An Investigation of Social Skills and Attributional Styles of Children with Attention Deficit Disorder/Hyperactivity

by

Cynthia L. Kisamore

Dissertation submitted to the Faculty of the Virginia Polytechnic Institute and State University in partial fulfillment of the requirements for the degree of Doctor of Philosophy

in

Family and Child Development

APPROVED:

Victoria R. Fu, Chair

Mary Ann Hanna

Lawrence A. Kurdek

Cosby S. Rogers

Michael J. Sporakowski

February, 1988

Blacksburg, Virginia

An Investigation of Social Skills and Attributional Styles of Children with Attention Deficit Disorder/Hyperactivity

by

Cynthia S. Kisamore

Victoria R. Fu, Chair

Family and Child Development

(ABSTRACT)

The purpose of this study was to assess the relationship among parent child-rearing practices, children's internal/external attributional styles and social skills between Attention Deficit Disorder/Hyperactivity (ADD/H) and non-Attention Deficit Disorder/Hyperactivity (non-ADD/H) children. A review of the literature revealed a need to investigate the social skills and internal/external attributional styles of ADD/H and non-ADD/H children and their relationship to child-rearing practices.

Results indicated group differences between the parents of ADD/H children versus the parents of non-ADD/H children on the dimension of encouragement of independence. It was found that the mothers of ADD/H children reported higher mean scores as compared to mothers of non-ADD/H children. Differences between the parents of ADD/H children versus the parents of non-ADD/H children were found on the authoritarian control dimension. Further analysis indicated

that the mothers of ADD/H children reported higher authoritarian control scores than did the mothers of non-ADD/H children. Overall group differences were found on the parental control dimension with parents of ADD/H children having higher combined scores than the parents of non-ADD/H children.

The relationship between parents' child-rearing practices and their children's internal/external attributional styles were examined. The results indicated a relationship between the child-rearing dimension of encouragement of independence and the children's attributional styles for mothers only. No other significant correlations were found on the remaining child-rearing dimensions for mothers or fathers.

Finally, some support was found for the prediction that the children's ADD/H status and the attributional style (internal/external) of the children were related to their social functioning. The external ADD/H children reported lower overall social functioning, lower appropriate social functioning, and higher negative social skill scores than internal non-ADD/H children.

Acknowledgements

I would like to thank the many people for their assistance in the completion of this study.

Dr. Victoria K. Fu, my advisor, for her expertise, support, and guidence on this dissertation as well as my graduate career in child development. You deserve immeasurable thanks for all of your patience, time, and encouragement.

Dr. Mary Ann Hanna, for sharing your support and friendship during the past three years. I have learned so much from you, both professionally and personnally. You have taught me what a true clinician is really made of.

Dr. Cosby S. Rogers, Dr. Michael J. Sporakowski, and Dr. Lawrence H. Cross, for their support and guidance as graduate committee members.

My friends and fellow graduate students,

The editors,

. My Roanoke family, and Walter

, for all of their love and support.

My father-in-law, , for his humour, understanding, love, and his son.

My parents, I would like to thank you for all of the love and emotional support you have given me throughout my life. Thank you for always being there for me.

My husband, , for always standing by me through thick and thin, through semmingly endless exams, papers, and revisions. Thank you for never giving up on me and always encouraging me to hang on a little longer. You deserve much of the credit for the completion of this degree. Your support has been totally unselfish and unconditional. Now we can finally get on with our lives and live life to its fullest.

TABLE OF CONTENTS

TABLE OF CONTENTS
(continued)

LIST OF TABLES

Chapter 1

Introduction

This research was designed to assess the relationships among parent child-rearing practices, children's internal/external attributional styles, and social skills of children with Attention Deficit Disorder with Hyperactivity (ADD/H) and non-ADD/H children. More specifically, the study examined: ADD/H and non-ADD/H children's ratings of their social skills and their attributional styles; and ADD/H and non-ADD/H children's parents' parenting scores on dimensions of encouragement of independence, authoritarian control, and parental control.

After a review of the literature investigating the relevant issues associated with Attention Deficit Disorder and theoretical context of the present approach to attribution theory, the present study will be described and research questions postulated.

Attention Deficit Disorder

In recent years, Attention Deficit Disorder/Hyperactivity (ADD/H) in childhood has presented perplexing and controversial issues in both research and clinical settings. Research on the topic of hyperactivity in children has grown at a remarkable rate in the last 10 years. Researchers have focused on the philosophical

theoretical, diagnostic, and treatment aspects of the disorder, yet unanswered questions still remain.

History

Throughout the history of the study of hyperactivity, many diagnostic labels have been attached to children who displayed symptoms such as increased motor activity, illsustained attention, impulsivity, learning disabilities, and/or conduct disorders. In 1902, Still, a British pediatrician, was the first to present a detailed description of children who displayed a cluster of behavioral problems which he termed "defects in moral control" (Ross & Ross, 1976; Weiss & Hechtman, 1985). Still found that hyperactivity occurred disportionately more often in boys than girls. He described hyperactive children as having learning difficulties, conduct disorders, and poor attention and proposed that the etiology was organically based.

During the 1920's and 1930's, researchers linked hyperactivity in children to postencephalitic behavior disorders. Just as Still had previously described them, the children had hyperactivity, impulsivity, anti-social behavior, and emotional lability.

In 1937, Bradley discovered a noticeably steady improvement, both behaviorally and academically, in

hyperactive children treated with benzedrine. He described the etiology of the disorder as multiple, but specifically related to both organic and environmental factors.

The label Minimal Brain Damage Syndrome followed hyperactive children throughout the 1940's and 1950's. Credit for this term has been attributed to the work of Strauss and Kephart from the 1930's. They emphasized the importance of early recognition of the syndrome for early placement in special educational settings. The work of Knobloch and Pasamanick (1959) further reinforced the terminology of Minimal Brain Damage Syndrome. They compared birth histories of 500 children referred for behavioral problems with 350 "normal" children matched with the same socioeconomic status. They found that the children referred for behavioral problems had significantly greater incidences of histories of prenatal and perinatal complications than did the controls.

Research during the 1960's was concentrated on the motor activity levels of the hyperactive child. Hyperactivity was no longer viewed as a brain damage syndrome but as a spectrum of complex behaviors which included a small number of cases resulting from brain damage. The American Psychiatric Association (1968) created the category of Hyperkinetic Reaction of Childhood, and incorporated a behavior profile emphasizing excessive

quantities of motor activity.

During the 1970's, hyperactivity was viewed as a more widespread problem involving deficits in self-control, obedience to rules, social conduct, and attention. The Diagnostic and Statistical Manual of Mental Disorders (1980) (DSM-III) classified the disorder as "Hyperkinetic reactions of childhood". Research began in areas of food additives (Conners, 1975), genetic factors (Stewart, 1973), and the role of minor physical anomalies (Schnakenburg, 1973) in order to predict hyperactivity.

The classification of hyperactivity again changed in 1980 with the DSM-III. The current DSM-III terminology, Attention Deficit Disorder/Hyperactivity, has attempted to operationally redefine the syndrome in order to stimulate further research. The reformulation was justified in part because attention deficits appeared to be more of a central and persistent aspect of the syndrome.

Incidence Rate

Attention Deficit Disorder/Hyperactivity is currently the most frequently referred child behavioral problem in mental health agencies and private practices (Gordon, 1986). Because hyperactivity is assessed using various definitions, its true incidence cannot be accurately determined. The estimated incidence of hyperactivity in the United States

elementary school population is approximately five to 12 percent (Cohen & Eichleeder, 1977; Miller, Palkes, & Stewart, 1973). The problem is typically identified much more frequently in boys than in girls. Miller, Palkes, and Stewart (1973) reported an incidence of only one in 100 girls while other studies report ratios ranging from three or four boys to every one girl (Safer & Allen, 1976).

Definitions

Although clinicians clearly acknowledge the existence of hyperactivity, there is little concensus of a uniform definition. Some view the disorder solely in terms of excessive motor activity, while others view the disorder in terms of neurological damage. Many consider the disorder a deficit of higher cognitive structures. Gordon (1986) refers to hyperactivity as a disorder of "Meta cognitive strategies" in terms of problem solving. While lacking a clear definition, the disorder was diagnosed by clinicians from highly subjective criteria. In reviewing over 200 studies of hyperactivity, Barkley (1981) reported that 70 percent of the researchers failed to employ any specific objectives or criteria other than their own opinion in diagnosing these children.

In order to reduce the ambiguity in this area, the American Psychiatric Association listed specific criteria in

DSM-III (1980). The DSM-III presented the term Attention Deficit Disorder with or without hyperactivity. The definition emphasized the quality versus the sole quantity of the child's behavior. According to the DSM-III, the diagnostic criteria for Attention Deficit Disorder with Hyperactivity is as follows:

> The child displays, for his or her mental and chronological age, signs of developmentally inappropriate inattention, impulsivity, and hyperactivity. The signs must be reported by adults in the child's environment, such as parents and teachers. Because the symptoms are typically variable, they may not be observed directly by the clinician. When the reports of teachers and parents conflict, primary consideration should be given to the teacher reports because of greater familiarity with age-appropriate norms. Symptoms typically worsen in situations that require self-application, as in the classroom. Signs of the disorder may be absent when the child is in a new or a one-to-one situation.

A. Inattention. At least three of the following:
   (1) often fails to finish things he or she starts
   (2) often doesn't seem to listen
   (3) easily distracted
   (4) has difficulty concentrating on schoolwork or other tasks requiring sustained attention
   (5) has difficulty sticking to a play activity

B. Impulsivity. At least three of the following:
   (1) often acts before thinking
   (2) shifts excessively from one activity to another
   (3) has difficulty organizing work (this not being due to cognitive impairment)
   (4) needs a lot of supervision
   (5) frequently calls out in class
   (6) has difficulty awaiting turn in games or group situations

C. Hyperactivity. At least two of the following:
   (1) runs about or climbs on things excessively
   (2) has difficulty sitting still or fidgets excessively
   (3) has difficulty staying seated
   (4) moves about excessively during sleep
   (5) is always 'on the go' or acts as if 'driven by a motor'

D. Onset before the age of seven.
E. Duration of at least six months.
F. Not due to Schizophrenia, Affective Disorder, or Severe or Profound Mental Retardation (DSM-III, 1980).

Although many clinicians and researchers expressed acceptance of the criteria suggested by the DSM-III, they listed several criticisms which included a lack of norms at the different ages for determining abnormality of symptoms and the failure to specify whether the condition is pervasive or situational (Barkley, 1981; Weiss & Hechtman, 1985). Barkley (1981, 1982) stated that the DSM-III's definition and criteria were "too liberal and too vague". He defined hyperactivity/ADD as follows: hyperactivity or attention deficit disorders, is a significant deficiency in age appropriate attention, impulse control, and rule governed behavior (compliance, self-control, and problem solving) that arises by infancy or early childhood, is significantly pervasive in nature, and is not the direct result of general intellectual retardation, severe language delay or emotional disturbance, or gross sensory or motor impairment (Barkley, 1982, p.5).

In addition to redefining hyperactivity, Barkley (1981, 1982) also listed specific criterion to be employed by clinicians when making diagnostic decisions.

Diagnostic criteria for ADD/Hyperactivity

1. Parent or teacher complaints of poor attention span, impulsivity, restlessness and inability to restrict behavior as situation or adult demands.
2. Complaints of behavior place child two standard deviations (i.e. fifth percentile or below) from mean for his/her age and sex group as determined by well standardized behavior scale of parent or teacher opinion.
3. Onset prior to 5 years, 11 months (differs from

DSM-III).

4. Duration of symptoms at least one year (differs from DSM-III).
5. Pervasiveness of symptoms such that the child is scored at or below the fifth percentile for either the Home Situation Questionnaire or School Situation Questionnaire.
6. Full Scale IQ > 70.
7. Child does not display symptoms of autism or psychosis, or show evidence of blindness, deafness, aphasia or gross neurological disease (e.g. tumors, strokes, neurodegenerative disease, or obvious CNS trauma) (Barkley,1981,p.6).

Barkley's (1982) definition of hyperactivity differs from others by excluding children with acquired neurological disease or trauma at any age who developed hyperactive symptoms immediately after the disease or trauma.

Although the majority of clinicians and researchers are employing the DSM-III (1980) or Barkley's criteria (1981, 1982, 1984), the lack of consensus regarding diagnostic criteria is to date a chronic and serious problem. The lack of agreement in terms of selection of criteria hinders the generalizability of research findings and the efforts to develop effective treatment programs. It also limits comparisons of treatment studies (Barkley, 1982; Gordon, 1986; Loney, 1980).

Typical Characteristics of ADD/H Children

Researchers have compiled data on the behavioral and physical characteristics of hyperactive children for over four decades. Throughout this time, the vast majority of

research has concentrated on children between the ages of 6 and 12 years of age. It appears that the middle childhood ages produce the majority of referrals in the mental health area for hyperactive behaviors. Many referrals are delayed until children enter the first grade where new demands are placed on the children. The children are exposed to a structured group situation where they are expected to sit for longer periods of time. The children are also expected to pay attention to tasks without constant adult intervention. Within this general age category, the following profile has been formulated:

1) Physical: Recent research suggests that hyperactive children are typically smaller and thinner than peer aged friends. Bone development tends to be 5 to 12 months younger than their chronological age. In addition to cortical immaturity, a significantly greater amount of neurological "soft sign", higher tolerance to pain, and a higher number of physical ailments and anomalies (e.g. allergies, epicanthus, larger third toe, markedly curved fifth finger, and mildly abnormal reflexes) are identified when compared to normal children. (Hastings & Barkley, 1978; Stewart, Thach, & Freidin, 1970; Taylor, 1979; Wolfe & Forsythe, 1978).

2) Attention: Some studies have indicated that ADD/H children are easily bored and satiated and have poor

sustained attention (Douglas, 1972; Douglas & Parry, 1983; Rosenthal & Allen, 1980; Sykes, Douglas, Weiss, & Minde, 1971). ADD/H children have also been found to display inappropriate activity unrelated to tasks at hand (Klein & Young, 1979; Rutter, 1982).

3) Emotions: Difficulties with self-control, attention-seeking behaviors (calling out), low frustration tolerance, impulsivity in behavior and cognitive styles have recently been reported by researchers (Campbell, Douglas, & Morgenstern, 1971; Hoy, Weiss, Minde, & Cohen, 1978).

Other researchers have found that ADD/H children display emotional immaturity, exaggerated emotional reactions, immature moods which are more labile and capricious, increased aggressiveness, hysteria, become emotionally upset easily, or excitable (Barkley, 1981; Weiss & Hechtman, 1985). Finally, research suggests that these children exhibit low self-esteem resulting in some hyperactive children suffering from clinical depression (Campbell, Endman, & Bernfeld, 1977; Robins, 1966).

Academic Achievement

According to Cantwell and Satterfield (1978), ADD/H children have been found to have poor school achievement which may result from learning deficits, inappropriate education, or clumsiness which affects the acquistion of

reading, math, or writing skills. Other researchers have also concluded that ADD/H children experience difficulties in learning under conditions of partial reinforcement (Douglas & Parry, 1983; Freibergs & Douglas, 1969) and organizational abilities (Minde, Lewin, Weiss, Lavigueur, Douglas, & Sykes, 1971).

Social Factors

Whalen, Henker, and Dolemoto (1981) described ADD/H children as socially immature, egocentric, exhibiting poor regard for consequences of behavior resulting in poor peer accceptance, and difficulty in relating to parents, siblings, teachers, and peers.

Etiological Factors

There is no single etiological factor to date which could appropriately explain all of the symptoms and correlates of ADD/H. Researchers have postulated various etiological subgroups employing ADD/H as multi-etiologic in nature. As an example, Nichols and Chen (1980) conducted a collaborative perinatal project at the National Institute of Health. In this study 50,000 children were followed from birth to seven years of age. Nichols found statistical associations between later hyperactivity and maternal smoking during pregnancy, obstetrical and birth

complications, the presence of hyperactivity in a sibling, and father absence from the home. Parent history of hyperactivity, alcohol abuse, and emotional problems in adulthood were also hypothesized factors.

Neurological Factors

One of the most frequently postulated etiological factors of ADD/H are neurological in nature. Weiss and Hechtman (1985) suggest strong linkages between brain damage or injury occurring around the time of the child's birth and hyperactivity. Rapoport, Buchsbaum, Zahn, Weingartner, Ludlow, & Mikkelsen (1978) focused on the concept of neurological immaturity where there appears to be a delay in the maturation of the central nervous system (CNS) structures underlying attention and response inhibition. As many as 50 percent of hyperactive children showed unaroused electoencephalogram patterns suggestive of cortical immaturity. Several investigators also interested in the neurological factor hypothesized that ADD/H stems from neurotransmitter deficiencies within given brain structures (Waldrop & Halverson, 1971). Although the neurological hypotheses are appealing and show great promise, current research remains inconclusive.

Allergic Reactions

Over the last three decades, a great deal of research has been generated linking ADD/H to allergy producing substances and to a variety of toxins. Leaders in this area (Barkley, 1978; Feingold, 1975) suggest that various food dyes, additives, and sugars may be a causative factor in some cases of hyperactivity and learning disabilities. Current empirical support for these theories are very weak. As Connor's (1980) research has shown, effects of food additives are limited to a very small percentage of the population and are found predominantly in children under six years of age. Additional research in this area has linked other toxic substances with hyperactivity in children. Shaywitz, Cohen, and Shaywitz (1980) have established that children with high levels of lead in the blood stream exhibit hyperactive patterns of behavior. The researchers found as many as 30 to 35 percent of these children to be hyperactive. Behavioral improvement was noted with many of the children upon purging the lead from their body tissues (chelation therapy).

Similarly, toxic reactions to sedatives and anticonvulsant drugs have been reported. Hastings and Barkley (1978) suggested that over 30 percent of children placed on these drugs became hyperactive with diminishing symptomatology upon discontinuation. However, as Hastings

and Barkley (1978) concluded, these reactions were hardly responsible for a sizable portion of the hyperactive population.

Maternal Smoking

As reported earlier, maternal smoking was found to be associated with hyperactivity (Nicholos & Chen, 1980). Researchers (Denson, Nanson, & McWalters, 1975; Weiss & Minde, 1971) postulated that an accumulation of carbon monoxide from the smoking mother enters the fetal bloodstream during delivery resulting in cerebral anoxia. The infants are found to be irritable and later described as highly active and difficult (Weiss, 1985).

Alcohol Consumption

Researchers (Barkley, 1981; Jones, Smith, Streissguth, & Myrianthopoulos, 1974; Nichols & Chen, 1980; Shaywitz, Cohen, & Shaywitz, 1980) have also identified a relationship between maternal alcohol consumption during pregnancy and hyperactivity in children. It appears that the fetal brain is especially susceptible to damage from this source. Although research suggests linkage, causality has not been established.

Genetic Factors

Current genetic research is receiving a great amount of attention in terms of its association with ADD/H. Morrison and Stewart (1971) reported that significantly more parents of ADD/H than controls were hyperactive as children themselves. Similarly, Cantwell (1975) reported that 10 percent of the parents of hyperactive children in his sample group described themselves as hyperactive and 10 percent of these parents were found to be psychiatrically ill with alcoholism, sociopathology, or hysteria. Cantwell concluded that ADD/H was passed from generation to generation and may serve as a precursor to adult psychiatric disorders.

Parental Factors

Barkley (1981) suggested that recent research has found parents of ADD/H children to be more inattentative and impulsive than controls of similar age, intelligence, and socio-economic status. He further noted evidence that suggested that up to 30 percent of the siblings of ADD/H children can be described as hyperactive.

Psychosocial Factors

Little research is available in the area of possible psychological or social conditions that might contribute to

the ADD/H behaviors. Bettelheim (1973) has proposed that children are predisposed to hyperactivity and react accordingly when they are stressed with environmental pressures. Supporting Bettelheim's position, Barkley (1978) reported the etiology of hyperactivity as a reaction of reoccurring events linked to a difficult mother-infant relationship. In summary, by reviewing the literature, it appears that there is no single etiology of ADD/H, but rather numerous contributing factors. Many researchers have concluded that there may be an interactive causality between organic antecedents and psychosocial factors which may be strong predictors of the disorder.

Pharmacological Interventions

There are currently three commonly used drugs for ADD/H children: methylphenidate, pemoline, and dextroamphetamine (Dexedrine). In general, all three have had reported beneficial short term effects as rated by teachers and parents (Pelham, 1980). The drugs are known to improve the primary core symptoms of ADD/H, ie. impulsivity, attention, concentration, and hyperactivity (Cantwell & Carlson, 1978; Pelham & Bender, 1982; Swanson & Kinsbourne, 1979; Werry, 1968). However, to date there is no evidence that the drugs improve social interactions and peer relationships. In contrast, research has found evidence to suggest that the

current medications injested by ADD/H children appear to increase negative affect and decrease positive affect (Whalen, Henker, Collins, McAuliffe, & Vaux, 1979). Additional studies have demonstrated a trend for less socially acceptable behavior with medicated ADD/H children (Rie, Rie, Stewart, & Ambuel, 1976). Barkley and Cunningham (1980) reported that medicated ADD/H children showed a decrease on initiation of social interactions and a pattern toward a decrease of responses toward their mother's initiations.

Riddle and Rapoport (1976) conducted a two year follow-up study on children using psychostimulants. Results showed that hyperactive children treated with methylphenidate continued to exhibit serious problems in peer relationships as rated by their teachers. In addition, other studies have reported similiar results. Pelham, Schnedler, Bologna, and Contreras (1980) assessed the effects of two doses of methylphenidate on ADD/H children with peers in a play group. Results indicated that methylphenidate had little or no beneficial effects on peer interactions. The children continued to act in negative manners and were intensely disliked by peers. The researchers concluded that psychostimulants have no beneficial effect on peer relationships of ADD/H children as a group. Later, Pelham and Bender (1982) investigated the effects of behavior

therapy and methylphenidate on hyperactive children. Although positive and beneficial effects were noted on primary core symptoms, problematic social interactions remained. All of the children in the study were still rated unpopular by peers. Many engaged in a high frequency of aggressive and negative interactions, while others became isolated. The researchers concluded that ADD/H children have serious problems with peer relationships and are viewed negatively by peer groups.

ADD Research Findings

Historically, many clinicians and researchers have considered ADD/H to be a behavioral disorder limited to childhood. The disorder was viewed as discontinuous in terms of development and was reported to disappear spontaneously (Laufer, 1957; Shafer & Greenhill, 1979). Contrary to those findings, more recent research has suggested that the syndrome is in fact continuous throughout the individual's development. A number of studies have attempted to examine the long term prognosis of the disorder.

In a five year follow-up study, Weiss and Minde (1971) observed hyperactive children ages 6 through 12 years and concluded that children's hyperactivity, distractability, and aggressiveness diminished for a short time only. He

also found that hyperactive children's behavioral and social adjustments were significantly inferior to those of controls. Observing children of the same ages, Battle and Lacey (1972) conducted a longitudinal study. They reported that hyperactivity in children appeared to have had a direct effect on parent and peer relationships and on academic behavior and performance. Interactions were typically characterized by aggressive defiance and nonacceptance on the part of peers. In a five-year follow-up of elementary school aged children, Minde, Lewin, Weiss, Lavigueur, Douglas, and Sykes (1971) observed 91 hyperactive children. This research demonstrated that these children remained hyperactive, distractable, and impulsive when compared to the norms. Clear evidence of low self-esteem, increased risk of lower grades, and grade repetition was also reported as compared to matched normal controls.

Similar results were obtained by other investigators studying the same age group. In a two year follow-up of 72 hyperactive boys, Riddle and Rapoport (1976) found this group at greater risk, when compared to normal controls, for continual academic and social difficulty as well as continued restlessness and impulsivity. The researchers emphasized the problems with peer acceptance that succeeded these children during the middle childhood years. They concluded that during this socializing process, ADD/H

children have fewer peer interactions which lead to greater social rejection or isolation. In a five year follow-up study of elementary school children, Cantwell and Satterfield (1977) disclosed that hyperactive children continued having difficulty with immature social relationships, low self-esteem and negative feedback from teachers. Cantwell also reported the demonstration of aggressiveness and a display of disruptive behaviors in the classroom.

Other researchers followed children through adolescence and into adulthood. Weiss et al. (1978) conducted a 10-year follow-up study of hyperactive adolescents and young adults. The researchers reported that the hyperactive group tended to rate themselves as inferior more often than did matched controls. They also tended to view themselves as less sociable and as having fewer interactions with others than did the controls. Additional adolescent follow-up studies (Edelbrock, Costello, & Kessler, 1984; Laney, 1979) observed similar results suggesting that hyperactive adolescent groups were aggressive, self-destructive, more unpopular, and more socially withdrawn than controls. They also were found to have poorer academic performance and were at greater risk for academic failures.

Researchers have only recently studied hyperactive children from elementary school through adulthood. Weiss et

al. (1985) and Howell, Huessy, and Hassuk (1985) examined 15 year longitudinal behavioral histories. They followed hyperactive children from second grade to the age of 21 years. Both research teams reported similiar findings. The hyperactive group members exhibited poorer social adjustment (two to three times), disruptive classroom behaviors, and truancy patterns as compared to matched controls. They were more likely to drop out of school as opposed to the norms. The hyperactive group also reported higher incidence of alcoholism, higher negative social outcomes, poorer self-images, and greater oppositional behaviors. The researchers concluded that the children who were earlier identified as exhibiting signs of ADD/H in elementary school were definitely at risk for later behavioral and/or educational problems in high school and early adulthood. Thus, ADD/H did not disappear as the children became older.

By incorporating the results of the reviewed literature and research studies, two major areas of agreement were indentified:

1. It is suggested that hyperactivity is best conceptualized as a possible developmental disorder with manifestations of symptoms changing as a function of age with complete symptom remission being rare.
2. Low self-esteem, poor school performance, and social immaturity are identified as common ADD/H

characteristics.

Parent-Child Interactions

Several studies have been conducted to examine the interactions between hyperactive children and their parents. Battle and Lacey (1972) found that mothers of hyperactive boys appeared more critical and disapproving and seemed to have acquired a global negative set of expectations which adversely influenced their perceptions of and responses to their sons. Similarly, Cunningham and Barkley (1979) suggested that mothers of hyperactive children tended to be more coercive and employed direct approaches to the children's play and task-related activities, initiated fewer social interactions, and proved less responsive to the interactions initiated by their children. The researchers concluded that the control exerted by the mothers of hyperactive children was often a response to the transient, active, or disruptive characteristics of the children's play. Mash and Johnston (1981) also observed mothers of hyperactive children. Their results showed that the mothers were more direct, negative, and less responsive and approving. This was found to be more apparent for mothers of younger hyperactive children during structured task situations. Their results suggested that mothers of hyperactive children appear to become locked

into a negative parenting style which extends to non-hyperactive siblings.

Few studies have examined the parenting style of fathers of hyperactive children. Talimadge and Barkley (1982) conducted a study involving fathers of hyperactive boys and fathers of normal controls. The researchers found that fathers of hyperactive boys were more direct and firm in their parenting styles than fathers of controls. Mash and Johnston (1983) also interviewed parents of hyperactive children. Their findings suggested that the parents of hyperactive children reported feeling little confidence in their roles as parents. In addition, the parents of hyperactive children reported feeling less knowledgeable about parenting skills when compared to controls. The mothers of hyperactive children reported higher ratings of self-blame, social isolation, and depression as compared to the control parents. Additional studies examining parenting styles of hyperactive children have found that families with hyperactive children tend to use more punitive and authoritarian approaches with child rearing than families of controls (Delameter, Laney, & Drake, 1981).

In summary, the findings of these studies indicated that mothers of hyperactive children provide more structure and suggestions for impulse control during both play and in

structured tasks. It is even more obvious during more demanding situations. Mothers with hyperactive children tend to be more negative, less rewarding, more coercive, and power assertive, while fathers with hyperactive children tend to be more direct and firm in their parenting styles. It has been suggested that mothers' behaviors may represent an attempt to control and direct the behavior of children who have difficulty focusing and sustaining attention during unstructured play and while working on structured tasks.

Peer Relationships

Research over the last two decades has highlighted the etiology, assessment, treatment, and cognitive correlates of ADD/H children. However, until recently, few studies have examined the socialization processes of these children, and in particular peer relationships. Although the core symptomatology of ADD/H (impulsivity, attentional deficits, and hyperactivity) reportedly decreases with age, it is apparent that social coping problems continue into adulthood (Milich & Loney, 1979).

Many studies have investigated peer relationships of ADD/H children based on both peer and teacher ratings. Battle and Lacey (1972) examined the relationships between school problems and early childhood hyperactivity. Results suggested that during preschool and elementary school years,

both hyperactive male and female students demonstrated physical aggression towards classmates. Peers described the ADD/H children as dominating and attention seeking. In a similar study by Quay (1979), peers described ADD/H classmates as annoying, socially withdrawn, aloof, and periodically shy. Mainville and Friedman (1976) investigated positive and negative nominations given by 214 third and fourth graders. They reported a strong positive correlation for boys between peer rejection and hyperactivity. The researchers concluded that hyperactive boys are significantly more likely to receive negative peer nominations than non-hyperactive classmates. However, no significant correlations between peer rejection and hyperactivity was found for ADD/H girls.

More recent research has yielded similar results regarding peer rejection. Klein and Young (1979) described ADD/H boys as having more disruptive behaviors and more frequent negative peer interactions as compared to controls. In a study by Bryan and Bryan (1981), ADD/H children were viewed as nasty in their social interactions and more competitive than the controls. When rated by observers, ADD/H children were noted to be more socially hostile as well as generally less socially competent in their social interactions.

Pelham and Bender (1982) examined different

classifications of ADD and ADD/H according to their level of aggressiveness and hyperactivity. Results indicated that children rated as low hyperactive and highly aggressive (LH-HA) and children rated highly hyperactive and highly aggressive (HH-HA) obtained higher negative peer ratings. The highly aggressive subgroups were described as bossy and difficult when they did not get their way. The researchers concluded that the aggressive behaviors exhibited by ADD/H children resulted in peer rejection. In addition, the low aggressive but highly hyperactive children were rated equally as unpopular and disliked by peers. Dodge (1980) assessed male peer social status in elementary school aged children. He concluded that boys labeled as unpopular by their peer groups were those children who engaged in inappropriate play behaviors, e.g., disrupting peer activities or standing on tables. A low proportion of their behaviors involved cooperative play or social conversation. The ADD/H children were viewed by peers as poor leaders and unwilling to share. Finally, Johnston, Pelham, and Murphy (1985) examined age, gender differences, and peer relationships of ADD/H children. Their findings revealed that both genders experienced difficulties with peer interactions. However, the behaviors of the ADD/H boys involved more aggression and were considered to be more severe.

Additional research examined the ADD/H children's own perception of their social status. Results have shown that the ADD/H children are more likely to view themselves as less popular and less liked by peers than the controls (Campbell & Paulauskas, 1979). The ADD/H children also reported spending more time alone and spending significantly less time interacting with peers (Hoy, Weiss, Minde, & Cohen, 1978). Rolf (1971) compared acting out and active children with peers using a sociometric measure in which children were assigned roles in a class play. Findings of the study showed that the more active children tended to assign themselves to negative roles, e.g., the "bad guy", and other roles which reflected poorer self-images. He concluded that peer problems contributed to feelings of low self esteem. Concerned with the problem of peer rejection of ADD/H children, additional research has focused on their communication styles. Whalen, Henker, Collins, McAuliffe, and Vaux (1979) and Whalen, Henker, and Dolemoto (1981) examined the ADD/H children's communication style by assessing the qualitative and quantitative aspects of their communication. Results suggested that when compared to controls, ADD/H boys demonstrated definite problems communicating which was significantly correlated to peer rejection. In addition, the boys were reported to have greater inappropriate and disagreeable interactions,

inefficient communication, and greater difficulty staying on task. Cunningham, Siegal, and Oxford (1980) investigated 28 hyperactive-normal dyads. The researchers concluded that ADD/H boys initiated more frequent verbal interactions than did the controls. However, the controls were significantly more responsive to their hyperactive partners' verbal interactions. The ADD/H boys tended to ignore the questions and verbal interactions of their partners. Thus, they were more talkative and their output was less directed towards communication and reciprocity.

Douglas and Peters (1979) hypothesized two explanations for the inappropriate communication styles of ADD/H children. First, cognitive difficulties are experienced by ADD/H children as a result of a deficiency in processing social cues. As a result, ADD/H children fail to learn how to apply appropriate interpersonal behavior and interactions. Secondly, ADD/H children can read social cues and communication but their impulsive behavior results in failure to control the appropriate interpersonal behavior or communication.

Further research involving peer rejection suggests that the children's behavior in a structured situation such as a classroom setting, independent of academic potential or proficiency, is related to social status. The more inappropriate the classroom behavior the greater the risk of

peer rejection. Additional studies have demonstrated that off task behaviors such as day dreaming and "tuning out" also result in peer rejection (Gottman, Gonso, & Rasmussen, 1975; Gottman, 1977).

Flanders and Havumaki (1961) investigated peer rejection in classroom situations. They concluded that the rejected children tend to receive more negative attention from their teacher. Further research in this area suggests that having ADD/H children in the classroom increases the disruptive behavior of the entire class in addition to increasing the amount of negative feedback received from the teacher when compared to control classes (Campbell, Endman, & Bernfeld, 1977).

Pelham and Bender (1982) postulated that this negative rejection demonstrated by peers may in fact be modeling operations. They suggest that the classmates may cue on the negative feedback emitted by the teacher and thereby similarly react negatively to the ADD/H children. The researchers also found that ADD/H children experience difficulty adapting to normal interpersonal role requirements in classroom situations.

Currently, researchers have suggested that attributional styles of individuals are also important in defining social adjustment. Therefore, a brief review of relevant issues of attribution research will be presented.

Attribution Research and Parent-Child Interactions

Psychologists, especially social psychologists, have been concerned with how and why individuals explain events. The causal explanations of people have been central to attributional theory. Many theorists have struggled over definitions of what attribution is (Buss, 1978). It is estimated that 15 percent of all social psychological research deals with attribution theory (Fiedan & Richardson, 1979). However, conceptual advances have been limited.

Kelly (1967), one of the key theorists in attribution research, proposed that certain patterns of information, which can be described in terms of consensus, consistency, and distinctiveness, lead to certain attributions. He believed that attributions were made on the basis of a single observation, using causal schemata. These schemata are beliefs concerning how certain kinds of causes interact to produce a specific kind of effect (Hewstone, 1983).

According to Dweck (1975), theorists in the area of attribution assume that when some discrete event occurs, such as evaluative feedback, an attribution is made by the individual. Attributional patterns or styles are habitual ways of explaining the causes of good or bad outcomes (Abramson, Seligman, & Teasdale, 1978) and explaining successes or failures (Weiner, 1972, 1974).

According to Rotter (1966), the locus of control of attributional construct is one aspect of social learning theory's account of behavior, and represents the locus or generalized expectancies of reinforcement. Generalized locus of control can be either internal or external. Locus of control refers to the degree to which one accepts personal responsibility for what happens to them. On the internal end of the continuum, the individual feels that his/her competence, effort, intellect, or ability controls his/her destiny. The internal individual perceives life's events as a consequence of one's own actions and therefore under one's own personal control (Wolf & Forsythe, 1978). However, on the external end of the continuum, the individual perceives their destiny in terms of luck, chance, or fate as under the control of powerful, external others (Wolf & Forsythe, 1978).

It is believed that the antecedents of locus of control begins in children's early environment. Among the important features in the children's environment are their parents (Loeb, 1975). According to Loeb (1975, 1978), attribution theory can be applied to the process of children's internalization of parental values. Loeb postulates a role complementarity model which predicts that a highly controlling parent is likely to produce a submissive and dependent children with an external locus of

control.

Studies have been conducted to examine child-rearing styles and the development of locus of control. Baumrind (1966) investigated parenting styles and divided them into three group types--Authoritarian (high control), Permissive (low control), and Authoritative (minimally restrictive). He concluded that parents imposing unrealistically high or unrealistically low standards and demands leave their children dependent upon the outside world (externally oriented). Therefore, children with highly controlling or directive parents may develop an external locus of control. He further postulated that children with moderately controlling parents would develop an internal locus of control. Loeb (1975) examined parenting styles associated with external locus of control among fourth and fifth graders. He found that high levels of authoritarian control imparted the children to believe they were not competent nor trusted to undertake activities independently. Tennis (1975) found that mothers of internal children provide their children with autonomy and attentional training at an earlier age. He also concluded that mothers of external children offered more direct help and tended to inhibit their children's autonomy. Similiarly, Bates (1980) demonstrated that the mothers of difficult children were engaged in more controlling behaviors and employed power

assertion. In addition, the mothers of difficult boys were found to react to their sons temperament by backing away from socialization efforts. He concluded that the parents of difficult children may feel threatened and anxious because they feel inadequate. The parents find it too difficult to provide their children with gradual and repeated exposures to new situations and demands that the children must then adapt to. Instead, the parents become controlling due to the pressure and communicate a host of negative feelings.

The major outcome of successful socialization is the child's internalization of positive social values and standards (Maccoby & Martin, 1983). The family unit is viewed to be the primary arena in which social skills and self-regulation are learned. Fairly high levels of parent-child involvement with moderate levels of control appear to be needed for the children's optimal development of social skills and for eventual successful functioning independent of the parents. Internalization insures that the children will act in socially approved ways in the absence of adult supervision or the expectation of rewards or punishments.

Attribution theorists have postulated that internalization is established from social inference processes within the children and occurs when they believe

their social behavior is caused by stable, internal motives. According to Kelly (1967), such stable internal attributions result from a multiple sufficient cause schema and occur when children fail to observe sufficient justification for their behavior in external events. Therefore children coerced by their parents find justification for their behavior in the environment and eliminate possible internal causes.

In addition, recent theorists have argued that power assertive parents lead their children to make external attributions and therefore lead their children to be imimicial to internalization. Hoffman (1982) found power assertive parental behaviors are responsible for keeping the source of persuasive communication salient to the children. The children are unable to forget where the influence attempts come from and continue to make external attributions. Pulkinen (1982) described power assertive parents as parents who place strict limits on their children; they expect their children to inhibit input or demands. Rules in the environment are not discussed in advance nor derived through a bargaining process. This type of parenting may be thought of as involving high levels of demandingness and control with low levels of responsiveness.

Similiarly, Lepper (1982) viewed unnecessarily powerful and salient techniques of control produce compliance in the

home but result in children with less internalization of the values underlying those demands. Therefore, the children are less likely to behave in accordance with those demands in other settings in which their behavior is no longer viewed to be under direct parental control.

According to Grusel and Pedler (1978), internal attributions appear to increase the generalization of behaviors in social situations. Children are able to attribute their behavior to stable internal causes and are able to exhibit that behavior at other times in different situations and in the absence of their parents. However, external attributes appear to retard the internalization processes.

Current attribution theories have begun to investigate children's attributions in social situations. They have questioned how children construe social situations, how they interpret events in the situation, and how they process information about the situation (Dweck & Goetz, 1978; Dweck, 1975). Children's attributions for social outcomes have been investigated in order to make predictions as to whether they will respond adaptively to rejection (Goetz & Dweck, 1980) (a behavior frequently encountered by ADD/H children) and whether their social goals are related to their popularity among their classmates (Taylor & Asher, 1985).

Summary

A great deal of emphasis has recently been placed by attribution theorists on child-rearing practices and the influence on children's attributional style. The theorists argue that the more firm, strict, and salient parental control becomes, the greater it is associated with the loss of the children's initiative, low internalization of values, and poor self-regulation. Authoritarian parents are likely to employ more control than is needed and therefore make their power assertion highly salient so that the children inevitably attributes their own actions to external pressure.

Theorists have found (Lepper, 1982; Loeb, Horst, & Horton, 1978; Maccoby, 1983) that the less directive or the suggestive parent is actively involved in their children's activities thus allowing the children to become autonomous. The children are taught that they are largely responsible for their proficiency which increases their self-confidence and an upward spiral has begun.

However, parents who are highly directive tend to make the decisions and to regulate their children's behavior. In turn, this prevents the children from establishing autonomy. The children begin to perceive their personal outcome as determined by others. They then fail to take responsibility, are unable to become proficient, and their

self-confidence deteriorates. The children attribute the world externally which retards the internalization process, (e.g., social responsibility, concern for others, and establishing the appropriate social skills).

Goetz and Dweck (1980) reported that less enforced practice of social skills leads to incompetent attributions resulting in lower interpersonal coping skills. The children who emphasized incompetence attributions scored lower on measures of popularity. However, popularity is not the total index of social adjustment. Goetz postulated that any adequate definition of social adjustment must also include the ability to cope with and surmount adversive situations as well as utilize effective conflict resolutions. However, critics of the current research suggest that most of the studies concentrate solely on cognitive and social skills and virtually ignore the role of perceptions of control (Goetz & Dweck, 1980; Keller & Carlson, 1974; Spivack & Shure, 1974).

Purpose

In view of the previous research studies, as outlined above, child-rearing behaviors and the children's attributional style are important variables in viewing ADD/H children's social competency. Researchers have characterized ADD/H children as lacking appropriate

communicative and social skills as well as being reared in a strict environment. Several follow-up studies have suggested that ADD/H adults have a history of poor social interactions and later adult social difficulties (Weiss, Hechtman, & Perlman,1979; Weiss, 1978). Current theorists postulate that social skills influence the quality of social interaction. Given the importance demonstrated in the relationship between child-rearing practices and the internalization of social values, it is clear that studies are needed to further investigate the social and cognitive functioning of these children in relation to their parents' child-rearing behavior.

Goetz and Dweck's (1982) work indicates that their definition of social adjustment not only should include social skills, but also cognitive strategies. In addition, ADD/H children's attributional styles should be thoroughly examined.

The purpose of this study was to examine the social skills and the internal/external attributional styles of ADD/H children compared with non-ADD/H children as rated by the children. In addition, the research also examined ADD/H and non-ADD/H children's internal/external attributional styles for good events or bad events and the relationship to parental child-rearing practices.

Hypotheses

This study was designed to investigate five major hypotheses. First, based on the work of Bates (1986), Loeb (1975), and Hoffman (1970) indicating that the parents of difficult children are more likely to utilize increased control and power assertive child-rearing practices, which results in dependent and submissive children, it was hypothesized that parental child-rearing practices of ADD/H children (independence, parental control, authoritarian control) would be different from parental child-rearing practices of non-ADD/H children. Parents of ADD/H children would be expected to have higher control scores and lower independence scores on the dimensions of the child-rearing practices report (Block, 1965) as compared to the parents of non-ADD/H children.

Second, based on the work of Lepper (1982), it was hypothesized that there would be a relationship between parents' child-rearing practices and their children's internal/external attributional styles for good events and bad events. Therefore, it is predicted that the parents' scores on the CRPR for measurements of control and independence would be positively correlated with their children's self-rating of attributional styles. In addition, a negative correlation was predicted between the parents' scores on the CRPR measures of parental control,

and authoritarian control with their children's attributional styles as rated by the children.

Third, based on the work of Dweck and Goetz (1982), and Lepper (1982), that external children experience less internalization of parent roles and social values across situations, it was hypothesized that there would be a relationship between the children's internal/external attributional styles for good events and bad events and their social skills. In addition, it was predicted that the children's status (the presence or absence of ADD/H) would be related to their internal/external attributional styles for good events and bad events. Finally, it was also hypothesized that the children's ADD/H status (the presence or absence) and the children's internal/external attributional style would be related to their social functioning. Whereby, external ADD/H children will score higher in areas of negative social skills and lower in areas of appropriate social skills as compared to the other groups of children (internal ADD/H, external non-ADD/H, and internal non-ADD/H).

Chapter II

Methodology

Subjects

The subjects for this study consisted of 33 ADD/H boys between the ages of 8 and 12 years, enrolled in third through seventh grades (Table 1). The ADD/H children and their parents were recruited from two private agencies and a parent support group in the Baltimore, Maryland and Roanoke, Virginia areas. The ADD/H children in this study were not seperated out in terms of their medication regime. Previous research has shown that ADD/H children on or off stimulant medication demonstrated peer rejection and greater social difficulty. All of the ADD/H children who participated in the study were diagnosed by a qualified professional (School Psychologist, Medical Doctor, or Licensed Professional Counselor) according to the Manual of International Statistical Classification of Diseases (ICD-9 314.01):

> 314 Hyperkinetic Syndrome of Childhood
>
> Disorders in which the essential features are short attention span and distractibility. In early childhood the most striking symptom is disinhibited, poorly organized and poorly regulated extreme overactivity but in adolescence this may be replaced by underactivity. Impulsiveness, marked mood fluctuations, and aggression are also common symptoms. Delays in the development of specific skills are often present and disturbed, poor relationships are common. If hyperkinesis is symptomatic of an underlying disorder, code the underlying disorder instead.

In addition, 33 non-ADD/H boys and their parents were

Table 1

Demographics

	ADD/H		non-ADD/H		TOTAL	
	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD
AGE	10.0	1.34	10.5	1.47	10.3	1.41
GRADE	5.2	1.40	5.8	1.62	5.5	1.56
MEDICATION	66.7%		---		33.3%	

	ADD/H			non-ADD/H		
Income	n	Percent	$\bar{X}$	n	Percent	$\bar{X}$
< $10,000	1	3.0		2	6.1	
$10,000-$14,999	3	9.1		1	3.0	
$15,000-$18,999	3	9.1		4	12.1	
$19,000-$22,999	4	12.1		4	12.1	
$23,000-$26,999	10	30.3		8	24.2	
$27,000-$31,999	6	18.2		7	21.2	
$32,000-$36,999	5	15.2		6	18.2	
> $37,000	1	3.0		1	3.0	
Total	33	100.0	$27,287	33	99.9	$26,495

recruited from after school programs from an elementary and a middle school in a metropolitan suburb in central Maryland. Teachers and group leaders were contacted and agreed to allow the investigator to invite students to participate. These subjects were matched as closely as possible based on age and socio-economic status (Table 1) with those of the ADD/H group.

In order to control for extraneous sources of variance, only members of intact, two parent families were surveyed. Informed consent was obtained from the parents prior to each child's participation in the study (See Appendix A). Confidentiality was explained and guaranteed for all participants. Parents and students were told that all of their responses would be kept confidential and that identifying information would be destroyed after data collection.

Instruments

Attention Deficit Disorder

The Gordon Diagnostic System (GDS) was developed by M. Gordon (1986), is a portable electronic device designed to assess deficits in impulse control and attention in children. It has been developed for use by clinicians as an aid in the diagnosis of attention deficit disorders with or without hyperactivity as well as some forms of learning

disabilities. Recent studies have found considerable support for the GDS as a reliable and stable method for differentiating ADD/H children from non-ADD/H children.

The GDS consists of two types of tasks: (1) The Delay Task measures a child's ability to refrain from responding in a self-paced setting and (2) The Vigilance Task assesses how well a child maintains self-control in situations requiring sustained attention. Both qualities, the ability to delay and the ability to maintain attention, are considered by authorities to be primary problems for children suffering from ADD/H. The administration of both tasks takes approximately 20 minutes. The internal microprocessor generates the tasks and records quantitative features of a child's performance for both the entire session as well as for individual time blocks. In this way the pattern of a child's performance across the session can be analyzed. In order to establish norms for the GDS Delay Task scores, a standardization study (Gordon, 1979) was completed in the public schools. A total of 192 boys and girls in three age groups (6-7 years, 8-9 years, and 10-11 years) were examined. The mean efficiency ratio for the Delay Task (Total rewards/Total responses) was .84 (SD= 13) and the scores were unaffected by age, sex, IQ, and socioeconomic status. Performance remained consistent throughout the 8 minute session. To establish test-retest

reliability, half the group was retested after 30 to 45 days and it was found that the scores remained stable over that period. The GDS was employed as a screening device to assure that the children in the control group were non-ADD/H. A total of 42 elementary and middle school children were administered the GDS. However, nine children were excluded from the group for obtaining at least one borderline or abnormal score on any of the total or block scores for either the delay or vigilance tasks.

Child Self-report of Attributional Style

The children's attributional styles were assessed using the Children's Attributional Style Questionnaire (CASQ) (Peterson, 1980) (Appendix C). The CASQ is a 48-item instrument developed for assessing attributional styles in children. A forced-choice technique is employed to obtain scores reflecting a child's tendency to explain good or bad events in terms of three causal dimensions; internal/external causes; stable/unstable causes; and global/specific causes. Fourteen items (7 bad events, 7 good events) pertain to each of three causal dimensions. However, the present study concerns itself only with the internal/external dimension. The questions are arranged in a nonsystematic order, as is the sequence of the response alternatives (so that the internal alternative is not

consistently first or second). Children with reading abilities above the third grade level will be able to complete the self-report questionnaire independently. The split half reliabilities for the different subscales were reported to range from 0.53 to 0.80. Test-retest reliabilities for the subscales were reported to range from 0.43 to 0.68.

The CASQ is scored by assigning a one to the internal response chosen and a zero to each external response chosen. Subscales are formed by summing these scores separately across the appropriate questions for each of the three causal dimensions for both good events and bad events. Children with a total score less than four are considered external, and children with a total score greater than or equal to four are considered internal. For the present study, scores were summed only on the internal/external dimension, and separately for good and bad events. The scores ranged from 1 to 7. The children were administered the CASQ in one of two ways. First, the ADD/H children were provided with the scales individually or in a group of two in an office setting. Directions and help with unknown wording was explained by the investigator. Second, the non-ADD/H children were administered the CASQ in a group setting. Directions and help with unknown wording was explained at the individual child's request by the

investigator.

Child's self-rating of social skills

Matson's (1983, 1986) Evaluation of Social Skills with Youngsters (MESSY), was used to assess children's social skills (Appendix D). The scale was developed for assessing strengths and weaknesses of children as well as for measuring social skills for children between 5 and 18 years of age. The MESSY is a 62-item five-point, Likert-type scale with roughly equal numbers of positive and negative items on social behaviors. Subjects were asked to indicate their magnitude of agreement with statements in regard to their social behaviors. A five-point Likert scale was used with the choices ranging from 1 (not at all) to 5 (very much). The total skill score was also broken down into five subscales: one positive subscale (appropriate social skills), and four negative subscales (inappropriate assertiveness, impulsive/recalcitrant, overconfident, and jealously/withdrawal). Scores were obtained by summing the responses in each subscale. The more negative the social behavior, the higher the total social score. Reliabilities for the subgroups were reported to range from 0.81 to 0.95. Test-retest reliabilities for the different subscales were reported to range from 0.55 to 0.86. The children in this study were administered the MESSY in one of two ways.

First, the ADD/H children were provided with the scales individually or in groups of two. Directions and help with unfamiliar wording were explained by the investigator. Second, the non-ADD/H children were administered the MESSY in a group setting. Directions were read aloud by the investigator. Unknown wording was explained by the investigator at the individual child's request.

The Child-rearing Practices Report

The Child-rearing Practices Report (CRPR) is a self-descriptive instrument (Appendix E) which identifies child-rearing attitudes and values (Block, 1965). The measure consists of 91 socially relevant items which are administered using a Q-sort technique. The format includes a forced choice, seven step distribution. The CRPR items are written both in first and third person forms which can be used respectively by parents and children.

Block (1965) initially constructed the item pool from behavioral dimensions that were found to differentiate types of mothers with different child-rearing techniques. A Q-sort reflecting interpersonal or interactional behaviors, as well as a behavioral checklist, was used to enhance the item pool. A review of the literature and input from professionals also helped to guarantee the thoroughness of the item pool. Items are written in the active voice and

emphasize a behavioral orientation. The CRPR has been administered to people from a variety of age groups, socio-economic groups, educational levels, and national origins.

In order to provide evidence for reliability, Block (1965) conducted two test-retest studies. The first study used the first-person form and was administered to 90 young parents in a child psychology course. They were given the CRPR at the beginning of the course and again at its completion eight months later. Items had a mean correlation of .71 (range = .38 to .85) from the two test periods. The second study used 66 Peace Corps volunteers. These participants were administered the third-person form of the CRPR at the beginning of their duty and three years later at their duty's completion. The third-person form required them to assess their perceptions of their parents child-rearing orientations. The average cross-time correlations for females were .69 (description of mother) and .66 (description of father). For the males the average cross-time correlations were .61 (description of mother) and .64 (description of father). Results from these two studies suggest high reliability for both the first and third-person forms of the CRPR. Construct validity of the CRPR was assessed using three structured situations, each tapping a different dimension: achievement empnasis, modes and degree

of control, and independence training (Block, 1965). Maternal behaviors were observed in order to clarify the correlation between self-report and actual behavior. From this, eight types of mothers were identified. Four years later, these same mothers were asked to complete the CRPR. Seventy-six of the original 112 participated in this phase of the study. The Q-sort was administered in one of two ways. First, both parent groups were sent home with two seperate Q-sort packets containing directions, Q-sort cards, and sorting envelopes and asked to complete the task independently. However, in some cases the parents of the ADD/H children completed the Q-sort in the office while waiting for their child's administration of their scales.

Data Collection

Both the clinical families of ADD/H children and the non-ADD/H families were sent a letter explaining the study and a consent form. Upon consent, each participating ADD/H and non-ADD/H parent was given a packet containing a demographic information form and the child-rearing card envelopes (Appendices B & E). Instructions for completing the card sorting were enclosed. In the case of the parents, to protect against possible confounding effects of mothers and fathers conferring on answers, further instructions were provided asking them to complete all measures independently.

The researcher scheduled appointments for the ADD/H children to complete the MESSY and CASQ questionnaires (Appendices C & D). In addition, the researcher made appointments for the non-ADD/H children to administer the GDS and to complete the MESSY and CASQ questionnaires (Appendices C & D).

Data Analysis

Analyses were conducted in five phases to test the five major hypotheses of the study. The first group of analyses were carried out to assess differences between the parent groups on the parent child-rearing subscales. Three repeated measures ANOVAs were computed, one for each of the three parent child-rearing subscales (encouragement of independence, authoritarian control, and parental control).

In the second phase, Pearson product-moment correlations were employed to examine the relationship between the three parent child-rearing dimensions and the children's internal/external attributional styles for good and bad events as measured by the CASQ.

Third, Pearson product-moment correlations were calculated to examine the relationship between children's internal/external attributional styles for good events and bad events and children's social skills as measured by the MESSY.

Fourth, a 2x2 repeated measures ANOVA was performed on the children's attributional styles in order to determine whether there were any differences between the attributional styles of ADD/H children versus non-ADD/H children.

Finally, several two-way factorial analyses of variance were conducted to explore the effects of ADD/H (presence/absence) and attributional styles (internal/external) for good events and bad events on social skills.

Chapter III

Summary of Results

The purpose of this study was to assess the relationship between parent child-rearing practices and children's internal/external attributional styles and social skills for ADD/H and non-ADD/H children. More specifically, the following hypotheses were posited: Parental child-rearing practices of ADD/H children (encouragement of independence, authoritarian control, and parental control) would be different from parental child-rearing practices of non-ADD/H children. Second, there would be a relationship between parental child-rearing practices and their children's internal/external attributional styles for good events and bad events. Third, there would be a relationship between children's internal/external attributional styles and their social skills. Fourth, that children's ADD/H status (presence/absence) would be related to their internal/external attributional styles. And finally, it was predicted that ADD/H status (presence or absence) and the internal/external attributional style would be related to social functioning.

Parent Child-rearing Practices

In order to determine whether the parents of ADD/H children encourage different amounts of independence,

authoritarian control, and parental control in rearing their children than the parents of non-ADD/H children, three repeated measures ANOVAs were performed. The between-subjects factor was the ADD/H status of the child (presence vs absence of ADD/H), while the within-subjects factor was the parents' score on the CRPR (mother's score and the father's score).

1) Encouragement of independence The between-subjects factor on the encouragement of independence dimension of the CRPR revealed no overall difference between the parents of ADD/H children ($\bar{X}$=4.78, SD=.55) versus the parents of non-ADD/H children, ($\bar{X}$=4.93, SD=.65), $F(1,64)=.80$, ns. The within-subjects analysis indicated a parent effect, $F(1,64)=8.76$, $p< .004$. Mothers ($\bar{X}$=5.00, SD=.81) had higher encouragement of independence scores than fathers ($\bar{X}$= 4.71, SD=.77). The child's ADD/H status variable did not interact with the parent variable. These results did not support the hypothesis that parents of ADD/H children would have lower independence scores, as compared to the parents of non-ADD/H children (Table 2). Failure to obtain differences on this subscale is puzzling. One possible explaination of why differences were not found can be explained in the literature. According to Loeb (1975) it is possible that the parents may voice the need to encourage independence for

their children, however their behaviors do not demonstrate this. Although the children are told to become more independent, they perceive that they are not trusted to work independently. Therefore, the parents often take over for their children, leaving the children feeling incompetent to take over the responsiblity.

2) Authoritative control The between-subjects factor on the authoritarian control dimension revealed no overall difference between the parents of ADD/H children ($\bar{X}$=3.85, SD=.78) versus the parents of non-ADD/H children, ($\bar{X}$=3.72, SD=.83), $F(1,64)=1.39$, ns. The within-subjects analysis showed no effect for the parent variable, $F(1,64)=.85$, ns. However, the children's ADD/H status did interact with the parent variable, $F(1,64)=4.19$, $p< .045$. Simple effects testing indicated that mothers of ADD/H children had higher authoritarian scores ($\bar{X}$=4.00, SD=.65) than did the mothers of non-ADD/H children, ($\bar{X}$=3.66, SD=.64), $F(1,64)=4.46$, $p< .039$. No difference was observed between the fathers of these two groups. In addition, mothers ($\bar{X}$=4.00, SD=.65) of ADD/H children had higher scores on authoritarian control than did fathers ($\bar{X}$=3.70, SD=.46), $F(1,64)=4.40$, $p< .04$. No difference was observed between parents of non-ADD/H children.

These results indicate some support for the hypothesis,

Table 2

Summary Table for Repeated Measures ANOVA on Parental Child-Rearing Practices

Source	DF	SS	MS	F
Encouragement of Independence				
Between Subjects				
Group	1	.76	.76	.80
Within	64	60.83	.95	
Within Subjects				
Parent	1	2.61	2.61	8.76*
Group x Parent	1	.67	.67	2.26
Within	64	19.08	.30	
Authoritarian Control				
Between Subjects				
Group	1	.57	.57	1.39
Within	64	26.23	.41	
Within Subjects				
Parent	1	.27	.27	.85
Group x Parent	1	1.35	1.35	4.19**
Within	64	20.59	.32	
Parental Control				
Between Subjects				
Group	1	3.70	3.70	8.34*
Within	64	28.38	.44	
Within Subjects				
Parent	1	7.81	7.81	16.80***
Group x Parent	1	.02	.02	.04
Within	64	29.74	.46	

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

	Mothers		Fathers	
Source	$\bar{X}$	SD	$\bar{X}$	SD
Encouragement of Independence				
ADD/H	4.85	.78	4.71	.80
non-ADD/H	5.14	.83	4.72	.77
Authoritarian Control				
ADD/H	4.00	.65	3.70	.45
non-ADD/H	3.66	.64	3.77	.66
Parental Control				
ADD/H	3.31	.64	3.82	.85
non-ADD/H	3.00	.62	3.46	.55

in that the mothers of ADD/H children had higher authoritarian control scores than did the mothers of non-ADD/H children (Table 2). These results, in part, are consistent with Laney et al.'s (1981) findings that show parental child-rearing styles of mothers of hyperactive children tend to be more firm and critical of their children.

3) Parental control The between-subjects factor on the parental control dimension revealed overall group difference, $F(1,64)=8.34$, $p< .005$, with parents of ADD/H children (average combined scores of mother and father= 3.57, SD=.53) having higher scores on this dimension than the parents of non-ADD/H children (average combined scores of mother and father= 3.24, SD=.41). The within-subjects factor revealed a parent effect, $F(1,64)=16.80$, $p< .001$, with mothers ($\bar{X}=3.16$, SD=.65) having lower scores on parental control than fathers ($\bar{X}=3.65$, SD=.73). The children's ADD/H status variable did not interact with the parent variable, $F(1,64)=.04$, ns. Thus, the hypothesis that the parents of ADD/H children would have higher parental control scores than the parents of non-ADD/H children was supported (Table 2). The results lend support to Loeb's (1975) and Hoffman's (1982) views that parents with difficult children are more likely to utilize increased control and assertive child-rearing practices with their children.

Parental Child-rearing Practices and Children's Attributional Styles

Pearson product-moment correlations were used to test the relationships between fathers' and mothers' child-rearing practices and their children's internal/external attributional styles for good events and for bad events. Correlations between the mother's CRPR subscale scores and the children's CASQ subscale scores revealed several moderately low but significant correlations (Table 5).

The mother's scores on encouragement of independence correlated significantly with the children's internal/external attributional style for both good events, $r(64)=.21$, $p< .05$, and bad events, $r(64)=.22$, $p< .05$. These correlations supported the hypothesis that the higher the mother's encouragment or independence score, the more likely the children's attributional style would be internal. There were no significant correlations between the mothers' authoritarian control and children's internal/external attributional styles for good events or bad events. Non-significant correlations between the mothers' parental control scores and children's internal/external attributional styles for good events and for bad events were also observed. However, the mother's scores on the parental control for bad events did approach the $p< .05$ level of significance. Although not significant, these correlations indicate that

Table 3

Correlations Between Mother's CRPR Scores and Children's CASQ Scale Scores

	CRPR Scale		
Attributional Style	Encouragement of Independence	Authoritarian Control	Parental Control
Good Events	.21*	.05	.08
Bad Events	.22*	.02	.18

Correlations Between Father's CRPR Scores and Children's CASQ Scale Scores

	CRPR Scale		
Attributional Style	Encouragement of Independence	Authoritarian Control	Parental Control
Good Events	.04	.06	.02
Bad Events	.05	-.03	.10

*$p < .05$

for bad events, as the mothers become more controlling, their children will become more internal. No significant correlations were found between the fathers' scores on the CRPR and their children's attributional styles for good events or for bad events. Failure to obtain significance in the areas of control is puzzling. The results are contradictory to the work of Lepper (1982). The lack of significant correlations makes it appear that the two parent control subscales do not tap dimensions which are critical to influencing the children's attributional style. However, the results appear to suggest that it is the mother's child-rearing practices of encouraging independence which may influence her children's attributional style. The father's child-rearing practices seem unrelated to his children's attributional style.

Children's Attributional Styles and Social Skills

The third hypothesis was concerned with the relationship between children's internal/external attributional styles and social skills (for the total group). Pearson Product-Moment Correlations were used to assess the relationship between internal/external attributional styles, and social skills subscales for good events and for bad events. A correlation matrix of these variables is presented in Table 4.

Positive correlations were found between the appropriate

social skills subscale of Matson's Evaluation of Social Skills with Youngsters (MESSY) and internal/external attributional styles for good events. $r(62)=.48$, $p< .001$, and for bad events, $r(62)=.36$, $p< .01$. These correlations indicate that regardless of whether events are good or bad, the higher the appropriate social skill scores the more internal the children's attributional style. Significant negative correlations were found between internal/external attributional styles and all of the negative MESSY subscales for good events and for bad events with the exception of impulsiveness, overconfidence, and jealousy/withdrawal for bad events (Table 4). A negative correlation for the total group was found between internal/external attributional style for good events and total social skills scores, $r(62)=-.55$, $p< .001$. A similar correlation was found between total social skills scores, $r(62)=-.32$, $p< .01$, and the internal/external attributional style for bad events. All of the above significant negative correlations from Table 4 reveal that regardless of whether events are good or bad, higher scores on the negative social skills subscales and total social skill scores tend to be associated with an external, attributional style. In other words, an external attributional style (especially for good events) is associated with greater inappropriate assertiveness, greater

Table 4

Correlations of Internal/External Attributional Styles and MESSY Subscales

	Attribution	
MESSY	Good Events	Bad Events
Positive Subscale (appropriate social skill)	.48***	.36**
Negative Subscale II (inappropriate assertiveness)	-.53***	-.28*
Negative Subscale III (impulsivenss)	-.42***	-.20
Negative Subscale IV (overconfidence)	-.41***	-.23
Negative Subscale V (jealousy/withdrawal)	-.49***	-.11
Total Social Score	-.55***	-.32**

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

Table 5

Means and Standard Deviations for the Analysis of Attributional Styles By ADD/H Status

	Type Of Event					
	Good			Bad		
Group	$\bar{X}$	SD	n	$\bar{X}$	SD	n
ADD/H	3.46	2.27	33	3.03	2.05	33
non-ADD/H	4.36	3.91	33	3.36	1.97	33
Total	3.91	2.28	66	3.20	2.00	66

impulsiveness, greater overconfidence, and greater jealousy/withdrawal behaviors. Overall, these results support the hypothesis that attributional styles (internal/external) are related to social functioning. The significant relationships between the children's attributional style and their social skills seem to lend support to the work of Dweck and Goetz (1978) and Lepper (1982). It appears that external children experience less internalization of roles and social values across situations. External children attribute the behaviors of others and social situations to luck, fate, chance, or anything external to themselves. Therefore, these children are not able to take personal control or responsibility for their behavior in social situations. They do not take into consideration their own actions or beliefs. This internalized control over the children's own behavior is a necessary process for successful socialization. It may be that external children are unable to translate their social learning into internalized control over their behavior, and therefore have many difficulties with the socialization process.

Analysis of Attributional Styles by ADD/H Status

In order to determine whether there were any differences between the attributional styles of ADD/H children versus non-ADD/H children, a 2x2 repeated measures ANOVA was

performed on the children's attributional styles. The between-subjects factor was presence versus absence of ADD/H, while the repeated measure factor was attributional style scores reported for good events and for bad events. The between-subjects factor indicated no significant differences between the ADD/H group and the non-ADD/H group, $F(1,64)=2.57$, ns. The within-subjects analysis revealed a repeated measure effect, $F(1,64)=4.04$, $p< .05$, with subjects (ADD/H and non-ADD/H) having higher internal scores for good events ($\bar{X}=3.91$, SD=2.28) than for bad events ($\bar{X}=3.20$, SD=2.00). Futhermore, there was no significant interaction between the between-subjects factor (ADD/H vs non-ADD/H) and the repeated measure factor (good events vs bad events), $F(1,64)=0.66$, ns (Table 5). The results make it apparent that the ADD/H variable may not be vital to the influencing of children's attributional style. Children diagnosed as ADD/H do not necessarily mean that they are predisposed to an external attributional style. Further research should be completed in this area in order to better understand what possible variables influence children's attributional style.

Analyses of Social Skills by the ADD/H Variable and the Attributional Style Variable for Good Events

Twelve two-way factorial analyses of variance were conducted to further examine the effect of ADD/H (presence vs

absence) and attributional styles (internal vs external) on social skills. The classification of an internal or an external attributional style was made by designating scores of 3 or less being external, and scores greater than 4 being internal. Twelve 2x2 ANOVAs (six for good causal events and six for bad causal events) were computed (Table 6). The means and standard deviations will be found in table 7.

Total social skills

The results of the analyses on the total social skill scores revealed significant main effects for the ADD/H factor ($F(1,62)=10.90$, $p< .01$) and the attributional style (good events) variable ($F(1,62)=23.80$). ADD/H children had higher total social skill scores (indicating lower total social functioning) as compared to the non-ADD/H children. Internal children had lower total social skills scores (indicating higher social functioning) than external children. A significant interaction between the ADD/H variable and the attributional style variable for good events was also found, $F(1,64)=5.91$, $p< .05$. Post hoc test comparisons utilizing the Simple Main Effects Test was used to qualify the main effects. In particular, it was found that ADD/H children had higher total social skill scores than non-ADD/H children only when the children manifested internal attributional styles ($p< .05$). Furthermore, children

Table 6

Summary Table On The Effects of ADD/H and Attributional Styles on Social Skills

Source	Good Events SS	DF	MS	F	Bad Events SS	DF	MS	F
Total Social Skills								
ADD/non-ADD	7629.51	1	7629.51	10.90**	1374.20	1	1374.20	15.44***
Attribute	16504.03	1	16504.03	23.80***	7030.61	1	7030.61	7.90**
ADD/Attribute	4105.64	1	4105.64	5.91*	1470.12	1	1470.12	1.65
Error	43054.05	62	694.42		55162.82	62	889.72	
Total	78694.12	65	1210.70		78694.12	65	1210.68	
Appropriate Social Skills								
ADD/non-ADD	125.00	1	125.00	0.70	537.62	1	537.62	2.45
Attribute	3258.15	1	3258.15	17.22***	1991.63	1	1991.63	9.10**
ADD/Attribute	840.74	1	840.74	4.44*	219.90	1	219.90	1.00
Error	11727.62	62	189.15		13614.95	62	219.62	
Total	16501.00	65	253.90		16501.00	65	254.01	
Inappropriate Assertiveness								
ADD/non-ADD	966.84	1	966.84	12.21***	1653.12	1	1653.12	16.90***
Attribute	1608.63	1	1608.63	20.31***	584.70	1	584.70	5.98*
ADD/Attribute	258.01	1	258.01	3.43	134.95	1	134.95	1.40
Error	4911.01	62	79.24		6068.13	62	97.90	
Total	8570.25	65	131.84		8570.30	65	131.91	
Impulsiveness								
ADD/non-ADD	475.72	1	475.72	43.15***	614.60	1	614.60	43.60***
Attribute	116.93	1	116.93	10.61**	41.60	1	41.60	2.95
ADD/Attribute	126.50	1	126.50	11.51**	10.71	1	10.71	0.75
Error	683.36	62	11.02		874.47	62	14.10	
Total	1563.33	65	24.10		1563.53	65	24.10	
Overconfidence								
ADD/non-ADD	97.70	1	97.70	9.81*	147.51	1	147.51	13.80***
Attribute	86.95	1	86.95	8.74*	39.70	1	93.70	3.71
ADD/Attribute	34.65	1	34.65	3.51	35.63	1	35.63	3.32
Error	617.30	62	9.96		663.70	62	10.70	
Total	896.70	65	13.80		896.70	65	13.80	
Jealousy/Withdrawal								
ADD/non-ADD	179.01	1	179.01	21.31***	270.50	1	270.50	26.34***
Attribute	124.10	1	124.10	14.74**	5.24	1	5.24	0.51
ADD/Attribute	2.50	1	2.50	0.29	7.00	1	7.00	0.69
Error	522.14	62	8.42		636.43	62	10.30	
Total	924.87	65	14.23		924.91	65	14.22	

*p(.05, **p(.01, ***p(.001

Table 7

Means and Standard Deviations for ADD/H Status and Attributional Styles on Social Skills

Source		Good Events: External	Good Events: Internal	Good Events: Row Total	Bad Events: External	Bad Events: Internal	Bad Events: Row Total
Total Skill Score							
ADD/H	$\bar{X}$	113.94	96.13	105.85	110.25	99.10	105.90
	SD	27.73	28.51	29.07	31.70	24.21	29.10
non-ADD/H	$\bar{X}$	111.10	60.30	75.70	89.44	59.13	75.70
	SD	44.14	7.00	33.82	41.04	5.80	33.82
Column Total	$\bar{X}$	112.93	74.42	90.80	100.40	77.70	90.80
	SD	33.70	25.53	34.80	37.40	26.30	34.80
Appropriate Social Skills							
ADD/H	$\bar{X}$	73.70	87.40	83.15	80.25	87.62	83.15
	SD	17.60	13.07	16.00	17.35	12.91	16.00
non-ADD/H	$\bar{X}$	79.10	96.43	89.54	82.83	97.60	89.60
	SD	20.13	4.41	15.50	18.40	3.42	15.50
Column Total	$\bar{X}$	77.50	92.90	86.35	81.50	93.00	86.40
	SD	18.40	9.81	15.93	17.64	10.30	15.93
Inappropriate Assertiveness							
ADD/H	$\bar{X}$	34.60	28.13	31.64	32.85	29.80	31.64
	SD	8.44	10.71	9.92	9.60	10.54	9.93
non-ADD/H	$\bar{X}$	31.60	16.74	21.24	25.30	16.40	21.24
	SD	14.64	2.75	10.64	13.00	2.90	10.70
Column Total	$\bar{X}$	33.50	21.24	26.44	29.30	22.61	26.44
	SD	10.90	8.93	11.48	11.81	10.00	11.50
Inquisiveness							
ADD/H	$\bar{X}$	17.44	17.33	17.40	17.70	16.92	17.40
	SD	2.70	3.60	3.06	2.90	3.40	3.06
non-ADD/H	$\bar{X}$	15.30	9.40	11.18	12.30	9.90	11.18
	SD	6.00	2.20	4.43	5.62	1.73	4.43
Column Total	$\bar{X}$	16.70	12.53	14.30	15.13	13.14	14.30
	SD	4.01	4.80	4.50	5.13	4.42	4.50

Table 7 (Cont.)

Source		Good Events External	Good Events Internal	Good Events Row Total	Bad Events External	Bad Events Internal	Bad Events Row Total
Overconfidence							
ADD/H	$\bar{X}$	13.33	12.33	12.88	12.90	12.85	12.90
	SD	3.10	3.24	3.14	2.95	3.53	3.14
non-ADD/H	$\bar{X}$	12.60	8.60	9.80	11.20	8.13	9.80
	SD	4.90	2.10	3.63	4.33	1.50	3.64
Column Total	$\bar{X}$	13.07	10.65	11.33	12.10	10.32	11.33
	SD	3.74	3.17	3.71	3.72	3.32	3.71
Jealousy/withdrawal							
ADD/H	$\bar{X}$	13.22	10.73	12.10	12.05	12.15	12.10
	SD	2.50	3.90	3.40	3.80	2.85	3.40
non-ADD/H	$\bar{X}$	10.30	7.00	8.00	8.50	7.33	8.00
	SD	4.11	1.60	3.00	3.82	1.30	3.00
Column Total	$\bar{X}$	12.20	9.50	10.84	10.40	9.50	10.84
	SD	3.40	3.25	3.77	4.13	3.24	3.80

Source	n for Good Events External	n for Good Events Internal	n for Good Events Row total	n for Bad Events External	n for Bad Events Internal	n for Bad Events Row total
ADD/H	18	15	33	20	13	33
non-ADD/H	10	23	33	18	15	33
Column total	28	38	66	38	28	66

with an external attributional style had higher total social skills scores than children with internal attributional styles but only for the non-ADD/H children ($p < .05$). See table 7 for means and standard deviations.

Overall, the internal non-ADD/H group appeared to be the highest socially functioning group. The results of the analysis lend support to the work of Baumrind (1966), Dweck (1975), and Lepper (1982), in that external attributions may retard the internalization process, e.g., social regulation and social responsibility. In addition, the results provide insight to Weiss and Minde's (1971) study. According to Weiss and Minde (1971), ADD/H children often spend their spare time alone or with younger children rather than with peers.

Appropriate skills

No significant main effect was found for the ADD/H variable on the appropriate social skills dimension. However, a significant main effect was found for the attributional style variable, ($F(1,62)=17.22$, $p < .05$). Internal children had higher positive social skills scores (indicating higher social functioning) than external children. In addition, a significant interaction between the ADD/H variable and the attributional style variable on the appropriate social skill dimension was found,

$F(1,62)=4.44$, $p< .05$. Post-hoc comparisons employing the Simple Main Effects Test was used to qualify the main effects. In particular, it was found that ADD/H children had lower appropriate social skill scores than non-ADD/H children only when the children manifested an external attributional style ($p< .05$). Futhermore, children with an internal attributional style had higher appropriate social skill scores than children with external attributional styles for both ADD/H and non-ADD/H children.

Negative social skills

Significant main effects were found for the ADD/H variable and the attributional style variable on the inapproprate assertiveness and negative social skill subtest, $F(1,62)=12.21$, $p< .01$, and $F(1,62)=20.31$, $p< .001$, respectfully. ADD/H children had higher inappropriate assertiveness scores than non-ADD/H children. External children had nigher inappropriate assertivenss score than the internal children. No significant interaction between the ADD/H variable and the attributional style variable on the inappropriate assertiveness dimension was found.

Signficant main effects were found for the ADD/H variable ($F(1,62)=43.15$, $p< .001$),and the attributional style variable ($F(1,62)=10.61$, $p< .01$)

on the impulsiveness (negative social skill score) dimension. ADD/H children had higher impulsive social skill scores than non-ADD/H children. External children had higher impulsive social skill scores than internal children. A significant interaction between the ADD/H variable and the attributional style variable was also found, $F(1,64)=11.51$, $p< .01$. Post hoc comparisons employing an Apriori comparision test, whereby a comparison between the ADD/H external children to the combination of the other three groups was used. Results revealed significant differences existed between ADD/H external children as compared to the other three groups. External ADD/H children appear to be more impulsive as compared to the other three groups (when combined).

Significant main effects were found for the ADD/H variable and the attributional style variable on the overconfident negative social skills dimension, $F(1,62)=9.81$, $p< .05$., $F(1,62)=8.74$, $p< .05$, respectfully. ADD/H children had higher overconfidence scores than non-ADD/H children. External children had higher overconfidence scores than internal children. There was no significant interaction between the ADD/H variable and the attributional style variable on this dimension.

Significant main effects were found for the ADD/H variable and the attributional style variable on the jealousy/withdrawal (negative social skill) dimension,

$F(1,62)=21.31$, $p< .001$, $F(1,62)=14.74$, $p< .001$, respectfully. The ADD/H children had higher jealousy/withdrawal scores than non-ADD/H children. External children had higher jealous/withdrawal scores than internal children. No significant interaction between these two variables was found.

Analysis of the Social Skills by the ADD/H Variable and the Attributional Style for Bad Events

Total social skills

The 2x2 anaylsis of variance revealed significant main effects for the ADD/H variable ($F(1,62)=15.44$, $p< .001$ and the attributional style (bad events) variable ($F(1,62)=7.90$, $p< .01$), on the social skill variable. ADD/H children had higher total social skill scores (indicating lower total social functioning) than the non-ADD/H children. Internal children had lower total social skills scores (indicating higher social functioning) than external children. No significant interaction between the ADD/H variable and the attributional style variable for bad events was found on this social skill dimension.

The results support previous research (Barkley, 1978; Weiss and Minde, 1981), in that ADD/H children are frequently noted to be socially immature. Although external ADD/H

children reported the highest total skill scores, no significant interactions were found. It appears that the children's responses to the attributional style questionnaires were inconsistent. A significant interaction was found on the total social skill dimension for good events but not for bad events. According to Peterson, Schwartz, and Seligman (1982), the children's responses on the good events dimension are a more representative attributional style of the children. It is not uncommon for inconsistent attributional styles to appear for bad events because during a bad event, many children tend to be more ambiguous in making decisions.

Appropriate social skill

No significant main effect was found for the ADD/H variable on the appropriate social skills dimension. However, a significant main effect was found for the attributional style variable, ($F(1,62)=9.10$, $p< .01$). Internal children had higher positive social skills scores (indicating higher social functioning) than external children. No significant interaction between the ADD/H variable and the attributional style variable for bad events on the appropriate social skills dimension was found.

Negative social skills

Significant main effects were found for the ADD/H variable and the attributional style variable on the inapproprite assertiveness negative social skills subtest, $F(1,62)=16.90$, $p< .001$, and $F(1,62)=5.98$, $p< .05$, respectfully. ADD/H children had higher inappropriate assertiveness scores than non-ADD/H children. External children had higher inappropriate assertivenss scores than internal children. No significant interaction between the ADD/H variable and the attributional style variable on the inapproprte assertiveness dimension was found.

A signficant main effect was found for the ADD/H variable ($F=(1,62)=43.60$, $p< .001$) on the impulsiveness (negative social skills score) dimension. ADD/H children had higher impulsive social skills scores than non-ADD/H children. No significant main effect was found for the attributional style variable. Nor was there a significant interaction between the ADD/H variable and the attributional style variable on this dimension.

A significant main effect was found for the ADD/H variable ($F(1,62)=13.80$, $p< .001$), on the overconfident negative social skills dimension. ADD/H children had higher overconfidence scores than non-ADD/H children. No significant main effect was found for the attributional style variable. In addition, no significant

interaction between the ADD/H variable and the attributional style variable was found for this dimension.

Finally, a significant main effect was found for the ADD/H variable ($F(1,62)=26.34$, $p< .001$) on the jealousy/withdrawal (negative social skill) dimension. The ADD/H children had higher jealousy/withdrawal scores than non-ADD/H children. No significant main effect was found for the attributional style variable. Also, no significant interaction for these two variables was found.

The results lend support to Whalen and Henker's (1980) previous study. In their study, ADD/H children were observed to be more vocal, disruptive, and engaged in more inappropriate behavior in social situations than normal controls. The results of attributional styles for bad events provide inconsistent information in terms of the impact of ADD/H children's attributional style on their social functioning, as compared to the results of the good events. Further investigations are needed to examine ADD/H children's attributional styles for both good events and bad events. Additional information is needed from these children on why good and bad events occur. Perhaps utilizing a multidimensional measure of the children's perceptions or attributional styles would provide better insight beyond the two dimensions used in the present study. A third dimension referred to as the unknown attribution may be added. There

is a possibility that for some bad events, ADD/H children are not certain why the events occur.

Chapter IV

Conclusions, and Recommendations

Conclusions

The purpose of this study was to assess the relationship among parent child-rearing practices, children's internal/external attributional styles and social skills between ADD/H and non-ADD/H children. A review of the literature revealed a need to investigate the social skills and internal/external attributional styles of ADD/H and non-ADD/H children and their relationship to child-rearing practices.

Results indicated group differences between the parents of ADD/H children versus the parents of non-ADD/H children on the dimension of encouragement of independence. It was found that the mothers of ADD/H children reported higher mean scores as compared to mothers of non-ADD/H children. In addition, differences between the parents of ADD/H children versus the parents of non-ADD/H children were found on the authoritarian control dimension. Further analysis indicated that the mothers of ADD/H children reported higher authoritarian scores than did the mothers of non-ADD/H children. Overall group differences were found on the parental control dimension with parents of ADD/H children having higher combined scores than the parents of non-ADD/H children.

The relationship between parents' child-rearing practices and their children's internal/external attributional style was examined. The results indicated a relationship between the child-rearing dimension of encouragement of independence and their children's attributional styles for mothers only. No other significant correlations were found on the remaining child-rearing dimensions for mothers. However, the mothers' scores on parental control for bad events did reveal trends to support the hypothesis. Although not significant, it does indicate that as mothers become more controlling, their children become more internal. In addition, no significant relationships on the three parental child-rearing dimensions were found for the fathers and their children's attributional style. Several possible explainations can be offered for the lack of significant relationships.

First, in this study the majority of fathers completed the Q-sorting at home during their own time. Therefore, the fathers may have lost their motivation in completing the task and not have taken the sorting seriously. In addition, the fathers were given the Q-sort directions describing the sorting procedures without the assistance of the investigator. Whereas the majority of the mothers completed the Q-sort in the investigator's office or in the child's school in the presence of the investigator.

Second, significant relationships were not found for the two parental control dimensions. Therefore, it is possible that the questions on the Q-sort did not necessarily tap into the same control dimensions that Baumrind (1966) described in association with authoritarian parenting. It appears that Baumrind defines control as an attempt to shape and control children's behavior and their attitudes in accordance with an absolute set of rules, standards, and disciplinary techniques. However, the Q-sort examines control in terms of expressing affection, opinions, and the level of difficulty parents find in punishing their children.

Third, this study employed self-report, Likert type scales in classifying children's attributional styles. Although both scales were found to be reliable, there are some inherent limitations to the scales in terms of the current population sampled. For example, reading or language problems of the children were not taken into consideration by the investigator. In addition, many children experience difficulty with Likert type scales and are not always certain of how to rate themselves or their behaviors and are therefore not as accurate in their ratings.

Additional results showed a relationship between children's internal/external attributional style and social

skills. In general, external children reported lower overall social functioning, lower appropriate social functioning, and higher negative social skill scores. In contrast, it was found that internal children reported higher overall functioning, higher appropriate social skills, and lower negative social skill scores. Finally, some support was found for the prediction that children's ADD/H status and attributional style (internal/external) would be related to their social functioning. Whereby, external ADD/H children reported lower appropriate skill scores and higher negative social skills than the non-ADD/H child.

The present study provides support to the hypothesized relationship between parents' child-rearing behaviors and their children's attributional styles and social skills. More specifically, the mother's control and independence behaviors appear to be related to the influence of their children's attributional style.

Although the mothers of ADD/H children reported high scores of encouraging independence, their controlling behaviors contribute to their children feeling not trusted to undertake activities independently. External attributional styles are linked to children having impaired internalization processes. Because social learning requires children to be able to internalize control over their own

behavior, external children are especially vulnerable. This is largely due to the fact that internal control requires children to regulate their own behavior without external monitoring. In this regard, ADD/H children appear to be especially at risk because of the higher mean scores as compared to non-ADD/H children. Results of the study reveal that external ADD/H children reported higher mean scores for many of the negative social skill subtests.

Recommendations for Future Research

1. Further information is needed on the child-rearing practices of parents of ADD/H children. This may be completed by devising a profile of these parents utilizing all of Block's Q-sort subscales.
2. Additional factors to explore the influence of ADD/H children's attributional style and social functioning include the parent-child emotional relationship, overall family functioning, and the marital relationship.
3. Grade level differences in social functioning were not investigated in this study. Additional research is needed to compare the social skills and functioning between the age groups, e.g., preschool, grade school, middle school, and high school ADD/H and non-ADD/H children.

4. Gender differences were not investigated in this study for child-rearing practices, attributional styles, or social functioning. Therefore, further research should include both male and female ADD/H children and their parents.

5. Further research is needed on ADD/H children's understanding of social issues and social behaviors. This may be investigated through observations of the children during their social interactions and with interviews. Such data may further our understanding of how these children establish and maintain social interactions and communication.

References

Abramson, L., Seligman, M., & Teasdale, J. (1978). Learned helplessness in humans: Critque and reformulation. Journal of Abnormal Psychology, 87, 49-74.

Barkley, R. A. (1978). Recent developments in research on hyperactive children. Journal of Pediatric Psychology, 3(4), 158-163.

Barkley, R. A. (1981). Hyperactive children: A handbook for diagnosis and treatment. New York: Guilford Press.

Barkley, R. A. (1982). Guidelines for defining hyperactivity in children. In B. B. Lahey and A. E. Kazdin (Eds.), Advances in clinical child psychology (Vol. 5), (pp. 137-180). New York: Plenum.

Barkley, R., & Cunningham, C. (1980). The parent-child interactions of hyperactive children and their modification by stimulant drugs. In R. Knight & D. Bakker (Eds.), Treatment of hyperactive and learning disordered children. Baltimore: University Park Press.

Bates, J. (1980). The concept of difficult temperament. Merrill-Palmer Quarterly, 26, 299-319.

Battle, E. S., & Lacey, B. (1972). A context for hyperactivity in children, over time. Child Development, 43, 757-773.

Baumrind, D. (1966). Effects of authoritative parental control on child behavior. Child Development, 37(4), 887-907.

Bettelheim, B. (1973). Bringing up children. Ladies' Home Journal, 4, 28-38.

Block, J. (1965). The child rearing practices report (CRPR). Berkeley, CA.: Institute of Human Development, University of California. In mimeo.

Bradley, C. (1937). The behavior of children receiving benzedrine. American Journal of Psychiatry, 94, 577-585.

Bryan, R., & Bryan, J. (1981). Some personal and social experiences of learning disabled children. In B. Keogh (Ed.), Advances in special education. Connecticut: Jai Press.

Buss, A. (1978). Causes and reasons in attribution theory: A conceptual critque. Journal of Personality and Social Psychology, 36. 1311-1321.

Campbell, S. B., Breaux, A. M., Ewing, L. J., & Szumowski, E. K. (1984). A one-year follow-up study of parent referred hyperactive preschool children. Journal of the American Academy of Child Psychiatry, 23(3), 243-249.

Campbell, S. B., Douglas, V. I., & Morgenstern, G. (1971). Cognitive styles in hyperactive children and the effect of methylphenidate. Journal of Child Psychology and Psychiatry, 15, 55-67.

Campbell, S. B., Endman, M. W., & Bernfeld, G. A. (1977). A three year follow-up of hyperactive preschoolers into elementary school. Journal of Child Psychology and Psychiatry, 18, 239-249.

Campbell, S., & Paulauskas, S. (1979). Peer relations in hyperactive children. Journal of Clinical Psychology and Psychiatry, 20, 233-245.

Cantwell, D. P. (1975). Genetics of hyperactivity. Journal of Child Psychology and Psychiatry. 16, 261-264.

Cantwell, D. P. (1984). The attention deficit disorder syndrome current knowledge, future needs. Journal of the American Academy of Child Psychiatry, 23(3), 315-318.

Cantwell, D., & Carlson, G. (1978). Stimulants. In J. S. Weery (Ed.), Pediatric psychopharmacology. New York: Brunner/Mazel.

Cantwell, D. P., & Satterfield, J. H. (1978). The prevalence of academic underachievement in hyperactive children. Journal of Pediatric Psychology, 3, 168-171.

Cohen, M. J. (1979). Drugs and the special child. New York: Gardner Press.

Cohen, M. J., & Eichleder, C. A. (1977). Some effects of sociometrically selected peer models on the cognitive styles of impulsive children. Journal of Genetic Psychology, 124, 213-230.

Connell, J. (1986). Control understanding: Suggestions for a developmental framework. In M. Baltes, & P. Baltes (Eds.), The psychology of control and aging. Hillsdale, NJ: Erlbaum.

Conners, C. K. (1975). A placebo-crossover study of caffeine treatment of hyperkinetic children. International Journal of Mental Health, 4(2), 132-143.

Conners, C. K. (1980). Food additives and hyperactive children. New York: Plenum.

Cowen, E., Pederson, A., Babigian, H., Izzo, L., & Trost, M. (1973). Long term follow up of early detected vulnerable. Journal of Consulting and Clinical Psychology, 41, 438-446.

Cunningham, E., & Barkley, R. (1979). The interactions of normal and hyperactive children with their mothers in free play in structured tasks. Child Development, 50, 217-224.

David, O., Clark, J., & Voeller, K. (1972). Lead and hyperactivity. Lancet, 2, 900-903.

Delameter, A., Lahey, B., & Drake, L. (1981). A psychophysiological comparison of 'hyperactive' and 'non-hyperactive' subgroups. Journal of Abnormal Child Psychology, 9, 65-77.

Denson, R., Nanson, J. C., & McWalters, M. A. (1975). Hyperkinesis and maternal smoking. Canadian Psychiatric Association Journal, 20, 183-187.

Diener, C., & Dweck, C. (1978). An analysis of learned helplessness: Ongoing changes in performance strategy and achievement cognition following failure. Journal of Personality and Social Psychology, 36, 451-462.

Diener, C., & Dweck, C. (1980). In the processing of success. Journal of Personality and Social Psychology, 39, 940-952.

Doage, K. (1980). Social cognition and children's aggressive behavior. Child Development, 51, 162-170.

Douglas, V. I. (1972). Stop, look, and listen: The problem of sustained attention and impulse control in hyperactive and normal children. Canadian Journal of Behavioral Science, 4, 259-282.

Douglas, V. I., & Parry, P. (1983). Effect of reward on the delayed reaction time task performance of hyperactive children. Journal of Abnormal Psychology, 11, 313-326.

Douglas, V., & Peters, K. (1979). Toward a clearer definition of the attentional deficit of hyperactive children. In G. Hale & M. Lewis (Eds.), Attention and the development of cognitive skills. New York: Plenum.

Dweck, C. (1975). The role of expectations and attributions in the alleviation of learned helplessness. Journal of personality and Social Psychology, 31, 674-785.

Dweck, C., & Goetz, T. (1978). Learned helplessness and attributions. In J. Harvey & Ickes (Eds.), New directions in attribution research (Vol. 2). Hillsdale, NJ: Lawerence Erlbaum Associates.

Dweck, C., & Reppucci, N. (1973). Learned helplessness and reinforcement responsibility in children. Journal of Personality and Social Psychology, 25, 109-116.

Edelbrock, C., Costello, A. J., & Kessler, M. D. (1984). Empirical corroboration of attention deficit disorder. Journal of the American Academy of Child Psychiatry, 23(3), 285-290.

Eichlseder, W. (1985). Ten years of experience with 1,000 hyperactive children in private practice. Pediatrics, 76(2), 176-184.

Fairchild, T. N. (1980). The hyperactive child and the family. New York: Dodd, Mead & Company.

Feingold, B. F. (1975). Hyperkinesis and learning disabilities linked to artifical food flavors and colors. American Journal of Nursing, 75, 797-803.

Flanders, N., & Havumaki, S. (1961). The effect of teacher-pupil contacts involving praise on the sociometric choices of students. Journal of Educational Psychology, 51, 55-68.

Freibergs, V., & Douglas, V. I. (1969). Concept learning in hyperactive and normal children. Journal of Abnormal Psychology, 74, 388-395.

Gillberg, C., Carlstrom, G., & Rasmussen, P. (1983). Hyperkinetic disorders in seven year-old children with perceptual motor and attentional deficits. Journal of Child Psychology and Psychiatry, 24, 233-246.

Goetz, T., & Dweck, C. (1980). Helplessness in social situations. Journal of Personality and Social Psychology, 39, 246-255.

Gordon, M. (1986). Microprocessor based assessment of attention deficit disorder. Psychopharmacology Bulletin, 22, 288-290.

Gottman, J. (1977). Toward a definition of social isolation in children. Child Development, 48, 513-517.

Gottman, J., Gonso, J., & Rasmussen, B. (1975). Social interaction, social competence, and friendship in children. Child Development, 46, 709-718.

Grusel, J., & Pedler, J. (1978). Modeling direct instruction and attributions: Effects on altruism. Developmental Psychology, 14, 51-57.

Hastings, J., & Barkley, R. (1978). A review of psychophysiological research with hyperkinetic children. Journal of Abnormal Child Psychology, 6, 413-448.

Hewstone, M. (1983). Attribution theory: Social and functional extensions. Oxford: Basil Blackwell Publisher.

Hoffman, M. (1982). Affective and cognitive processes in moral internalization. In E. Higgins, D. Ruble, & W. Hartup (Eds.), Social cognition and social behavior: Developmental perspectives. Cambridge: Cambridge University Press.

Howell, D. C., Huessy, H. R., & Hassuk, B. (1985). Fifteen-year follow-up of a behavior history of attention deficit disorder. Pediatrics, 76(2), 185-190.

Hoy, E., Weiss, G., Minde, K., & Cohen, N. (1978). The hyperactive child at adolescence: Emotional, social and cognitive functions. Journal of Abnormal Child Psychology, 6, 311-324.

Humphries, T., Kinsbourne, M., & Swanson, J. (1978). Stimulant effects on cooperation and social interaction between hyperactive children and their mothers. Journal of Child Psychology and Psychiatry, 19, 13-22.

Johnston, C., Pelham, W., & Murphy, H. (1985). Peer relationships in ADD/H and normal children: A developmental analysis of peer and teacher ratings. Journal of Abnormal Child Psychology, 13(1), 89-100.

Jones, K. L., Smith, D. W., Streissguth, A. P., & Myrianthopoulos, N. C. (1974). Outcome in offspring of chronic alcoholic women. Lancet, 1, 1076-1078.

Keller, M., & Carlson, P. (1974). The use of symbols modeling to promote social skills in preschool children with low levels of social responsiveness. Child Development, 45, 912-919.

Kelly, H. (1967). Attribution theory in social psychology. In D. Levine (Ed.), Nebraska symposium on motivation. Lincoln, NB: University of Nebraska Press.

Klein, A. R., & Young, R. D. (1979). Hyperactive boys in their classroom: Assessment of teacher and classroom behavior. Journal of Abnormal Child Psychology, 7, 424-442.

Knobloch, H., & Pasamanick, B. (1959). Syndrome of minimal cerebral damage in infancy. Journal of American Medical Association, 170, 1384-1387.

Lacey, B., & Battle, E. (1972). A context for hyperactivity in children over time. Child Development, 43, 757-773.

LaGreca, A. (1981). Peer acceptance: The correspondence between children's sociometric scores and teacher's ratings of peer interactions. Journal of Abnormal Child Psychiatry, 9(2), 167-178.

Lahey, B. (1979). Behavior therapy with hyperactive and learning disabled children. New York: Oxford University Press.

Laufer, M. (1957). Hyperkinetic behavior syndrome in children. Journal of Pediatrics, 50, 463-474.

Ledingham, J., Younger, A., Schwartzman, A., & Bergeron, G. (1982). Agreement among teacher, peer, and self-ratings of childrens' agression, withdrawal, and likability. Journal of Abnormal Child Psychology, 10(3), 363-372.

Lepper, M. (1982). Social control processes, attributions of motivation and the internalization of social values. In E. Higgins, D. Ruble, & W. Hartup (Eds.), Social cognition and social behavior: Developmental perspectives. Cambridge: Cambridge University Press.

Loeb, R. (1975). Concomitants of boys' locus of control examined in parent-child interactions. Developmental Psychology, 11, 353-358.

Loeb, R. (1978). Family interaction patterns associated with self-esteem in preadolescent girls and boys. Merrill-Palmer Quarterly, 24, 203-217.

Loney, J. (1980). Hyperkinesis comes of age: What do we know and were should we go? American Journal of Orthopsychiatry, 50(1), 28-42.

Maccoby, E. (1982). Let's not over attribute to the attribution process. In E. Higgins, D. Ruble, & W. Hartup (Eds.), Social cognition and social behavior: Developmental Prespectives. Cambridge: Cambridge University Press.

Macklin, G., & Matson, J. (1985). A comparison of social behaviors among nonhandicapped and hearing impaired children. Behavioral Disorders, 11(1), 60-65.

Mainville, F., & Friedman, R. (1976). Peer relations of hyperactive children. The Ontario Psychologist, 8, 17-20.

Mash, E., & Johnson, C. (1981). A behavioral assessment of sibling interactions in hyperactive and normal children. Journal of Consulting and Clinical Psychology, 51, 86-99.

Matson, J., Heinze, A., Helsel, W., Kapperman, G., & Rotatori, A., (1986). Assessing social behaviors in the visually handicapped: The Matson evaluation of social skills with youngsters (MESSY). Journal of Clinical Child Psychology, 15(1), 78-87.

Matson, J., Rotatori, A., & Helsel, W. (1983). Development of a rating scale to measure social skills in children: The Matson evaluation of social skills with youngsters (MESSY). Behavior Research Therapy, 21(4), 335-340.

McClure, J. (1985). The social parameter of 'learned' helplessness: Its recognition and implications. Journal of Personality and Social Psychology, 45, 198.

Metalsky, G., Abramson, L., Seligman, M., Semmel, A., & Peterson, C. (1982). Attributional styles and life events in the classroom: Vulnerability and invulnerability to depressive mood reactions. Abnormal Psychology, 43(3), 612-617.

Milich, R., & Landau, S., (1982). Socialization and peer relations in hyperactive children. In K. Gadon & I. Bialer (Eds.), Advances in learning and behavioral disabilities. Greenwich Connecticut: Jai Press.

Milich, R., & Loney, J. (1979). The role of hyperactive and aggressive symptomatology in predicting adolescent outcome among hyperactive children. Journal of Pediatric Psychology, 4, 93-112.

Miller, R. G., Palkes, H. S., & Stewart, M. A. (1973). Hyperactive children in suburban elementary schools. Child Psychiatry and Human Development, 4, 121-127.

Minde, K., Lewin, D., Weiss, G., Laviqueur, H., Douglas, V., & Sykes, D. (1971). The hyperactive child in elementary school: A five year controlled follow-up. Exceptional Children, 33, 215-221.

Morrison, J. R., & Stewart, M. A. (1971). A family study of the hyperactive child syndrome. Biological Psychiatry, 3, 189-195.

Nichols, P., & Chen, T. (1981). Minimal Brain Dysfunction: A Prospective Study. Hillsdale, NJ: Erlbaum.

Odens, N., & Asher, S. (1977). Social skills for friendship making. Child Development, 48, 495-506

Pancer, M. (1978). Causal attributions and anticipated performance. Personality and Social Psychology Bulletin, 4, 600-603.

Pelham, W. E. (1980, September). Peer relations and hyperactive children: Description and treatment effects. Paper presented at the meeting of the American Psychological Association, Montreal.

Pelham, W., & Bender, M. (1982). Peer relationships in hyperactive children. In K. Gadow & J. Bialer (Eds.). Advances in learning and behavioral disabilities. Greenwich, Connecticut: Jai Press.

Pelham, W., Schnedler, R., Bologna, N., & Contreras, A. (1980). Behavioral and stimulant treatment of hyperactive children: A therapy study with methylphenidate probes in a within subject design. Journal of Applied Behavior Analysis, 13, 221-236.

Peterson, C., Schwartz, S., & Seligman, M. (1981). Self blame and depressive symptoms. Journal of Personality and Social Psychology, 41, 253-259.

Piaget, J. (1932). The moral judgement of the child. Glencoe, IL: Free Press.

Pleban, R., & Richardson, D. (1979). Research and publication trends in social psychology. Personality and Social Psychology Bulletin, 5, 138-141.

Pulkkinen, L. (1982). Self-control and continuity from childhood to adolescence. In P. Baltes, & O. Brim (Eds.), Life-span development and behavior (Vol. 4). New York: Academic Press.

Quay, H. (1979). Classification. In H. Quay & J. Werry (Eds.). Psychological disorders of childhood. New York: Wiley Press.

Rapoport, J. L., Buchsbaum, M. S., Zahn, T. P., Weingartner, H., Ludlow, C., & Mikkelsen, E. J. (1978). Dextroamphetamine: Cognitive and behavioral effects in normal prepubertal boys. Science, 199, 560-563.

Riddle, K. D., & Rapoport, J. L. (1976). A 2-year follow-up of 72 hyperactive boys. The Journal of Nervous and Mental Disease, 162(2), 126-134.

Rie, H., Rie, E., Stewart, S., & Ambuel, J. (1976). Effects of methylphenidate on underachieving children: A replication. American Journal of Orthopsychiatry, 46, 313-322.

Robin, S. S., & Bosco, J. J. (1981). Parent, teacher, and physician in the life of the hyperactive child. Springfield: Charles C. Thomas Publisher.

Robins, L. (1966). Deviant children grown up. Baltimore: Williams & Wilkens.

Roff, M., Sells, B., & Golden, M. (1972). Social adjustment and personality development in children. Minneapolis: University of Minnesota Press.

Rolfe, V. (1971). A speech screening procedure with three-year-old children. Pediatrics, 48, 268-276.

Rosenthal, R. H., & Allen, T. W. (1980). Intratask distractability in hyperkinetic and non-hyperkinetic children. Journal of Abnormal Child Psychology, 8, 175-187.

Ross, D. M., & Ross, S. A. (1976). Hyperactivity: Research, theory, and action. New York: Wiley Interscience Publication.

Rotter, J. (1966). Generalized expectancies for internal versus external control of reinforcement. Psychological Monographs, 80, 609.

Rutter, M. (1982). Syndromes attributed to minimal brain dysfunction in childhood. American Journal of Psychiatry, 139, 21-33.

Safer, D. J., & Allen, R. P. (1976). Hyperactive children: Diagnosis and management. Baltimore: University Park Press.

Schachar, R., Rutter, M., & Smith, A. (1981). The characteristics of situationally and pervasively hyperactive children: Implications for syndrome definition. Journal of Child Psychology and Psychiatry, 22(4), 375-392.

Schnakenburg, R. C. (1973). Caffeine as a substitute for schedule II stimulants in hyperkinetic children. American Journal of Psychiatry, 130, 796-798.

Shaffer, D., & Greenhill, L. (1979). A critical note on the predictive validity of the hyperkinetic syndrome. Journal of Child Psychology and Psychiatry, 20, 61-72.

Shaywitz, S. E., Cohen, D. J., & Shaywitz, B. A. (1980). Behavior and learning difficulties of children of normal intelligence born to alcoholic mothers. Journal of Pediatrics, 96, 978-982.

Spivak, G., & Shure, M. (1974). Social adjustment of young children. San Francisco: Jossey-Bass.

Stewart, M. A. (1973). Hyperactive children. American Journal of Psychiatry, 94, 577-785.

Stewart, M. A., Thach, B. T., & Freidin, M. R. (1970). Accidental poisoning and the hyperactive child syndrome. Diseases of the Nervous System, 31, 403-407.

Still, G. F. (1902). The Coulstonian lectures on some abnormal physical conditions in children. Lancet, 1, 1008-1012.

Stipek, D., & Hoffman, J. (1980). Development of children's performance related judgements. Child Development, 51, 912-914.

Strauss, A. A., & Kephart, N. C. (1935). Psychopathology and education of the brain injured child (Vols. 1 & 2). New York: Grune & Stratton.

Swanson, J., & Kinsbourne, M. (1979). The cognitive effects of stimulant drugs on hyperactive (inattentive) children. In G. Hale & M. Lewis (Eds.), Attention and the development of cognitive skills. New York: Phenum.

Sykes, D. H., Douglas, V. I., Weiss, G., & Minde, K. (1971). Attention in hyperactive children and the effect of methylphenidate. Journal of Child Psychology and Psychiatry, 12, 129-139.

Tallmadge, J., & Barkley, R. (1983). The interactions of hyperactive and normal boys with their fathers and mothers. Journal of Abnormal Child Psychology, 11, 565-579.

Taylor, E. (1979). Food additives, allergy, and hyperactivity. Journal of Child Psychology and Psychiatry, 20, 357-363.

Tennis, G. (1975). Space, setting, and personal space. Sociometry, 38, 385-394.

Ullman, R. K., & Sleator, E. K. (1985). Attention deficit disorder children with or without hyperactivity. Clinical Pediatrics, 24(10), 547-551.

Van Hasselt, V., Griest, D., Kazdin, A., Esveldt-Dawson, K., & Unis, A. (1984). Poor peer interactions and social isolation: A case report of successful invivo social skills training on a child psychiatric inpatient unit. Behavior Therapy and Experimental Psychiatry, 15(3), 271-276.

Victor, J., & Halverson, C. (1976). Behavior problems in elementary school children: A follow up study. Journal of Abnormal Child Psychology, 4(1), 17-29.

Waldrop, M., & Halverson, C. (1971). Minor physical anomalies and hyperactive behavior in young children. Journal of Abnormal Child Psychology, 4, 463-474.

Weiner, B. (1972). Motivation: From mechanism to cognition. Chicago: Markham.

Weiner, B. (1974). Achievement motivation and attribution theory. Morristown, NJ: General Learning Press.

Weintraub, S., Prinz, R., & Neale, J. (1978). Peer evaluations of the competence of children vulnerable to psychopathology. Journal of Abnormal Child Psychology, 6(4), 461-473.

Weiss, G., & Hechtman, L. T. (1985). Hyperactive children grown up: Emperical findings and theoretical considerations. New York: Guilford Press.

Weiss, G., Hechtman, L., & Perlman, T. (1978). Hyperactives as young adults: School, employer, and self-rating scales obtained during ten-year follow-up evaluation. American Journal of Orthopsychiatry, 48(3), 438-445.

Weiss, G., Hechtman, L., Milroy, T., & Perlman, T. (1985). Psychiatric status of hyperactives as adults: A controlled prospective 15-year follow-up of 63 hyperactive children. Journal of the American Academy of Child Psychiatry, 24(2), 211-220.

Weiss, G., & Minde, K. (1971). Studies on the hyperactive child. Archives of General Psychiatry, 24, 409-414.

Werner, E. E., & Smith, R. S. (1977). Kauai's children come of age. Honolulu: University of Hawaii Press.

Werry, J. S. (1968). Developmental hyperactivity. Pediatric Clinics of North America, 15, 581-599.

Whalen, C. K., & Henker, B. (1980). Hyperactive children: The social ecology of identification and treatment. New York: Academic Press.

Whalen, C., Henker, B., Collins, B., McAuliffe, S., & Vaux, A. (1979). Peer interaction in a structured communication task: Comparisons of normal and hyperactive boys and of methylphenidate (Ritalin) and placebo effects. Child Development, 50, 388-401.

Whalen, C. K., Henker, B., & Dotemoto, S. (1981). Teacher response to the methylphenidate versus placebo status of hyperactive boys in the classroom. Child Development, 52, 1005-1014.

Whalen, C., Henker, B., Dolemoto, S., & Vaux, A. (1981). Peer interaction styles. In K. Gadow & J. Loney (Eds.), Psychosocial aspects of drug treatment for hyperactivity. Boulder, CO: West View Press.

Whalen, C., Henker, B., & Hinshaw, S. (1985). Cognitive behavioral therapies for hyperactive children: Premises, problems, and prospects. Journal of Abnormal Child Psychology, 13(3), 391-410.

Wolf, S. M., & Forsythe, A. (1978). Behavior disturbance, phenobarbital, and febrile seizures. Pediatrics, 61, 728-731.

APPENDIX A

Parent Letter and Consent Form

VIRGINIA TECH

Department of Family and Child Development
College of Human Resources

Wallace Annex
Blacksburg, Virginia 24061-8299
(703) 961-4794 or 4795

Dear Parents,

I am a Doctoral student in the department of Family and Child Development at Virginia Polytechnical Institute and State University in Blacksburg, VA. I am asking for your help in conducting a study of children's social adjustment. Your cooperation will contribute to a better understanding of children's social competency. I would like to ask you and your child to participate in this study.

As parents, you and your spouse will be asked to sort out a small stack of Child-Rearing cards. In order to insure that your responses are accurate, I ask that you and your spouse sort out the cards provided by the researcher seperately without conferring on your answers. In addition, your child will be asked to complete two brief questionnaires concerning social situations.

If you agree to participate in the study, the parent Child-Rearing cards should take about 30 minutes of your time and can be completed in your own home at your convenience. Your child will also bring home his/her questionnaires. All information will be treated confidentially and can be identified only by a code number. When the project is completed, I will be happy to share the results with you.

I hope you will consent to participate in this study. I need your help and cooperation to make this study a success. If your family is willing to help me, please fill out the attached consent form and have your child take them to school and return them to Mrs. Ellis as soon as possible. If you have any questions or need additional information, please contact me at (703) 387-2163 after 6:00 PM, or Mrs. Ellis at (301) 781-7113.

Sincerely,

Cynthia Kissmore, M.F.T.

Victoria R. Fu, Ph.D.

VIRGINIA TECH

Department of Family and Child Development
College of Human Resources

Wallace Annex
Blacksburg, Virginia 24061-8299
(703) 961-4794 or 4795

Dear Parents,

Thank you for agreeing to participate in this important study. Your cooperation will contribute to a better understanding of children's social actions.

As parents, you and your spouse will be asked to sort out an envelope of child-rearing cards. The sorting process should take approximately 30 to 40 minutes of your time. In addition, your child will be asked to complete two social questionnaires. The questionnaires should take about 45 minutes to complete. All information will be treated as confidential and can only be identified by a code number. When the project is completed, I will be happy to share the results with you.

If you are willing to help me, please fill out the attached demographic form and sort the enclosed child-rearing cards. The instructions for the sorting of the cards are enclosed. Please work independently on the card sorting process without conferring on you answers. We also ask that your child fill his/her questionnaires out seperately and without requesting help on their answers.

Please have your child return the completed forms and sorting cards to Mrs. Ellis as soon as possible. If you have any questions or need more information, please contact me at (703) 387-2163 or Mrs. Ellis at (301) 781-7113. Thank you for your help.

Sincerely,

Cynthia L. Kisamore, M.F.T.

Victoria R. Fu, Ph.D.

VIRGINIA TECH

Department of Family and Child Development
College of Human Resources

Wallace Annex
Blacksburg, Virginia 24061-8299
(703) 961-4794 or 4795

Consent Form

We acknowledge that we have been informed of the nature of this study and we understand that we may withdraw from the study at any time. It is understood that the information will be kept confidential. We are willing to participate in this study.

Signature of Participants: _____

_____

Address: _____

Telephone number: _____

____ Yes, we would like the results of this study.

APPENDIX B

Demographic Information Sheet

Please indicate your answers to the following questions in the space provided.

Subject Number_____ Date_____

1) What is your child's sex:
_____Male _____Female

2) What is the age of your child participating in this study:

3) Please indicate the sex and ages of your children.

4) What grade in school is your child in: _____

5) Is your child currently taking any medication:
_____Yes _____No

If yes, please list the names of the drugs and the amount of the dosage.

6) What is your current marital status:
_____Married (_____ year of marriage)
_____Seperated
_____Divorced and Single
_____Divorced and Remarried
(_____ year of marriage)
_____Widowed and Single
_____Widowed and Remarried
(_____ year of marriage)
_____Never Married

7) List occupations of both spouses.

APPENDIX C

Children's Attributional Style Questionnaire (CASQ)

SELF REPORT MEASURE OF ATTRIBUTIONAL STYLE

I am going to read you some situations and I want you to try really hard to imagine that they have just happened to you. Then, I want you to choose the most likely reason to explain why the situation happened to you.

First I will read you the situation, and then I will read you two possible reasons for the situation and I want you to choose the one that seems most true to you. Sometimes both of the reasons may sound true, and sometimes both may sound false, and, you may never have been in some of these situations. But even so, I want you to pick the reason that seems to explain why the situation happened to you.

There are no right answers and no wrong answers, so always pick the reason that seems the most likely to you.

Circle either "A" or "B" for each question.

KASTAN

1. YOU GET AN "A" ON A TEST.

   A. I AM SMART.
   B. I AM GOOD IN THE SUBJECT THAT THE TEST WAS IN.

2. YOU PLAY A GAME WITH SOME FRIENDS AND YOU WIN.

   A. THE PEOPLE THAT I PLAYED WITH DID NOT PLAY THE GAME WELL.
   B. I PLAY THAT GAME WELL.

3. YOU SPEND A NIGHT AT A FRIEND'S HOUSE AND YOU HAVE A GOOD TIME.

   A. MY FRIEND WAS IN A FRIENDLY MOOD THAT NIGHT.
   B. EVERYONE IN MY FRIEND'S FAMILY WAS IN A FRIENDLY MOOD THAT NIGHT.

4. YOU GO ON A VACATION WITH A GROUP OF PEOPLE AND YOU HAVE FUN.

   A. I WAS IN A GOOD MOOD.
   B. THE PEOPLE I WAS WITH WERE IN GOOD MOODS.

5. ALL OF YOUR FRIEND'S CATCH A COLD EXCEPT YOU.

   A. I HAVE BEEN HEALTHY LATELY.
   B. I AM A HEALTHY PERSON.

6. YOUR PET GETS RUN OVER BY A CAR.

   A. I DON'T TAKE GOOD CARE OF MY PETS.
   B. DRIVER'S ARE NOT CAUTIOUS ENOUGH.

7. SOME KIDS THAT YOU KNOW SAY THAT THEY DO NOT LIKE YOU.

   A. ONCE IN A WHILE PEOPLE ARE MEAN TO ME.
   B. ONCE IN A WHILE I AM MEAN TO OTHER PEOPLE.

8. YOU GET VERY GOOD GRADES.

   A. SCHOOL WORK IS SIMPLE.
   B. I AM A HARD WORKER.

9. YOU MEET A FRIEND AND YOUR FRIEND TELLS YOU THAT YOU LOOK NICE.

   A. MY FRIEND FELT LIKE PRAISING THE WAY PEOPLE LOOKED THAT DAY.
   B. USUALLY MY FRIEND PRAISES THE WAY PEOPLE LOOK.

10. A GOOD FRIEND TELLS YOU THAT HE HATES YOU.

    A. MY FRIEND WAS IN A BAD MOOD THAT DAY.
    B. I WASN'T NICE TO MY FRIEND THAT DAY.

11. YOU TELL A JOKE AND NO ONE LAUGHS.

    A. I DO NOT TELL JOKES WELL.
    B. THE JOKE IS SO WELL KNOWN THAT IT IS NO LONGER FUNNY.

12. YOUR TEACHER GIVES A LESSON AND YOU DO NOT UNDERSTAND IT.

A. I DIDN'T PAY ATTENTION TO ANYTHING THAT DAY.
B. I DIDN'T PAY ATTENTION WHEN MY TEACHER WAS TALKING.

13. YOU FAIL A TEST.

A. MY TEACHER MAKES HARD TESTS.
B. THE PAST FEW WEEKS MY TEACHER HAS MADE HARD TESTS.

14. YOU GAIN A LOT OF WEIGHT AND START TO LOOK FAT.

A. THE FOOD THAT I HAVE TO EAT IS FATTENING.
B. I LIKE FATTENING FOODS.

15. A PERSON STEALS MONEY FROM YOU.

A. THAT PERSON IS DISHONEST.
B. PEOPLE ARE DISHONEST.

16. YOUR PARENTS PRAISE SOMETHING THAT YOU MAKE.

A. I AM GOOD AT MAKING SOME THINGS.
B. MY PARENTS LIKE SOME THINGS I MAKE.

17. YOU PLAY A GAME AND YOU WIN MONEY.

A. I AM A LUCKY PERSON.
B. I AM LUCKY WHEN I PLAY GAMES.

18. YOU ALMOST DROWN WHEN SWIMMING IN A RIVER.

A. I AM NOT A VERY CAUTIOUS PERSON.
B. SOMEDAYS I AM NOT A CAUTIOUS PERSON.

19. YOU ARE INVITED TO A LOT OF PARTIES.

A. A LOT OF PEOPLE HAVE BEEN ACTING FRIENDLY TOWARD ME LATELY.
B. I HAVE BEEN ACTING FRIENDLY TOWARD A LOT OF PEOPLE LATELY.

20. A GROWNUP YELLS AT YOU.

A. THAT PERSON YELLED AT THE FIRST PERSON HE SAW.
B. THAT PERSON YELLED AT A LOT OF PEOPLE HE SAW THAT DAY.

21. YOU DO A PROJECT WITH A GROUP OF KIDS AND IT TURNS OUT BADLY.

A. I DON'T WORK WELL WITH THE PEOPLE IN THE GROUP.
B. I NEVER WORK WELL WITH A GROUP.

22. YOU MAKE A NEW FRIEND.

A. I AM A NICE PERSON.
B. THE PEOPLE THAT I MEET ARE NICE.

23. YOU HAVE BEEN GETTING ALONG WELL WITH YOUR FAMILY.

A. I AM EASY TO GET ALONG WITH WHEN I AM WITH MY FAMILY.
B. ONCE IN AWHILE I AM EASY TO GET ALONG WITH WHEN I AM WITH MY FAMI

24. YOU TRY TO SELL CANDY, BUT NO ONE WILL BUY ANY.

A. LATELY A LOT OF CHILDREN ARE SELLING THINGS, SO PEOPLE DON'T WANT TO BUY ANYTHING ELSE FROM CHILDREN.
B. PEOPLE DON'T LIKE TO BUY THINGS FROM CHILDREN.

25. YOU PLAY A GAME AND YOU WIN.

A. SOMETIMES I TRY AS HARD AS I CAN AT GAMES.
B. SOMETIMES I TRY AS HARD AS I CAN.

26. YOU GET A BAD GRADE IN SCHOOL.

A. I AM STUPID.
B. TEACHERS ARE UNFAIR GRADERS.

27. YOU WALK INTO A DOOR AND YOU GET A BLOODY NOSE.

A. I WASN'T LOOKING WHERE I WAS GOING.
B. I HAVE BEEN CARELESS LATELY.

28. YOU MISS THE BALL AND YOUR TEAM LOSES THE GAME.

A. I DIDN'T TRY HARD WHILE PLAYING BALL THAT DAY.
B. I USUALLY DO NOT TRY HARD WHEN I AM PLAYING BALL.

29. YOU TWIST YOUR ANKLE IN GYM CLASS.

A. THE PAST FEW WEEKS THE SPORTS WE PLAYED IN GYM CLASS HAVE BEEN DANGEROUS.
B. THE PAST FEW WEEKS I HAVE BEEN CLUMSY IN GYM CLASS.

30. YOUR PARENTS TAKE YOU TO THE BEACH AND YOU HAVE A GOOD TIME.

A. EVERYTHING AT THE BEACH WAS NICE THAT DAY.
B. THE WEATHER AT THE BEACH WAS NICE THAT DAY.

31. YOU TAKE A TRAIN WHICH ARRIVES SO LATE THAT YOU MISS A MOVIE.

A. THE PAST FEW DAYS THERE HAVE BEEN PROBLEMS WITH THE TRAIN BEING ON TIME.
B. THE TRAINS ARE ALMOST NEVER ON TIME.

32. YOUR MOTHER MAKES YOU YOUR FAVORITE DINNER.

A. THERE ARE A FEW THINGS THAT MY MOTHER WILL DO TO PLEASE ME.
B. MY MOTHER LIKES TO PLEASE ME.

33. A TEAM THAT YOU ARE ON LOSES A GAME.

A. THE TEAM MEMBERS DON'T PLAY WELL TOGETHER.
B. THAT DAY THE TEAM MEMBERS DIDN'T PLAY WELL TOGETHER.

34. YOU FINISH YOUR HOMEWORK QUICKLY.

A. LATELY I HAVE BEEN DOING EVERYTHING QUICKLY.
B. LATELY I HAVE BEEN DOING SCHOOLWORK QUICKLY.

35. YOUR TEACHER ASKS YOU A QUESTION AND YOU GIVE THE WRONG ANSWER.

A. I GET NERVOUS WHEN I HAVE TO ANSWER QUESTIONS.
B. THAT DAY I GOT NERVOUS WHEN I HAD TO ANSWER QUESTIONS.

36. YOU GET ON THE WRONG BUS AND YOU GET LOST.

A. THAT DAY I WASN'T PAYING ATTENTION TO WHAT WAS GOING ON.
B. I USUALLY DON'T PAY ATTENTION TO WHAT'S GOING ON.

37. YOU GO TO AN AMUSEMENT PARK AND YOU HAVE A GOOD TIME.

A. I USUALLY ENJOY MYSELF AT AMUSEMENT PARKS.
B. I USUALLY ENJOY MYSELF.

38. AN OLDER KID SLAPS YOU IN THE FACE.

A. I TEASED HIS YOUNGER BROTHER.
B. HIS YOUNGER BROTHER TOLD HIM I HAD TEASED HIM.

39. YOU GET ALL THE TOYS YOU WANT ON YOUR BIRTHDAY.

A. PEOPLE ALWAYS GUESS WHAT TOYS TO BUY ME FOR MY BIRTHDAY.
B. THIS BIRTHDAY PEOPLE GUESSED RIGHT AS TO WHAT TOYS I WANTED.

40. YOU TAKE A VACATION IN THE COUNTRY AND YOU HAVE A WONDERFUL TIME.

A. THE COUNTRY IS A BEAUTIFUL PLACE TO BE.
B. THE TIME OF THE YEAR THAT WE WENT WAS BEAUTIFUL.

41. YOUR NEIGHBORS ASK YOU OVER FOR DINNER.

A. SOMETIMES PEOPLE ARE IN KIND MOODS.
B. PEOPLE ARE KIND.

42. YOU HAVE A SUBSTITUTE TEACHER AND SHE LIKES YOU.

A. I WAS WELL BEHAVED DURING CLASS THAT DAY.
B. I AM ALMOST ALWAYS WELL BEHAVED DURING CLASS.

APPENDIX D

Matson's Evaluation of Social Skills with Youngsters (MESSY)

Age:_____ Sex: M F Race:_____

Date:_____ Child's Name or ID Number:_____

DIRECTIONS

This survey is a measure of social behavior. This assessment involves rating how often you do the behaviors or feel like it says in the survey.

Be sure to rate how often each behavior is done, not what you think a good answer would be. No one will be told how you answer.

3

Self-Rating Form

	Not at All	A little	Some	Much of the time	Very Much
	1	2	3	4	5
1. I make other people laugh (tell jokes, funny stories, etc.).	1	2	3	4	5
2. I threaten people or act like a bully.	1	2	3	4	5
3. I become angry easily.	1	2	3	4	5
4. I am bossy (tell people what to do instead of asking).	1	2	3	4	5
5. I gripe or complain often.	1	2	3	4	5
6. I speak (break in) when someone else is speaking.	1	2	3	4	5
7. I take or use things that are not mine without permission.	1	2	3	4	5
8. I brag about myself.	1	2	3	4	5
9. I look at people when I talk to them.	1	2	3	4	5
10. I have many friends.	1	2	3	4	5

		Not at All	A Little	Some	Much of the time	Very Much
					4	
11.	I slap or hit when I am angry.	1	2	3	4	5
12.	I help a friend who is hurt.	1	2	3	4	5
13.	I cheer up a friend who is sad.	1	2	3	4	5
14.	I give other children dirty looks.	1	2	3	4	5
15.	I feel angry or jealous when someone else does well.	1	2	3	4	5
16.	I feel happy when someone else does well.	1	2	3	4	5
17.	I pick out other children's faults/ mistakes.	1	2	3	4	5
18.	I always want to be first.	1	2	3	4	5
19.	I break promises.	1	2	3	4	5
20.	I tell people they look nice.	1	2	3	4	5
21.	I lie to get something I want.	1	2	3	4	5

		Not at All	A Little	Some	Much of the time	Very Much
						5
22.	I pick on people to make them angry.	1	2	3	4	5
23.	I walk up to people and start a conversation.	1	2	3	4	5
24.	I say "thank you" and am happy when someone does something for me.	1	2	3	4	5
25.	I like to be alone.	1	2	3	4	5
26.	I am afraid to speak to people.	1	2	3	4	5
27.	I keep secrets well.	1	2	3	4	5
28.	I know how to make friends.	1	2	3	4	5
29.	I hurt others' feelings on purpose (I try to make people sad).	1	2	3	4	5
30.	I make fun of others.	1	2	3	4	5
31.	I stick up for my friends.	1	2	3	4	5
32.	I look at people when they are speaking.	1	2	3	4	5
33.	I think I know it all.	1	2	3	4	5

		Not at All	A Little	Some	Much of the time	Very Much
34.	I share what I have with others.	1	2	3	4	5
35.	I am stubborn.	1	2	3	4	5
36.	I act like I am better than other people.	1	2	3	4	5
37.	I show my feelings	1	2	3	4	5
38.	I think people are picking on me when they are not.	1	2	3	4	5
39.	I make sounds that bother others (burping, sniffing).	1	2	4	5	
40.	I take care of others' property as if it were my own.	1	2	3	4	5
41.	I speak too loudly.	1	2	3	4	5
42.	I call people by their names.	1	2	3	4	5
43.	I ask if I can be of help.	1	2	3	4	5
44.	I feel good if I help someone.	1	2	3	4	5

		Not at All	A Little	Some	Much of the time	Very Much
45.	I try to be better than everyone.	1	2	3	4	5
46.	I ask questions when talking with others	1	2	3	4	5
47.	I see my friends often.	1	2	3	4	5
48.	I play alone.	1	2	3	4	5
49.	I feel lonely.	1	2	3	4	5
50.	I feel sorry when I hurt someone.	1	2	3	4	5
51.	I like to be the leader.	1	2	3	4	5
52.	I join in games with other children.	1	2	3	4	5
53.	I get into fights a lot.	1	2	3	4	5
54.	I am jealous of other people.	1	2	3	4	5
55.	I do nice things for people who are nice to me.	1	2	3	4	5
56.	I ask others how they are, what they have been doing, etc.	1	2	3	4	5

	Not at All	A Little	Some	Much of the time	Very Much
57. I stay with others too long (wear out my welcome).	1	2	3	4	5
58. I explain things more than I need to.	1	2	3	4	5
59. I laugh at other people's jokes and funny stories.	1	2	3	4	5
60. I think that winning is everything.	1	2	3	4	5
61. I hurt others when teasing them.	1	2	3	4	5
62. I want to get even with someone who hurts me.	1	2	3	4	5

APPENDIX E

The Child-Rearing Practices Report (CRPR)

The Child-Rearing Practices Report

1. I respect my child's opinion and encourage him to express them.

2. I encourage my child always to do his best.

3. I put wishes of my mate before the wishes of my child.

4. I help my child when he is being teased by his friends.

5. I often feel angry with my child.

6. If my child gets into trouble, I expect him to handle the problem mostly by himself.

7. I punish my child by putting him off somewhere by himself for a while.

8. I watch closely what my child eats and when he eats.

9. I don't think young children of different sexes should be allowed to see each other naked.

10. I wish my spouse were more interested in our children.

11. I feel a child should be given comfort and understanding when he is scared or upset.

12. I try to keep my child away from children or families who have different ideas or values from our own.

13. I try to stop my child from playing rough games or doing things where he might get hurt.

14. I believe physical punishment to be the best way of disciplining.

15. I believe that a child should be seen and not heard.

16. I sometimes forget the promises I have made to my child.

17. I think that it is good practice for a child to perform in front of others.

18. I express affection by hugging, kissing, and holding my child.

19. I find some of the greatest satisfactions in my child.

20. I prefer that my child not try things if there is a chance that he will fail.

21. I encourage my child to wonder and think about life.

22. I usually take into account my child's preferences in making plans for the family.

23. I wish my child did not have to grow up so fast.

24. I feel a child should have time to think, day dream, and even loaf sometimes.

25. I find it difficult to punish my child.

26. I let my child make decisions for himself.

27. I do not allow my child to say bad things about his teacher.

28. I worry about the bad and sad things that can happen to a child as he grows up.

29. I teach my child that in one way or another punishment will find him when he is bad.

30. I do not blame my child for whatever happens if others ask for trouble.

31. I do not allow my child to get angry with me.

32. I feel my child is a bit of a disappointment to me.

33. I expect a great deal of my child.

34. I am easy going and relaxed with my child.

35. I give up some of my own interests because of my child.

36. I tend to spoil my child.

37. I have never caught my child lying.

38. I talk it over and reason with my child when he misbehaves.

39. I trust my child to behave as he should, even when I am not with him.

40. I joke and play with my child.

41. I give my child a good many duties and family responsibilities.

42. My child and I have warm, intimate times together.

43. I have strict, well established rules for my child.

44. I think one has to let a child take many chances as he grows up and tries new things.

45. I encourage my child to be curious, to explore and question things.

46. I sometimes talk about supernatural forces and beings in explaining things to my child.

47. I expect my child to be grateful and appreciate all the advantages he has.

48. I sometimes feel that I am too involved with my child.

49. I believe in toilet training a child as soon as possible.

50. I threaten punishment more often than I actually give it.

51. I believe in praising a child when he is good and think it gets better results than punishing him when he is bad.

52. I make sure my child knows that I appreciate what he tries or accomplishes.

53. I encourage my child to talk about his troubles.

54. I believe children should not have secrets from their parents.

55. I teach my child to keep control of his feelings at all times.

56. I try to keep my child from fighting.

57. I dread answering my child's questions about sex.

58. When I am angry with my child, I let him know it.

59. I think a child should be encouraged to do things better than others.

60. I punish my child by taking away a privilege he otherwise would have had.

61. I give my children extra privileges when he behaves well.

62. I enjoy having the house full of children.

63. I believe that too much affection and tenderness can harm or weaken a child.

64. I believe that scolding and criticism makes a child improve.

65. I believe my child should be aware of how much I sacrifice for him.

66. I sometimes tease and make fun of my child.

67. I teach my child that he is responsible for what happens to him.

68. I worry about the health of my child.

69. There is a good deal of conflict between my child and me.

70. I do not allow my child to question my decisions.

71. I feel that it is good for a child to play competitive games.

72. I like to have some time for myself, away from my child.

73. I let my child know how ashamed and disappointed I am when he misbehaves.

74. I want my child to make a good impression on others.

75. I encourage my child to be independent of me.

76. I make sure I know where my child is and what he is doing.

77. I find it interesting and educational to be with my child for long periods.

78. I think a child should be weaned from the breast or bottle as soon as possible.

79. I instruct my child not to get dirty while he is playing.

80. I don't go out if I have to leave my child with a stranger.

81. I think jealously and quarreling between brothers and sisters should be punished.

82. I think children must learn early not to cry.

83. I control my child by warning him about the bad things that can happen to him.

84. I think it is best if the mother, rather than the father, is the one with the most authority over the children.

85. I don't want my child to be looked upon as different from others.

86. I don't think children should be given sexual information before they can understand everything.

87. I believe it is very important for a child to play outside and get plenty of fresh air.

88. I get great pleasure from seeing my child eating well and enjoying his food.

89. I don't allow my child to tease or play tricks on others.

90. I think it is wrong to insist that young boys and girls have different kinds of toys and play different sorts of games.

91. I believe it is unwise to let children play a lot by themselves without supervision from grown-ups.

The vita has been removed from the scanned document