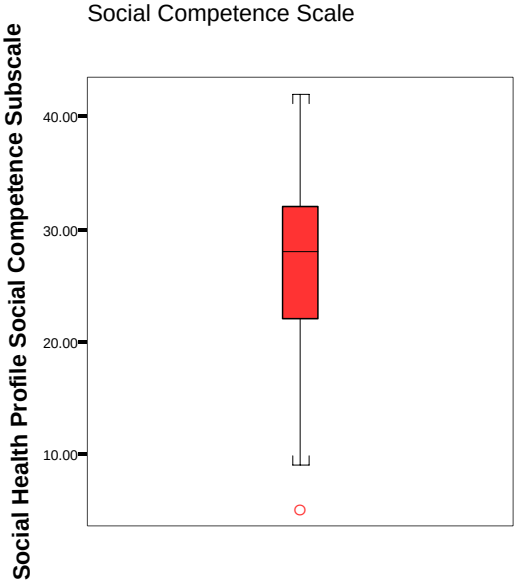
Box Plots of Independent and Dependent Variables





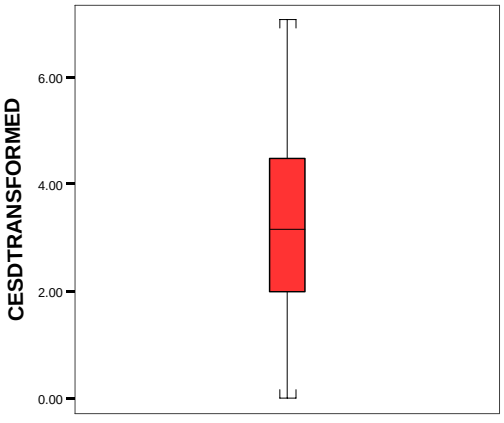
Box Plot of Independent Variable Social Competence

Social Competence Scale



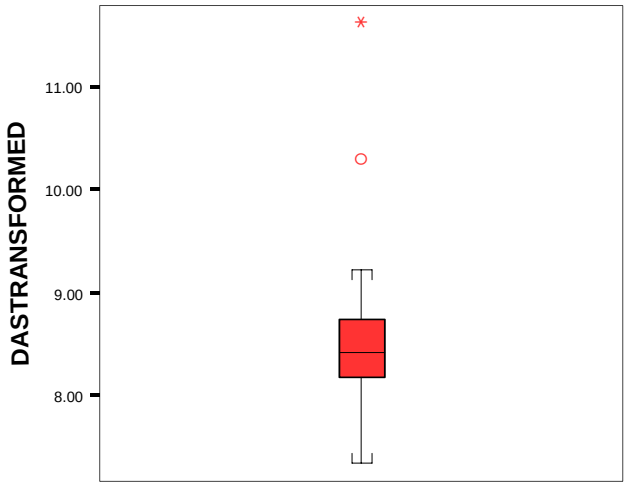
Box Plot of Dependent Variable Parental Mental Health

CES-Depression Scale



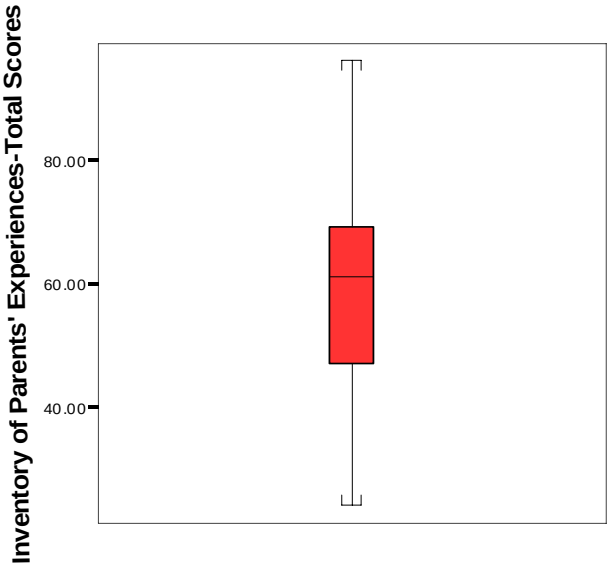
Box Plot of Dependent Variable Marital Stress

Dyadic Adjustment Scale



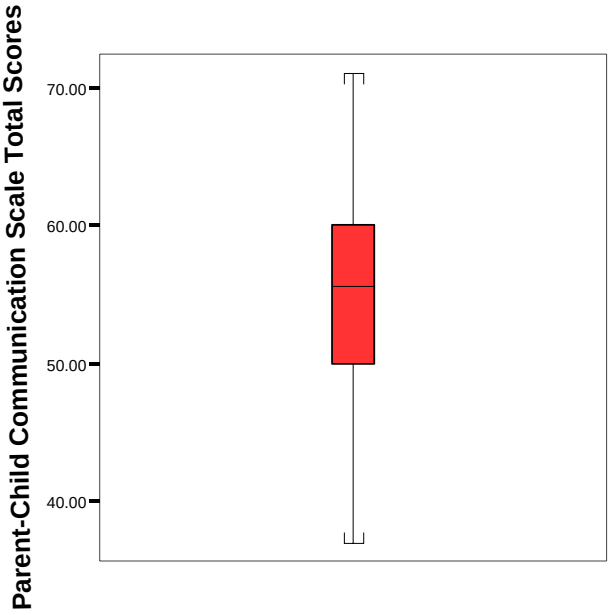
Box Plot of Dependent Variable Parenting Stress

Inventory of Parenting Experiences Total Scores



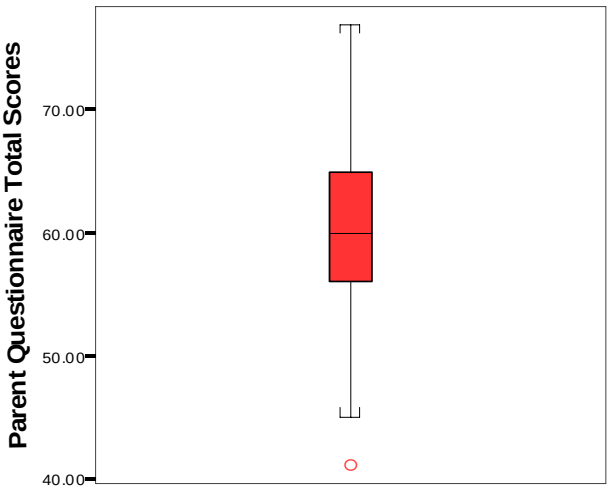
Box Plot of Dependent Variable Parent-Child Communication Quality

Parent-Child Communication- Parent Report



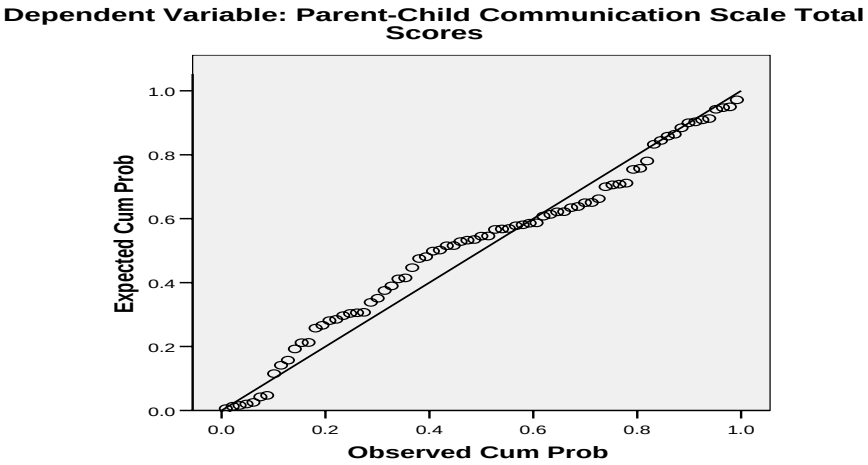
Box Plot of Dependent Variable Parent-Child Relationship Quality

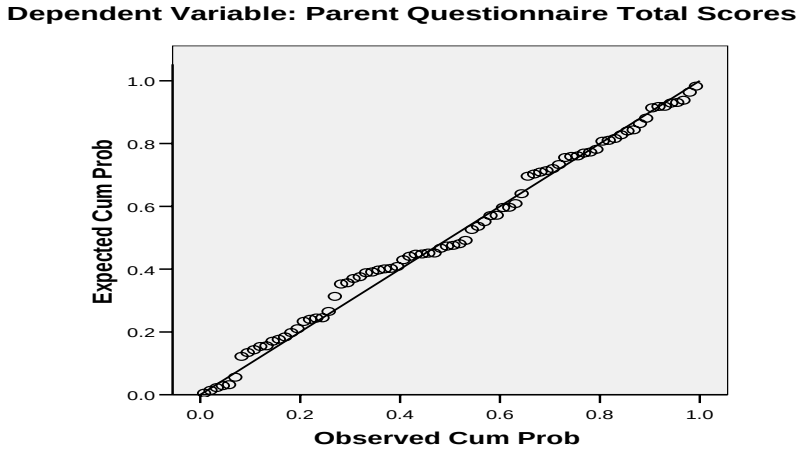
Parent Questionnaire



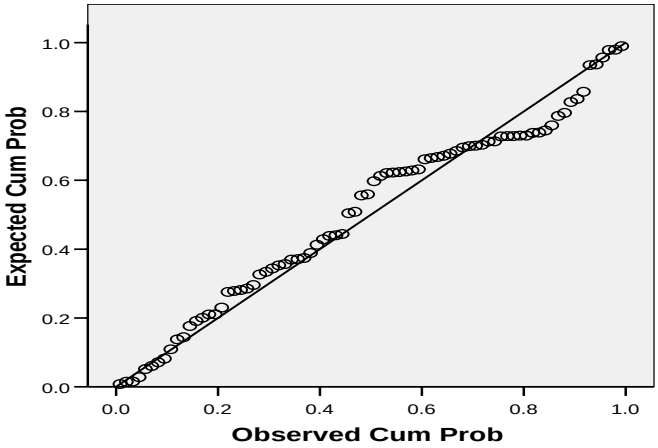
Appendix K

Normal P-P Plots of Regression Standardized Residuals

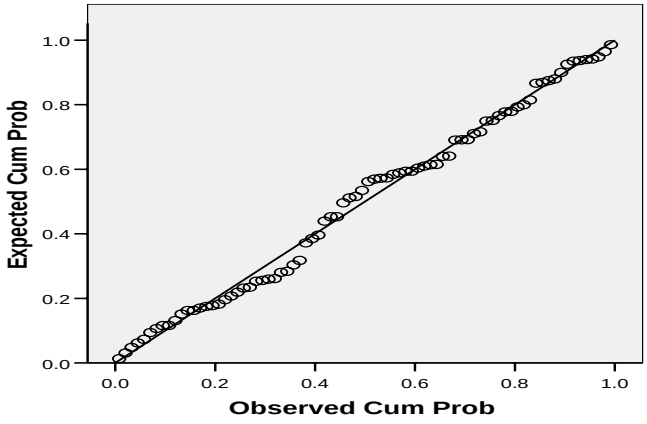


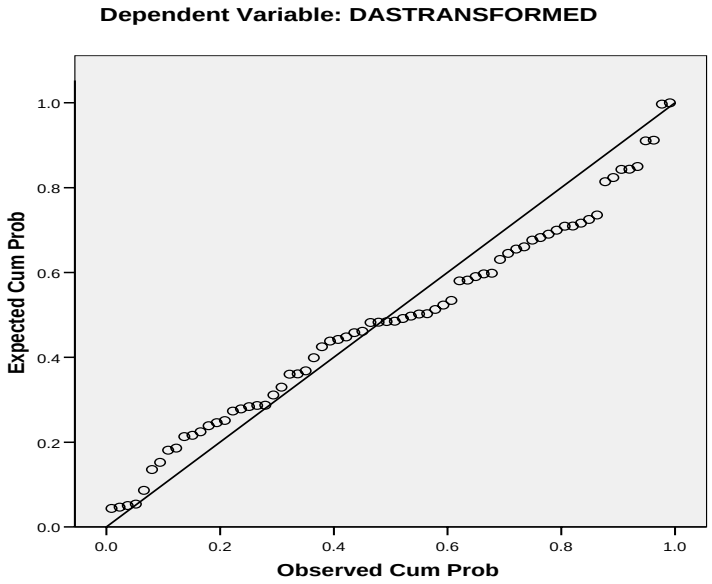


Dependent Variable: Inventory of Parents' Experiences-Total Scores



Dependent Variable: CESDTRANSFORMED




Dependent Variable: DASTRANSFORMED
Expected Cum Prob
Observed Cum Prob
0.0
0.2
0.4
0.6
0.8
1.0

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Counseling Alternatives Group, State College, PA	9/1992- Present
Private Practice, Ferguson Township, PA	1/1991-9/1992
Catholic Social Services, State College, PA	1/1992-1995
Lawrence T. Clayton and Counseling Associates, State College, PA	12/1988-1/1991
Western District Guidance Center, Parkersburg, WV	5/1986-12/1988

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10/2004: *Family Therapy Techniques to Use with Chemically Dependent and Conduct Disordered Adolescents.* PA Counseling Association Fall Conference, State College, PA

10/2003: *Attachment Issues and Conscience Development.* PA Counseling Association Fall Conference, State College, PA.

02/2002: *Distance Ed. for Rehab. Counselor Educators: A Model of a Course Over Three Universities*. Association of Rehabilitation Counselor Educators, Tucson, Arizona.