

Adolescent Experiences with ADHD: A Secondary Analysis  
and Application of Self Psychology Theory

by

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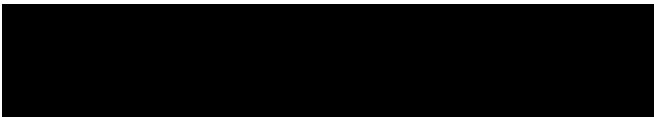
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Abstract

TITLE: Adolescent Experiences with ADHD: A Secondary Analysis and Application of Self Psychology Theory

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This research project was designed as a secondary analysis of data collected by Kendall (1997) for qualitative descriptive research entitled "Experiences of doing well in families with ADHD children". This secondary analysis was initiated to address the problems of: (1) lack of research data from the perspective of the adolescent with ADHD; and, (2) lack of understanding regarding reported negative functioning by families with ADHD-diagnosed adolescents who were receiving ADHD treatments. The research question addressed in this secondary analysis was: How do adolescents experience ADHD, and how are those experiences shaped.

The sample on which this secondary analysis was based included fifteen families who had at least one child with a diagnosis of ADHD. The families represented single parent, two parent, and step-parent households, and ranged from lower socioeconomic to middle socioeconomic status. Five families had adolescents with ADHD (3 girls and 5 boys). A second sample source was an focus group which consisted of three adolescent males. The eleven data sets from both the family settings and the focus group setting were the subjects of this secondary analysis.

Data was collected by family and individual open-ended interviews, written diaries, and one focus group. The family interviews were held in the evenings or on weekends with all family members over the age of six participating. The interviews took place in the participants' homes. Each family was interviewed as a group, and each member was interviewed individually. The entire interview process lasted from 4-6 hours, and was repeated after an eight week period during which each member was to keep a weekly diary. The adolescent focus group was used as an adjunct to the information gained from the family/ individual interviews because adolescents had emerged as a population subgroup within the ADHD family milieu that appeared to have specific impact on family functioning. The focus group interview lasted two hours. By informed consent, all interviews were audio taped and coded with a number to insure confidentiality.

Data analysis followed grounded theory which generates theory by constantly comparing groups of data. With this process, similarities and differences emerge that may lead the researcher to develop conceptual categories and properties which generate new questions to guide the theoretical sampling procedure. Categorizing through comparative analysis further differentiates and integrates the data until the expanding interrelations of the categories formulate a core of emerging theory. Secondary

analysis of grounded theory serves two purposes: (1) to validate or expand relationships that emerge in the initial analysis; and, (2) to contribute to understanding phenomenon as it influences various levels of the network of experience.

Seven categories or processes emerged from the secondary analysis of data: sense of self, disruption, treatment, relationships, actions, consequences, and gender differences. Sense of self was identified as the core category because of its pervasive and centralizing focus on the conditions that influenced the adolescents' experience with ADHD. All other categories emerged as feedback loops which not only impacted the adolescents' sense of self, but also were affected by and products of the adolescents' evolving sense of self.

Two hypotheses emerged from the analysis of the core category of sense of self and the feedback categories of disruption, treatment, relationships, actions, consequences, and gender differences. They were: (1) the importance of the development of self in ADHD adolescents; and, (2) the influence of gender biases and role models on the development of self of ADHD children.

Due to the small sample size, especially the low number of female participants, used for data collection in the original study (Kendall, 1997), any conclusions presented in this secondary analysis could not be generalized to a larger

population. The nature of secondary analysis precludes any expansion of number of participants or amount of data. Other limiting factors included: (1) the homogeneity of the data source (self-report); and, (2) unequal representation of ADHD female adolescents in the data sets.

Based on the findings of this study, and corroborating data in Kendall (1997), research related to self-development in the ADHD child would fill a gap that currently exists in knowledge about ADHD. With greater knowledge of self-development in the ADHD child, clinicians may be able to design interventions that help improve the adolescents' experience with ADHD.

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Adolescent Experiences with ADHD: A Secondary Analysis  
and Application of Self Psychology Theory

Chapter I: Introduction

Attention deficit hyperactivity disorder (ADHD) is the most frequently diagnosed behavioral disorder in children. The etiology of ADHD is considered to be neurological although the exact mechanism responsible for the disorder is still uncertain. Symptoms of the disorder are first evident before the age of eight. The broadest base of knowledge about the assessment, diagnosis, and treatment of ADHD is in school-age children with less known about the course of the disorder at the other developmental stages of infancy, preschool, adolescence, and adulthood. However, with increasing indications showing that ADHD exists from infancy through adulthood (Wender, 1990; Cantwell & Baker, 1988; Fischer, Barkley, Fletcher, & Smallish, 1993), researchers and clinicians consider ADHD as a chronic disorder with symptoms that impact the lives of affected individuals and their families throughout the lifespan (Cantwell & Baker, 1988).

Research problem and documentation

The original study (Kendall, 1997), on which I served as graduate research assistant, was designed as a grounded theory study. Interview data was collected from fifteen families with ADHD-diagnosed children and one focus group of three adolescent ADHD boys. The purpose of the Kendall

(1997) research was to learn about the experiences of families with ADHD children, and how these families succeed. In reviewing the literature for Kendall's (1997) study, it became apparent that along with the lack of general information about ADHD in adolescents, research was relatively non-existent concerning how ADHD is experienced from the perspective of the adolescent. Cantwell and Baker (1988) state that children and adolescents often do not offer information about their difficulties. Consequently, signs of depression, low self-esteem, and defiant behavior may have implications for diagnosis and treatment of ADHD in adolescents (Cantwell & Baker, 1988). However, Cantwell and Baker (1988) stress that probing the adolescent for more information about their subjective experience may be imperative for effective evaluation and treatment of ADHD.

The first issue underlying this secondary analysis emerged from the purpose of the Kendall (1997) study, that is to learn how families do well with ADHD. Because of the lack of previous research on ADHD adolescents and in order to more accurately describe how an adolescent's family is doing well with ADHD, it appeared essential to more fully question and explore how the adolescent with ADHD perceived his/her self, relationships, and environment.

The second issue that motivated this secondary analysis became apparent as data analysis began on the Kendall (1997) study. The families with adolescents reported that they

were, to some degree, not doing well. Ross and Ross (1982) and Feetham and Humenick (1982) state that chronic disorder in adolescents, including ADHD, may be viewed as a stressor and disruptive factor in healthy family functioning. Lewis-Abney (1993) concluded that the age of the child with ADHD was the only variable significantly related to family functioning, with parents of older ADHD children reporting lower levels of family functioning. The report from families with older ADHD children of lower levels of functioning suggested the possibility of an increasing negative impact on all family members as they interact with the ADHD-diagnosed child over time (Lewis-Abney, 1993).

The nearly unanimous conclusion of the families with adolescents in Kendall (1997) that they were not doing well came in spite of diagnosis (often early) and treatments (primarily with medication and behavior management regimens). The adolescents with ADHD, likewise, were in near unanimous agreement that they were not doing well, or as well as they had hoped. Therefore, in order to more fully understand the reasons that families and ADHD adolescents believed they were not doing as well as they would like, it was imperative to question and explore how the ADHD adolescent experienced ADHD and how those experiences were shaped.

#### Statement of research problems

This study was designed as a secondary analysis of data

collected in Kendall (1997). It was initiated to address the problems of: (1) lack of research data from the perspective of the adolescent with ADHD; and, (2) lack of understanding regarding reported negative functioning by families with ADHD-diagnosed adolescents who were receiving various ADHD treatments. The research question addressed in this secondary analysis was: How do adolescents experience ADHD, and how are those experiences shaped.

#### Importance to nursing practice

Cantwell and Baker (1988) state that in the treatment of ADHD, the health care provider may be most effective as an overseer of pharmacological and psychosocial elements. The mental health nurse practitioner, with training in brain chemistry/ pharmacology, child development, intrapsychic therapies, and relational interactions can provide the holistic perspective needed to help patients and families manage the chronic symptomatology of ADHD.

With more research information from the perspective of the adolescent's experience of ADHD, the nurse practitioner can design effective strategies to assist the adolescent to meet his/ her developmental task of ego independence (Erikson, 1963). In addition, the adolescent perspective may provide nurse practitioners with insight into how the family can best deal with the problematic symptoms of ADHD from the earliest stages of infant attachment through adolescent autonomy (Erikson, 1963).

## Chapter II: Review of Literature

### Introduction

This chapter presents a brief overview of child and adolescent development, ADHD etiology, and ADHD core symptomatology. A comprehensive review and critical analysis of classic and current research literature related to the adolescent's experience with ADHD is then offered to provide background information concerning the impact of ADHD on the adolescent and his/ her family. The review also reveals the gaps in what is known about adolescents' perception of their experience with ADHD, which helped determine the direction of questioning in this secondary analysis.

### Child and adolescent development

Erikson (1963) described an infant's developmental task as the establishment of trust. A family of an infant must learn the unique cues their infant displays in making his/ her needs known. Caregiver and infant must learn responses that mutually satisfy their needs, thus developing a bond of trust (Friedman, 1992).

The developmental task for preschoolers is the initial quest for autonomy through increasing ability to control their bodies and environments (Erikson, 1963). Friedman (1992) described the family developmental task for the preschooler as the acceptance of the child's needs for mastery and exploration balanced with his/ her needs for safety and discipline.

Erikson's (1963) stage of industry described the developmental task of the school-age child. This stage is characterized by work production, promotion of a sense of accomplishment, and experience with competition and cooperation with others. Consequently, family developmental tasks for the school-age child include encouraging school achievement and supporting healthy peer relationships (Friedman, 1992).

Development of identity is the core issue for adolescents (Erikson, 1963). The family with adolescents must work toward lessening ties in order to foster greater responsibility and freedom for the maturing adolescent (Friedman, 1992). The goal for the family should be to help the adolescent achieve greater ego independence while gaining an appreciation for the responsibility of interconnectedness (Friedman, 1992).

#### Development with disability.

The effect of a chronic illness or disability on a child's development is greatly dependent on the age of onset, the child's temperament and coping mechanisms, and the response of significant others in his/ her environment (Whaley & Wong, 1991). According to Clements, Copeland, and Loftus (1990), during infancy when the child is attempting to establish trust, sensorimotor impairments, lack of pleasurable sensations, and excessive experiences of irritation and frustration can compromise a child's ability



to give and receive affection. Consequently, parents may interpret the behaviors as indication that they are not capable of meeting the needs of the child. This impaired bonding affects the child's ability to acquire trust. Parents may become overly involved with the infant, which promotes dependency, or may become avoidant, which may have serious failure to thrive ramifications (Clements, Copeland, & Loftus, 1990).

In the preschool child, impairment can diminish exploration of and learning about the environment (McAneer, 1990). Instead of being encouraged to play with peers and participate in organized activities, the child with chronic disability may be limited to home settings and family relationships. Immature behavior may be reinforced due to inability of the parents to provide discipline and structure through consistently enforced age-appropriate standards (McAneer, 1990).

The school-age child is striving to achieve a sense of accomplishment by cooperating, comparing, and competing with others. Impairments greatly affect not only the ability to do these tasks, but also may destroy the will to participate at any level in cooperative, comparative, or competitive activities (Trute, 1990). Also, at this stage, the child is attempting to transition from familial relationships to strong identification with peers. Any sense that s/he is different from peers, can negatively affect the child's

perception of belonging to a group. According to Trute (1990), the child with a chronic disability may cope with this sense of 'differentness' by retreating from socialization. Thus, intense feelings of loneliness and isolation may dominate. At the same time, attempts at being independent may result in feelings of resentment toward parents, refusal to comply with treatment regimens, and/ or risk-taking behavior (Trute, 1990). Parents may react with anger and frustration at these seemingly defiant behaviors, causing more hostility from the child. If parents understand these behaviors as normal development, they may be more tolerant and helpful in finding appropriate opportunities for independence (Trute, 1990).

The impact of chronic illness or disability can be most devastating during adolescence. With the major task of adolescence being the establishment of unique identity (Erikson, 1963), chronic conditions can interfere with their sense of mastery and control over their minds and bodies. Adolescents with long-term disabilities tend to be less future directed and less independent than well peers (Sorenson, 1990). According to Sorenson (1990), lack of understanding from parents, siblings, and the affected child can result in familial chaos.

#### ADHD etiology and symptomatology

The majority of research (Zentall, 1993; Hunt, Hoehn, Stephens, Riley, & Osten, 1994; Pennington, 1991; Wender,

1987; Zametkin et al., 1990) on the etiology of ADHD indicates that there is an interaction of various neuroanatomical/ neurochemical systems and genetic factors. Cantwell (1988) describes two core dysfunctions that characterize ADHD: inattention, and impulsivity/ hyperactivity. These core dysfunctions present in varying degrees of intensity, and manifest in symptoms (i.e., high levels of motor activity, inability to stay on task, withdrawal, and verbal/ physical aggression) which interfere directly with achievement of developmental tasks, academic performance, and social relations (Cantwell & Baker, 1988).

Hunt et al. (1994) propose a model which postulates that ADHD symptoms may be the result of disturbance in any of four major neurofunctional systems: cognition, arousal, inhibition, and reward. They state that within the cognitive system, attention may be impaired at the level of sensory filtering, cognitive association, and/ or analysis and execution. These processes are dopaminergic dependent (Hunt et al., 1994). The arousal system involves the reticular formation and locus coeruleus level of the brain which is substantially mediated by norepinephrine; over arousal may trigger aggression and hyperactivity (Hunt et al.). According to Hunt et al., the neurofunctional system for inhibition and reward is centered in the prefrontal cortex in the behavioral inhibition system (BIS). Serotonin is the predominant central inhibiting neurotransmitter in this

area. The inability to inhibit may underlie impulsivity, impaired contemplative attention, and decreased sensation of pleasure or reward (Hunt et al.).

Related to this symptomatology and proposed etiology, the parents of children who receive a diagnosis of ADHD in preschool or school-age years often report difficulties during infancy and toddlerhood that, retrospectively, may have interfered with the accomplishment of developmental tasks (Lobar & Phillips, 1995). Families with toddlers and preschoolers who subsequently are diagnosed with ADHD may have had a difficult time assisting their child to safely and successfully achieve motor activities, toilet-training, self-soothing, contemplation, and perseverance (Lobar & Phillips, 1995). The family of school-aged children with ADHD continue to confront the child's underachievement which may contribute to a sense of inferiority and low self-esteem in the child (Lobar & Phillips, 1995). Social interactions with family and peers have been consistently reported as problematic from school-age through adolescence (Barkley, Fischer, Edelbrock, & Smallish, 1991). The family of an adolescent with ADHD finds that fostering his/her careful, progressive independence is more ambiguous and inflammatory than the experience of families with non-ADHD adolescents (Comfort, 1992). Throughout development the symptoms of ADHD may create more dependence in the child for the parent, and, simultaneously, cause more hostility in their pursuit of

autonomy (Lobar, & Phillips, 1995).

Review of classic and current research literature

Barkley (1990) states that interviews with parents, adolescents, and teachers form an indispensable component in the evaluation of ADHD. Behavioral observations obtained from natural settings offer an abundance of information regarding frequency, severity, antecedents, and consequences of ADHD symptoms. Thus, information obtained within the context of the ADHD-diagnosed child's social and academic relationships provides valuable information regarding how well or not well s/he is doing.

Barkley 's (1990) conclusions support Cantwell and Baker (1988) who found that diagnosis of ADHD is based primarily on interviews, observations, ratings of child behavior from multi-informant perspectives, and self-report. Though no single predictor exists in determining the outcomes of children with ADHD, combined knowledge of several factors seems useful: the family's socioeconomic and psychological status; cognitive/ behavioral abilities; and, intrafamilial relationships, especially with the affected child (Cantwell & Baker 1988).

Several studies (Barkley, Karlsson, Pollard, & Murphy, 1985; Mash, & Johnston, 1982; Cheatham, 1982; and, Johnson, 1983) have found that the quality of the interactions between parents and hyperactive children are affected by the age and gender of the ADHD child, and the parental

perception of the child. Minde, Weiss, and Mendelson (1972) and McGee, Williams, and Silva (1984) linked the quality of interactions and communication among family members to levels of adaptability, cohesion, and ability to function as a family unit.

These same studies indicated that parents of ADHD-diagnosed children give more repetitive commands and present more reprimanding and punishing behavior than do parents of non-ADHD children. These parents may also be less responsive to the interactions initiated by their ADHD children toward them than are parents of non-ADHD children (Fletcher, Fischer, Barkley, & Smallish, 1996).

Fletcher et al. (1996) analyzed and compared sequential interactions of ADHD-diagnosed adolescents with their mothers, ADHD and Oppositional Defiant Disorder (ODD) teens with their mothers, and non-ADHD mother-teen dyads. Only in the ADHD/ODD parent-teen dyads did the use of negative comments become their predominant category of behavior during the conflict discussion. When the initial comment from the child was negative, the normal dyads were able to return to positive responses most often, whereas the ADHD-only dyads were somewhat more likely to continue responding negatively, and the ADHD/ODD dyads were most likely of all to continue negative responses.

These findings of Fletcher et al. (1996) indicate that socially hostile/ defiant behavior may not simply be a

feature of an ADHD-diagnosed individual, but a characteristic of a family interaction pattern. This suggests that the manner in which parents of ADHD and ADHD/ODD adolescents attempt to cope with negative behavior can kindle an interaction into an escalating negative communication sequence, or reduce the continuance of negative teen behaviors. Fletcher et al. also concluded that both parental perceptions of child conduct problems as well as actual parental negative behavior toward ADHD and ADHD/ODD teens are not only related to the child's actual misconduct, but also to parental maladjustment (i.e., marital discord, depression, interpersonal hostility, and psychiatric disorders).

Hechtman (1981) found that families of children with ADHD reported more tension and poorer emotional climate when compared to families of control subjects, however the same families reported an improved emotional climate when the hyperactive adolescent no longer lived at home. Hechtman (1981) concluded that the child's problem and the family tension exacerbated each other to create a mutually deteriorating trajectory. Lewis-Abney (1993) agreed with Hechtman (1981) in that there appeared to be a cumulative negative effect on the family due to living and dealing with a difficult child. Lewis-Abney (1993) stated that an additional factor may contribute to this negative effect on family functioning: parents who perceive their child as

having more severe problems with behavior viewed themselves as less skilled and knowledgeable, derived less comfort, and placed less value on their parenting role. This conclusion is in agreement with Mash and Johnston (1983a) who also found parenting competence to diminish related to parent's negative perception of their ADHD child. Lewis-Abney (1993) concluded that parenting of the child with ADHD may require skill and knowledge above that required for parenting the normal child in order to experience reward in parenting.

While Lewis-Abney (1993) looked at the cumulative negative impact of an ADHD child on the family, Fergusson, Lynskey, and Horwood (1996) looked at the cumulative affect of early disruptive behaviors on the developmental trajectory of the ADHD child. In this longitudinal study of a birth cohort of 1265 children, these researchers found that children with early disruptive behavior patterns show a strong behavioral continuity leading to over sixteen times higher odds of developing adolescent conduct disorder than children who did not display early disruptive behavior (Fergusson, Lynskey, & Horwood, 1996). They found highly correlated to the continuity of disruptive behavior was increased family disruption, increased attention problems, lower IQ, lower school achievement, and low self-esteem. In addition, Fergusson, Lynskey, and Horwood (1996) suggested that adolescent peer affiliations played an influential role in determining behavioral discontinuities. They found that



the formation of prosocial attachments in middle school and/or adolescence appears to lead to a remission of behavioral problems whereas the formation of antisocial attachments may reinforce or lead to increased disruptive behavior.

Buitelaar, Swinkels, de Vries, van der Gaag, & van Hooff (1991) also found a high prevalence of conduct disorder/ oppositional behavior problems in their ADHD research population. They were able to reliably differentiate behavior patterns of ADHD children from those of other non-ADHD children with disruptive behaviors. They found this differentiation was best accomplished in interview-related and task-related observation sessions. Likewise, Long, Rickert, and Ashcraft (1993) found distinctive disruptive and oppositional behavior patterns in ADHD children. In addition, they discovered that ADHD-diagnosed children had a high incidence of learning disorders and other comorbid clinical problems. Though the most common treatment for ADHD is stimulant medication, which often reduces these behavioral problems, these researchers found that it typically did not normalize behavior. They suggested that the preferred treatment would be a combination of medication and behavior management (Long, Rickert, & Ashcraft, 1993).

Johnston's (1996) research compared the parent-child interactions and parent characteristics in families of non-ADHD children with those in families with ADHD children with

varying levels of oppositional-defiant behavior. Parents in the ADHD group used more negative, reactive strategies and less positive reinforcement than control parents. Fathers of the ADHD group reported more psychological disturbances than control group parents, and parenting self-esteem was lowest in the ADHD group (Johnston, 1996). These differences in self-esteem, according to Johnston (1996), may translate into variations in parenting behavior (i.e., warmth, responsiveness, positive feedback) that influence negative reactions in the ADHD child. Johnston (1996) concludes that family and parental variables are important in the assessment and treatment of ADHD in children, and that further exploration of the relational impact between parent and child is needed.

Other researchers have also studied the impact of relationship on the ADHD child. According to Leung, Robson, Fagan, and Lim (1994), children who talk incessantly, disrupt others, and jump from one activity to another may be very exhausting to be around. More problematic, their behavior limits their ability to learn and make friends, and may have protracted and permanent consequences for themselves and their families. Leung et al. found that many children with ADHD experience academic failure, peer rejection, adult disapproval, and loss of self-esteem. Such chronic academic and/ or social failures may result in loss of motivation and learned helplessness. Parents of such

children experience guilt, frustration, and exhaustion in dealing not only with the ADHD child's problematic behavior, but also with the siblings' jealousy that often results from the extra attention demanded by the child with ADHD. According to these researchers, about 50% to 70% of adolescents and adults who had ADHD as children continue to exhibit ADHD symptoms. Behaviors that were designated as impulsive, hyperactive, or inattentive may persist as delinquent/ acting-out behaviors, low self-esteem, poor social skills and peer relations, aggression, depression, and academic/ vocational underachievement as the child grows into adolescence and adulthood. Leung et al. concluded that treatment for the ADHD child and family, and training for teachers, is essential to minimize the failure, loss of self-esteem, and rejection that can result from the symptomatic behaviors of ADHD.

Living with a chronic developmental disability can create a negative sense of being different for the adolescent (Betz, 1994). Lack of positive family relationships and stable peer relationships can lead adolescents with ADHD and other chronic developmental difficulties to socially impoverished lives (Betz, 1994). In agreement with this finding, Schubiner, Tzelepis, Isaacson, Warbasse, Zacharek, and Musial (1995) stated that at least half of those children with ADHD continue to have significant symptoms through adolescence and adulthood.

These researchers submit that 40% to 50% of children with ADHD also have conduct disorder, and that conduct disorder increases the risk of substance abuse in adolescence and adulthood. Schubiner et al. cite a number of studies which have found an increased incidence of ADHD in populations of alcoholics and drug abusers. These findings supported earlier work by Mendelson, Johnson, and Stewart (1971), who found that hyperactive children whose symptoms persist into adolescence are at high risk for conduct disorder and substance abuse. Likewise, Tarter, Alterman, and Edwards (1985) extensively investigated antecedents to substance abuse, and suggested that important etiological factors in substance abuse include significant deviations in temperament traits (i.e., hyperactivity, poor attention, disturbances in emotional or activity regulation), which are characteristics associated with ADHD and conduct problems.

Specific treatment of ADHD may reduce resistance to substance abuse treatment in patients with both conditions (Schubiner et al, 1995) . When adolescent or adult substance abusers are diagnosed with ADHD, they may be able to understand many of the difficulties and frustrations that they have experienced in their lives as related to ADHD symptomatology. This new perspective may allow them to be more receptive to comprehensive treatment strategies that address not only addictive behaviors, but also the underlying ADHD condition.

According to Schaughency, McGee, Raja, Feehan, and Silva (1994), what little is known about ADHD in adolescence and adulthood comes primarily from follow-up studies of childhood hyperactivity. Potentially problematic for research on ADHD in adolescents and adults is that data is collected primarily by self-report as opposed to parent/teacher report as in the cases of younger children. Little research has been conducted evaluating self-reported symptoms of ADHD in adolescence or adulthood. However, the study by Schaughency et al. examines the prevalence, nature, and course of self-reported inattention, impulsivity, and hyperactivity at age 15 with follow-up at age 18. These researchers found that self-report of attention difficulties at age 15 was significantly associated with continued symptoms at 18 with additional adjustment difficulties and adverse outcomes. The researchers concluded that when adolescents report attentional difficulties, these difficulties are likely to continue to be problematic and observable at a clinically significant level through time. Therefore, adolescent self-report should be considered in assessment, diagnosis, and intervention decision-making (Schaughency et al.)

#### Summary

A large body of research (Barkley, 1990; Cantwell & Baker, 1988; Mash & Johnston, 1982; Cheatam, 1982; Johnson, 1983) exists documenting the clinical presentation of ADHD,

primarily in the school-age years of the child. With an increasing focus of research (Wender, 1987; Pennington, 1991; Zentall, 1993; Hunt, Hoehn, Stephens, Riley, & Osten, 1994) on brain chemistry and genetics, especially recent studies with PET scans of glucose use in various areas of the brain (Zametkin et al., 1990), the etiology of ADHD is speculated to be basically biochemical and genetic.

Other researchers (Minde, Weiss, & Mendelson, 1972; McGee, Williams, & Silva, 1984; Barkley, Karlsson, Pollard, & Murphy, 1985; Hechtman, 1982; Lewis-Abney, 1993; Lobar & Phillips, 1995; Fergusson, Lynskey, & Horwood, 1996) propose certain psychosocial factors that may exacerbate or diminish ADHD symptoms. These factors have been studied through behavior observation ratings, retroactive outcome analyses, and parent-child dyad observation. Several longitudinal studies (Leung, Robson, Fagan, & Lim, 1994; Schubiner, Tzelepis, Isaacson, Warbasse, Zacharek, & Musial, 1995; Fergusson, Lynskey, & Horwood, 1996) have found that ADHD symptoms do not necessarily abate in childhood, but can continue through adolescence into adulthood. Some of these studies have also found that ADHD symptoms may continue through adolescence and adulthood even with early diagnosis and intervention. Current research (Buitelaar, Swinkels, de Vries, van der Gaag, & van Hooff, 1991; Schubiner et al., 1995; Fletcher, Fischer, Barkley, & Smallish, 1996) is also focusing on the emergence of comorbid conditions (i.e.,

conduct disorder, anti-social personality disorder, and drug and alcohol abuse), and how these conditions may relate to the presence of ADHD. A study by Schaughency et al. (1994), provides evidence that self-report by adolescents is a reliable source of information regarding clinically significant ADHD symptoms over time.

This research provided vital background information in understanding possible causes, various presentations, methods of assessment, types of treatment, and potential outcomes related to ADHD. However, very little information has been gathered from the perspective of adolescents with ADHD which explores their view of self and relationship as impacted by ADHD. Gaps exist in research literature that address the experience of doing well or not doing well as expressed by ADHD-diagnosed and treated adolescents.

## Chapter III: Methods

Design

The constant comparative method was employed in this secondary analysis. The source of the data was from a large grounded theory study by Kendall (1997) entitled "Experiences of doing well in families with ADHD children". Grounded theory methodology does not start with a theory to be tested, but rather initiates an area of study from which relevant material will emerge (Strauss & Corbin, 1990). Grounded theory design is particularly appropriate for this secondary analysis because the research question being posed has not been looked at in the same way previously, so it is as yet impossible to determine which variables pertain to this area and which do not. The question under study is biographical in that it focuses on adolescents' present perspectives of themselves as family members, peers, and students, as well as their interpretation of historical events, ADHD diagnosis and treatment, relationships, and other information which has influenced their current beliefs and behaviors (Strauss & Corbin, 1990).

Symbolic interactionism

Central to the conceptualization of grounded theory is symbolic interactionism. Symbolic interactionism views society as a process of ongoing activity and varied interactions in dynamic reciprocal relationships between the individual and others (Blumer, 1967). Blumer (1967) further



states that symbolic interaction encompasses the generation, persistence, and transformation of meaning in a person's understanding of reality. Life meaning for the individual is determined through communication with others, and those others, then, become participants in the individual's definition of reality (Blumer, 1967). To symbolic interactionists and grounded theorists, meaning drives behavior; people create meaning out of situations in order to choose specific actions. Thus, Blumer and other proponents of symbolic interaction describe the need for a method of studying human behavior that emphasizes naturalistic, qualitative designs based on participant observation, and the use of sensitizing concepts for the purpose of making systems of shared meanings more understandable (Blumer, 1967). The researcher, then, according to Blumer (1967), becomes integral in the research process by participating in the discovery of meaning in the social context of the research subject's reality.

Jones and Day (1977) describe three assumptions central to symbolic interactionism: (a) 'reality' is susceptible to different interpretations; (b) 'reality' is less important to the individual than is his/her interpretation of reality; and, (c) in order to understand the perceptions of another, one must consider more than the analysis of the external situation. Bowers (1988) explains that within symbolic

interactionism, analysis begins with the individual, then proceeds to explore the social system through the social constructions and interpretations that the individual attaches to his/ her social interactions. All meanings are contextually and historically dependent (Bowers, 1988).

#### Theoretical sampling

Selection of the initial sample is based on theoretical assumptions which drive the research question. The primary criteria for selecting samples for continuous data collection and comparison depends on the theoretical relevance for further development of emerging categories (Glaser & Strauss, 1967). Subsequent sampling is guided by theoretical questions that emerge during the analysis of the initial data. As categories become more dense, theoretical decisions which formulate clusters and gaps from the categories will influence the direction of further sampling. The grounded theorist, according to Glaser and Strauss (1967), becomes an active sampler who must continually analyze the data to see where the next theoretical question will take the research.

#### Theoretical saturation

In order for a central unified theoretical framework to form out of core and subsidiary categories, theoretical saturation must occur (Glaser & Strauss, 1967). Glaser and Strauss (1967) describe this as the point at which no new information is being discovered by the researcher from which

new properties or dimensions of categories can be delineated. When gaps in the data have been filled, then saturation has been reached. According to Glaser and Strauss (1967), the empirical limits of the data, the integration and density of the theory, and the researcher's theoretical sensitivity combine to determine saturation.

#### Source of the data

The source of the data was from a large grounded theory study by Kendall (1997) entitled "Experiences of doing well in families with ADHD children". In the following section the data collection and analysis methods of the original study will be discussed.

#### Sampling

Purposive sampling was used to select the initial participant families. Participant families were self-selected through informational flyers distributed in ADHD support groups, various clinics and health education organizations, and through the participants themselves via snow-ball sampling.

Theoretical sampling led to the decision to utilize secondary analysis of the initial data of Kendall (1997), and to add an adolescent focus group to fill in conceptual gaps to reach theoretical saturation.

Rationale for using a focus group included the following: (a) to facilitate the gathering of data from groups who traditionally have little power and/or

opportunity to express their points of view; (b) to observe the communication processes of these groups for additional information and understanding regarding the participants' abilities to function with peers, and to further understand the complexity of behavior and motivation of the participants; and (c) to provide an atmosphere that promotes a cuing phenomenon that has the potential for generating and extracting more information than other methods, including both varying points of view as well as conceptual agreement (Morgan & Krueger, 1993).

#### Sample characteristics

The sample on which this secondary analysis was based included fifteen families who had at least one child with a diagnosis of ADHD. Participant families included single parent (4), two parent (8), and step-parent (3). Five families had more than one child diagnosed with ADHD. Five families had adolescents with ADHD (3 girls and 5 boys), and ten families had school-age children with ADHD (1 girl and 14 boys). Economic levels represented were : lower socioeconomic group (3), lower-middle socioeconomic group (5), and middle socioeconomic group (7). Psychiatric diagnoses of the parents included nine with adult attention deficit disorder (ADD), seven with substance abuse, and six with depression/ anxiety.

A second sample source was an adolescent focus group which consisted of three male adolescents diagnosed with

ADHD, ages 14,14, and 15. All three of these participants were in the middle socioeconomic level. All three attended public school, had individual education programs (IEPs), and had exhibited some oppositional-defiant behavior that had caused them problems in school.

#### Data collection procedures

Data was collected by family and individual open-ended interviews, written diaries, drawings from the children, and one focus group of three adolescent boys. The family interviews were held in the evenings or on weekends with all family members over the age of six participating. The interviews took place in the participants' homes. Interviews started with the entire family, and this portion of the process lasted from one to two hours. Each member of the family over the age of six was then interviewed separately to insure confidentiality of information from other members of the family, and to obtain more in-depth data from an individual perspective. Younger members of the family were encouraged to use drawings as a way to communicate their ideas. Questioning at this initial interview focused on the person's perception of how s/he dealt with ADHD in the family and how the family as a unit managed to do well with ADHD.

A second family interview occurred 8-10 weeks after the first interview. Each family member was to keep a diary in the interim of events, thoughts, feeling, and actions that

related to how that person experienced ADHD. The second family interview followed the same format as the first, and questions focused on any new information or insight the family member might have gained since the first interview. First and second family interviews, and all individual interviews therein, were audio taped and coded with a number for confidentiality. The diaries were collected at the end of the second family interview, and each participant who contributed to the diary and interview process was paid \$36.

A focus group interview of three male adolescents with ADHD was also conducted. Each participant of the focus group was paid \$36 for his participation. A focus group was used as an adjunct to the information gained from the family/individual interviews because adolescents had emerged as a population subgroup within the ADHD family milieu that appeared to have specific impact on family functioning. It was believed that the adolescent focus group might provide an arena more conducive to sharing information, and an opportunity to observe ADHD adolescents interacting with their peers, in order to fill some of the conceptual gaps of the emerging theory.

In support of using focus groups as a method of data collection, Knodel (1993) stated that interpretation of all relevant data is facilitated by the fact that focus group statements can be examined within the context of the broader discussion and in light of information available from other

sources. Knodel (1993) stated that when similar opinions are expressed by different population subsets, it is likely that views or experiences are being tapped that are common to an underlying culture within the broader population. This, then, provides another layer of understanding to the complex interrelatedness of population members to each other, and to the particular issues/ experiences they share (Knodel, 1993). O'Brien (1993) stated that focus groups may have several advantages over individual interviews in qualitative research: (a) participants sometimes share personal experiences in a group setting in which they feel comfortable more readily than in one-to-one interactions; (b) participants sometimes respond to each other's experiences with reports of their own similar or different experiences, allowing the investigator to discover information that might not emerge in one-to-one settings; (c) valuable data can be collected in a relatively short time; and, (d) focus groups may assist the investigator in knowing the language, values, and styles of thinking and communicating used by the members of the participant population.

The focus group interview lasted two hours and was audio taped and coded with a number for confidentiality. This interview format served a phenomenological purpose by allowing opinions to bounce back and forth and be modified by the group, rather than being the definitive statement of

an individual (Frey & Fontana, 1993). Group interviews reveal the categorical nature of many statements made by respondents (Frey & Fontana, 1993). The focus group interview can be a source of validation for previously gathered data via one-on-one interviewing as it can bring the researcher closer to the whole view by the addition of embellishing interpretive data. Research with focus groups show that accounts of reality formation are more likely to be stimulated and to be expressed in greater depth when shared in a group interview format (Frey & Fontana, 1993).

As with the individual interviews, participants in the focus group were asked about their experiences with ADHD, how they perceived themselves doing well, and how their families, peers, treatments, school personnel, and others were able to help them do well. Additional questions specific to adolescents with ADHD included:

(1) Do you notice that you respond to or behave toward others in your peer group in a significantly different way than the way others respond? Explain.

(2) Do you notice that you feel and think about yourself and the world around you in significantly different ways than you believe your peers think and feel? Explain.

(3) In what ways do your peers tell you that you act, feel, or think differently than they do?

(4) What interests do you share with members of your peer group? How do these differ from the interests you share with family members?

(5) How do you think your involvement with peers affects your family?

(6) How does ADHD help or hinder your relationships with family members?

(7) How does ADHD help or hinder your involvement with school/ community relations and activities?

(8) How does ADHD help or hinder your peer relationships?



### Data analysis

Grounded theory utilizes the conceptual framework of symbolic interactionism to generate a research process and a theoretical product that includes data collection and analysis, development of interview questions, and interjection of the researcher in reciprocal relationship with the data (Glaser & Strauss, 1967). According to Glaser and Strauss (1967), grounded theory generates theory through a continual process of comparative analysis. By constantly comparing groups of data, similarities and differences emerge that may lead the researcher to develop conceptual categories and properties which generate new questions to guide theoretical sampling procedure. Categorizing (coding) through comparative analysis further differentiates and integrates the data until the expanding interrelations of the categories formulate a core of emerging theory (Strauss & Corbin, 1990).

The process of discovering and conceptualizing the underlying patterns in collected data becomes, then, the first step in data analysis (Strauss & Corbin, 1990). Strauss and Corbin (1990) call this initial process, which provides the basic building blocks of theory, open coding. Open coding identifies concepts in terms of their properties and dimensions. The researcher must ask questions about the data, compare similarities and differences between events and other aspects of the data, label and group the coded

phenomenon to form categories (Strauss & Corbin, 1990).

The next step in data analysis involves inductive and deductive thinking focused toward discovering and relating categories to a paradigm model. Thus, the researcher develops each category (phenomenon) in terms of: (a) the influencing conditions that contribute to its occurrence; (b) the specific dimensions of the category related to its properties, context, and interactional patterns involved; and, (c) the consequences of any reciprocal action taken (Strauss & Corbin, 1990). In addition, this stage of analysis (axial coding) continues to discern additional properties of each category, as does open coding, and notes the dimensional location of each incident, happening, or event (Strauss & Corbin, 1990).

To weave the themes of coded and categorized concepts into a core pattern of emergent theory, Strauss and Corbin (1990) describe an integration process similar to axial coding. However, it is at a more abstract level of analysis which they describe as selective coding. The first step of selective coding involves extracting a storyline, that is, determining a core category to which all other categories become related in a subsidiary way. The second step is to determine in what way the subsidiary categories relate to the core category by means of a paradigm (scheme of systematic interrelation).

Lastly, in selective coding analysis, the researcher

must relate categories to the core category on a dimensional level, such that subsidiary categories can be grouped in terms of similarities. One must validate these relationships against the collected data, and gather more data if necessary to fill in gaps or make further refinements (Strauss & Corbin, 1990). Each of these steps of abstract analysis is accomplished by asking questions and making comparisons, just as in the previous open coding and axial coding stages.

#### Protection of human subjects

A thorough explanation of the study and the use of data generated from the research, as well as an informed consent contract, was reviewed and signed by each adolescent and his/ her parent(s)/ guardian(s) prior to any participation in the study. Privacy of participants was protected by number coding all collected data so that no information could be identified to a specific individual. All interviews were tape-recorded with the participants' prior and informed signed consent. Recorded interviews were kept in a locked cabinet with no personal identification of the participants anywhere on the tapes or transcribed materials. No one, other than the researcher, knew the identity of a particular data set. All tapes were destroyed upon completion of the study.

The adolescent participants and their parents/ guardians were informed that all information from the

participants would be kept confidential except in the case of suspected child abuse, medical or psychiatric necessity, and/ or suicidality. In these circumstances, the parents and participants would be notified prior to the notification of appropriate authorities.

### Secondary Analysis

Secondary analysis of grounded theory data serves two purposes. It can validate or expand relationships that emerge in the initial analysis by tracking phenomenon through different questions, comparisons, and perspectives, and lead to verified and/ or enriched understanding of concepts. Secondly, it can contribute to understanding phenomenon as it is embedded in different levels of the network of experience (Strauss & Corbin, 1990). As Strauss and Corbin (1990) explain, in analyzing interactional phenomenon, one must remember interactants' responses are influenced not only by what occurs during the interaction itself, but also by what broader conditions bear upon the current situation. Such conditions as social context, gender perspectives, beliefs, and value biases greatly influence interaction. A secondary analysis of initial data achieved through a variation on initial questions and perspectives may serve to link the narrower interactional context at the core of phenomenon to a larger structural context.

### Sample characteristics of secondary analysis

Information from the individual interviews of

adolescents in the family sample (8 participants), and from the adolescent focus group (3 participants), for a total of 11 participants, was used for this secondary analysis. Complete sample demographics for this secondary analysis are described in Chapter IV.

#### Data analysis

The procedure for the secondary analysis was to apply questions to eight individual adolescent interview data sets, including one diary submitted by one of these eight individuals, and to the focus group data. The purpose for the secondary analysis was to fill in conceptual gaps in Kendall (1997) through increased understanding of the perspective of the ADHD-diagnosed adolescent.

The questions asked of the data related to this secondary analysis involved the adolescents perspective of themselves in relation to peers, school/ community adults, and family. This secondary analysis of individual interview data, one adolescent diary, and focus group data included: (1) interpretation of data according to code sets developed for initial data; (2) creation of additional codes for unique topics that arose and were of special interest; (3) intergroup comparisons in terms of the extent to which consensus was found within and between focus group data and individual data sets; (4) comparison between focus group data and family interview data sets; and, (5) assessment of reliability related to the comparison of

analyses done independently by researcher of original data and researcher of secondary analysis (Strauss & Corbin, 1990).

The constant comparative method was the fundamental mode of secondary analysis. Its purpose is the generation of conceptual categories and their properties from the data. This is the method developed by Glaser and Strauss (1967) where differences and similarities between groups are compared. The transcribed interviews were coded and clustered into conceptual categories that identified similarities and differences in the data. According to Glaser and Strauss (1967), this step is necessary to move from the more concrete list of open codes to a more abstract set of categories. Once no new categories were generated from the open codes and the remaining gaps in the emerging theory were filled, conceptual saturation was reached. The categories were then examined for their relationships to each other. The integration and interrelationships of the categories, and especially the core categories, formed the basis of the grounded theory (Glaser & Strauss, 1967).

## Chapter IV: Findings

### Introduction

The purpose of this study was to generate an in-depth understanding of adolescents' experience with ADHD through secondary analysis of data gathered in Kendall's (1997) study. Very little previous in-depth qualitative ADHD research has been conducted with adolescent participants. That which has been completed, as cited in the literature review (Chapter II), primarily concluded that problematic behavior and negative outcomes follow ADHD-diagnosed children into their teen years and beyond (Schubiner, Tzelepis, Isaacson, Warbasse, Zacharek, and Musial, 1995). This outcome occurred regardless of early diagnosis, and with significant correlation to comorbid diagnoses of conduct disorder, oppositional-defiance disorder, depression, and alcohol/ drug addiction (Schubiner, et al., 1995). Through the process of theoretical sampling and constant comparative method, an account of the ADHD adolescent's experience in the context of family, peer group, school, and expanding social milieu was generated.

This chapter reports the findings of a secondary analysis of data collected by Kendall (1997) that focused on the experience of ADHD from the perspective of 11 adolescents, age 13-19, who had been diagnosed with ADHD from before age 5 (2 participants), between 5 and 8 years (5 participants), and since 8 years of age (4 participants).

Data was gathered from individual interviews with 8 adolescents with ADHD (3 girls and 5 boys) and 1 focus group of 3 adolescent boys (ages 14 and 15). Through the process of theoretical sampling and constant comparative analysis, findings emerged and are presented as one possible account of the ADHD adolescent's experience in the context of home, peer group, school, and expanding social milieu. This chapter reports these findings as a conceptual model displaying the relationships between 7 response categories of how adolescents perceive their experiences and, to a limited extent, how these perceptions compare to reports of the adolescents' family members (Kendall, 1997). These findings are reported and are organized into two aspects: sample demographics and conceptual categories.

### Study Findings

#### Sample Demographics

Data from eight individual adolescents (3 girls and 5 boys) and one focus group of 3 adolescent males were analyzed. The sample consisted of three girls ages 13 and 15 (twins), and eight boys ranging in age from 13-19. All had been diagnosed with ADHD for at least two years, while some participants had the diagnosis for over ten years. All participants except one were caucasian and middle to lower socioeconomic group. Four participants lived in single-parent homes with working mothers, and seven lived in two



parent families. All but one participant was also living in the same household with sibling(s). One participant was adopted.

All of the individual and focus group participants were taking prescribed medications. All took the medications on a fairly regular schedule except one of the focus group participants who took medication only when he had a special project to which he needed to give special attention. The prescriptive drugs most used by the adolescent participants were Ritalin (4), Clonidine (4), and Dexedrine (3). Drug combinations were also used: Wellbutrin and Pignational (1); Dexedrine, Desimpramine, and Clonidine (1); and, Ritalin and Clonidine (1). Only one of the participants was on medication during the research interviews.

By observation and self-report, six adolescents were considered to have severe ADHD symptoms, four were described as having moderate symptoms, and one participant was considered to have mild ADHD symptoms. Types of disruptive behaviors displayed or described by the adolescents included overt physical aggression (6 participants), overt verbal aggression (7 participants), hyperactive impulsivity (4 participants), resistive defiance (7 participants), self-destructive behaviors (2 participants), and problems with academics (8 participants). All of the adolescent participants except for two boys were currently on individual education programs (IEP) at their schools.

Three of the participants had been given comorbid diagnoses of depression (2 girls and 1 boy). Three participants (2 girls and one boy) showed indications of peer avoidance (friendlessness). Eight participants (1 girl and seven boys) displayed signs of oppositional defiant disorder.

Family comorbid diagnoses included parents with depression (4), attention deficit disorder (ADD) (1), and substance abuse (1). Other family stressors that were reported as moderate to severe included: divorce, custody, and/ or marriage issues (4 families); caring of ill family members (1 family); economics (3 families); and unemployment or underemployment (1 family).

#### Conceptual Categories

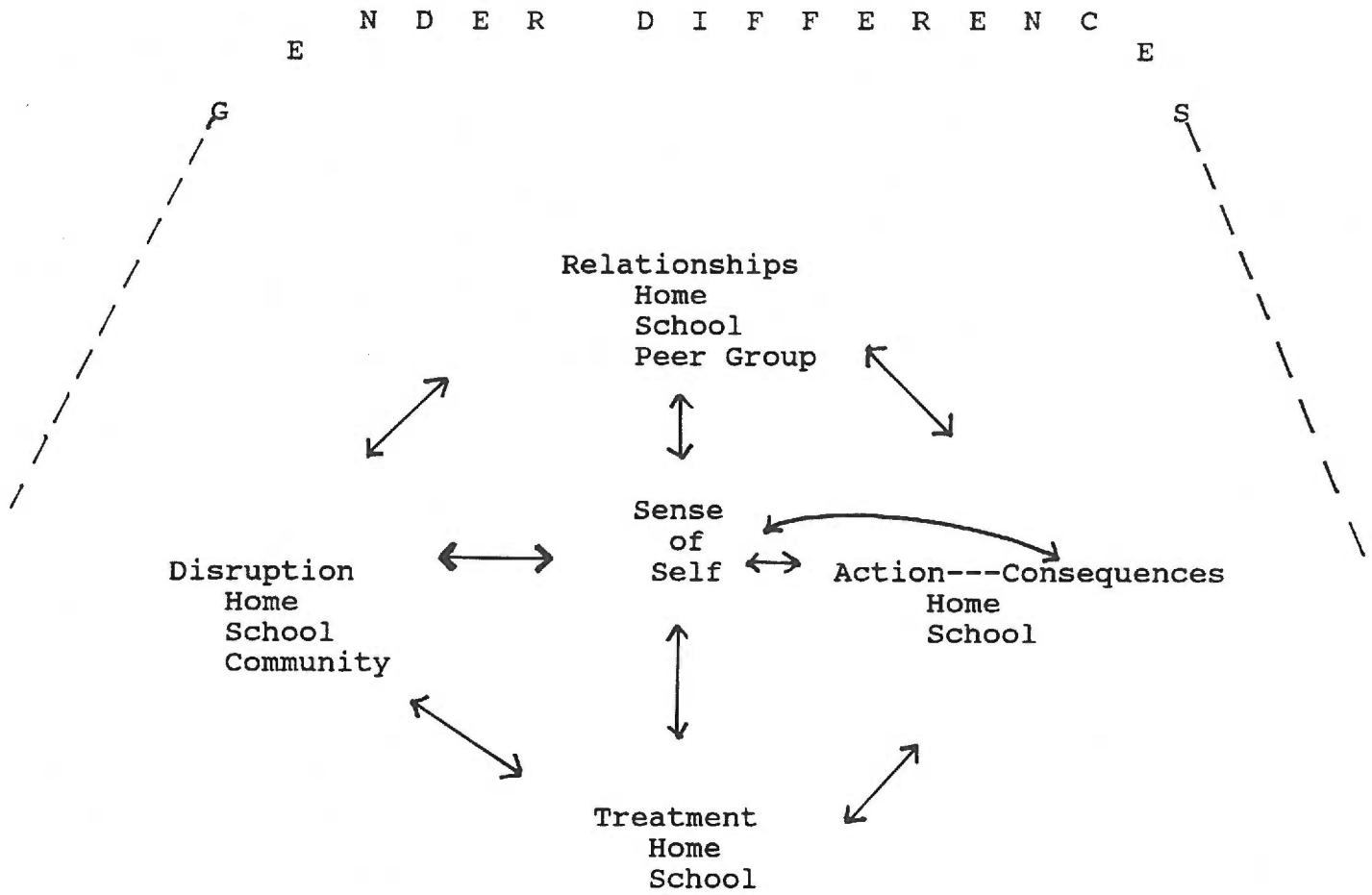
Seven categories, or processes, emerged from the analysis of data. They were: sense of self, disruption, treatment, relationships, actions, consequences, and gender differences. A conceptual model of these categories of data, as well as a description of each, are described in this chapter.

The conceptual model (Figure 1) depicts the interacting patterns between the variables that explain the core process, sense of self.

Sense of self was identified as the core category because of its pervasive and centralizing focus on the conditions that influenced the adolescents' experience with

Figure 1

Conceptual Categories Model



ADHD. The other categories of disruption, relationship, treatment, actions/ consequences, and gender differences emerged as feedback loops in which these perceived phenomena not only impacted the adolescents' sense of self, but also were affected by and products of the adolescent's evolving sense of self.

Within most of these processes, boys exhibited certain characteristics that differed from girls. These gender-patterned responses led this researcher to believe that gender biases, expectations and role models encompassed and influenced the core category and feedback processes in subtle but significant ways.

#### Sense of Self

The process labeled sense of self organized around how the adolescent perceived him/herself to be, or was aware of being, alone and with others. Kohut (1971) defined self as "a unit, cohesive in space and enduring in time, which is the center of initiative and a recipient of impressions" (p.99). Miller (1996) further describes Kohut's concept of self as having five essential properties: temporal continuity, cohesion, esteem, empathy, and empowerment.

Temporal continuity is the perception that one remains essentially the same person throughout time (Miller, 1996). The boys in this study tended to display a sense of self based in the immediate present, with little connection to past experience or future outcome. They rarely related past

difficulties or successes to present situations, and thus, often repeated behaviors that caused problems for them. They did not appear to have a sense of themselves as consistently anything through time; they were just who they were in the moment. They seemed to start each day with a blank slate, and act according to immediate wants or perceptions. For example, one boy spoke of never knowing what he was going to do in any situation because "I just do what I do when I do it." The boys often expressed confusion and anger at the idea of being judged or defined by past events, or of being expected to imagine self in future outcomes:

"I don't think about what's happened before or what will happen. I get tired of people expecting something of me."

"I don't know why I do the things I do, even if I've done them before. I just feel something and--GO--I do it. Why should I care about how I'll be in a month or a year?"

The girls experience of temporal continuity appeared to be more developed than the boys' in terms of connecting their sense of self with a remembered past self and a projected future self. However, this sense of self through time tended to be negative with memory focused on accumulated negative experiences. Future was expressed as a vague, rather hopeless, and not too distant state of being. They described themselves as constantly "messing up" and disappointing others. They expressed little hope of doing better in the future. For example:

"I've had pretty negative thoughts about myself and ADHD since I was little, especially when people are nagging me about things I mess up. I try to do things right, but I

can't. I think it's the way I'll always be."

Secondly, according to Miller (1996), development of self requires a sense of cohesion such that the full range of inner experience including unmet needs, rage, terror, hope, love, trust, and ambivalence fit together in an entity of self. Parents can help these emotional 'pieces' fit together in a cohesive self by affirming that the child's full range of emotions are real, and by empathizing with the pain that these emotions may cause in the child (Miller, 1996).

Both the boy and girl participants in this study appeared to have difficulty sustaining a sense of cohesion, or reinstating a sense of cohesion after losing control of emotions and behaviors. Boys attempted to maintain a sense of cohesion by denying they had a problem or caused problems for others. For example, the boys often did not recognize themselves or their behavior as problematic. They did express feelings of disappointment and dissatisfaction with disruptive situations or others' negative responses to them. Denial seemed to soothe any fear they might have regarding loss of cohesion. However, their sense of cohesion tended to dissolve as pressure from others increased. As their sense of cohesion diminished, aggression and/ or withdrawal usually occurred:

"I get so sick of the nagging--take your meds, do this, don't do that. It's their problem, and they should just leave me alone. Sometimes I just hit the wall, or my brother. Then I'm bummed the rest of the day."

The girl participants showed similar difficulty in sustaining and reinstating a sense of cohesion. However, the girls rarely used denial as a method to try to maintain a sense of cohesive self. Because they did not tend to use denial to defend their sense of self, their sense of cohesion appeared more vulnerable to the negative responses of others. Sense of cohesion for them tended to dissolve more rapidly into sadness, frustration, and fear that their full range of feelings would never fit together into a capable self. For example:

"I know I'm going to make a mistake. My teacher just has to look at me or ask a question and I can't say anything. I don't want to look dumb. I get so mad at myself, but I don't want anyone to know it. Then I start crying."

The third and fourth properties of self, esteem and empathy, are closely linked. Esteem involves a sense of being good and admirable in connection with others, and is the result of parents reflecting to the child his or her grandness (Miller, 1996). By extension, the esteem of being admirable and connected to others develops empathy which involves a compassionate acceptance of others (Miller, 1996). In many instances the boys in this study denied caring whether they connected well with others or were admired by others. Likewise, the boys appeared not to recognize or admit that others around them were experiencing discomfort or disruption due to their behavior. This was very different from the level of discomfort, anguish, anger, hopelessness, and frustration related to the ADHD

adolescents' behavior as reported by parents and siblings (Kendall, 1997). As a result of this 'I'm all right, but you're the problem' perspective, the ADHD boys either isolated themselves with a belief that 'I'm better, brighter, and don't need to be good or acceptable to you', or asserted themselves aggressively in order 'to get them before they get to me'. The boys also tended to blame others or external forces for their difficulties, and possibly project their own anger and frustration onto others. Some examples from the data include:

"If people can't handle me, that's their problem. I get tired of other people's expectations. If they get uptight, I don't have to deal with it. I quit school because of that--I don't have to prove anything."

"I can be really sarcastic--extremely sarcastic. Sometimes I do that before thinking, but it never is a problem...sometimes my mouth goes faster than my brain, but usually it doesn't do any damage."

The girls' developing sense of self involved a different experience of esteem and empathy. They spoke of a strong desire to want to be admired and accepted by others. However, their accumulated memory of failings led to an esteem of ineptness rather than goodness. Instead of blaming others for their difficulties, the girls tended to perceive problems in their lives as being directly attributable to their own failings. As a result of their 'It's my fault and I can't do anything about it' perspective, girls tended to experience a sense of hopelessness, self-hatred, and hurt. Some response examples from the girls included:

"I just feel depressed because I think I'm stupid and I



don't understand my schoolwork. A lot of my friends understand it, they understand everything. In the middle of class, if I don't understand something, I just sit there and cry."

"I think it's going to keep going on like this, being really frustrating."

The girls, like the boys, would also isolate themselves or lash out at others in an aggressive way. However, it appeared to be motivated more by hurt and anger related to their sense of an inadequate self than to an aloofness from or a blaming of others as was characteristic of the boys' behavior.

The girls appeared to recognize and understand when others were disappointed or hurt by their behavior. This may have been due to their readiness to blame themselves rather than others for their problems. However, this empathy did not appear to motivate behavior change or alter their self-involved frustration and sadness.

Lastly, according to Miller (1996), a sense of self requires a feeling of empowerment, so that one can believe that s/he has some control both internally and externally. Parents contribute to their child's sense of power by helping them achieve a feeling of mastery and accomplishment (Miller, 1996). The boys sense of empowerment appeared to be based in the belief that they were in complete control, or could be if others would leave them alone. They tended to believe that others, through misunderstanding or inappropriate expectation, were trying to usurp their power. Thus, they tended to act aggressively or to withdraw to

defend their sense of empowerment. For example:

"If they even look like they're going to try to get me to do something, I go after them. What do I need to think about?"

"I see myself as a leader as long as I can control things. Otherwise, just leave me alone...I don't really want to listen to what others have to say much."

The girls tended to express a belief that they had very little power to create positive experiences, relationships, or a hopeful future. They appeared resigned to a pattern of struggling to do well, feel good, and be accepted by others, but failing. They expressed a desire to achieve power to do well and be admired, but unlike the boys, appeared to believe they were incapable of it. For example:

"I know I'm really stupid and I have a hard time explaining what I need to other people. Yet, when my sister butts in and tries to defend me, it makes me feel like I can't take care of myself. I hit her; it makes me feel so bad. Then I feel like I just want to be left alone, but I really want someone to tell me they understand."

### Relationship

The relationship category separated into three subcategories which represented the three settings where adolescent participants' social interactions took place: family, school, and peer group. Within each of these settings adolescents interjected their sense of self and perceived other's responses, which further impacted how they thought about self. Their perceptions of how they thought about themselves frequently reflected a self-centered perspective where concern was primarily with the gratification of self-image needs by the adolescent. Rarely

was the concept of responsibility to others mentioned, nor did the adolescents refer to a sense of community other than how a broader community (i.e., church, recreational organizations) might provide a source of peer contacts or serve their needs in other ways. The few expressions of concern about whether other people's needs/ expectations were being met by the adolescents usually came from the adolescent girls:

"I know when mom is stressed...you can just tell sometimes...she always is usually stressed. I don't really remember much about [my brother's] death because I was so little, except I remember mom was really, really sad."

Family relationships.

All of the adolescents expressed that they did not get as much personal attention as they felt they needed from parents. However, most believed their parents were trying, and the attention they received from them was adequate, if not optimal:

"I know my mom and dad are really trying to help. It's just that their nagging is so annoying. And then, sometimes when I want their help, they're too busy."

Two participants presented a different perspective. They stated that they felt alienated and alone for lack of parental attention. They also expressed dissatisfaction in all their relationships including extended family, teachers, and peer group. With both of these individuals, their relationship perceptions tended to reinforce their sense of self: for the girl, a deepening sense of inadequacy and failure; for the boy, an alienating and anger-provoking

sense of being misunderstood and underappreciated. Both participants described themselves as isolated. The girl expressed sadness about this; the boy stated his indifference: "I'd rather be left alone, anyway".

Sibling relationships were experienced by most participants as competitive, and elicited a range of emotions from indifference to hatred.

"When my [sibling] was diagnosed with ADHD, too, I felt my parents abandoned me. My [sibling] bugs me alot--always interrupting me when I'm telling my parents something."  
(girl)

"I think when I hit and throw my brother that it'll feel like what it would feel for me. I forget he's so small, but he's so annoying."  
(boy)

Rarely did the ADHD adolescents see their siblings as caring companions or helpful partners. They, for the most part, saw their siblings as rivals for their parent's attention. (Parents and siblings also recognized this competition. The parents tendency was to protect the ADHD child because of his/ her disability. The siblings expressed high levels of frustration and resentment for being victimized by the ADHD child, and not being attended to by the parents [Kendall, 1997]).

Other extended family relationships, such as grandparents, aunts and uncles, were referred to by the adolescents in mostly negative terms:

"My grandma is really cranky. She's always got a headache, or something wrong."  
(girl)

"My mom and my aunt are always fighting. I just leave the room."  
(girl)

This negative experience of other familial relations

indicated an extension of the ADHD adolescents' continual difficulties with relationships. However, it also may indicate the possibility that ADHD and other comorbid disorders exist among adult members of the ADHD child's extended family. According to Hauser and Zametkin (as cited in Halloway & Ratey, 1994), the biogenetic component of ADHD suggests that it is likely that other family members in the ADHD child's environment have ADHD. Thus, their symptoms may be exacerbating the relationship difficulties with the ADHD child. Since comorbid diagnoses (i.e., depression, anxiety, alcohol/ drug abuse) tend to occur in adults with ADHD, the symptomatology that is connected with these diagnoses may also compound relational difficulties with the ADHD child.

#### Peer relationships.

Relationships with peers ranged from having many friends to having few or no friends. The boys tended to experience friendships through sports or other activities outside of school. The girls tended to talk about friendships more in the context of the classroom and school activities. All participants described their peer relationships as up and down--sometimes fun, sometimes irritating, sometimes conflictual. None of the adolescents described their peer relationships as smooth, generally positive, or easy. Some typical examples included:

"I don't really have a best friend. I don't really get lonely. My parents worry about it, but I don't." (girl)

"Sometimes I think I have good friends, but then they'll start telling lies about me, or act like they don't

want to be around me." (girl)

"When I'm mad, I talk to the wall, I don't have friends. I don't talk to anyone about ADHD." (boy)

"My terms of knowing someone are different than other people. I like to find out what people are like when I'm not around...I have put my friends up to flirting with a girlfriend just to see how she'll respond or if she'll tell me. I need to know if she's trustworthy. I need to feel in control." (boy)

"My friends are on the football team. I mostly like them, but I also can't wait to be able to hit them hard and not get in trouble for it." (boy)

This contrasts with non-ADHD adolescents who generally regard their peer relationships as the best part of their teen experience, and speak of them in typically positive terms. This positive outlook on peer relationships generally exists for non-ADHD adolescents even if family and/ or teacher relationships are not perceived as entirely positive (Whatley, 1991).

#### School relationships.

Relationships that the participants described at school included relationships with teachers and other school personnel, in addition to peer relationships. Most of the adolescents reported negative experiences with teachers and principals. All had been in trouble at school with detentions and suspensions. Most were doing poorly in academics. One boy dropped out of high school and had failed two attempts at a GED. One boy was having success with an extracurricular drama program, but was failing most other school courses. All of the participants had Individualized Education Programs (IEPs), but only one boy seemed to be achieving academic success related to it. For most, this

negative experience in achieving academic goals further impacted the adolescents' sense of self. Typical responses were:

"I can't stand my teacher. She doesn't understand me. She gets so impatient and makes me feel so bad. I just end up crying." (girl)

"I hated going to school. I couldn't tolerate my teachers and all their stuff out of the books, and they didn't like me either. I got along best with my shop teacher because I could do things with my hands. But then he'd get annoyed that I never finished anything I started. So I just quit school. I don't care about it." (boy)

### Disruption

Adolescent participants described their experience in all areas of their lives as being chaotic, inconsistent, distracted, side-tracked, and unsettling. Disruption included: (a) an internal feeling of chaos; and, (b) an external display of disorganization, tardiness, inconsistent and unpredictable behaviors.

The participants spoke of rapidly changing emotions, school assignments that they could not remember, and instructions that they did not comprehend. Some participants described their experiences as being similar to amnesia, at times, with short-term memory gaps, and almost trance-like loss of attention. At other times their attention may have been fully engaged, but on distracting events or objects that caused further disruption of their intended goal. One adolescent girl stated:

"I always play with my hands and make shapes and sit there and not pay attention. I get side-tracked so easily. People talk to me, but I'm watching someone else or hearing some other comment. Then I don't know what was said to me.

That person must think I'm so dumb."

Both boys and girls spoke of having thoughts interrupted or confused before they were clear on what they were thinking. Both boys and girls related that their feelings switched rapidly from hurt to anger to frustration to sadness. Not many of the participants described having positive emotions often or for extended periods of time.

The adolescent participants described not being able to keep order of their belongings or organize their time. They stated that they could not seem to arrive on time for appointments or have the appropriate materials with them at school or other activities. They described doing and saying things that they had not planned which often upset other people. They also stated that when they tried to create order in their environment, they usually became bored and distracted from the organizing project. A boy described his sense of disruption as:

"Maybe I do bounce off the walls, yelling at people, talking back to people. I don't mind actually getting in trouble. I happen to realize that half the time I speak and act before I think, but, so what, that's me."

It must be noted, however, that adolescence is marked by rapidly changing thoughts, feelings, and behaviors, so it may be difficult to determine how much of the participants' sense of disruption is related to ADHD and how much is a product of adolescence. Regardless, disruption did serve as an antecedent factor to the core process of sense of self. The adolescents experienced disruption to varying degrees of



intensity from being barely aware of it or seemingly not bothered by it (usually the boys) to internalizing it as an acute sense of failure (often the girls). However, the strength of the boys' denial that they were bothered by disruption might have indicated a more deeply defended level of disruption. The cause of this sense of disruption ranged from blaming others for being too distracting, demanding, or uninteresting (usually the boys), to blaming self for being too stupid, disorganized, or incompetent (often the girls). The following responses exemplified this range and gender pattern:

"These guys I live with are pathetic. They don't do anything but lay around, so that's what I do too. But the problem is I just don't like people telling me what to do...I prefer doing things by myself or telling other people what to do." (boy)

"My brother comes home, and he's had a bad day and it somehow transfers. Like I come home and say 'Hi', and he's like 'shut up'. I yell back. It's like he's nasty to me, so I'm nasty to him, even if I don't feel like it." (boy)

"I think teachers are very narrow-minded. She says I'm not paying attention, and I tell her yes I am--you just aren't teaching correctly." (boy)

"Someone will tell me something to do and then I'll write it down and they'll tell me when to do it, and I'll write it down, but I'll lose that piece of paper and forget about it. I'll go upstairs to get something and then I'll forget. I feel so stupid. Lately at school it's been really terrible, and at the end of a period, I'll be sitting in class and have a really bad headache." (girl)

"I just feel depressed because I think I'm stupid and I don't understand and can't focus. Everything is so confused. Everything distracts me...in the middle of class if I don't understand something, I just sit there and cry." (girl)

As with the experience of relationship, this experience of disruption tended to feed back and impact the adolescents' sense of self.

Treatments

The participants provided often strong and sometimes contradictory opinions regarding ADHD treatment. They primarily focused on medication regimens. All participants could name the medications they were currently taking, and those which they had taken in the past. Most participants could cite the dosage. Most of the boys stated that they could not really see a difference in the way they felt, thought, or acted when on medication as compared to when they were not taking medication. However, these same boys would say that they sometimes did act more erratically when not medicated:

"Nope, I don't notice any difference between being medicated and not-medicated. People just say I'm not bouncing off the walls as much, and maybe I'm not." (boy)

Parents reported much more consistently that they did see a positive change with medication including more cognitive focus, increased ability to cooperate and follow directions, and calmer, less agitated behavior (Kendall, 1997).

Two of the boys had recently refused to continue taking medication because they worried that it would "change who they are". The other boys agreed that they were concerned about that aspect of taking medications, and that they primarily took medications because their parents or their teachers thought the medication helped them manage themselves. Only one of the boys believed that the medication actually helped him express himself more

appropriately and contain his feelings:

"The medication helps me keep more control of my emotions. It helps me to think things through before I act."

The girls, on the other hand, showed a greater belief and reliance on medication. They consistently identified experiences both of inner confusion (cognitive and emotional) and external acting-out in relationships that had been modified and better controlled with medication.

"If I don't take my pills then me and my mom, I don't know what I do, but I get on her nerves a lot more if I don't take my pills than if I do...I seem to disagree more than I do with the pill."

"I can get a page of math work done in school when I take my pill, but if I forget, it takes me much longer to do my work because I keep having conversations."

The parents of the girls agreed with their daughter's assessments that medication helped to manage and organize their thinking and behavior (Kendall, 1997). However, all participants stated that they had difficulty remembering to take their medication. Except for the boy who was convinced that his medication regimen benefited him, all boys were especially erratic about taking their medications on a consistent daily basis.

Few of the adolescents believed that behavior management treatments had much affect. Most adolescent participants stated that they did what they wanted to do regardless of the consequences. The following statements exemplified this belief:

"If I'm in a bad mood, I don't really care how I act."  
(boy)

"It's the anger that gets you. If I could take time to

cool down it would help, but he's pushing you and screw thinking about what's going to happen to you--just hit him on the spot." (boy)

"I know I'll get in trouble if I don't get my homework done. I've got this IEP, and a point system when I do assignments, but when I start thinking I can't do it, nothing helps." (girl)

Parents of both boy and girl participants concurred with this negative assessment of behavioral management programs, although some stated that during grade school years star charts and other behavioral reward systems seemed to be effective (Kendall, 1997).

In contrast, most participants admitted that they believed certain rewards that were special to them might motivate them to make more positive behavior choices. The boys named such rewards as getting to use the phone or the CD player more often, playing sports, and taking art/ drama classes. One boy was highly motivated to control his behavior and comply with parental and teacher expectations because of his membership on the school football team. This may be due to the positive self-reinforcing relationship he was able to develop with the coach and other team members, as well as the attention and positive feedback he received from his parents (i.e., parental attendance at games, assistance with practice and plays). The girls indicated that more time with Mom and/ or Dad, and spending more time with a teacher, would help them do better.

The adolescents' perceptions of treatment and its impact on them, like the other concept areas of disruption

and relationships, appeared to impact their sense of self. In the case of the boys, their perception that medication did not make a difference in their abilities and/or actions, appeared to reinforce their belief that nothing was really wrong with them. Again, it was the rest of the world that could not deal with them.

### Actions

Actions exhibited how the adolescents managed their sense of self. These actions occurred as a feedback loop (see Figure 1) which continually affected future actions taken by the adolescents, as well as their developing sense of self. In describing these adolescent actions it is important to consider their cyclic nature: actions can also appear to be reactions and consequences, and can affect perception of self which, then, impacts the decision-making process for future actions. Others' actions also join this cycle. For example, an adolescent's action might be in response to a parent's action which was in response to a previous adolescent action which was the result of the adolescent's sense of self. Haley (1976) defines this cyclic nature of action as a system sequence in which, at any point in the cycle, each person involved in the communication may see him/ herself as acting, reacting, or perceiving self as a consequence of the action sequence. For example: a father behaves inattentively; the child behaves overtly; the mother tries to quiet the child so that the father is not

disturbed, but is ineffectual; the father yells with anger; the child quiets. Each of these actions could also be perceived as a reaction to a previous action, or as a consequence of a previous action (Haley, 1976). Each action in the communication sequence contributes to each participant's sense of self (i.e., father as powerful, mother as incompetent, child as unlovable). An example of the cyclic nature of action from this study was offered by one of the boy participants:

"I really liked my woodshop teacher and worked real hard in his class. I thought I had some skill. Then he got upset with me because I couldn't get my projects done on time. Then mom got mad at me because my teacher called her about it. So I quit school. Now mom's mad at the school and my teacher, and then says it's her fault. I just want to be left alone."

Each action in this example could also be perceived as a reaction or consequence of an action. Each action in the sequence contributed to each participants sense of self (i.e., teacher as directive, mother as ineffectual, child as incapable).

The adolescent participants of this secondary analysis described four types of actions that appeared to protect or assert their sense of self: aggression, withdrawal, denial/lying, and compliance. These actions occurred regardless of whether the adolescent was involved in a medication regimen and/ or behavioral management program, although the degree of intensity of the action might have been affected by these treatments.

Aggression toward others and/ or toward self.

As a result of being misunderstood, attacked, or frustrated, these adolescents would often become angry and act aggressively. Boys' aggression tended to be aimed at others in defiant and overt physical/ verbal actions. Girls more often exhibited self-destructive aggression as manifested by negative self-appraisal, depression, and/or eating disorders.

Withdrawal.

This action seemed to help the adolescents manage their feelings of inadequacy related to their perception that they were unacceptable to others and/ or incapable of achieving certain expectations. The boys tended to withdraw related to a belief that they didn't care about what others thought or that they were better than those around them. Girls appeared to withdraw out of a belief that they were too inadequate to be around others.

Denial/ lying.

Denying that they had problems or not being truthful seemed to fulfill a need for both boy and girl adolescents to achieve a more positive self-image. It became important for their sense of self to convince others that they were doing better than they really were.

Compliance.

This action occurred more often with girls than with boys. With girls, compliance appeared to be used most often

as a strategy to seek approval for self from others. With boys, compliance seemed to be an action, like playing sports, that either expressed their own positive feelings about themselves (i.e., being able to feel good about feelings of aggression), or was an action chosen in order to receive some meaningful reward or compensation (i.e., cleaning up his room for a new C.D.). These actions tended to be more thought-out and less spontaneous or impulsive than the other three action types. Compliance tended to be described by the participants as actions to make others feel good, as opposed to the self-defensive nature of aggression, withdrawal, and denial/ lying. However, the adolescent participants reported that compliance actions also tended to make them feel good.

### Consequences

Consequences were interdependent with participants' sense of self and choice of subsequent actions. Consequences of a previous action toward an event and/ or relationship contributed new conditions or reinforced old perceptions which then helped determine what the adolescent's next action would be (Strauss & Corbin, 1990). From this secondary analysis, three types of consequences emerged: (1) alienation from others; (2) conflict with others; and, (3) cooperation with others.

#### Alienation from others.

The primary consequence of actions by ADHD adolescent



girls was alienation from others. This was often accompanied by a secondary consequence of despair for the future. These consequences then became the condition of subsequent actions that tended to reinforce the core concept of sense of self in a negative way. For example:

"I don't think things will ever get any better, no matter how hard I try. I'm a failure. I don't talk about this to anyone because if people know about my ADHD they'll tease me like they do with kids who wear odd clothes."

Alienation was often the consequence of the actions of aggression, withdrawal, and denial/ lying.

Conflict with others.

The primary consequence for boys tended to be conflict with others which became the condition of subsequent actions that tended to reinforce the core concept of sense of self in a grandiose and defiant way. For example:

"It's other people who have the problem. It's not my fault they can't deal with me. If people would just stop nagging, just leave me alone, things would be fine."

Conflict with others was often the consequence of the actions of aggression, withdrawal, and denial/ lying.

Cooperation with others.

Cooperation with others tended to be the consequence of the action of compliance. Cooperation with others appeared primarily in two modes: one-to-one cooperation, and cooperation in counseling. Adolescents described one-to-one cooperation as time spent with a significant other on a specific activity. This type of consequence was described as helpful by the girls. For example:

"If I have a big project, my mom helps me find all the stuff I need for it. Just having her work with me makes me feel and act better."

One-to-one cooperation occurred less often for the boys, and seemed to be experienced as less helpful than the girls experienced it. This was particularly true when one-to-one cooperation occurred between the boys and their parents who were attempting to help them organize thoughts, feelings, or actions. This could be due to the boy participants' belief that they did not have a problem, and that they could control their actions. Believing they could control themselves appeared to be embedded in their sense of self, and, thus, made others' attempts at helping them manage their behavior seem like an attack, or, at least, an intrusion on their autonomy. The following statements from boy participants exemplify this idea:

"My family doesn't need to do anything to help me with my ADHD, but I can do whatever I need to be myself."

"I can't really say my parents or teachers have done anything to help me do well...basically, if I didn't want to do well it wouldn't happen."

"Nothing works because when I do something that I shouldn't do, I know I do it. Nothing can stop me from doing what I want to do once I have my mind on it. I control it."

One boy did respond well to one-to-one cooperation with his football coach, through his participation on the school football team. The positive impact of this consequence might have been enhanced by the opportunity for the boy to show competence through aggressive behavior that in other situations would be problematic. Membership on the football team also allowed him to engage in structured, action-

oriented peer relationships, and peripherally involved the supportive engagement of his parents as fans.

The second type of cooperation with others was described as cooperation in counseling. Counseling, though it was experienced by only three of the participants, appeared to be a consequence that held some potential for positive impact on the adolescents sense of self. The three adolescents who had participated in counseling (2 girls and 1 boy), stated that they felt better about themselves during the therapeutic relationship, and liked being able to talk about their thoughts and feelings without being judged or "lectured". These three participants expressed that they were not sure why counseling made them feel better about themselves, but they were sure that it did.

Cooperation with others was sometimes the consequence of the adolescent actions of aggression, withdrawal, and denial/ lying, especially when these adolescent actions were interpreted by others to be defensive actions against a negative sense of self. However, cooperation with others was more often the consequence of the adolescent action of compliance. Because the girl participants acted more often with compliance than the boy participants, cooperation with others was experienced by the girls more often. They also described cooperation with others as being a helpful experience more often than the boys did.

These consequences, that is alienation from others,

conflict with others, and cooperation with others reflected and influenced the adolescents' sense of self. Alienation from others reinforced the adolescent's sense of self as being different from and misunderstood by others. Thus, this consequence tended to perpetuate the actions of aggression, withdrawal, and denial/ lying with the accompanying feelings of anger, depression, and grandiosity. Conflict with others reinforced the adolescents' sense of self as being vulnerable, unacceptable, and out-of-control. Likewise, it appeared to perpetuate the actions of aggression, withdrawal, and denial/ lying with the accompanying feelings of anger, depression, and grandiosity. Cooperation with others showed some short term positive effect with all of the girl participants and some of the boy participants. The girls viewed it as usually helpful while the boys described it as sometimes helpful, sometimes intrusive, but mostly unnecessary. Whether cooperation with others impacted the adolescents sense of self in a positive or negative way was not clear. It did not appear to reinforce the action of compliance in most of the boys, although it may have in the girls. It did not tend to decrease actions of aggression, withdrawal, and denial/ lying in the boys, but may have with the girls. The consequence of cooperation with others may have been precursor to an experience of empathy from which some of the adolescents were able to diverge somewhat from their self-defended perspective and understand the

impact of their actions on others. As one boy participant stated:

"It's about being mature. As I grow older I think more about what will happen because of my actions--will it be on my record, will I get suspended? The consequences become more important as I get older. I play football, and if I get in a fight, I'm off the team. I'm learning responsibility. If I fight there will be stuff that will happen to me--I lose friends, have older people not respect me--have so many bad results that I won't want to fight any more."

This different perspective may have been due to this boy's participation in sports. Cooperation with others through this sports outlet provided him an opportunity to be aggressive in a structured and rewarded way. One ADD-diagnosed father in the Kendall (1997) research also spoke of being able to survive adolescence because of his involvement in sports.

#### Gender differences

Gender differences emerged as a contextual category which represented a particular set of conditions within which the adolescents' sense of self was formulated. The participants expressed patterns of thinking/ feeling about self, relating to others, experiencing treatment, struggling with disruption, selecting actions, and perceiving consequences that showed some gender specificity. Consequently, this researcher surmised that gender role expectations might have been a subtle but pervasive factor in how the adolescents experienced and exhibited ADHD. This expectation may be manifested in social acceptance and reward for aggressive behavior in young boys, and passive,

self-deprecating behavior in young girls. Additionally, adult role models of angry, aggressive men, and depressed, self-destructive women in these adolescent's environments might have influenced their behavior patterns.

### Summary

Encompassed within the context of the previously described gender differences (as evidenced in gender-specific response patterns), adolescent participants in this study appeared to formulate a sense of self that seemed to be a core process in how they experienced ADHD and themselves. The core category, sense of self, influenced and was influenced by the adolescents' understanding of and experience with relationships, internal and external disruption, treatment, chosen actions, and perceived consequences. Likewise, each of these categories (relationships, disruption, treatment, actions, and consequences) affected and overlapped each other in the primary settings of home, school, peer group, and, on a limited basis, community.

ADHD adolescent girls' sense of self centered on a failing or inadequate self related to their ADHD diagnosis and symptoms. The girls assessed their failure or inadequacy in terms of how well they met others expectations of them and how well they made friendships. ADHD adolescent boys did not tend to place as much importance on meeting others expectations or making friends, and in fact, expressed anger

at having to achieve external goals, follow rules, or conform to a standard of behavior. Girls felt depressed if they did not fit in; boys tended to feel defiant if they were pressured to fit in.

In terms of relationships, ADHD adolescent girls tended to be more sensitive to how their behavior affected others; ADHD adolescent boy participants ranged from being totally unaware of how their behavior affected others, to aware of some affect, but not concerned about it. Even though the boys could be accurate observers and reporters of their behavior (especially related to taking or not taking medication), they did not express insight as to how others were impacted by their behavior. Girls seemed to be more aware of the frustration, upset, disappointment, concern, and ridicule that others expressed in response to them and their behavior. Boys tended to share less about relationships than the girls did. ADHD boys tended to see difficulties in the family as being caused by someone else's behavior or expectations rather than their own. They tended not to see their behavior as a contributing factor in family discord, but, instead, blamed others' inability to tolerate or accommodate them. Girls appeared to be more sensitive to family discord, and assumed more responsibility for it than their male counterparts.

Regarding disruption, the boy participants had a greater tendency to blame others for any perceived failure

on their part and to express defiance of or indifference to the expectations they had not met. Girls tended to blame themselves and mourn their falling short of expectations. They also expressed jealousy toward those who were "doing better" than they were. Both boys and girls could describe their problematic behaviors. However, boys did not seem to internalize and integrate these observations into their sense of self as a failed self, but more as an unappreciated and/ or misunderstood self. There also appeared to be a tendency by the boys to hear how others perceived their behavior, but not integrate this information into a failed sense of self. Girls appeared to be more sensitive to other's responses to them, and adjusted their sense of self according to the feedback.

In reference to treatment, both girls and boys offered conflicting information, sometimes recognizing differences in their behavior related to medication, but more often not. Sometimes they could describe behavior management strategies that helped them, especially in organizing themselves for school participation. However, often they denied that any strategy, whether self-imposed or provided by another person, was helpful in their attempts at achieving school, parental, or peer expectations. This denial was especially true of the boy participants.

Related to actions, compliance usually only occurred when the adolescent did not perceive a threat to his/her



sense of self, and when the adolescent was highly interested in the request, activity, or reward for action. The girls placed more emphasis on social acceptance than boys did as a motivating factor for their compliance. However, both boy and girl participants appeared to have a minimal capacity to do what they did not like.

More often actions were taken in defense of self (i.e., primarily aggression for boys and withdrawal and lying for girls). Most of the participants had a difficult time with change and transition, and used withdrawal, aggression, or denial/ lying to manage themselves at these times. Both boys and girls were able to recognize aggressive behavior in others, and tended to have a low level of tolerance for it if it was aimed at them. However, they were not as able to recognize aggressive behavior in themselves, and if they did recognize it, they tended to minimize it or justify it as a reaction to something someone else did first. The boys, especially, had a tendency to mirror others' disruptive behavior, or act impulsively without thinking about the situation or attempting to negotiate a positive outcome.

As a consequence of these actions, adolescent participants were often alienated from others and conflicted with others which further reinforced the adolescent actions of aggression, withdrawal, and denial/ lying. These two types of consequences also appeared to reinforce a negative sense of self. Cooperation with others most often was a

result of the adolescent action of compliance. However, this occurred more often with the girl participants, and was described more often by the girls as being helpful.

The conceptual categories ( relationships, treatment, disruption, actions, and consequences) overlapped with and impacted each other. They also contributed to and were influenced by the adolescents' sense of self. The adolescents' perception of being different from peers was not always verbalized, especially by the boys. However it appeared to be strongly felt as manifested by depression and withdrawal in the girls, and anger and aggressive defiance in the boys. This manifestation raised the question of whether ADHD adolescents did or did not notice a difference between themselves and others, or if their denial of difference was due to their need to defend and protect the self.

There also appeared to be a tendency for both boys and girls to elevate the self by bragging or embellishing certain behaviors. They sometimes perceived their inner feelings as being of greater intensity than they believed others experienced, especially negative emotions such as "upset", "frustration", "anger", and "irritation". The boys tended to believe that they could manage and control any symptoms they did not really like without the help of medication or significant others. The girls, however, relied more on external strategies to help manage themselves. Both

boys and girls exhibited a strong tendency for isolation. Boys isolated themselves more from a sense of grandiosity, defiance, and/ or indifference toward others; girls isolated themselves more from a sense of failing and/ or feeling outcast.

The adolescent participants tended to not talk about their feelings easily, especially the boys, and did not like talking to others about ADHD. They were able to recognize and describe, however, agitation, frustration, boredom, and restlessness (girls also spoke of sadness, loneliness, and depression). They did not tend to think in terms of long-term goals. This might have been due to a lack of their sense of continuity over time.

Though the majority of the boy participants expressed a belief that they would do better if left alone, none of the participants expressed a belief that they were doing well, or that they thought they would do better in the near future. This belief was shared by parents and siblings (Kendall, 1997). The behavioral and attitudinal trajectory for the boy participants appeared to be increased anger and frustration, intensified alienation, and/ or aggression toward others. The trajectory for girls appeared to be increased depression and self-directed anger, intensified alienation, and/ or aggression toward self. This phenomenon appeared to occur whether or not the adolescent had received an early diagnosis, and was on medication or had received

behavioral management treatment for ADHD. In the following chapter these conclusions will be discussed further.

## Chapter V: Discussion and Recommendations

Introduction

In this chapter the analysis of the research findings are extended into conclusions that describe the following two emerging hypotheses: 1. the importance of the development of the self in ADHD adolescents; and 2. the influence of gender biases and role models on the development of self of ADHD children. The data analysis supports the need for further research into these two areas. The remainder of this chapter will discuss the theoretical and research literature that support how these two hypothetical ideas can be further conceptualized and described.

Discussion of these emerging hypotheses includes a description of Self-Psychology and its relation to infant neurological development (the biochemistry of attachment and emotional 'hard-wiring') and ADHD as a developmental disorder. Further, the impact of gender biases and role models is described as an external influence of the development of the self in ADHD children.

These ideas will be compared to previously cited literature and other recent writings. Most of the cited studies suggest a corroboration of the notion that development of the self may be an integral component in the understanding of causality, clinical assessment, and therapeutic treatment of ADHD. Finally, based on this

comparison of ideas, this chapter presents implications and recommendations for further research and future clinical applications.

## Discussion

### Conclusions and emerging hypotheses

Pervading this study's qualitative data of adolescents with ADHD is the theme of disrupted sense of self manifested by the chaos of disrupted development, distracted thoughts, unresolved frustrations, feelings of fragmentation, and detached and/ or destructive relationships. A second pervasive theme emerging from the data of this study is an apparent gender-oriented response/ outcome pattern. Analysis of the findings indicates that these two themes may be influenced by the development of the self through primary selfobject relations. Primary selfobject relations involve the growth-promoting functions of mirroring, idealizing, and twinning (Miller, 1996) which will be discussed further. These functions are provided by parents or significant others, and experienced by the child to become part of his/ her self structure (Miller, 1996). In this chapter primary selfobject functions will be described in detail and examined as to how they may be integrally involved, along with prenatal neurology and infant/ childhood behavioral patterns, in the development of ADHD in children.

These conclusions are presented as a conceptual model (Figure 2) that depicts the interaction between prenatal

factors (including genetics, neurological development, and womb environment), infant temperament and behavior, and the primary selfobject functions in the development of the self (see Figure 2).

#### Prenatal and infant neurology

As the model (Figure 2) indicates, prenatal environment provides the starting point, and strongly influences neonatal and infant temperament and behavior. According to Carla Shatz (as cited in Nash, 1997), neurologist at the University of California at Berkeley, the embryonic brain lays out a tentative circuitry that, through neural activity after birth, refines intricate connection networks. Shortly after birth, the infant brain produces trillions more connections between neurons than it is able to use. Through maturation the synapses in a child's brain undergo a process of experientially-induced editing, starting at the age of 10 or earlier, which produces a neurological system of cognitive and emotional pathways that are unique to that individual.

Research (Bornstein & Sigman, 1986; Belsky & Rovine, 1988; Colombo, Mitchell, Dodd, Coldren, & Horowitz, 1989) has shown that deprived of stimulation, an infant's brain suffers. However, new studies (Greenspan, 1997; McCall & Carriger, 1993; Millar, Weir, & Supramaniam, 1991) have shown that the brain, during the first years of life, is so malleable that very young children who endure strokes or

injuries that damage an entire hemisphere can still mature into highly functioning adults through positive relational experiences. According to Harry Chugani (as cited in Nash, 1997), inherited problems may place certain children at greater risk, but the environment's power to remodel the brain after birth may be significant, and must not be ignored. As Greenspan (1997) states, nature and nurture are not a competition between genetics and environment, but an intricate choreography.

Some of the first circuits the brain constructs are those that govern the emotions. Around two months of age, discomfort and contentment experiences by newborns evolve into more complex emotions of joy, pride, shame, envy, empathy, and sadness. According to pediatric neurologist Dr. Donald Shields (as cited in Nash, 1997), what wires a child's brain (or rewires it after trauma) is repeated experience. Each time a baby tries to touch a wanted object or gazes into a smiling face, bursts of electricity charge through the brain, weaving neurons into circuitry. When the brain does not receive positive information, shuts it out, or misinterprets it, the results can be disastrous. According to Greenspan (1997), some children who display early signs of autism retreat from the world because they are hypersensitive to sensory stimulation; others retreat because their senses are underactive and provide them with too little information. However, if parents can protect



these children from disorienting noises and lights, or provide attention-grabbing stimulation, three year olds who begin the downward spiral into autistic limitation can sometimes regain ability to achieve developmental tasks (Greenspan, 1997). Indeed parents are the infant brain's first and most important developers. According to Dr. Bruce Perry (as cited in Nash, 1997), parents are fundamental in the role they play in establishing their infant's neural circuitry that enables the child to regulate responses to stress and frustration. Because these early experiences of stress form a neurological template from which future brain development is established, the changes these responses create are significant and pervasive.

According to neuroscientists, the brain's greatest growth spurt draws to a close around the age of 10 when the balance between synapse creation and atrophy abruptly shifts (Nash, 1997). Through preadolescence and adolescence the brain destroys its weakest synapses, preserving those that have been encoded by repeated experience. By age eighteen the brain declines in malleability, but increases in potential cognitive power. Talents and latent tendencies that have been nurtured are ready to blossom. However, according to neuroscientist William Greenough (as cited in Nash, 1997), potential for expression may be encoded genetically, but whether it is exhibited as an ability to organize and problem-solve or as a penchant for disarray and

chaos depends on patterns chiseled by experience in those critical early years.

Primary selfobject relationship

The struggle for cohesion.

Again referring to the model (Figure 2), of equal importance and influence on infant temperament and behavior are primary selfobject relations. According to Miller (1996) in his interpretation of Kohut's theory of the development of the self, the struggle for internal integration, harmony, and cohesion is central to the self. The infant comes into the world with specific dispositions (genetic and biochemical) to order and identify his/ her environment (Stern, 1985). As the infant's brain develops, neuronal and synaptic editing occurs dependent on external stimuli. As Miller (1996) states, "...the organization of the brain is carved out, ...the final form is determined by a combination of genetic instructions and lived experience...the infant struggles against the confusing barrage of sensory and intrapsychic experience to create a cohesive organization" (p. 21).

The fear of inner chaos, or as Kohut (1971) termed it, fragmentation anxiety, becomes the motivation to create a sense of inner cohesiveness. Miller (1996) terms this the Principle of Internal Harmony, and states that the feeling most associated with internal harmony and a cohesive self is pleasure. Failure to develop a neurological balance that

optimally stimulates the pleasure center of the brain, whether due to problematic genetics or problematic experience, results in chronic dysphoria (Miller, 1996). When the brain's pleasure center is inadequately stimulated, the Principle of Internal Harmony drives the infant to develop compensatory imaginings or fantasies that will attempt to achieve a cohesive balance of pleasure stimulation (Miller, 1996). From this drive for inner order, Miller (1996) postulates that three motivational forces develop in the child: 1. the need to learn and explore (the Will To Do); 2. the need to establish a sense of temporal continuity so that moments of the past remembered in the present can become incorporated into one's current sense of self; and, 3. the need for relationships which sustain, nurture, and influence development. These forces motivate the infant's actions toward the goal of internal harmony (Miller, 1996) or cohesive self (Kohut, 1971).

According to Kohut (1971), primary selfobject relationships can facilitate or disrupt this struggle for a cohesive self. A pivotal study by Spitz (1945), and subsequent studies (Lichtenberg, 1989; Galatzer-Levy & Cohler, 1993; Stern, 1985, 1997) corroborate the notion that the bond with significant others is critical for the developing child. How parents respond to a child's attempts at exploration and mastery, building skill and memory, and sensing self in relation to others determines much of the

child's psychological growth (in conjunction with, and even in spite of, biogenetic factors).

Primary selfobject functions.

According to Kohut (1971), the self cannot be discussed without discussing the essential other (the selfobject). Selfobjects are "objects (other people) which are themselves experienced as parts of the self" (Kohut, 1971, p. XIV). Kohut focused this concept on the point of unity between self and object (symbiosis), and challenged previously entrenched notions separating the individual from his experience (Miller, 1996).

Kohut (1997) described three positive primary selfobject relationship functions: mirroring, idealizing, and twinning. These are growth promoting functions that parents provide for their child's motivational forces (need to learn, need for time continuity, and need for relationship), and their child's developing self. Through words, gestures and actions, the parent helps build a grandiose sense of self in the child--an image of self as all powerful and wonderful. Because the infant is not aware of a separate existence from parent, the image of self as all-powerful also becomes the idealized parent image (Miller, 1996).

As the infant grows and experiences the end of this symbiotic relationship (unity of self and object or other), the original image of perfection in the parent-child dyad

is replaced by two images of perfection. Through optimal primary selfobject functions these images of perfection will become transformed into the mature bipolarity of a good and bad self, and a good and bad parent (Miller, 1996).

#### Mirroring.

Mirroring involves the primary selfobject (parent) reflecting to the child his/ her perfection and greatness through words, gestures, and nurturing acts that show attunement to the child's needs. Mirroring needs include the need to feel affirmed, confirmed, recognized, accepted, and appreciated (Wolf, 1988). As stated previously, the image of self as all-powerful is entwined with the image of the idealized parent because of the infant's experience of others as part of self (Kohut, 1971).

#### Idealizing.

Idealization is the process of the child relying on the strength of the parent to preserve the child's self. When the parent understands the child's pain and frustration, s/he fulfills the idealized parent image for the child, allowing the child to feel cohesive and good about self.

Also necessary for development is the modification of the idealized image of the parent and grandiose image of self. According to Miller (1996), after developing these initial images, the child must deal with the inevitable frustration of his need to confirm them and the impossibility of doing so in the face of reality. If the

frustrations are small enough, and he receives confirmation of his greatness (mirroring) often enough, then the child will gradually modify the grandiose image of self. This is most likely when a parent is well attuned to the child's needs and lets the child know his frustration is understood. Such empathy can make an overwhelming experience tolerable so that the original experience of frustration becomes less significant and more manageable--what Kohut (1971) called optimal frustration. With this process of optimal frustration and parental empathy (including mirroring and idealizing), the child's grandiose self transforms into a healthy psychic structure. Kohut called this process transmuting internalization, which leads to the development of normal ambition, assertiveness, self-esteem, and exhibitionism (Miller, 1996).

If frustrations are overwhelming and parental empathy is lacking (that is, they do not mirror back the child's grandiosity, nor act as ideal comforters), then the primitive grandiose feelings split off from the core self. The core self is lacking in ambition and esteem, but retains elitist grandiosity (Miller, 1996).

#### Twinning.

The third category of primary selfobject functions, according to Kohut (1971), is the concept of twinning. This involves the notion that the self is like others and will not be alone in painful frustrations or in grandiosity. The

self will have some like-self with whom to share, and through the interaction will be able to validate and grow (Miller, 1996).

Kohut (1971) ascribed twinning functions to the parent-child relationship, but Miller (1996) believes that twinning can be established in other relationships outside the parent-child dyad (i.e., peer relationships) that will echo the closeness of the parent-child relationship while somewhat diminishing the idealized aspect. Miller (1996), in fact, does not see twinning so much as a separate primary selfobject function but as a special type of mirroring and idealizing that, as individuals mature, can be provided by an increasingly diverse source of relationships.

Miller (1996) also emphasizes the reciprocity of the mirroring, idealizing, and twinning functions. For example, when an infant smiles in response to her mother's loving caress, the grandiosity of self is mirrored to the child through the mother's touch, and also to the mother through the child's smile; catching a ball thrown by his father allows the son to feel a part of his father's greatness, and, reciprocally, the father's sense of competency is mirrored by his son's success. Even when the child becomes frustrated and does not receive exactly what he wants, his parents' empathy for his discomfort may help him reconstitute his sense of cohesive self.

Secondary self-structure

As the child grows, through his parents' empathic understanding, intrapsychic structures develop to deal with frustration. Play and childhood fantasy, as well as adolescent rebellion, are part of this child-created secondary selfobject structure where problems with external reality can be creatively resolved (Miller, 1996).

According to Miller (1996), secondary self-structure is formulated from about 1 1/2 years of age throughout life. However, he states that there are prominent key periods which correspond to periods of normal fragmentation that all people experience: 'the terrible twos', the oedipal phase, latency, and adolescence. Secondary self-structure develops gradually as a way to identify, symbolize, and deal with fragmenting experience. Whereas healthy primary self-structure is created through the influence of optimal parental responsiveness and attunement to the child's needs, secondary self-structure (the meaning that the child attaches to his experience by way of fantasy) is created as a response to fragmentation (Miller, 1996). Healthy secondary self-structure follows optimal frustration within the context of positive primary selfobject relationships. Non-optimal or intolerable frustration without the context of positive primary selfobject relationships leads to a more fragile, less adaptive, and potentially destructive secondary self-structure (Miller, 1996).



ADHD as a self-development disorder

As a child responds to primary selfobjects, s/he begins to develop a secondary self-structure to deal with optimal frustrations experienced in the primary selfobject relationship. This is a critical period for all children which requires adequate primary selfobject functions and proper timing of optimal frustration. If this occurs, the child is likely to develop a positive and constructive secondary self-structure, leading eventually to internalization of healthy ambitions, self-esteem, and self discipline.

Impact of primary and secondary self-structure.

Several factors complicate the process of developing self-structure for the child with ADHD. Children who come into the world with biologically based risk factors of disrupted attention span, lowered frustration tolerance, and increased impulsivity, may experience increased vulnerability throughout the period of self development.

Referring to the model (Figure 2), when an infant displays high irritability, hyperactivity, aggression, inattention, and/ or has difficulty being soothed, even a 'good enough parent' (Winnicott, 1949) who is providing positive primary selfobject functions may not be good enough. Even good enough parents may respond more often than not with disappointment, anger, impatience, frustration, exhaustion, identification, and guilt to the ADHD infant.

This is partly due to the reciprocity of the parent-infant relationship. The effect of reciprocity increases negative actions and reactions in both parent and child. They both begin to lose a sense of cohesion and struggle against self-fragmentation as they effect one another. In addition, when things are not going well, the risk factors of parents who may have had similar negative childhood experiences, who may be ADHD themselves, who may be depressed and/ or self-medicating with alcohol and drugs, or who may not be knowledgeable about ADHD or parenting, set a potential downward trajectory for development of a negative secondary self-structure and a disrupted development of self in the child with ADHD. This delayed self-development side-tracks the growing toddler and middle child into efforts at holding fragmentation at bay as opposed to exploring new skills and competencies (Miller, 1996).

#### Influence of gender expectations.

According to the model (Figure 2), a second factor that impacts this developmental trajectory, and may help determine the divergent psychological/ behavioral patterns that seem to emerge between ADHD boy adolescents and ADHD girl adolescents, is the pressure of gender roles and social mores on children and adolescents. Early gender role-models and social expectations may contribute to apparent gender-related response patterns in ADHD adolescents.

Development of empathy and personal responsibility.

Within the context of genetic/ biochemical predisposition, primary selfobject relationships, and gender-role pressures, there appears to be two developmental phenomena that emerge to influence the outcome profiles of adolescents with ADHD: 1. the ability (or lack of) to establish empathic relationships; and, 2. the tendency to internalize or externalize responsibility for failure.

According to Miller (1996), if a child does not develop the ability to be empathic from empathic primary selfobject relationships, then the tendency is to appear grandiose, narcissistic, and, at worst, anti-social (through integration of grandiose secondary self-structure into the developing adolescent self). Usually accompanying this self-development trajectory is the propensity to externalize responsibility (blame) to others for failures experienced.

An ADHD child may develop empathy for others, but not for self related to some failure in the primary selfobject relationship, social support, and biological predispositions. This can be manifested in a profile of depression, withdrawal, and alienation (Miller, 1996). These manifestations are exacerbated by a propensity for the child to internalize all perceived failures into the self (Miller, 1996).

Both of these seemingly opposite presentations may evolve in part from failures in the primary selfobject

relationship and distortions in the secondary self-structures that compensate for those failures. These presentations appear to exist on a continuum with the withdrawn, depressive profile at one end and the grandiose, aggressive profile at the other end of the range. A child may experience episodes of both of these presentation types while establishing a pattern that portrays one profile more consistently than the other. Gender expectations and parent models may play a strong role in molding ADHD girl's behavior more in the withdrawn/ depressive pattern, and ADHD boy's presentation more in the grandiose/ aggressive pattern.

#### Comparison of emerging hypotheses to current literature

Research related to the impact of interactions between parents and ADHD children on the child's behavior (Barkley, Karlsson, & Pollard, & Murphy, 1985; Mash & Johnston, 1982; Cheatum, 1982; Johnson, 1983; and, Leung, Robson, Fagan, & Lim, 1984), on family function (Minde, Weiss, & Mendelson, 1972; Hechtman, 1981; McGee, Williams, & Silva, 1984; Lewis-Abney, 1993; Fletcher et al., 1996; and, Fergusson, Lynskey, & Horwood, 1996), and on the development of comorbid disorders (Tarter, Alterman, & Edwards, 1985; Buitelaar et al., 1991; Long, Rickert, & Ashcraft, 1993; and, Schubiner et al., 1995) provided significant background information leading to the hypothesis that ADHD may involve a disruption of the development of the self. Johnston's (1996) comparison

of parent-child interaction and parent characteristics in families of non-ADHD children with those in families with ADHD children corroborates a possible link between negative primary selfobject functions and the display of ADHD symptomatology in children.

The findings of this secondary analysis corroborate those of Barkley (1990) and Leung, Robson, Fagan, and Lim (1994) in that the social, academic, and familial milieu in which the adolescent functions and builds comparisons between self and others is significant in understanding the effect ADHD has on the adolescent's experience. Whereas Schubiner et al. (1995) find in their research that at least 50% of children with ADHD continue to have significant symptoms through adolescence, this study finds all participants continue to have difficulty with relationships, school/ work competency, family/ community participation, and/ or self-esteem. In both Schubiner et al. (1995) and this study, these negative outcomes appear to occur whether or not early diagnosis and medication and/ or behavior management treatments are carried out. The Schubiner et al. (1995) study also finds that 40%-50% of children with ADHD have the comorbid condition of conduct disorder. Although several of the adolescents in this secondary analysis were diagnosed with oppositional-defiant disorder (ODD), over half of the boys (5) and one of the girls (out of 3) show significant symptomatic indications that this diagnosis

might be appropriate. In addition, two girls and one boy were diagnosed with major depressive disorder.

This secondary analysis finds, as did Schaughency et al. (1994), that even though self-report from adolescents with ADHD may differ from information provided by other sources (i.e., parents, siblings, teachers, peers), it is essential in gaining an understanding of the experience of the adolescent with ADHD. Self-report is also vital in grasping a more complete picture of the intrapsychic and systemic environment within which ADHD develops in children (Schaughency et al.).

An equally important source of information for this study was that which was gathered from a focus group of three adolescent boys with ADHD. This researcher agrees with the findings of Race, Hotch, and Packer (1994) and O'Brien (1993) that not only the content of information regarding participant experience is consistent and clarifying, but also the process the participants go through (i.e., how they are able to share with and motivate each other) adds to the understanding of the adolescents' experience of ADHD.

Knodel (1993) concludes that focus groups provide additional informative layers to the complex interconnectedness of population members to each other and the broader culture within which they function. This study indicates the significance of this broader perspective in its finding of specific gender-related patterns of thinking,

feeling, and behaving among adolescents with ADHD.

Other than the cited consistencies with previous research, this study finds significant gaps in what is known about ADHD in adolescents. First, very little self-report data has been gathered regarding the intrapsychic and relational experience of children and adolescents with ADHD. Very little data has been collected regarding early attachment and bonding experiences with ADHD children. Though much research has focused on specific brain chemistry mechanisms of children with ADHD, very little, if any, has focused on the 'hard-wiring' of emotions and self-esteem through primary selfobject relations in children with ADHD.

Research previously cited has focused on the area of assessment of ADHD in children: that is, identifying the behavioral and cognitive patterns which appear to indicate the conglomerate profile of inattention, disinhibition, impulsivity, and hyperactivity which is called ADHD. This assessment research, as well as the brain chemistry studies previously cited, is vital to the identification and treatment of ADHD, and, in fact, has become the basis of current assessment and treatment practices (see Figure 3).

However, this researcher, based on this preliminary qualitative study, believes that the area of self-development, through primary selfobject relationships, and within a gender context, must be scrutinized and added to existing knowledge before clinical treatment designs can be

truly appropriate and effective.

In fact, it is this researcher's interpretation that Barkley (1997), in his most recent work on ADHD in children, lays the groundwork for increasing the focus on intrapsychic self-structures. He states that ADHD is a disorder of response inhibition and related executive functions that allow for: 1. fixing and holding mental representations of events (working memory); 2. evaluation of these events against prior memories to deduce recurring patterns; 3. emergence of a sense of time; 4. emergence of self-awareness; 5. projecting the past forward in time to conjecture future options; 6. communicate to others about future; and, 7. increase preferences for delayed rewards through development (Barkley, 1997).

Barkley's (1997) definition parallels Kohut's (1971) and Miller's (1996) notion of the individual self's striving for internal harmony through establishing temporal continuity. This process occurs so that the moments of the past remembered in the present may become incorporated into one's sense of self and serve to both make connection with and distinction from others.

The commonality of Barkley's (1997), Kohut's (1971), and Miller's (1996) work may provide impetus for studying the connection between ADHD and development of self through primary and secondary selfobject structures. However, though Barkley (1997) recommends child and family therapy, the



thrust of his recent interpretation of ADHD returns clinicians to a treatment focused on behavioral training rather than intrapsychic self-development therapy in the context of family and gender expectations and role-models.

Hallowell and Ratey (1994), likewise, provide persuasive arguments for further research related to the link between ADHD in children and primary selfobject function in the development of the self. They state that children with ADHD usually have self-esteem problems that begin in early childhood. They propose that ADHD occurs within a developmental framework and evolves over time, similar to the evolution of a child's personality and cognitive ability (Hallowell & Ratey, 1994). They postulate that if ADHD is a problem with inhibition, then it makes sense that a collapsing of time occurs. Children with ADHD are not able to carve out discrete activities that would create a perception of separate moments as opposed to a relentless flow of events (Hallowell & Ratey, 1994). Again, this notion concurs with Miller's (1996) drive for internal harmony. Hallowell and Ratey (1994) go on to state that those who have ADHD characteristically are unable to stop at other's boundaries. This finding parallels Miller's (1996) and Kohut's (1971) description of negative primary selfobject relations producing the inability to distinguish self from selfobject.

Hallowell and Ratey (1994) strongly endorse the

inclusion of psychotherapy in the treatment of ADHD. They state that "therapy issues of hidden meanings, covert signals, concealed motives, repressed memories, and unspoken desires" (p. 225) should be addressed. However, while Hallowell and Ratey (1994) postulate that low self-esteem, depression, boredom, frustration, fear, impaired relationships, and aggressive behavior are secondary symptoms to the primary ADHD symptoms of distractibility, impulsivity, hyperactivity, and inattention, it is this researcher's view that this sequence might possibly be reversed, or that the symptom clusters might develop concurrently. That is, due to failed primary selfobject functions exacerbated by brain chemistry risk factors and problematic attachment behaviors, self-development is skewed into an ADHD symptomatology. In addition, to be fully understood, this intrapsychic self-development must be considered within the larger context of gender expectations and role-models.

#### Implication's for further research and future clinical application

To this point most research and subsequent treatment for children with ADHD has focused on medication for the brain chemistry aspect of the disorder, and behavior management to increase compliance with home, school, and social expectations. However, therapeutic attention to the primary selfobject functions which may be major

contributors to the ADHD child's psychological, cognitive, and behavioral dysfunction remains relatively minimal.

Based on the findings of this preliminary qualitative study and extension of theory to ADHD, implications of the importance of self development and gender-oriented cognitive/ behavioral patterns is seen as being integral in understanding the experience of adolescents with ADHD.

Recommendations for further research include:

1. Qualitative research with ADHD children, adolescents, and their parents related to the quality of primary selfobject relationships in early childhood;
2. Qualitative research with siblings and extended family members of ADHD children related to their relationship to the ADHD child and parent, and their experience of primary selfobject relationships within the context of the ADHD child;
3. Qualitative research with ADHD children/ adolescents, parents, and teachers related to their experience of social/ gender expectations and role models related to the behavior of the ADHD child;
4. Brain chemistry research on the affect of primary selfobject relations on the limbic system, furthering the work by Wender (1987) who proposes that ADHD may be due to a decreased activation of the brain's pleasure center and its connections.

Based on the findings of this study, and corroborating

data in Kendall (1997), this researcher believes that research related to ADHD child self development would fill a gap that currently exists in knowledge about ADHD.

Repeated statements from diagnosed and currently treated adolescents related to negative sense of self and/or experience of others, as well as recurrent statements from parents that their ADHD child was difficult from birth, and they feel discouraged and exhausted (Kendall, 1997), must be taken as plausible evidence in the consideration of primary selfobject functions as a significant aspect of ADHD. Current medicinal and behavioral treatments for ADHD in children and adolescents, according to the participants of the original Kendall (1997) study, are not helping them do well.

#### Limitations of the secondary analysis

Due to the small sample size, especially the low number of female participants, used for data collection in the original study (Kendall, 1997), any conclusions presented in this secondary analysis could not be generalized to a larger population. The nature of a secondary analysis precludes any expansion of number of participants or amount of data. Any hypotheses generated from this secondary analysis could only be useful in suggesting questions and focus for future research.

Other limiting factors in this secondary analysis included the homogeneity of the source of data, which was

self-report. Though self-report has been found to be a viable source of data (Schaughency et al., 1994), greater diversity of information sources would provide additional perspective. In addition, greater parity in gender representation, both in the individual interview data and the focus group data would have provided a deeper understanding of the female adolescent's experience of ADHD.

## References

Barkley, R. (1990). Attention deficit hyperactivity disorder: A handbook for diagnosis and treatment. New York: Guilford Press.

Barkley, R. (September, 1997). Attention deficit hyperactivity in children and adults. American Journal of Psychiatry, 3-40.

Barkley, R., Fischer, M., Edelbrock, C., & Smallish, L. (1991). The adolescent outcome of hyperactive children diagnosed by research criteria, III: Mother-child interactions, family conflicts, and maternal psychopathology. Journal of Child Psychology and Psychiatry 32, 233-256.

Barkley, R., Karlsson, J., Pollard, S., & Murphy, J. (1985). Developmental changes in the mother-child interactions of hyperactive boys: Effects of two doses of Ritalin. Journal of Child Psychology and Psychiatry 26, 705-715.

Belsky, J., & Rovine, M. (1988). Non-maternal care in the first year of life and the security of infant-parent attachment. Child Development 59, 157-167.

Betz, C. (1994). Developmental considerations of adolescents with developmental disabilities. Issues in Comprehensive Pediatric Nursing 17, 111-120.

Blumer, H. (1967). Society as symbolic interaction. In J. Mannis, & B. Meltzer (Eds.), Symbolic interaction: A reader in social psychology (pp. 139-148). Boston: Allyn and Bacon.

Bornstein, M., & Sigman, M. (1986). Continuity in mental development from infancy. Child Development 57, 251-274.

Bowers, B. (1988). Grounded theory. In B. Sarter (Ed.), Paths to knowledge: Innovative research methods for nursing (pp. 33-60). New York: National League for Nursing.

Buitelaar, J., Swinkels, S., de Vries, H., van der Gaag, R., & van Hooff, J. (1994). An etiological study on behavioral differences between hyperactive, aggressive, combined hyperactive-aggressive, and control children. Journal of Child Psychology and Psychiatry 35(8), 1437-1446.

Cantwell, D., & Baker, L. (1988). Issues in the classification of child and adolescent psychopathology.

Journal of the American Academy of Child and Adolescent Psychiatry 27, 521-533.

Cheatam, D. (1982). Family cohesion and adaptability as correlates of overcontrolled and undercontrolled behaviors of children. Dissertation Abstracts International 42, 4184B-4185B.

Clements, D., Copeland, L., & Loftus, M. (1990). Critical times for families with a chronically ill child. Pediatric Nursing 16(2), 157-161, 224.

Colombo, J., Mitchell, D., Dodd, J., Coldren, J., & Horowitz, F. (1989). Longitudinal correlates of infant attention in the paired-comparison paradigm. Intelligence 13, 33-42.

Comfort, R. (1992). Living with an unconventional child. Journal of Pediatric Health Care 6, 114-120.

Erikson, E. (1963). Childhood and society (2nd ed.). New York: Norton and Company, Inc.

Feetham, S., & Humenick, S. (1982). The Feetham family functioning survey. In S.S. Humenick (Ed.), Analysis of current assessment strategies in the health care of young children and childbearing families (pp. 259-268). Norwalk, CT: Apple-Century-Crofts.

Fergusson, D., Lynskey, M., & Horwood. (1995). Factors associated with continuity and changes in disruptive behavior patterns between childhood and adolescence. Journal of Abnormal Child Psychology 24(5), 533-551.

Fischer, M., Barkley, R., Edelbrock, C., & Smallish, L. (1990). The adolescent outcome of hyperactive children diagnosed by research criteria, II: Academic, attentional, and neuropsychological status. Journal of Consulting and Clinical Psychology 58, 580-588.

Fischer, M., Barkley, R., Fletcher, K., & Smallish, L. (1993). The stability of dimensions of behavior in ADHD and normal children over an eight year period. Journal of Abnormal Child Psychology 21, 315-337.

Fletcher, K., Fischer, M., Barkley, R., & Smallish, L. (1996). A sequential analysis of mother-adolescent interactions of ADHD, ADHD/ODD, and normal teenagers during neutral and conflict discussions. Journal of Abnormal Child Psychology 24(3), 271-295.

Frey, J., & Fontana, A. (1993). The group interview in

social research. In D. Morgan (Ed.), Successful focus groups (pp. 24-26). Newbury Park, CA: Sage Publications.

Friedman, M. (1992). Family nursing: Theory and practice (3rd ed.) Norwalk, CT: Appleton and Lange.

Galatzer-Levy, R., & Cohler, B. (1993). The essential other. New York: Basic Books.

Glaser, B., & Strauss, A. (1967). The discovery of grounded theory: Strategies for qualitative research. Chicago, Ill: Aldine Publishing Company.

Greenspan, S. (1997). The growth of the mind. California: Addison-Wesley.

Haley, J., (1976). Problem-solving therapy. New York: Harper and Row.

Hallowell, E., & Ratey, J. (1994). Driven to distraction. New York: Touchstone.

Hechtman, L. (1981). Families of hyperactives. In R.G. Simmons (Ed.), Research in community and mental health (Vol. 2, pp 275-292). Greenwich, CT: JAI Press.

Hunt, R., Hoehn, R., Stephens, K., & Osten, C. (1994). Clinical patterns of ADHD: A treatment model based on brain functioning. Comprehensive Therapy 20(2), 106-112.

Johnson, B. (1983). Children coping with divorce: A test of the circumplex model of family functioning. Dissertation Abstracts International 43, 3428A-4329A.

Johnston, C. (1996). Parent characteristics and parent-child interactions in families of nonproblem children and ADHD children with higher and lower levels of oppositional-defiant behavior. Journal of Abnormal Child Psychology 24(1), 85-102.

Jones, R., & Day, R. (1977). Social psychology as symbolic interaction. In C. Hendrick (Ed.), Perspectives on social psychology (pp. 75-135). New York: John Wiley and Sons.

Kendall, J. (1997) Experiences of doing well in families with ADHD children. Manuscript submitted for publication.

Knodel, J. (1993). The design and analysis of focus group studies. In D. Morgan (Ed.), Successful focus groups (pp. 35-50). Newbury Park, CA: Sage Publications.



Kohut, H. (1971). The analysis of self. New York: International University Press.

Leung, A., Robson, W., Fagan, J., & Lim, S. (1994). Attention-deficit hyperactivity disorder: Getting control of impulsive behavior. Postgraduate Medicine 95(2), 153-160.

Lewis-Abney, K. (1993). Correlates of family functioning when a child has attention deficit disorder. Issues in Comprehensive Pediatric Nursing 16, 175-190.

Lichtenberg, J. (1989). Psychoanalysis and motivation. Hillsdale, New Jersey: Analytic Press.

Lobar, S., & Phillips, S., (1995). Developmental conflicts for families dealing with the child who has attention deficit hyperactivity disorder. Journal of Pediatric Health Care 9, 115-122.

Long, N., Richert, V., & Ashcraft, E. (1993). Bibliotherapy as an adjunct to stimulant medication in the treatment of attention-deficit hyperactivity disorder. Journal of Pediatric Health Care 7, 82-87.

Mash, E., & Johnston, C. (1982). A comparison of the mother-child interactions of younger and older hyperactive and normal children. Child Development 53, 1371-1381.

Mash, E., & Johnston, C. (1983a). Parental perceptions of child behavior problems, parenting, self-esteem, and mother's reported stress in younger and older hyperactive and normal children. Journal of Consulting and Clinical Psychology 51, 86-99.

Mendelson, W., Johnson, N., & Stewart, M. (1971). Hyperactive children as teenagers: A follow-up study. Journal of Nervous and Mental Disorders 153, 273-279.

Millar, W., Weir, G., & Supramaniam, G. (1991). The relationship between encoding, discriminative capacities, and perinatal risk status in 4-12 month old infants. Journal of Child Psychology and Psychiatry 32, 473-488.

Miller, J. (1996). Using self-psychology in child psychotherapy. Northvale, New Jersey: Jason Aronson.

Minde, K., Weiss, G., & Mendelson, N. (1972). A 5-year follow-up of 91 hyperactive school children. Journal of the American Academy of Child Psychiatry 11, 595-610.

Morgan, D., & Krueger, R. (1993). When to use focus groups and why. In D. Morgan (Ed.), Successful focus groups

(pp. 3-34). Newbury Park, CA: Sage Publications.

McAnear, S. (1990). Parental reaction to the chronically ill child. Home Healthcare Nurse 8(3), 35-40.

McCall, R., & Carriger, R. (1993). A meta-analysis of infant habituation and recognition memory performance as predictors of later I.Q. Child Development 64, 57-79.

McGee, R., Williams, S., & Silva, P. (1984). Background characteristics of aggressive, hyperactive, and aggressive-hyperactive boys. Journal of the American Academy of Child Psychiatry 23, 280-284.

Nash, J. (February 3, 1997). How a child's brain develops. Time, 48-56.

O'Brien, K. (1993). Using focus groups to develop health surveys: An example from research on social relationships and AIDS-preventive behavior. Health Education Quarterly 20(3), 361-372.

Pennington, B. (1991). Diagnosing learning disorders: A neuropsychological framework. New York: Guilford Press.

Race, K., Hotch, D., & Parker, T. (1994). Rehabilitation program evaluation. Evaluation Review 18(6), 730-740.

Schaughency, E., McGee, R., Raja, S., Feehan, M., & Silva, P. (1994). Self-reported inattention, impulsivity, hyperactivity at ages 15 and 18 years in the general population. Journal of the American Academy of Child and Adolescent Psychiatry 33(2), 173-184.

Schubiner, H., Tzelepis, A., Isaacson, H., Warbasse, L., Zacharek, M., & Musial, J. (1995). The dual diagnosis of attention-deficit/hyperactivity disorder and substance abuse: Case reports and literature review. Journal of Clinical Psychiatry 56(4), 146-150.

Sorenson, E. (1990). Children's coping responses. Journal of Pediatric Nursing 5(4), 259-267.

Spitz, R. (1945). Hospitalism: Psychoanalytic study of the child, I. New York: International Universities Press.

Stern, D. (1985). The interpersonal world of the infant. New York: Basic Books.

Stern, D. (1997, March). Developmental process and the reordering of the intersubjective environment in treatment.

In Massachusetts Mental Health Center (Host), Developmental process and the enigma of change in psychodynamic therapy. Symposium conducted at Boston, Mass.

Strauss, A., & Corbin, J. (1990). Basics of qualitative research. Newbury Park, CA: Sage Publications.

Tarter, R., Alterman, A., & Edwards, K. (1985). Vulnerability to alcoholism in men: A behavior-genetic perspective. Journal of Studies on Alcohol 46, 329-356.

Trute, B. (1990). Child and parent predictors of family adjustment in households containing young developmentally disabled children. Family Relations 39(3), 292-297.

Wender, P. (1987) The hyperactive child, adolescent, and adult. London, England: Oxford University Press.

Whaley, L., & Wong, D., (1991). Nursing care of infants and children. St. Louis, MO: Mosby.

Whatley, J. (1991). Effects of health locus of control and social network on adolescent risk-taking. Pediatric Nursing 17(2), 145-148.

Winnicott, D. (1949). Hate in the countertransference. International Journal of Psycho-Analysis, 30, 69-75.

Zametkin, A., Nordahl, T., Gross, M., King, A., Semple, W., Rumsey, J., Hamburger, S., & Cohen, R. (1990). Cerebral glucose metabolism in adults with hyperactivity of childhood onset. New England Journal of Medicine 323(20), 1361-1366.

Zentall, S. (1993). Research on educational implications of ADHD. Exceptional Children 60, 143-153.