SOCIAL SKILLS OF PREADOLESCENT BOYS WITH ATTENTION DEFICIT HYPERACTIVITY DISORDER

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SOCIAL SKILLS OF PREADOLESCENT BOYS WITH ATTENTION DEFICIT HYPERACTIVITY DISORDER

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who are struggling to cope with the social problems they so frequently encounter.

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ABSTRACT

The purpose of this study was to determine if preadolescent boys with Attention Deficit Hyperactivity Disorder (ADHD) had fewer social skills than a comparison group of boys matched on race and classroom. The sample consisted of twenty-five caucasian boys with ADHD and twenty-five classroom comparisons. The study was a sample survey design in which teachers filled out numerous behavioral rating scales. Findings indicate that differences do exist between these two groups of children. ADHD children are less socially skilled than the comparison group, have more interfering problem behaviors, and have fewer social skill strengths. They also have more social skill acquisition deficits in cooperation, assertion and self-control as well as performance deficits in self-control. Subtypes of ADHD children with more and fewer skills can also be identified. A socially less skilled group of ADHD boys (one-fourth to one-half of the ADHD sample) had increased levels of both primary and secondary symptoms of ADHD. These variables may account for some of the mechanisms and processes underlying peer rejection in this population group. Implications for assessment and evaluation are discussed.

Review of the Problem

Numerous anecdotal reports have depicted the child with Attention Deficit Disorder (ADD) as a lonely, frustrated and rejected child who is unable to understand why he cannot make or keep friends (Wender, 1987; Weiss & Hectman, 1986). Unfortunately, this information is still sketchy, often reported only in terms of negative sociometric outcomes (Carlson, Lahey, Frame, Walker, & Hynd, 1987; Milich & Landau, 1982; Milich, Landau, Kilby, & Whitten, 1982). Shaywitz & Shaywitz (1988) cite a variety of sources that point to difficulties of the ADHD child in forming and maintaining relationships. Among these sources of data are sociometric interviews (Klein & Young, 1979; Pelham & Milich, 1980), self reports (Campbell, Endma, & Bernfield, 1977), teacher ratings (Pelham & Bender, 1982), parent ratings (Barkley, 1981; Battle & Lacey, 1972), peer ratings (Whalen & Henker, 1985; Pelham & Bender, 1982), child interviews (Campbell & Paulauskas, 1979; Hoy, Weiss, Minde, & Cohen, 1978), and direct observations (Pelham & Milich, 1984).

Pelham and Bender (1982) estimate that over fifty-percent of children with Attention Deficit Hyperactivity Disorder (ADHD) have peer relationship problems. As a result, these authors have suggested

that peer interaction items are as effective as items focusing on the three core symptoms of inattention, impulsivity, and hyperactivity in distinguishing hyperactive from non-hyperactive children.

The research on social skills problems of children with learning disabilities (LD) is fairly substantial regarding the range and severity of problems (Bryan, 1988; Gresham & Reschly, 1986; Hazel & Schumaker, 1988; McConaughy & Ritter, 1986). Social perception problems are frequently cited in the learning disability (LD) literature. It has been postulated that peers tend to reject hyperactive children because they also do not respond appropriately to social cues (Campbell & Paulauskas, 1979; Levine, 1987). Since estimates of the co-occurrence of ADD and LD range from sixty to eighty percent (Barkley, 1981), this may be the basis for the social misperception. However, this association is only conjectural at this point and awaits further research.

One contradictory finding has been described by Ullman (1985), who conducted research to develop a screening tool that would differentiate LD from ADHD. Her findings indicate that LD children consistently rated better on social skills than ADHD but rated the same as ADHD children on oppositional behavior. Ullman

explains the unexpected high rate of oppositional behaviors in LD children to be the result of repeated failures, frustration, and peer teasing. She speculates that the social skills deficits noted in ADHD children are probably the result of poor attention, which makes it unlikely that they will notice and act upon social cues, particularly the more subtle ones.

It is generally believed that IQ does not contribute significantly to the primary problems noted in the ADHD population (Carlson, Lahey, & Neeper, 1986). It is unknown what influence IQ may have on social skill abilities. Interestingly, age has not been found to have a strong relationship with social skills. Walker & McConnel (1987) reported correlations that "approximated zero" between grade level and all of the subscales on a social skill rating scale they developed. Gresham & Elliot (1990) have confirmed the lack of strong, consistent developmental trends in the social skills assessed by their rating scale. Gender effects, on the other hand, are significant both in the primary and secondary symptoms of ADHD. According to the DSM-III-R (American Psychiatric Association, 1987), boys are six to nine times more likely to have ADHD. Differences in the ratings of male and female students

has also been shown to be substantial on social skills rating scales. Gresham & Elliot (1990) documented that teachers, parents, and students consistently gave higher social skills ratings to females at almost every grade level, indicating that females are generally far more socially adept than males. Johnston, Pelham, & Murphy (1985) found that sociometric ratings do not discriminate between ADHD and normal girls whereas they do discriminate between ADHD and normal boys.

Socio-economic status (SES) has not been shown to influence the primary symptoms of ADHD but has been implicated in the development of secondary symptoms, such as aggression. Paternite, Loney & Langhorne (1976) looked at the relationship between the primary symptoms of ADHD, SES, and parenting styles. No sex differences were found between boys from high and low SES backgrounds in regard to the primary symptomology of inattention, distractibility, and hyperactivity. However, boys from low SES were found to have more problems with secondary symptoms of aggression, poor self-control, and low self-esteem. It is unknown whether SES effects are similar in regard to social skills.

Guevermont (1990) believes that there is no single factor that can explain why so many ADHD children are

rejected, but suspects that a combination of more negative, aggressive, and self-centered behaviors combined with less prosocial behaviors are probably contributing factors. Guevermont also notes that classroom inattention, distractibility and hyperactivity are strongly associated with peer rejection among ADHD children. Conversely, Milich, Landau, Kilby & Whitten (1982) found that whereas ADHD boys who were aggressive were more rejected by their classmates, ADHD boys who were not aggressive were either more popular or rejected. In their five year follow-up study, Prinz and Loney (1986) confirm the important role played by childhood aggression in terms of later social problems. Although it is reasonable to assume that both the primary (unlearned) and secondary (learned) behaviors are involved in the mechanisms and processes underlying peer rejection in this population group, further research is clearly necessary to confirm these clinical hunches.

Conners (1986) notes that almost all the research surrounding the syndrome of ADHD is confounded by the "bootstrap problem" e.g. lack of a theoretical model that enables us to classify ADHD children into homogeneous groups. Numerous researchers have echoed this concern, emphasizing that ADHD comprises a

heterogeneous group of children and that more effort must be focussed on identifying approaches to subtype this disorder into more homogeneous, clinically meaningful subgroups (Barkley, 1990; Barkley, DuPaul, & McMurray, 1990; Klein & Young, 1979.) Barkley (1990) suggests that these subgroups be based on such characteristics as hyperactivity, aggression, internalizing behaviors, and pervasiveness of the problem. Perhaps subtyping would also be useful regarding social skill abilities of this population.

Many experts in the field of childhood social competence have also called for a greater refinement of psychodiagnostic classification of specific types of socially unskilled behaviors. Dodge (1985) and Dodge and Murphy (1984) emphasize the clinical usefulness of investigating both the nature of problematic situations for children as well as their particular component skill deficits as a model of clinical assessment. The implication is that classification could proceed along two schemes: a) subtyping children according to the social situation in which they display socially deviant behavior, or b) classifying incompetent children into groups who display various processing deficiencies. Milich and Dodge (1984) have described a model of social information processing in aggressive boys. This

model describes aggressive boys as exhibiting deficiencies in their perception and encoding of social cues. These processing problems lead them to biased conclusions of a hostile nature regarding peers intentions and results in the generation of fewer and inappropriately aggressive responses to problem situations, especially when provocation is involved. The aggressive behavior routinely demonstrated by these boys leads peers to reject them which, in turn, serves to reinforce and perpetuate their deficient and biased information processing. Milich and Dodge (1984) report that these findings not only describe the behavior of aggressive boys, but also fit other diagnostic groups of impaired children, such as those exhibiting hyperactivity with aggressive features.

Social learning theory provides a different behavioral approach to categorize social skills deficits (Bandura, 1977). This approach recognizes the difference between learning a skill and performing a skill; consequently social skill problems are categorized as either acquisition or performance deficits (Kratochwill & French, 1984). Gresham has extended this approach by incorporating the effects of both positive and negative intervening variables, such as social skill strengths and interfering problem

behaviors. Hyperactivity is viewed as one such problem behavior (Gresham, 1981; Gresham & Elliot, 1984).

A major impediment to research on social skills has been the lack of a common definition of social skills and social competence, which has left social skills as "a construct in need of further conceptualization and theoretical refinement" (Gresham, 1986, p.145.). Another impediment to the study of social skills has been the lack of technically adequate social skill assessment tools. A variety of assessment approaches have been described in the literature, including sociometric assessments, direct observation in natural environments, behavioral role plays, teacher and parent rating scales, self-reports, and self-monitoring (Gresham, 1988). Hazel & Schumaker (1988) lament that a single assessment tool is not yet available. However, some very promising assessment tools have been developed in recent years that are technically superior to their predecessors. It remains to be seen whether they are "socially valid" e.g. predict important outcomes, and whether they are sensitive enough to pinpoint the types of social skill deficits that result in the rejection of ADHD children.

In summary, recent literature has documented numerous instances of social skills problems in

children with learning disabilities and attention deficit disorders. Although the research on social skills problems of children with learning disabilities is fairly substantial regarding the range and severity of problems, the information regarding social skills problems in children with attention deficit disorder is still sketchy, often anecdotal in nature, and frequently defined only in terms of negative sociometric outcomes. Unfortunately, this information only tells us that the ADHD child is often rejected but does not provide us with any information about which specific social skills are lacking, what interfering behaviors exist, or which situations are the most problematic.

If social skill deficits do exist in ADHD children, it is important to know if these deficits are acquisition or performance deficits. Do they perform adequately some of the time? If so, this would suggest that they know how to perform the skill but are not doing so consistently. Or are they never observed to perform the skill? This might suggest that they have never actually learned the skill in question. Also of interest are the social skill strengths that ADHD children possess which might be used as the basis for remedial programs.

If social skill deficits do exist in ADHD children, it is of critical importance to determine if subtypes of socially skilled and less skilled children exist. If so, factors associated with the socially less skilled subgroup need to be identified. For example, which of the following factors might be significantly associated with social skill deficits in ADHD children: a) features of the primary disability e.g. hyperactivity, inattention, and impulsiveness, b) secondary behavioral problems, such as aggressive or oppositional behavior, and/or c) co-occurring learning disabilities or severe emotional problems? We must also determine whether ADHD children experience social skill problems consistently across different situations, e.g. peer group entry or peer group provocation, or if only specific types of situations are problematic.

An abundance of descriptive data are still needed regarding the social skills of ADHD children. Comparative data regarding non-ADHD children are also necessary in order to put the findings of social skills in ADHD children in perspective. Further comparisons among ADHD children themselves is also important to determine if subtypes of socially skilled and less skilled ADHD children exist.

Purpose and Hypotheses

The main purpose of this study is to determine if preadolescent boys with ADHD have fewer social skills than a comparison group. A comprehensive approach to assessment of social skills will be utilized, including numerous behavioral rating scales that measure global and specific behavioral functioning, discrete social skills, and problematic social situations. Family and treatment background variables will also be described. Children without learning disabilities and severe emotional problems comprise the sample in order to control for the possible confounding effects of these important variables on the results of this study. A case-control methodology will be utilized to minimize the threats to external validity posed by the selection of a separate control group that may have been significantly different on a hidden intervening variable.

It is hoped that by accounting for the influence of learning disabilities and/or severe emotional problems, using a case-control methodology, and administering a variety of technically sound social skills rating scales, the accuracy and breadth of information obtained from this study will contribute significantly to the sparse body of data currently

existing on the nature of social skill problems in ADHD children.

The hypotheses for this study are as follows:

1) Preadolescent boys with ADHD will be reported to have fewer social skills than a comparison group matched on race and classroom.

2) There will be no differences between preadolescent ADHD boys and the comparison group in regard to skill acquisition deficits, but ADHD boys will have more performance deficits, more problem behaviors, and fewer social skill strengths.

3) Subtypes of socially more skilled and less skilled ADHD boys can be differentiated by both primary and secondary symptoms of their condition.

4) There will be no differences between socially more skilled and less skilled ADHD boys in regard to IQ, grade level, or socio-economic status.

5) Socially less skilled ADHD boys will be reported to be more hyperactive, inattentive, aggressive, and oppositional than socially more skilled ADHD boys.

The theoretical framework guiding this research is behavioral, combining operant conditioning, cognitive-behavioral, social learning, and information processing theories as described by Dodge, Pettit, McClaskey, and

Brown (1986), Gresham and Elliott (1984), and Walker and McConnell (1987). These behavioral theories are in marked contrast to structural developmental theories which emphasize social perception as progressing in an age-stage related fashion similar to intellectual growth. Instead, behavioral theories view social skills as discrete learned responses that are situation specific rather than static personality traits that are cross-situational.

In keeping with the view that a social skill is a discrete learned response, the behavioral approach to social behavior views social competence as the socially acceptable performance of a smoothly progressing sequence of numerous responses (Hazel & Schumaker, 1988). Thus, social skills are viewed as the observable, specific behaviors that an individual demonstrates to perform competently on a social task. Social competence, on the other hand, is viewed as a more subjective, valuative term based on judgments by others or some other criterion that a person has performed adequately (Gresham, 1986).

A variety of behavioral assessment approaches are available, including sociometrics, direct observation, behavioral role play, self-reports, self-monitoring, and teacher and parent rating scales. Unfortunately,

the social skill domains tapped by these assessments vary, depending on which discrete behaviors are of concern to the authors. Because it is unknown which of the domains sampled are critical to ADHD children, a variety of assessment tools will be used to explore the nature of social skill problems of this population.

Methods

Research Design

A sample survey design was used for this study, utilizing classroom teachers as respondents. Although sociometric evaluations are felt by some to be the most socially valid form of assessment, others have noted that they are socially intrusive and insensitive and provide little information regarding specific social skills (Connolly, 1983; Hops & Greenwood, 1981). According to Connolly (1983) and Gresham (1986), teacher assessment of social skills in students is much less intrusive and is also a socially valid and accurate assessment method.

This study consists of two parts utilizing two distinctive methodologies: Descriptive and group-comparative. In Part I, a descriptive methodology was used in order to provide more information about the background characteristics and therapeutic history of the ADHD children to help provide a clearer picture of

the clinical population being studied. In Part II, a group-comparative methodology was utilized to identify differences in social skills between ADHD and comparison children. Data were derived for this aspect of the study using a case-control approach. Teacher data were collected both on the ADHD child and a comparison child matched on race, and classroom. Differences between ADHD children having high and low scores on the social skills measures were also compared to see if subtypes of socially more skilled and less skilled ADHD children exist. Differences between these subtypes were measured in terms of the primary symptoms of ADHD (hyperactivity and inattention) and well as secondary symptoms, such as aggressiveness and oppositionality, to help determine factors that contribute to social skill deficits.

Subjects

Fifty preadolescent boys between the ages of seven and eleven years comprised the research sample. Both the clinical sample of ADHD children and the comparison group consisted of twenty-five children each. Boys were chosen instead of girls because of their over-representation in the diagnosed condition of ADHD (6:1). Another reason for using only boys in the sample was to identify patterns of problems that exist

within gender categories that might otherwise be obscured by analyses performed on heterogeneous samples (Achenbach & Edelbrock, 1978).

The clinical sample consisted of ADHD boys without specific learning disabilities (except auditory memory deficits and dysgraphia), serious emotional disturbance, or major physical handicaps in an effort to control for potential confounding effects from these factors. The specific selection criteria used in this study are shown in Table 1.

Insert Table 1 about here

The comparison group consisted of twenty-five boys not diagnosed with ADHD who were members of the same classrooms and who were matched on race. Teachers were instructed to use a systematic author-developed selection process.

Procedure and Measurement

The approach to obtaining the clinical sample of ADHD boys was a chart review utilizing the selection criteria described above. The sample was selected from the caseload of a developmental pediatrician, specializing in the care of ADHD children, who is located in a major metropolitan area of one

southwestern state. An outpatient, clinic-based population of only one physician was chosen for several reasons. First, this population represented the largest single grouping of ADHD clients in the state. Second, it was desired to select children who were typical of those functioning in the community rather than in-patients in psychiatric units. This strategy was intended to avoid the confounding effects of more seriously disturbed ADHD children with co-occurring psychiatric disorders. Last, it was hoped that by using only one well trained and experienced physician to diagnose the clinical sample, potential confounding effects of different approaches to diagnosis could be avoided and a more homogeneous ADHD population could be obtained.

The diagnosis of ADHD made by the developmental pediatrician was based on the child exhibiting at least eight of the fourteen criteria for ADHD described in the DSM-III-R as well as the physician's clinical judgement regarding the presence of other factors, including family, genetic, developmental, and behavioral history, parent and teacher reports regarding the pervasiveness of the problem, and neurodevelopmental examination.

The chart review yielded thirty-six ADHD

preadolescent boys who met the above stated criteria. All of these families were mailed invitations to participate in the study by the developmental pediatrician. The families were assured that participation in the study was strictly voluntary and that no negative consequences would occur if they declined to participate. They were also assured of complete anonymity in the reporting of results. Prepaid return envelopes were included along with a consent to release information to the primary investigator. Twenty-seven families agreed to participate in the study but completed questionnaires were only received from twenty-five families.

Parents of the ADHD children who agreed to participate were asked to provide demographic information on their family by filling out the Family Profile Questionnaire. Parents were also asked to contact their child's homeroom teacher to request their participation in the study. Teachers were asked not only to fill out information on the ADHD child but also on a comparison child in the same classroom. Similar information was provided by the teacher on the comparison child but was totally anonymous (e.g. no name was attached), making informed consent unnecessary. The comparison child was selected

according to pre-specified criteria. These criteria involved selecting the first classmate whose name occurred in alphabetical order after the ADHD child. The comparison child was also matched on classroom and race.

When the teachers completed this information, they were instructed to return it to the primary investigator, using a prepaid envelope that was provided. Follow-up contacts were made at two week intervals to encourage the timely return of materials. As an incentive to participate, parents and teachers were promised a summary of the results and were paid a nominal amount for their participation.

Numerous rating scales were utilized for this study in order to yield a more comprehensive picture of the social skills and related behaviors of ADHD children. These rating scales involve behavioral checklists that are designed to provide standardized descriptions of behavior rather than diagnostic inferences (Achenbach & Edelbrock, 1986). The resulting behavior assessment of individuals is based upon observations, perceptions, and interactions of persons associated with the individual being tested (Wilson & Bullock, 1989). As recommended by Achenbach and Edelbrock (1978), only those instruments which have

been well standardized and have good reliability and validity were used so that the findings from this study can be integrated with previous work in the field.

A summary of the Cronbach's alpha reliability coefficients as determined by this study are shown in Table 2. Because the sample size of this study (N=50)

Insert Table 2 about here

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is too small to obtain a stable reliability, these results are intended only as a supplement to the values reported in the literature. A review of each of the instruments used in this study in terms of the type of data provided and technical adequacy is provided below.

Teacher ADHD Rating Scale (DuPaul, 1989). The Teacher ADHD Rating Scale is a fourteen item survey based on the DSM-III-R criteria for Attention Deficit Hyperactivity Disorder (APA, 1987). A four point Likert scale, ranging from rarely to very often, is used to determine how frequently a child exhibits each of the behaviors listed. ADHD children who are receiving medication and/or other treatment to remediate their ADHD symptoms are not expected to have eight or more symptoms that are rated either a 3 (pretty often) or 4 (very often), as would be expected

of an untreated ADHD child. The scale is reported to have test-retest reliability of .93 over a 2-week period and to correlate positively with direct classroom observation. The results of this study indicated the scales' Cronbach's alpha coefficient of internal consistency to be .92.

Achenbach Child Behavior Checklist - Teacher Report Form (Achenbach & Edelbrock, 1986; Edelbrock & Reed, 1984). The Child Behavior Checklist-Teacher Report Form (CBCL-TRF) is a one hundred and thirteen item survey which uses a three-point Likert scale to obtain teacher's reports of pupil problems in a standardized format. The eight problem domains measured for six to eleven year old boys are Anxious, Social Withdrawal, Unpopular, Self-Destructive, Obsessive-Compulsive, Inattentive, Nervous-Overactive, and Aggressive. Pupil adaptive functioning in the classroom is also measured. The five dimensions of adaptive functioning measured by this scale are School Performance, Working Hard, Behaving Appropriately, Learning, and Happy. According to the manual, the test-retest reliability over one week was .90 and over two weeks was .84. Although the stability scores are good, no internal consistency reliability was reported. The results from this study indicate the Cronbach's

alpha for the TRF to range from .73 for the Obsessive-Compulsive subscale to .97 for the Aggressive subscale, with the alpha for the total scale being .97. Content, construct, and criterion-related validity are documented in the manual.

Conners' Teacher Rating Scale (Conners, 1990). The Conners' Teacher Rating Scale (CTRS) is a twenty-eight item survey which uses a four-point Likert scale to determine problem behaviors of the child in the areas of conduct, hyperactivity, and inattentive-passive behaviors. A Hyperactivity Index also is included in the scale for use as a primary screening device for ADHD. Both long and short versions of the CTRS exist and have created confusion regarding which form was used in the reporting of the technical data results. There have been no studies to date that have examined the test-retest reliability of the CTRS-28. However, Conners argues in his technical manual that one month test-retest reliabilities for the longer version of this instrument (CTRS-39) range from .72 to .91 and should be similar in the newer, shorter version. Cronbach's alpha internal consistency ratings for the CTRS-39 are reported to be an average of .94 for the various scales, but are also not reported in the literature for the shorter version. The alpha

reliabilities calculated in this study were .89 for the Conduct subscale, .92 for the Hyperactivity scale, .84 for the Inattention subscale, and .91 for the Hyperactivity Index. This results in an average of .89, lower than the average reported for the CTRS-39 subscales but still good for research purposes. The CTRS-39 has been repeatedly shown to have predictive, concurrent, construct, and discriminant validity. Content validity exists for the newer CTRS-28 version as well as construct validity. This version was factor analyzed by Goyette, Conners, and Ulrich (1978) and found to result in the three of the same factors as the CTRS-39: Conduct, Hyperactivity, and Inattentive factors. The fourth factor, Hyperactivity Index, is noted to correlate highly with all three scales. A fifth factor consisting of five items also was evident in the CTRS-39 and has been referred to as the "sociability factor" by others using this instrument (Pelham & Bender, 1982). It consists of items such as "unaccepted by group", "no sense of fair play", and "does not get along well with other children". Unfortunately, factor loadings were weak, ranging from .18 to .33. (Note: Several of these social items are not present in the CTRS-28.)

Gresham Social Skills Rating System - Teacher Form (Gresham & Elliott, 1990). The Social Skills Rating System (SRS)-Teacher Form is a fifty-seven item survey which uses two types of Likert ratings (three points each) based on frequency and importance of the behavior being rated. The SRS Teacher Form samples the three domains of social skills, problem behaviors, and academic competence. There are three subscales of the Social Skills Scale for boys grades K-6: Cooperation, Assertion, and Self-Control. Three subscales also exist for the problem behavior scale: Internalizing, Externalizing, and Hyperactivity. Acquisition deficits can be calculated by noting when a behavior is rated with a frequency of 0 (never demonstrated) and an importance of 1 or 2 (important or critical). Similarly, performance deficits can be calculated by noting when a behavior is rated with a frequency of 1 (sometimes demonstrated) and an importance of 2 (critical). Social skill strengths are determined by frequency ratings of 2 and importance ratings of 1 or 2. Alpha internal consistency ratings for the teacher form, elementary level, are reported in the manual to be .94, .88, and .94 for the Social Skills total scale, Problem Behavior total scale and Academic Competence scale. The alpha reliability findings from this study

were also very high: .96, .91, and .93 for the same scales.

Taxonomy of Problematic Social Situations (Dodge, McClaskey, & Feldman, 1985). The Taxonomy of Problematic Social Situations (TOPS) is used to determine the social contexts presenting the most problematic tasks for children. It is a forty-four item survey developed for teachers which uses a five-point Likert rating scale. As confirmed by factor analysis, the six subscales that are measured by this instrument are: Peer Group Entry, Response to Peer Provocations, Response to Failure, Response to Success, Social Expectations and Teacher Expectations. This instrument has been pilot tested and used in research on several populations of socially rejected children in grades kindergarten through sixth grade. Cronbach's alpha reliability is reported to be .98 for the total forty-four item scale. This study confirmed the alpha reliability to be .98 for the total scale, with the subscales ranging from .87 to .95. The manual reports that content validity was established through the use of an expert panel and predictive criterion validity was demonstrated by the success of the tool in accurately distinguishing socially rejected children from an average, adapted group.

ADHD: Comprehensive Teacher's Rating Scale (Ullman, Sleator, & Sprague, 1988). The ADHD Comprehensive Teacher's Rating Scale (ACTeRS) includes twenty-four items relevant to classroom behavior. The items are rated on a five-point Likert scale, ranging from "almost never" to "almost always". Four factors are involved and comprise the Attention, Hyperactivity, Social Skills, and Oppositional subscales. According to the manual, internal consistency ratings range from .93 to .97 for the subscales. The Cronbach's alpha reliabilities from this study were slightly lower, ranging from .90 to .95. The manual also reports test-retest reliabilities as ranging from .78 to .82. Construct validity of the subscales was established by the test author through factor analysis.

Walker-McConnell Test of Children's Social Skills (Walker & McConnell, 1987). The Walker-McConnell Test of Children's Social Skills is a forty-three item survey which uses a five-point Likert scale to sample the two primary adjustment domains within the school setting that are usually considered essential to social competence: adaptive behavior and interpersonal social competence. Three subscales have been identified as sampling these school adjustment domains: Teacher Preferred Social Behavior, Peer Preferred Social

Behavior, and School Adjustment Behavior. The manual reports internal consistency ratings for the subscales as ranging from .95 to .96 and the total scale coefficient to be .97. This study confirmed the alpha coefficients for the subscales as ranging from .94 to .97 with the total scale coefficient being .98. The manual also reports test-retest subscale reliabilities in the range of .67 to .94 for two to four week periods. One longitudinal study conducted over a six month period is reported to have found reliabilities in the range of .61 to .70 for the subscales. Content, item, factorial, discriminant, criterion, and construct validity are also reported in the manual.

Physician Survey. The Physician Survey refers to documentation of chart reviewed information on ADHD children. It was used as a preliminary screening to determine if a child meets the criteria for inclusion in this study e.g. presence of ADHD, absence of major medical or psychological disorders, etc. If the child qualifies for the study, this survey also documents his medical, educational, and psychological treatment history. A DSM-III-R checklist for ADHD is also included to document the number and types of symptoms the child displayed at diagnosis as well as the severity of the condition.

Family Background Questionnaire. The Family Background Questionnaire was administered only to the families with ADHD children. The instrument includes questions regarding family history and demographic data.

Analysis

A variety of descriptive statistics (means, ranges, standard deviations, frequencies, etc.) are used to display the information regarding the ADHD child's family background and medical history. Current Cronbach's internal consistency reliability coefficients are reported for all of the instruments used. Chi-square is used to evaluate the results of teacher ratings where categorical or ordinal data are involved. Paired t-tests are used to compare the ADHD and comparison groups on their total social skills scores. Univariate analysis of variance (ANOVA) is used to compare ADHD and control children as well as high and low scoring ADHD children when interval data are involved. When ANOVA with factorial designs is used to define groups, Tukey contrasts are performed as a post-hoc follow-up test to determine where differences exist. MANOVA procedures are not used because of the small sample size. In view of the large number of statistical tests performed, any result

having a p-value of > .01 is interpreted with caution in order to reduce the number of Type I errors. The results of these statistical tests will be used in an exploratory sense to help document differences between ADHD and control children and to begin delineating possible subtypes of socially more skilled and less skilled ADHD children.

Results

Demographic Data

As noted in the selection criteria, none of the twenty-five ADHD children were adopted nor did they have any major medical, psychological, or educational problems. This information is not known for the comparison children. Results for the demographic information for the ADHD children are shown in Table 3.

Insert Table 3 about here

The children ranged in age from seven to eleven years, with the mean age being nine and a half years old. There were approximately equal numbers of children in the second through fifth grades. The ADHD children had an average of two siblings. Twenty three (92%) of the parents were in the middle to upper income categories, according to the Hollingshead two-factor index

(Hollingshead & Redlich, 1958). Sixty-four percent of the ADHD children's parents were still in their first marriage, with the remainder being either divorced or remarried. The majority of families (92%) were urban residents.

Results of the medical history information on the ADHD children are shown in Table 4. The mean age at

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Insert Table 4 about here

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onset of attention problems was approximately five years, while the mean age at diagnosis was about six and one-half years. The average number of clinic visits or consultations with the developmental pediatrician after diagnosis was 4.6, ranging from zero to nine. Twenty-four (96%) of the ADHD children were being treated with medication, namely methylphenidate (Ritalin). Eight children (thirty-two percent) were also on imiprimine (Tofranil). Twelve children (48%) had been involved in psychological therapy and ten children (40%) had some form of educational assistance. IQ scores were available for twenty-one (84%) of the children, with full scale scores averaging 115 and ranging from 90 to 139.

Because family and medical history data were not collected on the comparison children, it is unknown whether significant differences existed for demographic variables. However, some inferences can be made from the teacher data. For example, although it is not known if any of the comparison group also had ADHD, none were rated as having eight or more ADHD symptoms, according to teacher ratings of DSM-III-R criteria. Also, no differences between ADHD children and comparison children were found on the Academic Competence subscale of the SRS, which implies that the two groups were comparable on teacher ratings of their overall academic performance as well as their specific accomplishments in math and reading.

Differences Between ADHD and Comparison Children

Prior to filling out the social skill rating scales, teachers were asked for their opinions regarding the social behavior of ADHD and comparison children. The results of a teacher opinion question regarding social status are shown in Table 5. These

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Insert Table 5 about here

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results indicated that the boys with ADHD in this study were generally accepted by their peers and were not

more isolated or rejected than the comparison group. Teachers also indicated that there were no significant differences between the number of friends for ADHD and comparison children. However, there is a marked trend for the comparison group to be more accepted and have more friends. Teachers indicated that ADHD boys were more verbally aggressive ($p<.05$) and physically aggressive ($p<.02$) than the comparison children, and clearly concluded that the ADHD children were less socially skilled ($p<.0001$). Teacher results from the social skills rating scales were consistent with their opinions that ADHD children are less socially skilled. Initial results using paired t-tests indicated that the two groups differed at the .001 level on all the total scores of the four social skill rating scales used in this study. Analysis of variance results for each of the subscales confirmed this finding and demonstrated that all but one of the subscales were also significant at the .001 level. These results are shown in Table 6.

Insert Table 6 about here

Findings regarding acquisition and performance deficits were opposite to what was expected: there were differences in the number of acquisition deficits

in cooperation, assertion, and self-control between the two groups at the .01 level but not in the number of performance deficits. Only performance deficits in self-control approached a p-value of .01. However, there was also a definite but non-significant trend for ADHD children to have more performance deficits in the areas of cooperation and assertion. Differences in the number of social skill strengths were very pronounced ($p<.001$) between the ADHD and comparison groups. These results are reported in Table 7.

Insert Table 7 about here

Differences in the number of problem behaviors between the ADHD and comparison groups were also very striking. Ten of the thirteen subscale and total scale scores for the CTRS, SRS, and CBCL-TRF were significant at the .001 level. These results are shown in Table 8.

Insert Table 8 about here

Differences Among Subtypes of ADHD Children

In order to determine whether there may be subtypes of ADHD children who are particularly less skilled, total social skill scores of the ADHD boys

were recoded into groups. First, three groups of ADHD children were created based on teacher ratings of the ADHD behaviors used in the DSM-III-R. These scores represent residual ADHD behaviors that persist despite diagnosis and treatment. Group A consisted of nine children who were rated as having zero to two continuing symptoms of ADHD; Group B consisted of eight children who were rated as having three to seven symptoms; Group C consisted of eight children who were rated as having eight or more symptoms. Boys in Group C (e.g. those who exhibited more ADHD symptoms) consistently had fewer social skills than boys who had lower DSM-III-R ratings ($p<.05$). These results are shown in Table 9.

Insert Table 9 about here

The relationship between high DSM ratings for ADHD and low social skills was investigated further to determine the influence of both the primary and secondary symptoms of ADHD. Two groups of ADHD children with fewer and more skills were created using a median split procedure on the total scores of each of the four instruments measuring social skills. There were approximately even numbers of ADHD children in the

groups. The Fewer Skills Group was comprised of children who had low scores on the measures of social skills and the More Skills Group was comprised of children who had high scores on the measures of social skills. (Note: High scores equate with more social skills on the ACTeRS, SRS, and WM but the reverse is true with the TOPS. High scores refer to more social situations that are problematic. Hence, children referred to as having more social skills on the TOPS are those who had lower scores e.g. experienced fewer problematic social situations.) The Fewer and More Skills Groups of ADHD children were compared on numerous variables (including grade, IQ, SES, hyperactivity, inattention, aggression, and oppositionality) to see if differences existed.

As predicted, no differences between the skills groups were found in regard to grade level, IQ, or SES. However, differences of $p<.01$ or greater were found in mean scores of ADHD children having fewer and more skills on the ACTeRS, SRS and WM for the SRS subscale dealing with academic competence. (As noted earlier, the Academic Competence subscale refers to teacher ratings of pupil overall academic achievement as well as specific competence in reading and math.)

Significantly higher scores on the CTRS Hyperactivity Subscale ($p<.05$) were found among the children having fewer skills as determined by each of the four social skills scales. These results are shown in Table 10. A similar relationship between fewer

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Insert Table 10 about here

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social skills and hyperactivity was found with other measures of hyperactivity, including the TRF, ACTeRS, and SRS subscales.

With regard to inattention, the results were more equivocal. Children who had high inattention scores scored low on only two of the four social skill scales ($p<.001$). These results are reported in Table 11.

Insert Table 11 about here

In addition to finding a relationship between the primary symptoms of ADHD and children with fewer social skills, the effects of secondary problem behaviors were also found to be significant at the .05 level among ADHD children having fewer social skills. These results are shown in Table 12. Aggressive and

Insert Table 12 about here

oppositional behaviors were found to be most highly significant among ADHD children with fewer social skills, with p-values ranging from .006 to .001 These results are shown in Tables 13 and 14.

Insert Tables 13 and 14 about here

In order to provide additional support for the above findings of differences between high and low scoring ADHD children derived from using a median-split procedure, a second analysis was done using normative cut-off scores presented by the test developer to determine high and low scoring groups of ADHD children. This resulted in more uneven comparison groups in that only about one-fourth to one-third of the ADHD children were considered to be less skilled. Although the smaller group size made fewer of the comparisons as highly significant, the same trends were observed as for the larger group outlined above.

Discussion

There were significant, measurable differences between the social skill abilities of preadolescent

ADHD boys and the comparison group in this study. ADHD boys not only had fewer social skills but also had more interfering problem behaviors and fewer social skill strengths. ADHD boys demonstrated social skill acquisition deficits in cooperation, assertion, and self-control, which indicates they may never have learned the skills that are necessary to exhibit socially competent responses. There was also a definite non-significant trend for ADHD boys to have more performance deficits (especially in the area of self-control), indicating that they often fail to perform the social behaviors they have learned.

Despite the increased chance of Type I errors due to the large number of tests performed, over seventy percent of the results were significant at the .01 level. Greater than half of the results were significant at the .001 level. It should also be noted that these differences were observed by teachers during school hours when the ADHD children were on medication. It has been repeatedly shown that medication therapy not only decreases hyperactivity and inattention but also aggression, oppositionality and other negative behaviors (Gadow, Nolan, Sverd, Sprafkin, & Paolicelli, 1990; Kaplan, Busner, Kupietz, Wassermann, & Segal, 1990; Whalen, Henker, Swanson, Granger, Kliewer, &

Spencer, 1987). Hence, the fact that significant differences in the primary and secondary behaviors were still evident provides even more compelling evidence that they both continue to function as underlying mechanisms and processes involved in the rejection of ADHD children.

The results of this study also suggest that within the ADHD diagnostic group there is a subgroup of particularly unskilled ADHD boys, which may account for one-fourth to one-half of the population. These socially unskilled children appear to be more hyperactive, inattentive, aggressive, and oppositional than their more socially skilled ADHD peers.

In terms of generalizability, this study may have several limitations. First, only preadolescent ADHD boys were selected. It is not certain whether girls or children of different ages experience the same problems. It also may be a limitation that children with Undifferentiated ADD (without hyperactivity) were not studied. Although it has been shown that this group of children is also "at risk" for peer relationship problems (King & Young, 1982), they may present a different subtype in that externalizing behaviors (such as aggression) are not as common in this population.

The fact that ADHD boys with significant learning disabilities were excluded from the study may be a more serious limitation. Due to the high co-occurrence of ADHD and LD, removing all learning disabled children from samples of ADHD children may result in an unrepresentative sample of ADHD children (Douglas, 1983). However, despite the results of many studies that indicate a relationship exists between LD and ADHD, the nature of this relationship has not been well defined (Shaywitz & Shaywitz, 1988).

Subjects for this study were selected from the private practice of a single developmental pediatrician in one southwestern state. Thus, the results of this study may be more favorable than with clients in other geographic regions and/or those who are less able to afford multi-modal medical treatment (which includes referrals for educational and behavioral treatment).

The finding of no SES influences may have been the result of the sample being tightly clustered along higher SES levels. This sample consisted primarily of middle and upper middle income families; hence, the range of scores may have been too limited to identify differences. However, in support of these findings, it should be noted that Achenbach and Edelbrock (1986) reported that the effects of SES on their large

standardization sample for the Child Behavior Checklist--Teacher Report Form were small, accounting for less than one percent of the variance. The influence of race is also unknown in this study, since only caucasian males were studied.

Finally, using only behavior rating scales was both a strength and limitation. It was a strength because of their technical adequacy and the fact that resulting data are more objective and reproducible. It is a limitation because rating scale methodology is probably not very sensitive to subtle developmental differences unless the same rater assesses children at progressive developmental levels (Gresham & Elliott, 1990). This may have contributed to the lack of significance for age found in this study. Rating scales also can be criticized because only the data contained on the checklists are retrieved. Other important observations are overlooked. For example, it has been observed that, although ADHD children talk more, they are less efficient in organizing and communicating information to peers; in fact, ADHD children may be very intrusive into other children's conversations but fail to respond to questions or verbal initiations from the same children (Cunningham & Siegel, 1987; Landau & Milich, 1988). Perhaps it is

possible to piece together this observation by doing an item analysis of rating scale items, such as "interrupts conversations of others" and "doesn't listen to what others say", but the importance of this combination of behaviors on social relationships may still be overlooked. Hence, observation in natural settings is an important adjunct to rating scale assessment.

According to Gresham (1988), social skills should be multi-operationalized, using various types of assessment procedures to document convergent and discriminant validation. Unfortunately, this ideal approach to assessment of social skills requires a highly trained evaluator and is very time-consuming and costly. It is encouraging to note, however, that the results of the four social skills rating scales used in this study were highly consistent, suggesting that they may all be tapping similar constructs.

Implications

The implications of this study are that social skill deficits may be so prevalent among ADHD children as to warrant inclusion in the diagnostic criteria for this syndrome. This might be particularly appropriate if subtypes of children within the ADHD category are differentiated in future editions of the DSM. However,

it also must be noted that social skill deficits are characteristic of other populations, such as learning disabled and behavior disordered children. Consequently, it may be even more appropriate to consider social skills deficits as a frequently co-occurring problem similar to learning disabilities. In fact, social skill deficits may be yet another form of learning disabilities. This view is supported in the proceedings of the 1987 National Conference on Learning Disabilities, where it was recommended that the definition of learning disabilities in Public Law 94-142 should be revised to include social skill problems as a specific learning disability (Kavanagh & Truss, 1988).

Over five years ago it was noted by Whalen and Henker (1985) that despite numerous anecdotal reports and burgeoning research evidence that the social realm is particularly problematic for many children with attention deficits, little systematic effort has been made to either incorporate social skills problems as a defining feature of attention deficit disorder or emphasize the importance of social skills training in behavioral management programs. According to Whalen & Henker (1985), "Social difficulties are woven into the fabric of this disorder, yet they are only given

perfunctory treatment in clinical settings" (p.471). This conclusion is still valid today.

The most obvious reason for this continued problem is the lack of adequate research to demonstrate the exact nature and extent of social skills problems among ADHD children. Another reason for this problem is the lack of a commonly accepted definition of social skills and social competence. Yet another problem is lack of adequate assessment tools to help identify/classify social skills problems and a lack of program planning tools to help tailor an intervention/therapy program to the child's specific social skill knowledge and/or performance deficits. Clearly, we must begin to weed our way out of this "nosological thicket" before we can adequately diagnose the social behavior problems of ADHD children and begin to prevent and/or remediate the devastating effects of peer rejection in this population.

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Table 1

Subject Selection Criteria

ADHD Subjects
* Male child in grade 2 through 5 (aged 7-11 years old)
* Biological child of the mother
* Diagnosed as ADHD by the same developmental pediatrician
* Seen by the developmental pediatrician within last year
* Meets the DSM-III-R criteria for ADHD
* Does not meet the DSM-III-R Criteria for ODD, Conduct Disorder or any other major psychiatric disorder for children
* Does not have a school-based diagnosis of a learning disability or any abnormal test results that would indicate the presence of a learning disability (except auditory memory deficit, dysgraphia or articulation disorder)
* Does not have any major medical disorders
* Within normal limits for height and weight
* Maternal absence of substance abuse during pregnancy
* Pregnancy was carried to term
* Birthweight was > 6 lbs. and <10 lbs.
* Absence of fetal distress
* Absence of hard neurological findings
* Achieved appropriate developmental milestones
* Absence of moderate or severe vision or hearing problems
* Absence of any history of physical or sexual abuse

Comparison Group
* Male child in same classroom as ADHD child in study
* Same race as ADHD child in study
* Last name follows ADHD child's name on the class roster

Table 2

Instrument Reliability Data (N=50)

Scale (# of items)	Theoretical Range	Actual Range	Mean	SD	Current Alpha
ADHD Rating Scale (14)					
Total Score	14-56		24.7	9.0	.92
CTRS-28					
Conduct Problem(8)	0-24	0-18	5.1	5.1	.89
Hyperactivity (7)	0-21	0-17	5.5	5.4	.92
Inattentive(8)	0-24	0-21	6.5	5.2	.84
Hyper Index(10)	0-30	0-29	7.6	6.9	.91
ACTeRS					
Attention(6)	6-30	6-30	23.8	6.0	.94
Hyperactivity(5)	5-30	5-24	10.8	6.0	.95
Social Skills(7)	7-35	8-35	26.3	6.1	.89
Oppositional(6)	6-30	6-24	10.2	5.2	.92
WM					
Teacher-preferred Social Behaviors(16)	16-80	25-80	58.5	14.6	.97
Peer-preferred Social Behaviors(17)	17-85	24-85	62.8	15.7	.97
School Adjustment Behaviors(10)	10-50	12-50	39.0	9.3	.94
Total(43)	43-215	61-213	160.3	36.1	.98
TOPS					
Peer Group Entry(5)	5-25	5-24	12.8	4.7	.92
Response to Provocation(10)	10-50	11-49	26.8	9.6	.95
Response to Failure(9)	9-45	9-39	22.5	8.1	.92
Response to Success(3)	3-15	3-12	6.2	2.9	.87
Social Expectations(11)	11-55	11-40	22.4	8.2	.92
Teacher Expectations(6)	6-30	6-30	13.2	5.9	.88
Total(44)	44-220	49-170	110.2	40.0	.98

(table continues)

Table 2 (Continued)

SRS					
Cooperation(10)	0-20	0-20	14.4	4.9	.92
Assertion(10)	0-20	1-20	12.0	4.7	.90
Self-control(10)	0-20	0-20	13.8	5.0	.94
Total Scale Skill Score(30)	0-60	3-58	40.1	12.7	.96
Internalizing(6)	0-12	0-11	3.5	3.1	.88
Externalizing(6)	0-12	0-12	2.8	3.0	.87
Hyperactivity(6)	0-12	0-12	4.3	3.6	.88
Total Problem Behavior Score(18)	0-36	0-28	10.6	7.8	.91
Academic Competence(9)	0-18	11-45	35.1	7.4	.93
CBCL-TRF					
Internalizing					
Anxious(15)	0-30	0-16	3.9	4.0	.82
Social Withdrawal(11)	0-22	0-17	3.4	4.4	.89
Mixed					
Unpopular(10)	0-20	0-16	2.3	3.4	.89
Self-Destructive(13)	0-26	0-17	1.3	2.9	.87
Obsessive-Compulsive(9)	0-18	0-10	2.0	2.5	.73
Externalizing					
Inattentive(21)	0-24	0-33	9.6	8.9	.93
Nervous-Overactive(7)	0-14	0-13	2.8	2.8	.78
Aggressive(38)	0-76	0-50	12.6	13.9	.97
Total Score(124)	0-248	0-162	37.8	35.2	.97

Legend:
CTRS= Conners' Teacher Rating Scale
ACTeRS= ADHD: Comprehensive Teacher's Rating Scale
WM= Walker-McConnell Test of Children's Social Skills
TOPS= Taxonomy of Problematic Social Situations
SRS= Social Skills Rating System
CBCL-TRF= Child Behavior Checklist-Teacher Report Form

Table 2 (Continued)

SRS					
Cooperation(10)	0-20	0-20	14.4	4.9	.92
Assertion(10)	0-20	1-20	12.0	4.7	.90
Self-control(10)	0-20	0-20	13.8	5.0	.94
Total Scale Skill Score(30)	0-60	3-58	40.1	12.7	.96
Internalizing(6)	0-12	0-11	3.5	3.1	.88
Externalizing(6)	0-12	0-12	2.8	3.0	.87
Hyperactivity(6)	0-12	0-12	4.3	3.6	.88
Total Problem Behavior Score(18)	0-36	0-28	10.6	7.8	.91
Academic Competence(9)	0-18	11-45	35.1	7.4	.93
CBCL-TRF					
Internalizing					
Anxious(15)	0-30	0-16	3.9	4.0	.82
Social Withdrawal(11)	0-22	0-17	3.4	4.4	.89
Mixed					
Unpopular(10)	0-20	0-16	2.3	3.4	.89
Self-Destructive(13)	0-26	0-17	1.3	2.9	.87
Obsessive-Compulsive(9)	0-18	0-10	2.0	2.5	.73
Externalizing					
Inattentive(21)	0-24	0-33	9.6	8.9	.93
Nervous-Overactive(7)	0-14	0-13	2.8	2.8	.78
Aggressive(38)	0-76	0-50	12.6	13.9	.97
Total Score(124)	0-248	0-162	37.8	35.2	.97

Legend:
CTRS= Conners' Teacher Rating Scale
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SRS= Social Skills Rating System
CBCL-TRF= Child Behavior Checklist-Teacher Report Form

Table 3 (Continued)

Family residence	
Urban	23 (92)
Rural	2 (8)

Table 4

Medical History of ADHD Subjects (N=25)

Category	#(%)	Mean	(Range)	SD
Age at onset		5.2	(3-6)	1.2
Age at diagnosis		6.7	(5-10)	1.4
ADHD Criteria*				
8 behaviors	5 (20)			
9 behaviors	3 (12)			
10 behaviors	4 (16)			
11 behaviors	5 (20)			
12 behaviors	2 (8)			
13 behaviors	1 (4)			
14 behaviors	5 (20)			
Number of clinic visits		4.6	(0-9)	2.8
Medication therapy	24 (96)			
Methylphenidate	24 (96)	34.2**	(1-72)	
Imiprimine	8 (32)	16.9**	(1-34)	
Psychological therapies	12 (48)			
Individual therapy	8 (32)	10.0**	(2-24)	
Group therapy	0			
Social skills training	1	12.0**		
Family therapy	10 (40)	11.9**	(2-34)	
In-patient therapy	0			
Educational therapies	10 (40)			
Special classroom	0			
Resource room/LD lab	3 (12)			
Speech/language	0			
Developmental 1st grade	5 (20)			
Tutoring	3 (12			
Private school	15 (60)			
IQ scores***	21 (84.4)			
Verbal		116.3	(93-139)	13.0
Performance		112.8	(81-139)	17.0
Full scale		115.5	(90-139)	14.1

*Based on DSM-III-R criteria
**Reported by months in therapy
***Based on WISC-R, McCARTHY, or WPPSI

Table 5

Teacher Opinions Regarding Social Behavior of ADHD and Comparison Children (N=50)

Variable	ADHD (N=25) #/Total	Comparison (N=25) #/Total	Test-- Statistic	P
Social status				
Isolated	4/24*	1/24*		
Rejected	2/24*	0/24*		
Accepted	18/24*	24/25		
			CC-- .29	NS
Friends				
None	4/25	0/25		
One	2/25	0/25		
2-3	10/25	10/25		
>4	9/25	15/25		
			CC-- .36	NS
Aggressiveness				
Verbal	9/25	3/25	X^2 -- 3.87	.05
Physical	9/24*	2/24*	X^2 -- 5.66	.02
Social skills				
Poor	4/25	0/25		
Fair	6/25	1/25		
Good	12/25	7/25		
Very good	2/25	10/25		
Excellent	1/25	7/25		
			CC-- .52	<.0001

Legend:
X^2 = Chi-square
CC= Contingency coefficient

*Partial missing data

Table 6

Means for Teacher Ratings of Social Skills for ADHD and Comparison Children (N=50)

Instrument	ADHD (N=25) Mean	SD	Comparison (N=25) Mean	SD	F	P
ACTeRS						
Social Skills	22.8	5.4	29.8	4.5	24.07	<.001
WM						
Teacher-preferred Social Behaviors	49.8	14.0	67.2	9.1	26.99	<.001
Peer-preferred Social Behaviors	53.5	14.2	72.1	11.0	26.99	<.001
School Adjustment Behaviors	34.1	9.1	43.9	6.5	19.07	<.001
Total	137.4	31.4	183.2	24.0	33.57	<.001
TOPS*						
Peer Group Entry	15.0	4.6	10.7	3.6	12.37	<.001
Response to Provocation	31.9	10.1	21.8	6.0	18.55	<.001
Response to Failure	27.0	8.0	18.0	5.3	21.66	<.001
Response to Success	7.1	2.9	5.3	2.7	5.19	.027
Social Expectation	26.5	7.6	18.4	6.8	15.91	<.001
Teacher Expectations	16.5	5.9	10.0	3.9	20.60	<.001
Total	130.9	36.4	89.5	26.9	20.89	<.001
SRS						
Cooperation	11.8	5.0	17.0	3.3	18.47	<.001
Assertion	9.2	3.8	14.7	3.7	27.16	<.001
Self-control	11.1	5.2	16.4	3.2	18.46	<.001
Total	32.1	11.3	48.1	8.4	31.99	<.001

(table continues)

Table 6 (Continued)

Legend:
ACTeRS= ADHD: Comprehensive Teacher's Rating Scale
WM= Walker-McConnell Test of Children's Social Skills
TOPS= Taxonomy of Problematic Social Situations
SRS= Social Skills Rating System

*High scores of this scale reflect more problems rather than more social skills.

Table 7

Means for Teacher Ratings of Social Skill Deficits and Social Skill Strengths of ADHD and Comparison Children (N=50)

Instrument	ADHD (N=25) Mean	SD	Comparison (N=25) Mean	SD	F	P
SRS						
Acquisition Deficits*						
Cooperation	1.8	2.7	.2	.4	6.86	<.01
Assertion	1.9	2.3	.3	.7	10.29	<.002
Self-control	1.6	2.4	.1	.4	8.70	<.005
Performance Deficits*						
Cooperation	2.1	1.8	1.2	2.1	2.77	.102
Assertion	.4	.8	.2	.5	1.06	.309
Self-control	1.6	2.0	.5	1.1	6.31	.015
Social Skill Strengths						
Cooperation	3.4	3.2	7.0	2.9	17.87	<.001
Assertion	1.5	1.9	4.6	3.1	17.53	<.001
Self-control	2.8	3.1	6.4	2.8	18.54	<.001

Legend:
SRS= Social Skills Rating Scale

*For deficits, a higher score means more deficits.

Table 8

Means for Teacher Ratings of Problem Behaviors of ADHD and Comparison Children (N=50)

Instrument	ADHD (N=25) Mean	SD	Comparison (N=25) Mean	SD	F	P
CTRS						
Conduct Problems	8.2	5.6	2.0	1.9	27.13	<.001
SRS Problem Behaviors						
Externalizing	4.5	3.2	1.1	1.3	24.31	<.001
Internalizing	4.7	3.2	2.2	2.5	10.36	.002
Hyperactivity	6.2	3.6	2.5	2.3	18.32	<.001
Total Score	15.4	7.3	5.7	4.7	31.00	<.001
CBCL-TRF Behavior Problems						
Schizoid-Anxious	5.2	4.7	2.6	2.6	6.22	.016
Social Withdrawal	5.4	5.0	1.5	2.6	11.83	<.001
Unpopular	3.8	4.2	.8	1.3	11.26	.002
Self-Destructive	2.4	3.8	.3	.5	7.44	.009
Obsessive-Compulsive	3.1	2.9	.8	1.4	12.64	<.001
Inattentive	13.6	9.4	5.6	6.3	12.37	<.001
Nervous-Overactive	4.1	3.1	1.4	1.6	14.42	<.001
Aggressive	19.8	15.3	5.3	5.6	18.64	<.001
Total Score	57.3	38.1	18.3	16.9	21.82	<.001

Legend:
CTRS= Conners' Teacher Rating Scale
SRS= Social Skills Rating System
CBCL-TRF= Child Behavior Checklist-Teacher Report Form

Table 9

Social Skills Scores of ADHD Children According to Teachers DSM-III-R Ratings (N=25)

Groups (#)	Social Skill Scores			
	ACTeRS Subscale	WM Total	TOPS* Total	SRS Total
Group A (9)	25.0	155.8	112.9	41.4
Group B (8)	24.0	145.3	123.3	31.8
Group C (8)	19.1	108.8	158.8	22.1
P-Value	NS	.002	.02	<.001
Tukey Contrasts		A>C,B>C	C>A	A>C

Legend:
Group A= Children who were rated as having 0-2 DSM-III-R symptoms of ADHD
Group B= Children who were rated as having 3-7 DSM-III-R symptoms of ADHD
Group C= Children who were rated as having 8 or more DSM-III-R symptoms of ADHD
ACTeRS= ADHD: Comprehensive Teacher's Rating Scale
WM= Walker-McConnell Test of Children's Social Skills
TOPS= Taxonomy of Problematic Social Situations
SRS= Social Skills Rating System

*High scores on this scale reflect more problems rather than more social skills.

Table 10

Relationship Between Fewer and More Social Skills and the Variable of Hyperactivity Among ADHD Children(N=25)

	Conners Hyperactivity Subscale Scores			
Group Subtypes (#)	Mean	SD	F	P
ACTeRS				
Social Skills Subscale				
Fewer skills group (11)	10.8	6.0		
More skills group (14)	5.9	5.2		
			4.77	.04
WM				
Total Score				
Fewer skills group (12)	11.5	5.0		
More skills group (13)	4.9	5.1		
			10.56	.004
TOPS				
Total Score				
Fewer skills group (13)	11.2	5.2		
More skills group (12)	4.7	4.9		
			10.50	.004
SRS				
Total Score				
Fewer skills group (12)	10.9	5.9		
More skills group (13)	5.5	4.9		
			6.35	.02

Legend:
ACTeRS= ADHD: Comprehensive Teacher's Rating Scale
WM= Walker-McConnell Test of Children's Social Skills
TOPS= Taxonomy of Problematic Social Situations
SRS= Social Skills Rating System

Table 11

Relationship Between Fewer and More Social Skills and the Variable of Inattention Among ADHD Children (N=25)

	CBCL-TRF Inattention Subscale Scores			
Group Subtypes (#)	Mean	SD	F	P
ACTeRS				
Social Skills Subscale				
Fewer skills group (11)	16.6	10.1		
More skills group (14)	11.1	8.4		
			2.21	NS
WM				
Total Score				
Fewer skills group (12)	20.2	8.2		
More skills group (13)	7.5	5.6		
			20.80	<.001*
TOPS				
Total Score				
Fewer skills group (13)	16.7	9.8		
More skills group (12)	10.2	7.9		
			3.30	NS
SRS				
Total Score				
Fewer skills group (12)	20.5	7.9		
More skills group (13)	7.2	5.2		
			25.34	<.001*

Legend:
ACTeRS= ADHD: Comprehensive Teacher's Rating Scale
WM= Walker-McConnell Test of Children's Social Skills
TOPS= Taxonomy of Problematic Social Situations
SRS= Social Skills Rating System

*Also significant at $p<.05$ for the ACTeRS Attention Subscale

Table 12

Relationship Between Fewer and More Social Skills and the Variable of Problem Behaviors Among ADHD Children (N=25)

	SRS Problem Behaviors Subscale Scores			
Group Subtypes (#)	Mean	SD	F	P
ACTeRS				
Social Skills Subscale				
More skills group (14)	11.9	5.1		
Fewer skills group (11)	19.9	7.5		
			10.12	.004
WM				
Total Score				
More Skills Group (13)	12.4	5.8		
Fewer Skills Group (12)	18.7	7.6		
			5.52	.03
TOPS				
Total Score				
More skills group (12)	10.7	6.4		
Fewer skills group (13)	19.8	5.3		
			15.05	<.001
SRS				
Total Score				
More skills group (13)	12.4	5.7		
Fewer skills group (12)	18.6	7.7		
			5.18	.03

Legend:
ACTeRS= ADHD: Comprehensive Teacher's Rating Scale
WM= Walker-McConnell Test of Children's Social Skills
TOPS= Taxonomy of Problematic Social Situations
SRS= Social Skills Rating System

Table 13

Relationship Between Fewer and More Social Skills and the Variable of Aggression Among ADHD Children (N=25)

	CBCL-TRF Aggression Subscale Scores			
Group Subtypes (#)	Mean	SD	F	P
ACTeRS				
Social Skills Subscale				
Fewer skills group (11)	29.4	15.4		
More skills group (14)	12.4	10.7		
			10.59	.005
WM				
Total Score				
Fewer skills group (12)	29.8	13.8		
More skills group (13)	10.7	10.3		
			15.41	<.001
TOPS				
Total Score				
Fewer skills group (13)	30.3	11.7		
More skills group (12)	8.5	9.6		
			25.45	<.001
SRS				
Total Score				
Fewer skills group (12)	28.8	15.5		
More skills group (13)	11.6	9.8		
			11.04	.003

Legend:
ACTeRS= ADHD: Comprehensive Teacher's Rating Scale
WM= Walker-McConnell Test of Children's Social Skills
TOPS= Taxonomy of Problematic Social Situations
SRS= Social Skills Rating System

Table 14

Relationship Between Fewer and More Social Skills and the Variable of Oppositionality Among ADHD Children (N=25)

	ACTeRS Oppositionality Subscale Scores			
Group Subtypes (#)	Mean	SD	F	P
ACTeRS				
Social Skills Subscale				
Fewer skills group (11)	16.7	6.1		
More skills group (14)	9.6	3.7		
			12.94	.002
WM				
Total Score				
Fewer skills group (12)	16.3	5.9		
More skills group (13)	9.5	3.9		
			11.19	.003
TOPS				
Total Score				
Fewer skills group (13)	16.6	5.4		
More skills group (12)	8.6	3.1		
			20.31	<.001
SRS				
Total Score				
Fewer Skills Group (12)	16.0	6.4		
More Skills Group (13)	9.8	3.8		
			9.04	.006

Legend:
ACTeRS= ADHD: Comprehensive Teacher's Rating Scale
WM= Walker-McConnell Test of Children's Social Skills
TOPS= Taxonomy of Problematic Social Situations
SRS= Social Skills Rating System

Appendices

Appendix A

Review of the Literature

Introduction

Social skills have traditionally been viewed as an aspect of "personality" and have thus been considered stable traits that are fixed and unalterable (Hazel & Schumaker, 1988). Understanding the assumptions that have been made about the nature of social skills helps explain why professionals have failed to intervene with populations known to have social skills deficits, such as children and adults who are emotionally disturbed. Interest in social skills dates back to the early 1930's, when the first sociometric test was developed, but did not gain any real attention until the late sixties when the thrust toward deinstitutionalization of adults was initiated (Walker, 1988). However, it has only been in the last five years that seventy-five percent of all published articles in this area have appeared (Gresham, 1988).

A major reason social skills assessment and social skills training programs have received so much attention in recent years are the research findings that individuals lacking in social competence experience poor long term outcomes. Several authors have shown that social skills deficits in childhood

characterized by aggressive behavior are a prime predictor of later aggression and antisocial behavior as well as other types of adult psychopathology (Hartup, 1983; Loeber & Dishion, 1983; Robins, 1979). Hazel & Schumaker (1988) cite a plethora of studies linking inadequate social ability to such problems as juvenile delinquency, dropping out of school, dishonorable discharges from the army, and various mental health problems in adulthood.

The research on social skills problems of children with learning disabilities (LD) is fairly substantial regarding the range and severity of problems (Bryan, 1988; Gresham & Reschly, 1986; Hazel & Schumaker, 1988; McConaughy & Ritter, 1986). Social perception problems are frequently cited in the learning disability (LD) literature. It has been postulated that peers tend to reject hyperactive children because they also do not respond appropriately to social cues (Campbell & Paulauskas, 1979; Levine, 1987). Since estimates of the co-occurrence of Attention Deficit Disorder (ADD) and LD range from sixty to eighty percent (Barkley, 1981), this may be the basis for the social misperception. However, this association is only conjectural at this point and awaits further research.

As a basis for this research on the nature of social skills in children with ADD, literature is reviewed in the areas of defining social skills and social competence, social skills assessment, social skills and learning disabilities, and social skills and attention deficit disorders. Because the theoretical perspective adopted for this research is a behavioral approach, combining information processing, cognitive-behavioral and social learning theories, a review of recent research on social skills using these frameworks will also be included.

Defining Social Skills and Social Competence

According to McFall (1982), two general approaches have been used to conceptualize social skills. One is a trait model, which considers social skills to be an underlying response predisposition that is cross-situational in nature; the other is a molecular model, which considers social skills to be discrete, social situation-specific behaviors. McFall faults both of these approaches in that the trait model is too abstract and has little empirical data to support it, and the molecular model is too specific and of limited usefullness to researchers interested in making behavioral predictions. Gresham (1986) concludes that there is a need for rapprochement between the trait and

molecular models of social skills. In his view, however, there is no such model currently in existence, which leaves social skills as "a construct in need of further conceptualization and theoretical refinement" (Gresham, 1986, p.145.).

A closely related but separate concept to the notion of social skill is that of social competence. Social skill has been broadly defined as a discrete learned response, whereas social competence is viewed as the socially acceptable performance of a smoothly progressing sequence of numerous responses (Hazel & Schumaker, 1988). Thus, social skills are viewed as the observable, specific behaviors that an individual demonstrates to perform competently on a social task. Social competence, on the other hand, is viewed as a more subjective, valuative term based on judgments by others or some other criterion that a person has performed adequately (Gresham, 1986).

Gresham (1983) considers specific behaviors to be socially competent only if they predict important outcomes, like peer acceptance, adult acceptance (especially significant adults like parents and teachers), mental health, lack of involvement with the juvenile authorities, school adjustment, etc. This has been termed the "social validity" approach to social

competence. Greenspan (1981) describes social validity as content-oriented and suggests that there are at least two other definitional approaches to social competence: process and outcome-oriented approaches. The process-oriented approach is skill oriented in that it focuses on interpersonal processes like knowledge, attitudes, and perceptions of an individual that lead to socially competent outcomes. The outcome-oriented approach focusses exclusively on the immediate outcomes or results of displaying situation specific social behaviors. Lack of agreement regarding basic definitions has resulted in the social skills literature being very fragmented, making it difficult to compare research results or to form a cumulative theoretical base for social skills interventions.

Social Skills Assessment

A variety of social skills assessment approaches have been described in the literature, including sociometric assessments, direct observation in natural environments, behavioral role plays, teacher and parent rating scales, self-reports, and self monitoring (Gresham, 1988). These various assessment procedures can be classified according to the whether the purpose of the assessment is identification/classification or intervention/therapy (Gresham, 1986). The criteria

Gresham uses to determine whether the approach is considered an identification or intervention approach depends upon the degree to which it provides a functional analysis of behavior e.g. describes the antecedent, sequential, and consequent conditions surrounding the behavior. Using this criteria, assessment procedures such as sociometrics, parent and teacher ratings, self reports, and role-plays would be appropriate to use for identification of children in need of social skills training whereas direct observations, behavioral role plays, behavioral interviews, and self-monitoring would be considered appropriate for planning specific intervention approaches.

Although it is commonly felt that direct observation is the hallmark of behavioral assessment, this is rarely possible in the context of social behavior (Becker & Heimberg, 1988). In other words, the nature of social behavior is such that it may only occur when it is not being observed. There are also many practical dilemmas involved in the direct observation of social behaviors in naturally occurring situations in that social behaviors occur at unpredictable times and places. As a result, role play

assessment strategies are often substituted for direct observation strategies.

Hazel & Schumaker (1988) lament that a single assessment tool is not available and have called for the development and validation of assessment tools that would meet the following criteria: a) based on an individual's empirically validated social skill deficits, b) psychometrically acceptable, c) practical to use in school settings, d) spans the age ranges, and e) allows for assessment of all the verbal and non-verbal skills required for social competence. They suggest that two such instruments would be desirable: a global screening device for identifying children with social skills deficits and a more focussed assessment to pinpoint specific skill deficits and measure treatment outcomes. In contrast, Gresham (1988) argues that social skills should be multi-operationalized, using numerous types of assessment procedures to document convergent and discriminant validation.

Unfortunately, the literature on assessment of social skill deficits has seriously lagged behind the literature on therapeutic interventions (Hughes & Hall, 1985). There also has been a striking lack of a developmental approach to the study of social skills in children; we still do not know what skills are

important for what ages, the differences in social skills among males and females at various ages, and how social skills deficits can best be remediated (Gresham, 1986). A taxonomy of social skills is also needed, organized according to scope and sequence (Hazel & Schumaker, 1988). Gresham (1986) also cites classification of various subtypes of social skills problems as in need of further research.

Social Skills and Learning Disabilities

According to Bryan (1988), voluminous research accumulated over the past fifteen years has consistently found learning disabled children to have poor social skills and low social status among peers. In every arena of social skills that have been studied, learning disabled children have performed more poorly than normal peers. Studies indicate that only two to seventeen percent of learning disabled students do not exhibit social skills deficits (Gresham & Reschly, 1986). Although there is a very high positive correlation between learning disabilities and social skills deficits, it is not clear whether social skills deficits result from the same primary processes that lead to academic failure in learning disabilities or from the secondary processes of academic failure, rejection, etc. Bruck (1986) hypothesizes that both

internal cognitive/psychological and external social pressures interact to cause social skill deficits in learning disabled children.

Despite the overwhelming evidence that a majority of learning disabled students have social skills deficits, these problems have largely been ignored in this population, as evidenced by the following omissions: a lack of reference to social skills problems in the definition of learning disabilities, a lack of diagnostic tests and procedures to assess social skill problems, a lack of inclusion on student's Individual Education Plans, and a lack of professional training to prepare teachers to deal with social skills problems (Bryan, 1988). Gresham (1988) laments that the field of learning disabilities has overemphasized cognitive and academic deficits at the expense of social deficits. Bryan (1988, p. 347) echoes this concern, noting that children's views of their self-concept and peer status mediate their responsiveness to our education attempts and can make them "hard to reach and hard to teach".

It was not until the National Conference on Learning Disabilities held in 1987 that recommendations were made to revise the definition of learning disabilities in Public Law 94-142 to include social

skill deficits. The U.S. Interagency Committee on Learning Disabilities proposed the following modifications (changes underlined):

> Learning disabilities is a generic term that refers to a heterogeneous group of disorders manifested by significant difficulties in the acquisition and use of listening, speaking, reading, writing, reasoning, or mathematical abilities, or of social skills. These disorders are intrinsic to the individual and presumed to be due to central nervous system dysfunction. Even though a learning disability may occur concomitantly with other handicapping conditions (e.g., sensory impairment, mental retardation, social and emotional disturbance),with socioenvironmental influences (e.g., cultural differences, insufficient or inappropriate instruction, psychogenic factors), and especially with attention deficit disorder, all of which may cause learning problems, a learning disability is not the direct result of those conditions or influences (Kavanagh & Truss, 1988, p. 550).

In addition to definitional changes, the proceedings from the National Conference on learning disabilities addressed numerous policy issues in the provision of social skills services through the school, noting they are not just matters of science but matters of values and resources.

Regarding directions for future research, Bryan (1988) called for studies to investigate if children with other handicaps experience similar problems in the social domain. She concluded that cross categorical research that compares social status and social problems of children with different handicaps would greatly enhance our knowledge of handicaps and the needs of children with varying degrees and types of handicaps.

Many of the references to social perception problems in LD children emphasize the cognitive-structural viewpoint, citing a lack of empathy or social role taking as the probable source of difficulty (Bachara,1976; Bader, 1975). Bruno (1981) attributes social perception problems in LD children to visual distractibility. Siegal (1970) underscores the importance of attending to non-verbal cues in communication by documenting that words alone account for only seven percent of an intended message. The

remaining ninety-three percent of the message is communicated through tone of voice, facial expression and other non-verbal body language. Kronick (1981) concluded that, "Learning disabilities are, in effect, disorganization at the level of decoding, memory, and encoding. As a result, disorganization, at some level of functioning may underlie much of the social inadequacy of the learning disabled (p.99)." Included in Kronicks' definition of LD is a deficit in the organization of social information processing.

Social Skills and Attention Deficit Disorder

In the recently revised third edition of the Diagnostic and Statistics Manual of Mental Disorders (DSM-III-R) published by the American Psychiatric Association (1987), the term "Attention-deficit Hyperactivity Disorder" (ADHD) is used to describe a disorder typically characterized by inattention, impulsivity, and hyperactivity. In order to meet the criteria for a diagnosis of ADHD a child must exhibit an onset of symptoms before age seven which have lasted for at least six months. They must also demonstrate at least eight of the fourteen behavioral criteria listed in the DSM-III-R, which include such features as fidgeting with hands or feet, being distracted by extraneous stimuli, and blurting out answers to

questions before they have been completed. No reference is made to peer relationship problems or social skills deficits among this list of symptoms. The classification of ADHD is subsumed under "Disruptive Behavior Disorders", which also includes "Conduct Disorders" and "Oppositional Defiant Disorders." According to the DSM-III-R, the syndrome of ADHD is six to nine times more common in males than females.

The term "Undifferentiated Attention Deficit Disorder" (UADD) is located under "Other Disorders of Infancy, Childhood, or Adolescence" along with a diverse grouping of other terms. Only the persistence of developmentally inappropriate and marked inattention is described as a defining hallmark for diagnosis. As with ADHD, no mention is made of social skills deficits. The proportion of UADD to ADHD is unknown due to the difficulty in diagnosis and the lack of epidemiological studies on this population. In all probability, children with ADHD are seen with greater frequency due to the externalizing nature of their symptoms.

The terms ADHD and UADD reflect the most recent of a historic series of terms which have progressed from brain injured, to minimal brain damage, to hyperkinesis

and attention deficit disorder with and without hyperactivity (Shaywitz & Shaywitz, 1988). Each of these terms reflect changes in thought on the etiology, symptoms, and treatment of the disorder (Barkley, 1981). Today it still remains an elusive syndrome with mixed features, resulting in inconsistent labeling and management. Due in part to this confusion, the prevalence of ADD is thought to range anywhere from two to twenty percent of the childhood population and represent the most common condition referred to psychiatric clinics in the United States (Barkley,1981).

The primary (unlearned) symptoms noted in ADHD are inattentiveness, impulsivity and hyperactivity. Secondary emotional problems also frequently occur in the ADD child. They often occur before the child is diagnosed, when the treatment is inadequate, or when the child experiences persistent stressful interpersonal relations with family, peers, and teachers. Common secondary (learned) symptoms include poor self-esteem, depression, poor anger control and excessive aggressiveness (Burks, 1977; Shaywitz & Shaywitz, 1988). Aggressive behavior is a key predictor of later difficulties in children (Loney, Kramer, & Milich, 1981.) Burks (1977) refers to these

secondary symptoms as defenses acquired by the child to cope with a hostile and rejecting environment.

Despite numerous anecdotal reports and burgeoning research evidence that the social realm is particularly problematic for a majority of children with attention deficits, little systematic effort has been made to incorporate social skills problems as a defining feature of attention deficit disorder or emphasize the importance of social skills training in behavioral management programs. According to Whalen and Henker (1985), "Social difficulties are woven into the fabric of this disorder, yet they are only given perfunctory treatment in clinical settings" (p. 471).

One reason for this problem is the lack of a commonly accepted definition of social skills and social competence. Another problem is lack of adequate assessment tools to help identify/classify social skills problems and a lack of program planning tools to help tailor an intervention/therapy program to the child's specific social skill knowledge and/or performance deficits.

Most of the approaches to social skill definition and remediation have been based on a behavioristic model involving numerous sequences of specific behaviors. Bryan (1988) criticizes this approach

because it requires that we assess and teach a myriad of social skills that do not take into account situational variables. She suggests that we instead focus our efforts on developing an information-processing approach to social skills. Bryan justifies this recommendation based on the arguments that the definition of learning disabilities contained in P.L. 94-142 is based on information processing theory constructs (e.g. listening, talking, and thinking), research in learning disabilities has found that components of information processing differentiate learning disabled from normal peers, and it would provide a more economical and heuristic route to social skill assessment and intervention.

A Social Information Processing Approach to Social Skills

The social information processing approach to social skills is based on social exchange theory, which is a unique blend of cognitive behavioral theory, information processing theory, and social learning theory. Dodge and his associates at Vanderbuilt are the major developers of this theory. They have focussed considerable effort on describing intention-cue detection deficits and biases in aggressive boys. Their studies have contributed the following

significant findings to the literature on this subgroup of clinically deviant boys: a) they infer hostile intention to ambiguous social cues, b) they are more likely to be treated aggressively by their peers, resulting in an escalating cycle of reputation and behavior (Dodge, 1980), c) they exhibit a biased recall of hostile cues, d) they exhibit a paranoid bias toward cues directed toward themselves but not those directed toward more popular peers (Dodge and Frame, 1982), e) they infer hostile intentions to prosocial cues, f) they exhibit a developmental deficit in the acquisition of intention-cue detection skills (Dodge, Murphy, and Buchsbaum, 1984), and g) they exhibit exaggerated hostile attribution biases and deficits under conditions of threat (Dodge, Coie, & Brakke, 1982; Dodge & Somberg, 1987). In addition to cue detection/intention deficits and biases, Richard & Dodge (1982) have also demonstrated that aggressive boys are also deficient in the generating alternative solutions when faced with cognitive problem-solving tasks.

According to Milich and Dodge (1984), the patterns found in these studies suggest a model of social information processing in aggressive boys. This model describes aggressive boys as exhibiting deficiencies in

regarding the peers intentions, and results in the generation of fewer and inappropriately aggressive responses to problem situations, especially when provocation is involved. The aggressive behavior routinely demonstrated by these boys leads peers to reject them which, in turn, serves to reinforce and perpetuate their deficient and biased information processing. Milich and Dodge (1984) demonstrated that although these findings have been reported to describe the behavior of aggressive boys, they also fit other diagnostic groups of impaired children, such as those exhibiting hyperactivity with aggressive features. What is not clear from this study is whether children with hyperactivity without aggressive features were similarly deficient.

In addition to specifying component skill deficits and biases in aggressive boys, Dodge, McClaskey and Feldman (1985) have also generated and evaluated a taxonomy of the situations and tasks most likely to lead deviant children to experience social difficulties. This resulted in a forty-four item scale entitled Taxonomy of Problematic Social Situations for Children. Item analysis of this scale identified six factors or social task cluster items: a) peer group entry, b) response to peer provocation, c) response to

failure, d) response to success, e) social expectations, and f) teacher expectations. Pilot work has verified that teachers using this scale are able to correctly identify populations of deviant and adjusted children.

Dodge emphasizes the clinical usefulness of investigating both the nature of problematic situations for children as well as their particular component skill deficits as a model of clinical assessment (Dodge, 1985; Dodge & Murphy, 1984). The implication is that psychodiagnostic classification could proceed along two schemes: a) subtyping children according to the social situation in which they display socially deviant behavior, or b) classifying incompetent children into groups who display various processing deficiencies. Dodge, Pettit, McClaskey & Brown (1986) suggest that some combination of both is probably needed.

Pettit, Dodge, and Brown (1988) conducted a ground breaking study to begin documenting the existence of differences in family and social relationship histories among children who are socially rejected. They found that compared to popular children, socially rejected children are reared under less advantageous circumstances, with fewer opportunities for positive

interactions with parents and peers, and with greater exposure to physical aggression that was both endorsed and practiced by their parents. These authors noted, however, that all the findings were probably biased somewhat by the extremity of their sample. Thus, it was recommended that future research compare the social information processing of both disadvantaged and non-disadvantaged youth.

A Social Learning Theory Approach to Social Skills

According to Gresham (1986), most conceptualizations of social skills deficits have revolved around sociometric or behavioral definitions. Gresham suggests a different heuristic for categorization of social skills deficits based on Bandura's (1977) social learning theory. He views skill deficits, performance deficits, and self-control deficits as subtypes of social skill problems. These subtypes are based on assessment of frequencies, durations, and intensities of social behaviors (Gresham, 1981a). Assessments are typically obtained via behavioral observations and behavioral rating scales, both of which can be conceptualized within the behavioral assessment construct system. Although sociometric assessment has been in existence almost sixty years, it is not typically associated with the

behavioral assessment tradition. However, behavioral intervention programs often employ sociometrics as a pretest to select rejected or isolated children for social skills training and again as a post-test to evaluate the success of the program. There are at least two reasons for using a non-standard behavioral assessment like sociometrics in social skills training programs. The first is that this approach measures a socially important outcome e.g. peer acceptance or rejection. The second is that few alternatives have been available until recently. However, there are numerous disadvantages to using sociometrics as a sole selection and outcome measure in social skills training programs: they are reactive if used on a regular basis, they provide limited diagnostic information concerning the exact nature of the social skill problem, and they are subject to numerous threats to internal validity e.g. regression to the mean, maturation, experimental mortality, and interactive effects (Gresham, 1981a).

Behavioral observations provide useful information, but have the drawback of being time-consuming, difficult to code, and lacking in concurrent and predictive validity (Gresham, 1981a). On the other hand, behavior rating scales have the advantages of

being quick, easy, and valid measurement instruments (Edelbrock & Rancurello, 1985). Traditional psychiatric assessment of children with emotional problems via DSM-III-R categories has been challenged in favor of more clinically useful, reliable, and empirically based behavior rating scales (Achenbach & Edelbrock, 1978; Achenbach, 1985). A major criticism of the DSM-III-R is that it is based on mixtures of theoretical inferences and generalized descriptions of behavior with no mechanisms for operationalizing them. With the aid of powerful multivariate techniques, more coherent taxonomic frameworks for the study of psychopathology in children have been developed. The Child Behavior Checklist is perhaps the most well known and technically adequate of these classification systems (Achenbach & Edelbrock, 1983). Parallel forms of this parent checklist have been developed for other informants, including teachers, trained observers, and the children themselves (Achenbach & Edelbrock, 1986). Other rating scales have been developed in a similar fashion for the identification of specific childhood problems such as hyperactivity (Conners, 1969, 1973, 1990). Several studies support the convergent and discriminant validity of the Achenbach and Conners scales (Achenbach & Edelbrock, 1983; Edelbrock & Reed,

1984; Weissman, Orvaschel, & Padian, 1980). Other studies have demonstrated strong relations between these statistically derived behavior problem syndromes and several DSM-III-R diagnoses (Edelbrock & Costello, 1988).

For years teacher ratings have been used as a primary source of school referral for assessment and intervention with children having learning disabilities and behavior problems, but only within the last decade have researchers demonstrated the empirical accuracy and efficiency of teacher ratings in social skills assessment (Gresham, 1981a; Connolly, 1983; Gresham, 1986). Unfortunately, few commercially produced social skill rating scales have been available until recently. For example, the Walker-McConnell Scale of Social Competence and School Adjustment was published in 1987 and the Gresham Social Skills Rating System was published in 1990. Although these rating scales have been demonstrated to be valid and technically accurate, their usefulness in identifying specific subtypes of socially unskilled children who are in need of remediation and their ability to measure post-treatment changes remains to be seen.

Theoretical Framework

The behavioral model of social skills chosen for this research conceptualizes social behavior in terms of discrete, observable behavioral units but also takes into account the influence of mediational processes on observable behaviors. The basic elements of this behavioral model are a stimulus, an organism, a response, and a consequence (Gresham & Elliott, 1990). The stimulus is defined as the people or events that precede an action and are believed by the child to initiate the action. The organism is considered to be the child and his mediational processes, which include emotions and thoughts. A response is viewed as the overt reactions of the child to a perceived stimulus. A consequence is conceptualized as the child's perceived reactions to the response.

According to Michelson, Sugai, Wood, and Kazdin (1983), there are five assumptions fundamental to behavioral conceptualizations of social skills. The first is that social skills are basically acquired through learning that involves observation, modeling, rehearsal, and feedback. The second assumption is that social skills include both verbal and nonverbal behaviors that are specific and discrete. The third assumption is that social skills involve both

initiations of behavior and responses to the behavior of others. The fourth assumption specifies that social skills are interactive by nature. Lastly, assumption five emphasizes the situational specificity of social skills.

Gresham (1981a, 1981b, 1982) advocates a behavioral model of social skills that is heavily grounded in social learning theory. He has modified and extended Bandura's distinction between acquisition and performance of behavior by describing four subtypes of social skill problems: a) skill deficits, b) performance deficits, c) self-control skill deficits, and d) self-control performance deficits. The basis for differentiation among these categories is whether or not the child knows how to perform a particular social skill and whether or not there are any emotional arousal responses (like anxiety, anger, or impulsivity) inhibiting the acquisition or performance of the skill.

Dodge and his associates have developed a social exchange model of children's social behavior which emphasizes the cognitive behavioral and information processing aspects of social skills (Dodge, Pettit, McClaskey, & Brown, 1986). This model conceptualizes social behavior along two dimensions. The first dimension is the context within which the child

processes a set of environmental cues, which is concretely expressed in terms of specific social tasks. The second dimension is the child's skill in social information processing, which he describes as occurring in five separable, sequential steps: a) encoding social cues, b) mental representation of cues, c) accessing of potential behavioral responses, d) evaluation and selection of a response, and e) enactment of the response. Research has demonstrated that measures of each of the five processing steps are predictive of children's competence and success at a social task and that the child's behavior varies significantly across different tasks. The advantages of the social exchange model over traditional cognitive-structuralists models is that it a) specifies the processes of children's cognitions, b) indicates how a particular form of social cognition leads to a particular behavioral output, and c) accounts for the tremendous variation in children's social behavior across different situations (Dodge, Pettit, McClaskey, & Brown, 1986).

Although both of the specific models described above guide this research, only those aspects of social skills that can be evaluated via a survey approach (using behavior rating scales) will be assessed.

Hence, the focus of this study will be on situationally specific, observable behaviors rather than cognitive mediational processes.

Numerous rating scales have been developed in recent years that are technically superior to their predecessors. The Social Skills Rating System focuses on the prosocial behaviors of cooperation, assertion, and self-control as well as antisocial behaviors and social skill strengths that either facilitate or inhibit social competence (Gresham & Elliot, 1984). The Walker-McConnel Scale of Social Competence and School Adjustment measures teacher and peer related interpersonal social skills and also adaptive behavior required in the classroom setting (Walker & McConnell, 1987). The social information processing approach assesses social behaviors that are situation-specific and emphasizes cognitive processing aspects versus overt behavioral responses (Dodge & Murphy, 1984). Because it is unknown which of the domains sampled by the assessment tools described are critical to ADHD children, a variety of behavioral rating scales will be used to explore the nature of social skill problems of this population group. Hopefully, their combined results will be more "socially valid" e.g. predict important outcomes, and whether they are sensitive

enough to pinpoint the types of social skill deficits that result in the rejection of ADHD children.

In summary, recent literature has documented numerous instances of social skills problems in children with learning disabilities and attention deficit disorders. Although the research on social skills problems of children with learning disabilities is fairly substantial regarding the range and severity of problems, the information regarding social skills problems in children with attention deficit disorder is still sketchy, often anecdotal in nature, and frequently defined only in terms of negative sociometric outcomes. Unfortunately, this information only tells us that the ADHD child is often rejected but does not provide us with any information about which specific social skills are lacking, what interfering behaviors exist, or which situations are the most problematic.

Key Issues

If social skill deficits do exist in ADHD children, it is important to know if these deficits are acquisition or performance deficits. Do they perform adequately some of the time? If so, this would suggest that they know how to perform the skill but are not doing so consistently. Or are they never observed to

perform the skill? This might suggest that they have never actually learned the skill in question. Also of interest are the social skill strengths that ADHD children possess which might be used as the basis for remediation programs.

If social skill deficits do exist in ADHD children, it is also important to determine if subtypes of socially skilled and less skilled children exist. If so, factors associated with the socially less skilled subgroup need to be identified. For example, which of the following factors might be significantly associated with social skill deficits in ADHD children: a) features of the primary disability e.g. hyperactivity, inattention, and impulsiveness, b) secondary behavioral problems, such as aggressive or oppositional behavior, and/or c) co-occurring learning disabilities or severe emotional problems? We must also determine whether ADHD children experience social skill problems consistently across different situations, e.g. peer group entry or peer group provocation, or if only specific types of situations are problematic.

An abundance of descriptive data are still needed regarding the social skills of ADHD children. Comparative data regarding non-ADHD children are also

necessary in order to put the findings of social skills in ADHD children in perspective. Further comparisons among ADHD children themselves is also important to determine if subtypes of socially skilled and less skilled ADHD children exist.

Purpose of the Study

The main purpose of this study is to determine if differences exist between ADHD boys and a comparison group. A comprehensive assessment of social skills in ADHD children will be conducted utilizing a number of behavioral rating scales that measure global and specific behavioral functioning, discrete social skills, and problematic social situations. Family and treatment background variables will be also be described. Children without learning disabilities and severe emotional problems comprise the sample in order to control for the possible confounding effects of these important variables on the results of this study. A case-control methodology is utilized to minimize the threats to external validity posed by the selection of a separate control group that may have been significantly different on a hidden intervening variable.

It is hoped that by accounting for the influence of learning disabilities and/or severe emotional

problems, using a case-control methodology, and administering a variety of technically sound social skills rating scales, the accuracy and breadth of information obtained from this study will contribute significantly to the sparse body of data currently existing on the nature of social skill problems in ADHD children.

Conceptual Hypotheses

The conceptual hypotheses for this study are as follows:

1) Preadolescent boys with ADHD will be reported to have fewer social skills than a comparison group matched on race and classroom.

2) There will be no differences between preadolescent ADHD boys and the comparison group in regard to skill acquisition deficits, but ADHD boys will have more performance deficits, more problem behaviors, and fewer social skill strengths.

3) Subtypes of socially more skilled and less skilled ADHD boys can be differentiated on external variables.

4) There will be no differences between socially more skilled and less skilled ADHD boys in regard to IQ, grade level, or socio-economic status.

5) Socially less skilled ADHD boys will be reported to be more hyperactive, inattentive, aggressive, and oppositional than socially more skilled ADHD boys.

Appendix B

Methods

The social skill abilities of a clinical sample of ADHD boys and a comparison group of boys not diagnosed as ADHD were described according to a variety of technically sound behavioral rating scales. Discrete social skill abilities, such as cooperation, assertion, and self-control were assessed. Specific behaviors such as hyperactivity, inattention, aggressiveness, and oppositionality were measured to determine if they interfere with the ADHD child's prosocial behaviors. Social situations that create the most problems for ADHD children and the normal comparison group were also identified. Finally, social skill strengths were assessed and social skill deficits differentiated according to whether they were acquisition or performance problems.

Research Design

This study employed a sample survey design. Survey designs study samples selected from the population to determine the relative incidence, distribution, and interrelation of specific variables (Kerlinger, 1986). The specific variables of interest were the social skill abilities of ADHD children. The type of survey used was a mailed questionnaire.

The design methodologies utilized were descriptive and causal-comparative. The purpose of descriptive research is to "...describe systematically the facts and characteristics of a given population or area of interest, factually and accurately" (Isaac & Michael, 1981, p. 48). A major objective of this study was to determine if preadolescent boys with ADHD have social skill problems and, if so, what these specific problems are. The purpose of causal comparative research is to "...investigate possible cause-and-effect relationships by observing some existing consequence and searching back through the data for plausible causal factors" (Isaac & Michael, 1981, p. 50). A causal-comparative methodology was used to compare the differences between subtypes of socially more skilled and less skilled ADHD children, based on rating scale information, demographic data, and family profiles. This methodology also was used to determine the possible causes of social skill deficits in ADHD children by looking at differences between ADHD children and a normal comparison group. A case control approach was utilized for this purpose. According to Schlesselman (1982), the case-control approach follows a paradigm which proceeds from effect to cause: Individuals with a particular condition (the cases) are compared with

individuals without the condition (the controls) in terms of existing or past attributes thought to be relevant to the development of the condition under study.

Subjects

Fifty preadolescent boys between the ages of seven and eleven years comprised the research sample. Both the clinical sample of ADHD children and the comparison group consisted of twenty-five children each. Boys were chosen instead of girls because of their over-representation in the diagnosed condition of ADHD (6:1). Another reason for differentiating the sample by gender was to identify patterns of problems that exist among male children that might otherwise be obscured by analyses performed on heterogeneous samples (Achenbach & Edelbrock, 1978).

The clinical sample consisted of ADHD boys without specific learning disabilities (except auditory memory deficits and dysgraphia), serious emotional disturbance, or major physical handicaps in an effort to control for potential confounding effects from these factors. The specific selection criteria used in this study are shown in Table 1.

Insert Table 1 about here

The comparison group consisted of twenty-five boys not diagnosed with ADHD who were members of the same classrooms and who were matched on race. Teachers were instructed to use a systematic author-developed selection process.

Procedure and Measurement

The approach to obtaining the clinical sample of ADHD boys was a chart review utilizing the selection criteria described above. The sample was selected from the caseload of a developmental pediatrician, specializing in the care of ADHD children, who is located in a major metropolitan area of one southwestern state. An outpatient, clinic-based population of only one physician was chosen for several reasons. First, this population represented the largest single grouping of ADHD clients in the state. Second, it was desired to select children who were typical of those functioning in the community rather than in-patients in psychiatric units. This strategy was intended to avoid the confounding effects of more seriously disturbed ADHD children with co-occurring psychiatric disorders. Last, it was hoped that by

using only one well trained and experienced physician to diagnose the clinical sample, potential confounding effects of different approaches to diagnosis could be avoided and a more homogeneous ADHD population could be obtained.

The diagnosis of ADHD made by the developmental pediatrician was based on the child exhibiting at least eight of the fourteen criteria for ADHD described in the DSM-III-R as well as the physician's clinical judgement regarding the presence of other factors, including family, genetic, developmental, and behavioral history, parent and teacher reports regarding the pervasiveness of the problem, and presence of neurological soft signs.

The chart review yielded thirty-six ADHD preadolescent boys who met the above stated criteria. All of these families were mailed invitations to participate in the study by the developmental pediatrician. (See Appendix E for consent forms and letters.) The families were assured that participation in the study was strictly voluntary and that no negative consequences would occur if they declined to participate. They were also assured of complete anonymity in the reporting of results. Prepaid return envelopes were included along with a consent to release

information to the primary investigator. Twenty-seven families agreed to participate in the study but completed questionnaires were only received from twenty-five families.

Parents of the ADHD children who agreed to participate were asked to provide demographic information on their family by filling out the Family Profile Questionnaire. Parents were also asked to contact their child's homeroom teacher to request their participation in the study. Teachers were asked not only to fill out information on the ADHD child but also on a comparison child in the same classroom. Similar information was provided by the teacher on the comparison child but was totally anonymous (e.g. no name was attached), making informed consent unnecessary. The comparison child was selected according to prespecified criteria. These criteria involved selecting the first child whose name occurred after the ADHD child in the alphabet who matched the ADHD child on classroom, gender and race.

When the teachers completed this information, they were instructed to return it to the primary investigator, using a prepaid envelope that was provided. Follow-up contacts were made at two week intervals to encourage the timely return of materials.

As an incentive to participate, parents and teachers were promised a summary of the results and were paid a nominal amount for their participation.

Numerous rating scales were utilized for this study in order to yield a more comprehensive picture of the social skills and related behaviors of ADHD children. These rating scales involve behavioral checklists that are designed to provide standardized descriptions of behavior rather than diagnostic inferences (Achenbach & Edelbrock, 1986). The resulting behavior assessment of individuals is based upon observations, perceptions, and interactions of persons associated with the individual being tested (Wilson & Bullock, 1989). As recommended by Achenbach and Edelbrock (1978), only those instruments which have been well standardized and have good reliability and validity were used so that the findings from this study can be integrated with previous work in the field.

A summary of their Cronbach's alpha reliability coefficients as determined by this study are shown in Table 2. Because the sample size in this study (N=50)

Insert Table 2 about here

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is too small to obtain a stable reliability, these results are intended only as a supplement to the values reported in the literature. A review of each of the instruments used in this study in terms of the type of data provided and technical adequacy is provided below. (See Appendix F for copies of the instruments used in this study.) Where possible, these instruments were consolidated into one form. However, in cases where the copyright holders would not grant permission to reproduce their scales, the commercially available form was utilized.

Teacher ADHD Rating Scale (DuPaul, 1989). The Teacher ADHD Rating Scale is a fourteen item survey based on the DSM III-R criteria for Attention Deficit Hyperactivity Disorder (APA, 1987). A four point Likert scale, ranging from rarely to very often, is used to determine how frequently a child exhibits each of the behaviors listed. ADHD children who are receiving medication and/or other treatment to remediate their ADHD symptoms are not expected to have eight or more symptoms that are rated either a 3 (pretty often) or 4 (very often), as would be expected of an untreated ADHD child. The scale is reported to have test-retest reliability of .93 over a 2-week period and to correlate positively with direct

classroom observation. The results of this study indicated the scales' Cronbach's alpha coefficient of internal consistency to be .92.

Achenbach Child Behavior Checklist - Teacher Report Form (Achenbach & Edelbrock, 1986; Edelbrock & Reed, 1984). The Child Behavior Checklist - Teacher Report Form (CBCL-TRF) is a one hundred and thirteen item survey which uses a three-point Likert scale to obtain teacher's reports of pupil problems in a standardized format. The eight problem domains measured for six to eleven year old boys are Anxious, Social Withdrawal, Unpopular, Self-Destructive, Obsessive-Compulsive, Inattentive, Nervous-Overactive, and Aggressive. Pupil adaptive functioning in the classroom is also measured. The five dimensions of adaptive functioning measured by this scale are School Performance, Working Hard, Behaving Appropriately, Learning, and Happy. According to the manual, the test-retest reliability over one week was .90 and over two weeks was .84. Although the stability scores are good, no internal consistency reliability was reported. The results from this study found the Cronbach's alpha for the TRF to range from .73 for the Obsessive-Compulsive subscale to .97 for the Aggressive subscale, with the alpha for the total scale being .97.

Content, construct, and criterion-related validity are documented in the manual.

Conners' Teacher Rating Scale (Conners, 1990). The Conners' Teacher Rating Scale (CTRS) is a twenty-eight item survey which uses a four-point Likert scale to determine problem behaviors of the child in the areas of conduct, hyperactivity, and inattentive-passive behaviors. A Hyperactivity Index also is included in the scale for use as a primary screening device for ADHD. Both long and short versions of the CTRS exist and have created confusion regarding which form was used in the reporting of the technical data results. There have been no studies to date that have examined the test-retest reliability of the CTRS-28. However, Conners argues in his technical manual that one month test-retest reliabilities for the longer version of this instrument (CTRS-39) range from .72 to .91 and should be similar in the newer, shorter version. Cronbach's alpha internal consistency ratings for the CTRS-39 are reported to be an average of .94 for the various scales, but are also not reported in the literature for the shorter version. The alpha reliabilities calculated in this study were .89 for the Conduct subscale, .92 for the Hyperactivity scale, .84 for the Inattention subscale, and .91 for the

Hyperactivity Index. This results in an average of .89, lower than the average reported for the CTRS-39 subscales but still good for research purposes. The CTRS-39 has been repeatedly shown to have predictive, concurrent, construct, and discriminant validity. Content validity exists for the newer CTRS-28 version as well as construct validity. This version was factor analyzed by Goyette, Conners, and Ulrich (1978) and found to result in the three of the same factors as the CTRS-39: conduct, hyperactivity, and inattentive factors. The fourth factor, hyperactivity index, is noted to correlate highly with all three scales. A fifth factor consisting of five items was also evident in the CTRS-39 and has been referred to as the "sociability factor" by others using this instrument (Pelham & Bender, 1982). This factor consists of items such as "unaccepted by group", "no sense of fair play", and "does not get along well with other children". Unfortunately, factor loadings were weak, ranging from .18 to .33. Also, several of these social items are not present in the CTRS-28.

Gresham Social Skills Rating System - Teacher Form (Gresham & Elliott, 1990). The Social Skills Rating System (SRS)-Teacher Form is a fifty-seven item survey which uses two types of Likert ratings (three points

each) based on frequency and importance of the behavior being rated. The SRS Teacher Form samples the three domains of social skills, problem behaviors, and academic competence. There are three subscales of the Social Skills Scale for boys grades K-6: Cooperation, Assertion, and Self-Control. Three subscales also exist for the problem behavior scale: Internalizing, Externalizing, and Hyperactivity. Acquisition deficits can be calculated by noting when a behavior is rated with a frequency of 0 (never demonstrated) and an importance of 1 or 2 (important or critical). Similarly, performance deficits can be calculated by noting when a behavior is rated with a frequency of 1 (sometimes demonstrated) and an importance of 2 (critical). Social skill strengths are determined by frequency ratings of 2 and importance ratings of 1 or 2. Alpha internal consistency ratings for the teacher form, elementary level, are reported in the manual to be .94, .88, and .94 for the Social Skills total scale, Problem Behavior total scale and Academic Competence scale. The alpha reliability findings from this study were also very high: .96, .91, and .93 for the same scales.

Taxonomy of Problematic Social Situations (Dodge, McClaskey, & Feldman, 1985). The Taxonomy of

Problematic Social Situations (TOPS) is used to determine the social contexts presenting the most problematic tasks for children. It is a forty-four item survey developed for teachers which uses a five-point Likert rating scale. As confirmed by factor analysis, the six subscales that are measured by this instrument are: Peer Group Entry, Response to Peer Provocations, Response to Failure, Response to Success, Social Expectations and Teacher Expectations. This instrument has been pilot tested and used in research on several populations of socially rejected children in grades kindergarten through sixth grade. Cronbach's alpha reliability is reported to be .98 for the total forty-four item scale. This study confirmed the alpha reliability to be .98 for the total scale, with the subscales ranging from .87 to .95. Content validity and predictive criterion validity are reported by the test authors.

ADHD: Comprehensive Teacher's Rating Scale (Ullman, Sleator, & Sprague, 1988). The ADHD Comprehensive Teacher's Rating Scale (ACTeRS) includes twenty-four items relevant to classroom behavior. The items are rated on a five-point Likert scale, ranging from "almost never" to "almost always". Four factors are involved and comprise the Attention, Hyperactivity,

Social Skills, and Oppositional subscales. According to the manual, internal consistency ratings range from .93 to .97 for the subscales. The Cronbach's alpha reliabilities from this study were slightly lower, ranging from .90 to .95. The manual also reports test-retest reliabilities ranging from .78 to .82. Construct validity of the subscales was established by the test author through factor analysis.

Walker-McConnell Test of Children's Social Skills (Walker & McConnell, 1987). The Walker-McConnell Test of Children's Social Skills is a forty-three item survey which uses a five-point Likert scale to sample the two primary adjustment domains within the school setting that are usually considered essential to social competence: adaptive behavior and interpersonal social competence. Three subscales have been identified as sampling these school adjustment domains: Teacher Preferred Social Behavior, Peer Preferred Social Behavior, and School Adjustment Behavior. The manual reports internal consistency ratings for the subscales as ranging from .95 to .96 and found the total scale coefficient to be .97. This study confirmed the alpha coefficients for the subscales as ranging from .94 to .97 with the total scale coefficient being .98. The manual also reports test-retest subscale reliabilities

in the range of .67 to .94 for two to four week periods. One longitudinal study conducted over a six month period is reported to have found reliabilities in the range of .61 to .70 for the subscales. Content, item, factorial, discriminant, criterion, and construct validity are also reported in the manual.

Physician Survey. The Physician Survey refers to documentation of chart reviewed information on ADHD children. It was used as a preliminary screening to determine if a child meets the criteria for inclusion in this study e.g. presence of ADHD, absence of major medical or psychological disorders, etc. If the child qualifies for the study, this survey also documents his medical, educational, and psychological treatment history. A DSM-III-R checklist is also included to document the number and types of symptoms the child displayed at diagnosis as well as the severity of the condition.

Family Background Questionnaire. The Family Background Questionnaire was administered only to the families with ADHD children. The questions include demographic data, family history, the ADHD child's early developmental history, his current social history, and a family stress index.

Analysis

There were a number of measurement goals for this study. Some were descriptive and others causal-comparative. One descriptive objective for the study was to describe teacher ratings for preadolescent boys with ADHD and a normal comparison group along the dimensions measured by the following instruments: ADHD Rating Scale, Achenbach CBCL-TRF, CTRS-28, SRS-Teacher Version, TOPS, ACTeRS, and the Walker-McConnell Test of Children's Social Skills. A second descriptive objective for this study is to describe background variables, as measured by the Physician Survey (which includes treatment history information as well as a checklist of DSM-III-R symptoms), and Family Background Information Questionnaire.

A variety of descriptive statistics (means, ranges, standard deviations, frequencies, etc.) are used to report the ADHD child's family background and medical history. Current Cronbach's internal consistency reliability coefficients are reported for all of the instruments used. Chi-square is used to evaluate the results of teacher ratings where categorical or ordinal data is involved. Paired t-tests are used to compare the ADHD and comparison groups on their total social skills scores.

Univariate analysis of variance (ANOVA) is used to compare ADHD and control children as well as high and low scoring ADHD children when interval data is involved. When ANOVA with factorial designs is used to define groups, Tukey contrasts are performed as a post-hoc follow-up test to determine where differences exist. MANOVA procedures were not used because of the small sample size. In view of the large number of statistical tests performed, any result having a p-value of > .01 will be interpreted with caution in order to reduce the number of Type I errors. The results of these statistical tests will be used in an exploratory sense to help document areas where differences exist between ADHD and control children and to begin delineating possible subtypes of socially skilled and less skilled ADHD children.

Operational Hypotheses

Several hypotheses were tested using the above described analysis. The specific, measurable apriori hypotheses for the causal-comparative aspects of this study were as follows:

1. Preadolescent boys with ADHD will have fewer social skills than a comparison group, matched on race and classroom, on the following behavioral rating scales: Social Skills Rating System (SRS), Walker-

McConnel Scale of Social Competence and Social Adjustment (WM), Taxonomy of Problematic Social Situations for Children (TOPS) and the ADHD: Comprehensive Teacher Rating Scale (ACTeRS).

2. There will be no difference in the number of skill acquisition deficits on the SRS for the ADHD and comparison groups.

3. ADHD boys will have more performance deficits on the SRS than the comparison group.

4. ADHD boys will have more problem behaviors on the SRS than the comparison group.

5. ADHD boys will have fewer social skill strengths on the SRS than the comparison group.

6. There will be no differences between preadolescent boys with ADHD who have fewer social skills according to the measures listed in HO #1 and ADHD boys who have more social skills, according to IQ scores.

7. There will be no differences between preadolescent boys with ADHD who have fewer social skills according to the measures listed in HO #1 and ADHD boys with more social skills, according to grade level.

8. There will be no differences between preadolescent boys with ADHD with fewer social skills

according to the measures in HO #1 and ADHD boys with more social skills, according to socio-economic status.

9. Preadolescent boys with ADHD who have fewer social skills according to the measures listed in HO #1 will have higher teacher ratings on the Teacher DSM-III-R Checklist than ADHD boys who have more social skills.

10. Preadolescent boys with ADHD who have fewer social skills according to the measures listed in HO #1 will be more hyperactive than ADHD boys who have more social skills, according to the hyperactivity subscales of the Conners' Teacher Rating Scale (CTRS), ACTeRS, SRS, and Child Behavior Checklist - Teacher Report Form (TRF).

11. Preadolescent boys with ADHD who have fewer social skills according to the measures listed in HO #1 will be more inattentive than ADHD boys with more social skills, according to the TRF and the ACTeRS Inattention subscales.

12. Preadolescent boys with ADHD who have fewer social skills according to the measures listed in HO #1 will be more aggressive than ADHD boys who have more social skills, according to the Aggressive subscale of the TRF.

13. Preadolescent boys with ADHD who have fewer social skills according to the measures listed in HO #1 will be more oppositional than ADHD boys with more social skills, according to the ACTeRS Oppositional subscale.

Key Terms

The key terms needing definition in these objectives are as follows:

Preadolescent boys. Preadolescent boys are defined as boys who are seven through eleven years of age.

Attention Deficit Hyperactivity Disorder (ADHD). ADHD is a disorder characterized by developmentally inappropriate degrees of inattention, impulsivity, and hyperactivity (American Psychiatric Association, 1987).

Comparison Group. The comparison group in this study will be preadolescent boys in the same classroom as the ADHD child and who are selected by the teacher using predetermined criteria and a systematic selection process e.g. a child of the same race whose last name alphabetically follows the ADHD child on the class roster.

Social skills. Social skills are defined behaviorally as discrete learned responses that are observable specific behaviors that an individual

demonstrates to perform competently on a social task (Hazel & Schumaker, 1988).

Behavioral rating scales. Behavioral rating scales are instruments which allow for selected responses to Likert scale items that indicate a description of another person's behavior as the respondent sees it.

Acquisition deficits. Acquisition deficits are problems that occur when an individual has not learned skills that are necessary to exhibit a socially competent response (Kratochwill & French, 1984). It is measured on the SRS by a social skills frequency rating of 0 accompanied by an importance rating of 1 or 2 (Gresham & Elliott, 1990).

Performance deficits. Performance deficits are problems that occur when the child fails to successfully perform behaviors he is capable of performing (Kratochwill & French, 1984). It is measured on the SRS by a social skills frequency rating of 1 accompanied by an importance rating of 2 (Gresham & Elliott, 1990).

Social skills strengths. Social skill strengths are actions that promote the smooth performance of learned social skills. They are defined in the SRS as

a social skills frequency rating of 2 and an importance rating of 1 or 2 (Gresham & Elliott, 1990).

Problem behaviors. Problem behaviors are actions that hinder the performance of a learned social skill. These behaviors are defined by the SRS as externalizing, internalizing, and hyperactivity (Gresham & Elliott, 1990).

Appendix C

Results

Demographic Data

As noted in the selection criteria, none of the twenty-five ADHD children were adopted nor did they have any major medical, psychological, or educational problems. This information is not known for the comparison children. Results for the demographic information for the ADHD children are shown in Table 3. The children ranged in age from seven to eleven

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Insert Table 3 about here

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years, with the mean age being nine and a half years old. There were approximately equal numbers of children in the second through fifth grades. The ADHD children had an average of two siblings. Twenty three (92%) of the parents were in the middle to upper income categories, according to the Hollingshead two-factor index (Hollingshead & Redlich, 1958). Sixty-four percent of the ADHD children's parents were still in their first marriage, with the remainder being either divorced or remarried. The majority of families (92%) were urban residents.

Results of the medical history information on the ADHD children are shown in Table 4. The mean age at

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Insert Table 4 about here

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onset of attention problems was approximately five years, while the mean age at diagnosis was about six and one-half years. The average number of clinic visits to the developmental pediatrician's office after diagnosis was 4.6, ranging from zero to nine. Twenty-four (96%) of the ADHD children were being treated with medication, namely methylphenidate (Ritalin). Eight children (thirty-two percent) were also on imiprimine (Tofranil). Twelve children (48%) had been involved in psychological therapy and ten children (40%) had some form of educational assistance. IQ scores were available for twenty-one (84%) of the children, with full scale scores averaging 115 and ranging from 90 to 139.

Because family and medical history data were not collected on the comparison children, it is unknown whether significant differences existed for demographic variables. However, some inferences can be made from the teacher data. For example, although it is not known if any of the comparison group also had ADHD,

none were rated as having eight or more ADHD symptoms, according to teacher ratings of DSM III-R criteria. Also, no differences between ADHD children and comparison children were found on the Academic Competence subscale of the SRS, which implies that the two groups were comparable on teacher ratings of their overall academic performance as well as their specific accomplishments in math and reading.

Differences Between ADHD and Comparison Children

Prior to filling out the social skill rating scales, teachers were asked for their opinions regarding the social behavior of ADHD and comparison children. The results of teacher opinion questions regarding social status are shown in Table 5. These

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Insert Table 5 about here

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results indicated that the boys with ADHD in this study were generally accepted by their peers and were not more isolated or rejected than the comparison group. Teachers also indicated that there were no significant differences between the number of friends for ADHD and comparison children. However, there is a marked trend for the comparison group to be more accepted and have more friends. Teachers indicated

that ADHD boys were more verbally aggressive ($p<.05$) and physically aggressive ($p<.02$) than the comparison children, and clearly concluded that the ADHD children were less socially skilled ($p<.0001$).

Teacher results from the social skills rating scales were consistent with their opinions that ADHD children are less socially skilled. Initial results using paired t-tests indicated that the two groups differed at the .001 level on all the total scores of the four social skill rating scales used in this study. Analysis of variance results for each of the subscales confirmed this finding and demonstrated that all but one of the subscales were also significant at the .001 level. These results are shown in Table 6.

Insert Table 6 about here

Findings regarding acquisition and performance deficits were opposite to what was expected: There were differences in the number of acquisition deficits in cooperation, assertion, and self-control between the two groups at the .01 level but not in the number of performance deficits. Only performance deficits in self-control approached a p-value of .01. However, there also was a definite but non-significant trend for

ADHD children to have more performance deficits in the areas of cooperation and assertion. Differences in the number of social skill strengths were very pronounced ($p<.001$) between the ADHD and comparison groups. These results are reported in Table 7.

Insert Table 7 about here

Differences in the number of problem behaviors between the ADHD and comparison groups were also very striking. Ten out of the thirteen subscale and total scale scores for the CTRS, SRS, and CBCL-TRF were almost all significant at the .001 level. These results are shown in Table 8.

Insert Table 8 about here

Differences Among Subtypes of ADHD Children

In order to determine whether there may be subtypes of ADHD children who are particularly less skilled, total social skill scores of the ADHD boys were recoded into groups. First, three groups of ADHD children were created based on teacher ratings of the ADHD behaviors used in the DSM-III-R. These scores represent residual ADHD behaviors that persist despite

diagnosis and treatment. Group A consisted of nine children who were rated as having zero to two continuing symptoms of ADHD; Group B consisted of eight children who were rated as having three to seven symptoms; Group C consisted of eight children who were rated as having eight or more symptoms. Boys in Group C (e.g. those who exhibited more ADHD symptoms) consistently had fewer social skills than boys who had lower DSM-III-R ratings ($p<.05$). These results are shown in Table 9.

Insert Table 9 about here

The relationship between high DSM scores for ADHD and low social skills was investigated further by examining the relationship between more and fewer social skills and both the primary and secondary symptoms of ADHD. Two groups of ADHD children with fewer and more skills were created using a median split procedure on the total scores of each of the four instruments measuring social skills. There were approximately even numbers of ADHD children in the groups. The Fewer Skills Group was comprised of children who had low scores on the measures of social skills and the More Skills Group was comprised of

children who had high scores on the measures of social skills. (Note: High scores equate with more social skills on the ACTeRS, SRS, and WM but the reverse is true with the TOPS. High scores refer to more social situations that are problematic. Hence, children referred to as having more social skills on the TOPS are those who had lower scores e.g. experienced fewer problematic social situations.) The Fewer and More Skills Groups of ADHD children were compared on numerous variables (including grade level, IQ, SES, hyperactivity, inattention, aggression, and oppositionality) to see if differences existed.

As predicted, no differences between the skills groups were found in regard to grade level, IQ, or SES. However, differences of $p<.01$ or greater were found in mean scores of ADHD children having fewer and more skills on the ACTeRS, SRS and WM for the SRS subscale dealing with academic competence. (As noted earlier, the Academic Competence Subscale refers to teacher ratings of pupil overall academic achievement as well as specific competence in reading and math.)

Significantly higher scores on the CTRS Hyperactivity subscale ($p< .05$) were found among the children having fewer skills as determined by each of the four social skills scales. These results are shown

in Table 10. A similar relationship between fewer

Insert Table 10 about here

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social skills and hyperactivity was found with other measures of hyperactivity, including the TRF, ACTeRS, and SRS subscales.

With regard to inattention, the results were more equivocal. Children who had high inattention scores scored low on only two of the four social skill scales ($p < .001$). These results are reported in Table 11.

Insert Table 11 about here

In addition to finding a relationship between the primary symptoms of ADHD and children with fewer social skills, the effects of secondary problem behaviors was also found to be significant at the .05 level among ADHD children having fewer social skills. These results are shown in Table 12.

Insert Table 12 about here

Aggressive and oppositional behaviors were found to be most highly significant among ADHD children with

fewer social skills, with p-values ranging from .006 to .001 These results are shown in Tables 13 & 14.

Insert Tables 13 and 14 about here

In order to provide additional support for the above findings of differences between high and low scoring ADHD children derived from using a median-split procedure, a second analysis was done using normative cut-off scores presented by the test developer to determine high and low scoring groups of ADHD children. This resulted in more uneven comparison groups in that only about one-fourth to one-third of the ADHD children were considered to be less skilled. Although the smaller group size made fewer of the comparisons as highly significant, the same trends were observed as for the larger group outlined above.

Discussion

There were significant, measurable differences between the social skill abilities of preadolescent ADHD boys and the comparison group in the study. ADHD boys not only had fewer social skills but also more interfering problem behaviors and fewer social skill strengths. ADHD boys also demonstrated social skill acquisition deficits in cooperation, assertion, and

self-control, which indicates they may never have learned the skills that are necessary to exhibit socially competent responses. There was also a definite non-significant trend for ADHD boys to have more performance deficits (especially in the area of self-control), indicating that they often fail to perform the social behaviors they have learned.

Despite the increased chance of Type I errors due to the large number of tests performed, most of the results were significant at the .01 level. It also should be noted that these differences were observed by teachers during school hours when the ADHD children were on medication. It has been repeatedly shown that medication therapy not only decreases hyperactivity and inattention but also aggression, oppositionality and other negative behaviors (Gadow, Nolan, Sverd, Sprafkin, & Paolicelli, 1990; Kaplan, Busner, Kupietz, Wassermann, & Segal, 1990; Whalen, Henker, Swanson, Granger, Kliewer, & Spencer, 1987). Hence, the fact that significant differences in the primary and secondary behaviors were still evident provides even more compelling evidence that they both continue to function as underlying mechanisms and processes involved in the rejection of ADHD children.

The results of this study also suggest that within the ADHD diagnostic group there is a subgroup of particularly unskilled ADHD boys, which may account for one-fourth to one-half of the population. These socially unskilled children appear to be more hyperactive, inattentive, aggressive, and oppositional than their more socially skilled ADHD peers.

Assumptions and Limitations of the Study

The literature of the social functioning of ADHD children indicates that they are socially rejected. It is assumed that if they are socially rejected, they also have social skill deficits. A further assumption is that the instruments used in this study measure social skill deficits in ADHD children that lead to socially important outcomes. Ultimately, it is assumed that if we can accurately identify skill deficits then we can more effectively remediate them.

In terms of generalizability, this study may have several limitations. First, only preadolescent ADHD boys were selected. It is not certain whether girls or children of different ages experience the same problems. It also may be a limitation that children with Undifferentiated ADD (without hyperactivity) were not studied. Although it has been shown that this group of children is also "at risk" for peer

relationship problems (King & Young, 1982), they may present a different subtype in that externalizing behaviors (such as aggression) are not as common in this population.

The fact that ADHD boys with significant learning disabilities were excluded from the study may be a more serious limitation. Due to the high co-occurrence of ADHD and LD, removing all learning disabled children from samples of ADHD children may result in an unrepresentative sample of ADHD children (Douglas, 1983). However, despite the results of many studies that indicate that there is a relationship between LD and ADHD, the nature of this relationship has not been well defined (Shaywitz & Shaywitz, 1988).

Subjects for this study also were selected from the private practice of a single developmental pediatrician in one southwestern state. Thus, the results of this study may be more favorable than with clients in other geographic regions and/or those who are less able to afford multi-modal medical treatment (which includes referrals for educational and behavioral treatment).

The finding of no effect for SES may have been the result of the sample being tightly clustered along higher SES levels. This sample consisted primarily of

middle and upper middle class families; hence, the range of scores may have been too limited to identify differences. However, in support of these findings, it should be noted that Achenbach and Edelbrock (1986) reported that the effects of SES on their large standardization sample for the Child Behavior Checklist--Teacher Report Form were small, accounting for less than one percent of the variance. The effects of race are also unknown in this study, since only caucasian males were studied.

Finally, using only behavior rating scales was both a strength and limitation. It was a strength because of their technical adequacy and the fact that resulting data is more objective and reproducible. It is a limitation because rating scale methodology is probably not very sensitive to subtle developmental differences unless the same rater assesses children at progressive developmental levels (Gresham & Elliott, 1990). This may have contributed to the lack of significance for age found in this study. Rating scales also can be criticized because only the data contained on the checklists are retrieved. Other important observations are overlooked. For example, it has been observed that although ADHD children talk more they are less efficient in organizing and communicating

information to peers; in fact, ADHD children may be very intrusive into other children's conversations but fail to respond to questions or verbal initiations from the same children (Cunningham & Siegel, 1987; Landau & Milich, 1988). Perhaps it is possible to piece together this observation by doing an item analysis of rating scale items, such as "interrupts conversations of others" and "doesn't listen to what others say", but the importance of this combination of behaviors on social relationships may still be overlooked. Hence, observation in natural settings is still an important adjunct to rating scale assessment.

According to Gresham (1988), social skills should be multi-operationalized, using various types of assessment procedures to document convergent and discriminant validation. Unfortunately, this ideal approach to assessment of social skills requires a highly trained evaluator and is very time-consuming and costly. It is encouraging to note, however, that the results of the four social skills rating scales used in this study were highly consistent, suggesting that they may all be tapping similar constructs.

Implications

The implications of this study are that social skill deficits may be so prevalent among ADHD children

as to warrant inclusion in the diagnostic criteria for this syndrome. This might be particularly appropriate if subtypes of children within the ADHD category are differentiated in future editions of the DSM-R. However, it must also be noted that social skill deficits are also characteristic of other populations, such as learning disabled and behavior disordered children. Consequently, it may be even more appropriate to consider social skills deficits as a frequently co-occurring problem similar to learning disabilities. In fact, social skill deficits may be yet another form of learning disabilities. This view is supported in the proceedings of the 1987 National Conference on Learning Disabilities, where it was recommended that the definition of learning disabilities in Public Law 94-142 should be revised to include social skill problems as a specific learning disability (Kavanagh & Truss, 1988).

Over five years ago it was noted by Whalen and Henker (1985) that despite numerous anecdotal reports and burgeoning research evidence that the social realm is particularly problematic for many children with attention deficits, little systematic effort has been made to either incorporate social skills problems as a defining feature of attention deficit disorder or

emphasize the importance of social skills training in behavioral management programs. According to Whalen and Henker (1985), "Social difficulties are woven into the fabric of this disorder, yet they are only given perfunctory treatment in clinical settings" (p. 471). This conclusion is still valid today.

The most obvious reason for this continued problem is the lack of adequate research to demonstrate the exact nature and extent of social skills problems among ADHD children. Another reason for this problem is the lack of a commonly accepted definition of social skills and social competence. Yet another problem is lack of adequate assessment tools to help identify/classify social skills problems and a lack of program planning tools to help tailor an intervention/therapy program to the child's specific social skill knowledge and/or performance deficits. Clearly, we must begin to weed our way out of this "nosological thicket" before we can adequately diagnose the social behavior problems of ADHD children and begin to prevent and/or remediate the devastating effects of peer rejection in this population.

Appendix D

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Appendix E

Consent Forms and Letters

January 9, 1991

Department of Psychiatry
University of Vermont
1 South Prospect Street
Burlington, VT. 05401-3456

Dear Dr. Achenbach,

I am currently a doctoral candidate in the Family Relations and Child Development Department at Oklahoma State University and am in the process of completing my dissertation, entitled Social Skills of Preadolescent Boys with Attention Deficit Hyperactivity Disorder. My research design is descriptive-comparative, involving a clinical sample of twenty-five and a normal comparison group of twenty-five for a total N of fifty children. Univariate analysis of variance will be used to analyze the resulting data. The purpose of my study is to demonstrate if differences in social skill abilities exist between these two groups of children. The significance of such a difference would help to further define the problems encountered by children with ADHD as well as to alert caregivers as to the specific types of remediation needed.

I am planning to utilize numerous instruments in my study to document the general behavioral functioning of children in the study as well as their specific social skill abilities. These instruments include the Gresham Social Skills Rating System (Parent and Teacher versions), the Conner's Parent and Teacher Rating Scales (CPRS-28 & CTRS-48), the Piers-Harris Children's Self Concept Scale, and the Dodge Taxonomy of Problematic Situations Survey. With your permission, I would also like to utilize the Child Behavior Checklist and the Teacher's Report Form.

A full proposal will be submitted to my committee and then to IRB within the next month. Thus, I would appreciate hearing from you at your earliest convenience. I have been utilizing the CBCL, TRF, and Direct Observation Form in my practicum work over the past year and have found them to be most beneficial. I hope you will grant me permission to reproduce your instruments for my dissertation research so that I can more formally collect data and analyze the results.

Sincerely,

Susan M. Istre

January 9, 1991

Laboratory of Behavioral Medicine
Children's Hospital National Medical Center
Michigan Ave. N.W.
Washington, D.C. 20010

Dear Dr. Conners,

I am currently a doctoral candidate in the Family Relations and Child Development Department at Oklahoma State University and am in the process of completing my dissertation, entitled Social Skills of Preadolescent Boys with Attention Deficit Hyperactivity Disorder. My research design is descriptive-comparative, involving a clinical sample of twenty-five and a normal comparison group of twenty-five for a total N of fifty children. Univariate analysis of variance will be used to analyze the resulting data. The purpose of my study is to demonstrate if differences in social skill abilities exist between these two groups of children. The significance of such a difference would help to further define the problems encountered by children with ADHD as well as to alert caregivers as to the specific types of remediation needed.

I am planning to utilize numerous instruments in my study to document the general behavioral functioning of children in the study as well as their specific social skill abilities. These instruments include the Gresham Social Skills Rating System (Parent and Teacher versions), the Child Behavior Checklist and the Teacher's Report Form, the Piers-Harris Children's Self Concept Scale, and the Dodge Taxonomy of Problematic Situations Survey. With your permission, I would also like to utilize the Conner's Parent Rating Scale and Teacher Rating Scale (CPRS-28 & CTRS-48).

A full proposal will be submitted to my committee and then to IRB within the next month. Thus, I would appreciate hearing from you at your earliest convenience. I have been utilizing the CPRS and CTRS in my practicum work over the past year and have found them to be most beneficial. I hope you will grant me

permission to reproduce your instruments for my dissertation research so that I can more formally collect data and analyze the results.

Sincerely,

Susan M. Istre

January 9, 1991

Western Psychological Services
Publishers & Distributors
12031 Wilshire Boulevard
Los Angeles, Calif. 90025

Dear Sirs:

I am currently a doctoral candidate in the Family Relations and Child Development Department at Oklahoma State University and am in the process of completing my dissertation, entitled Social Skills of Preadolescent Boys with Attention Deficit Hyperactivity Disorder. My research design is descriptive-comparative, involving a clinical sample of twenty-five and a normal comparison group of twenty-five for a total N of fifty children. Multivariate analysis of variance will be used to analyze the resulting data. The purpose of my study is to demonstrate if differences in social skill abilities exist between these two groups of children. The significance of such a difference would help to further define the problems encountered by children with ADHD as well as to alert caregivers as to the specific types of remediation needed.

I am planning to utilize numerous instruments in my study to document the general behavioral functioning of children in the study as well as their specific social skill abilities. These instruments include the Gresham Social Skills Rating System (Parent and Teacher versions), the Conner's Parent and Teacher Rating Scales (CPRS-28 & CTRS-48), the Achenbach Child Behavior Checklist and Teacher's Report Form, and the Dodge Taxonomy of Problematic Situations Survey. With your permission, I would also like to utilize the Piers-Harris Children's Self Concept Scale.

A full proposal will be submitted to my committee and then to IRB within the next month. Thus, I would appreciate hearing from you at your earliest convenience. I have been utilizing the Piers-Harris Children's Self Concept Scale in my practicum work over the past year and have found it to be most beneficial.

I hope you will grant me permission to reproduce this instrument for my dissertation research so that I can more formally collect data and analyze the results.

Sincerely,

Susan M. Istre

January 21, 1991

Metritech Inc.
111 North Market Street
Champaign, Illinois 61820

Dear Mona,

Thank you for the information you provided me on the phone regarding the ACTeRS instrument. I am pleased that your company is so supportive for further research on this tool. I am anxious to receive the manual and recent research articles you are forwarding to me.

As we discussed, I am currently a doctoral candidate in the Family Relations and Child Development Department at Oklahoma State University and am in the process of completing my dissertation, entitled Social Skills of Preadolescent Boys with Attention Deficit Hyperactivity Disorder. My research design is a descriptive-comparative survey, involving a clinical sample of twenty-five and a normal comparison group of twenty-five for a total N of fifty children. Univariate analysis of variance will be used to analyze the resulting data. The purpose of my study is to demonstrate if differences in social skill abilities exist between these two groups of children. The significance of such a difference would help to further define the problems encountered by children with ADHD as well as to alert caregivers as to the specific types of remediation needed.

I am planning to utilize numerous instruments in my study to document the general behavioral functioning of children in the study as well as their specific social skill abilities. These instruments include the Achenbach Child Behavior Checklist and Teacher Report Form, the Gresham Social Skills Rating System (Parent and Teacher versions), the Conner's Parent and Teacher Rating Scales (CPRS-28 & CTRS-48), the Piers-Harris Children's Self Concept Scale, and the Dodge Taxonomy of Problematic Situations Survey. With your permission, I would also like to utilize the ADHD: Comprehensive Rating Scale by Sprague and Ullman.

A full proposal will be submitted to my committee and then to IRB within the next month. I am hoping to be able to complete my study by May (or August at the latest). Thus, I would appreciate hearing from you at

your earliest convenience. I have observed that the ACTeRS is now being used at the Neurobehavior Clinic at Oklahoma Children's Hospital and have been told that they have found it to be most beneficial. Thus, I am hopeful that you will grant me permission to reproduce your instrument for my dissertation research. Because I am planning incorporate a large number of instruments in my study, it has been suggested that I consolidate all the questions into one format to reduce the bulk of my overall instrument. I hope this approach would be acceptable to you.

Thank you in advance for your time and consideration. I will be looking forward to your reply.

Sincerely,

Susan M. Istre

February 5, 1991

Pro-Ed.
8700 Shoal Creek Blvd.
Austin, Texas 78759

Dear Mr. Pearson,

Thank you for the permission you granted me on the phone to reproduce the Walker-McConnell Scale of Social Competence and School Adjustment in my dissertation research. Because of the large number of questionnaires I am using my study, consolidation of questions was deemed essential in order to enhance participant willingness to complete the survey. I will, ofcourse, acknowledge your copyright and permission to reproduce on my survey form.

As we discussed, I am currently a doctoral candidate in the Family Relations and Child Development Department at Oklahoma State University and am in the process of completing my dissertation, entitled Social Skills of Preadolescent Boys with Attention Deficit Hyperactivity Disorder. My research design is a descriptive-comparative survey, involving a clinical sample of twenty-five and a normal comparison group of twenty-five for a total N of fifty children. Univariate analysis of variance will be used to analyze the resulting data. The purpose of my study is to demonstrate if differences in social skill abilities exist between these two groups of children. The significance of such a difference would help to further define the problems encountered by children with ADHD as well as to alert caregivers as to the specific types of remediation needed.

In addition to the Walker-McConnell Scale, I will be using numerous other instruments in my study to document the general behavioral functioning of children in the study as well as their specific social skill abilities. These instruments include the Achenbach Child Behavior Checklist and Teacher Report Form, the Gresham Social Skills Rating System (Parent and Teacher versions), the Conner's Parent and Teacher Rating Scales (CPRS-28 & CTRS-48), the Piers-Harris Children's Self Concept Scale, the Dodge Taxonomy of Problematic Situations Survey, and the Comprehensive Rating Scale.

A full proposal will be submitted to my committee and then to IRB within the next month. I am hoping to be able to complete my study by May. I will forward a

copy of my results to you as soon as they are available.

Thank you so much for you assistance. I am very grateful that your company is supportive of student research on the Walker-McConnell scale. It will be my pleasure to become a paying consumer of your products after obtaining my Ph.D!

Sincerely,

Susan M. Istre

February 12, 1991

DEPT. OF PSYCHIATRY
UNIVERSITY OF MASSACHUSETTS
MEDICAL CENTER
55 LAKE AVENUE NORTH
WORCESTER, MA. 01655

DEAR DR. BARKLEY,

I AM CURRENTLY A DOCTORAL STUDENT IN FAMILY RELATIONS AND CHILD DEVELOPMENT AT OKLAHOMA STATE UNIVERSITY AND AM IN THE PROCESS OF FINALIZING MY DISSERTATION PROPOSAL ENTITLED, "TEACHER PERCEPTIONS OF THE SOCIAL SKILLS OF CHILDREN WITH ATTENTION DEFICIT HYPERACTIVITY DISORDER". IN ADDITION TO USING THE GRESHAM SOCIAL SKILLS RATING SYSTEM AND THE WALKER-MCCONNELL SCALE OF SOCIAL COMPETENCE, I AM ALSO PLANNING TO USE THE CONNER'S TEACHER RATING SCALE AND THE ADHD COMPREHENSIVE TEACHER'S RATING SCALE. HENCE, I WOULD VERY MUCH APPRECIATE A COPY OF YOUR UNPUBLISHED RESULTS USING THE CTRS AND ACTERS, AS DESCRIBED IN YOUR RECENT ARTICLE ENTITLED, "A COMPREHENSIVE EVALUATION OF ATTENTION DEFICIT DISORDER WITH AND WITHOUT HYPERACTIVITY AS DEFINED BY RESEARCH CRITERIA".

I AM PLANNING TO SUBMIT A FULL PROPOSAL TO MY COMMITTEE WITHIN THE NEXT FEW WEEKS AND WOULD LIKE TO INCLUDE YOUR DATA IN MY LITERATURE REVIEW. HENCE, YOUR PROMPT RESPONSE WOULD BE GREATLY APPRECIATED!

THANK YOU IN ADVANCE FOR YOUR HELP. THANKS ALSO FOR YOUR CONTINUING GOOD WORK IN THE AREA OF ADHD. IN ADDITION TO BEING A PROFESSIONAL WORKING WITH CHILDREN AND FAMILIES WITH ADHD, I AM ALSO THE MOTHER OF TWO BOYS WITH THIS PROBLEM. I AM HOPEFUL THAT THE MORE WE CAN LEARN ABOUT ADHD, THE BETTER WE WILL BE AT EARLY IDENTIFICATION AND EARLY INTERVENTION TO ASSURE BETTER LONG TERM OUTCOMES FOR OUR CHILDREN.

SINCERELY,

SUSAN M. ISTRE, RN, MN
DOCTORAL CANDIDATE, FRCD

February 13, 1991

UNIVERSITY ASSOCIATES IN PSYCHIATRY
1 SOUTH PROSPECT STREET
BURLINGTON, VT 05401-13456

DEAR MS. BROWN,

I WAS DISAPPOINTED TO RECEIVE YOUR LETTER INDICATING THAT I COULD NOT REPRODUCE THE CBCL AND TRF IN MY DISSERTATION RESEARCH. I AM USING EIGHT OTHER INSTRUMENTS IN MY STUDY AND AM CONCERNED THAT IF I DO NOT CONSOLIDATE MY FORMATS AND DELETE REDUNDANT DEMOGRAPHIC MATERIALS, PARENTS AND TEACHERS WILL NOT COOPERATE BY COMPLETING ALL THE INFORMATION I AM REQUESTING.

I HOPE YOU WILL RECONSIDER YOUR DECISION IN LIGHT OF MY ABOVE STATED CONCERNS. IF YOU STILL FEEL THAT I MUST UTILIZE YOUR FORMS FOR MY RESEARCH, AN ORDER FORM IS ENCLOSED. PLEASE APPLY ANY RESEARCH DISCOUNTS THAT MIGHT BE AVAILABLE TO HELP ME STAY WITHIN MY LIMITED STUDENT BUDGET.

SINCERELY,

SUSAN M. ISTRE, RN, MN
DOCTORAL CANDIDATE,FRCD
OSU

South Harvard
200
Oklahoma 74135
41 3224

170

lsa Developmental Pediatrics & Center for Family Psychology

25 March 1991

Dear Mrs.

As you are probably aware, some children with Attention Deficit Hyperactivity Disorder (ADHD) have problems making and/or keeping friends. This can result in feelings of isolation, rejection, or poor self-esteem. It is important for professionals working with ADHD children and their families to determine how many children with ADHD also have social skills problems as compared to other children of their same age. This information will help us to plan more appropriate treatment programs and strategies.

We would very much like you to participate in this important research study. It would require the participation of you, your child, and your child's homeroom teacher (or another teacher who knows your child well). Your role would be to fill out a questionnaire and a few rating forms describing your ADD child and your family -- and also to obtain the cooperation of your child and his teacher in providing additional information. Your child would only need to fill out a few brief checklists. The teacher would need to fill out several checklists on your child -- as well as another child in the classroom whose identity would remain anonymous. Everyone who participates in the study will be paid a small amount: the teacher will receive $10.00, you will receive $5.00, and your child will receive $3.00 as an incentive to complete the forms. A pre-paid envelope will also be provided for both you and the teacher to return the forms.

All information obtained from this study will be kept confidential and only reported in terms of the combined results of the information collected. We will also send you a summary of the results, if you desire.

Please return the enclosed postcard to let us know if you are willing to participate in this study. If we have not heard from you with a week, Susan Istre will call to find out your decision. Susan is a Doctoral Student in Child Development from Oklahoma State University -- and also a Nurse and the mother of two ADHD boys. She has undertaken this research not only to complete the requirements of her Degree, but also to help find some answers to this perplexing question of social skills problems in ADHD children.

Be assured that your participation is completely voluntary and that no negative consequences will result if you choose not to participate in this study.

I hope you will consider being a part of this important research project to help better describe the social problems faced by ADHD children. I believe it will make an important contribution to our limited knowledge in this particular area. Thank you.

Sincerely,

Rich

Richard C. Irwin, M.D., F.A.A.P.

)uth Harvard
00
)klahoma 74135
)-3224

lsa Developmental Pediatrics & Center for Family Psychology

9 April 1991

Dear

Thank you VERY much for agreeing to participate in our study on social skills in ADD children. Your input will be very important and all information will be kept strictly confidential. To help in this regard, please review, sign, and immediately return this **Release of Confidential Information** which will allow me to share chart information with Susan Istre for purposes of statistical analysis (a stamped self-addressed envelope is enclosed for your convenience) Again, I wish to reassure you that information is referred to only as a "case number" in order to remain anonymous.

Tulsa Developmental Pediatrics and Center for Family Psychology/Dr Irwin requests permission from _____ to release confidential information regarding _____ (Date of Birth)_____. This information will be released to:

Susan Istre, R.N., M.N.
817 N.W 41st Street
Oklahoma City, Oklahoma 73118

Specific material to be released. Selected items from prenatal, birth and past medical history, family-social history, developmental-behavioral history, school history, and psychological-educational information

Purpose of Disclosure: For the sole use by Richard C. Irwin, M D and Susan Istre, R.N, M.N. for research purposes regarding the Study on Social Skills of ADD Children

My signature indicates that I know this information is being disclosed, that I may revoke this consent at anytime (in writing), and am also aware of the consequences as a result of my signing. My signature also means that I have read this form and/or have had it read to me in a language I understand All blank spaces have been filled in except my signature and the date. This consent form expires one year after the date of signing unless revoked by me prior to that time. A photostatic copy of this authorization shall be considered as valid as the original.

_____ _____

(Signature of Client/Parent/Guardian) (Date Signed)

THANK YOU! Richard C Irwin, M D.

April 5, 1991

Dear Parent,

Thank you so much for agreeing to participate in our study entitled "Social skills of preadolescent boys with Attention Deficit Disorder". We hope that it will make a significant contribution to the professional literature, enabling others working with ADD children to be more aware of the special social problems they encounter.

Enclosed is a packet of rating scales and questionnaires for you, your child, and your child's teacher. Although they look long, they do not take very much time to complete since they only require that you circle a number for your answer.

We would like you to be the person coordinating the return of these materials. This involves not only completing your forms, but also sitting down with your child to encourage him to complete his forms. You can tell your child that we will pay him a dollar for each of the three forms he completes as an incentive to do them quickly. You will also need to ask the child's homeroom teacher (or another teacher who knows him well) to fill out his/her forms and return them to you as soon as possible. A week is usually a reasonable time for teachers. We will offer the teachers a ten dollar incentive for their participation in this study in hopes that they will cooperate in a timely way. We would also like to offer you a five doll[illegible]ordination fee as a small token of our thanks fo[illegible]he work you will do on behalf of this study [illegible] ADD children it will benefit.

Once all the forms have b[illegible]pleted, please check them to make sure all the questions have been answered. IT IS VERY IMPORTANT TO TRY TO ANSWER ALL QUESTIONS SO THE SCORING WILL BE ACCURATE. After you and your child have completed your forms, please return them to Susan Istre in the pre-paid envelope provided. The teachers should do the same when they are finished. As soon as we receive the forms, the payment will be sent to you and the teacher and we will get busy analyzing the data so we can share a summary of the study results with you as soon as possible.

Our goal is to have all the questionnaires returned as soon as possible. If you have any questions or problems, please feel free to call Susan

at (405) 524-4097 or Dr. Irwin's office (918) 743-3224.

THANK YOU AGAIN FOR YOUR WILLINGNESS TO PARTICIPATE IN THIS RESEARCH STUDY!!! We greatly appreciate you help.

Sincerely,

Richard C. Irwin, MD
Tulsa Developmental Pediatrics

Susan M. Istre,RN, MN
Doctoral Candidate, OSU

April 22, 1991

Dear Parent,

We are urgently requesting that you respond to our request for your participation in the study on social skills in ADD boys. We currently have only about twenty families participating and must have at least five or ten more in order to conduct an accurate statistical analysis. We hope you will agree to help us learn more about this difficult problem area. The questionnaires will only take about an hour of your and the teacher's time to complete and we will gladly reimburse you for your help as follows: $10.00 for teachers, $5.00 for parents, and $3.00 for children.

Enclosed is another response card for you to indicate your decision. WE ARE DESPERATE TO HEAR FROM YOU SO PLEASE MAIL THE RESPONSE CARD TODAY! School will be out soon and will prevent us from collecting any more data this year.

Sincerely,

Richard C. Irwin, MD

Susan Istre, RN, MN

ADD SOCIAL SKILLS STUDY

INFORMATION FOR TEACHERS PARTICIPATING IN THE STUDY

Thank you for agreeing to participate in this research study. Although the packet of forms looks rather lengthy, it should only take approximately an hour to complete. After you return your forms in the enclosed self-addressed, stamped envelope, we will send you ten dollars as a token of our appreciation for your help. We would also be glad to give you a summary of the results of this study, if you are interested.

The following information is provided to give you a better understanding of the study and how to get started.

1. **WHO IS INVOLVED IN THE STUDY**

This study involves both the ADHD child whose parent has requested your participation and another comparison child in the class whose identity shall remain anonymous. The comparison child should selected by picking the boy whose last name follows the ADHD child on the class roster e.g. has the next name in the alphabet from the ADHD child and is of the same race as the ADHD child. DO NOT PUT THIS CHILD'S NAME ANYWHERE ON THE FORMS TO BE COMPLETED. Just use the packet of information marked "Comparison child" that has a special I.D. number assigned for this child.

2. **WHAT INFORMATION TO PROVIDE**

Fill out the same forms on both child[illegible]aking care to use the properly marked packet[illegible]ch child. PLEASE ANSWER ALL OF THE QUEST[illegible]N POSSIBLE. BLANKS MAY CREATE PROBLEMS I[illegible]LYSIS.

3. **WHEN TO COMPLETE THE**

Please complete the fo[illegible]AS SOON AS POSSIBLE and return them to Susan [illegible]tre in the pre-paid return envelope. We have [illegible]llowed about a week for you to accomplish this task. Your prompt reply will be greatly appreciated.

4. **WHERE TO DO THIS PROJECT**

It is up to you and your school administration regarding whether you complete these materials on school time or on your own time. We do plan to provide you with a ten dollar payment as a small token of our appreciation for your time.

5. **WHY BE INVOLVED IN THIS PROJECT**

Although we know some children with ADHD have social skills problems, there is very little in the literature on this topic. We expect the results of this study to directly benefit the ADHD student in this study by helping you and his parents to understand more about the nature of social skills problems in this population group. We also plan to make this information available to other professionals through the professional literature.

WE WILL MAIL YOUR TEN DOLLAR GIFT FOR PARTICIPATING IN THIS STUDY AS SOON AS YOUR COMPLETED FORMS ARE RETURNED. PLEASE DROP US A NOTE ALONG WITH YOUR FORMS INDICATING IF YOU WOULD LIKE A SUMMARY OF OUR STUDY RESULTS AND WHERE THEY SHOULD BE SENT.

IF YOU HAVE ANY QUESTIONS OR PROBLEMS, PLEASE CALL SUSAN ISTRE AT (405) 524-4087 OR DR. IRWIN'S OFFICE AT (918) 743-3224.

THANK YOU AGAIN FOR YOUR HELP WITH THIS PROJECT!!! WE ARE VERY GRATEFUL FOR YOUR PARTICIPATION.

May 15, 1991

Dear Teacher,

THANK YOU SO MUCH FOR PARTICIPATING IN THE ADD SOCIAL SKILLS STUDY! Dr. Irwin, the child's family and I all appreciate your sending back our materials, as requested. Enclosed is your check for $10.00.

Thanks again for your help. I wish all teachers were as cooperative and concerned as you.

Sincerely,

Susan Istre, RN, MN

May 15, 1991

Dear Teacher,

THANK YOU FOR PARTICIPATING IN THE ADD SOCIAL SKILLS STUDY AND FOR RETURNING YOUR QUESTIONNAIRES IN SUCH A TIMELY WAY! Enclosed is your check for $10.00.

Unfortunately, since the control child selected randomly had too many characteristics of an ADD child, we would like you to complete another questionnaire on THE NEXT BOY FOLLOWING THE ADD BOY IN THE ALPHABET WHO DOES NOT MEET EIGHT OR MORE OF THE FOLLOWING CRITERIA:

*OFTEN FIDGETS WITH HANDS OR FEET OR SQUIRMS IN SEAT
*HAS DIFFICULTY REMAINING SEATED WHEN IT IS REQUIRED
*IS EASILY DISTRACTED BY EXTRANEOUS STIMULI
*HAS DIFFICULTY AWAITING TURN IN GAMES OR GROUP SITUATIONS
*OFTEN BLURTS OUT ANSWERS TO QUESTIONS BEFORE THEY HAVE BEEN COMPLETED
*HAS DIFFICULTY FOLLOWING THROUGH ON INSTRUCTIONS FROM OTHERS E.G. FAILS TO FINISH CHORES
*OFTEN SHIFTS FROM ONE UNCOMPLETED ACTIVITY TO ANOTHER
*HAS DIFFICULTY PLAYING QUIETLY
*OFTEN TALKS EXCESSIVELY
*OFTEN INTERRUPTS OR INTRUDES ON OTHERS
*OFTEN DOES NOT SEEM TO LISTEN TO WHAT IS BEING SAID TO HIM
*OFTEN LOSES THINGS NECESSARY FOR TASKS OR ACTIVITIES
*OFTEN ENGAGES IN PHYSICALLY DANGEROUS ACTIVITIES WITHOUT CONSIDERING POSSIBLE CONSEQUENCES

This child should be characteristic of a "normal" child of the same age, grade, and race as the ADD child in your classroom. Please note on the questionnaire how many children you bypassed in the alphabet before finding a child who met these criteria. We will pay you an additional $5.00 for helping us select a more appropriate comparison child to help reimburse you for your time.

Enclosed is a another copy of the questionnaires on social skills and a self-addressed envelope to

return these materials to us when they have been completed.

THANK YOU IN ADVANCE FOR YOUR HELP! We are hoping this study will document whether social skills problems exist in ADD boys as compared to a "normal" control group, so we must be very careful about the data we are using. Your patience and persistence are greatly appreciated.

Sincerely,

Susan Istre, RN, MN

May 15, 1991

Dear Teacher,

Thank you so much for completing the information on a second comparison child for the study on social skills of boys with Attention Deficit Disorder. This will help make our findings much more valid! Enclosed is a check for $5.00 for your assistance. It was especially kind of you to go the "extra mile" with us. Dr. Irwin, the child's family, and I all really appreciate your help.

Sincerely,

Susan Istre, RN, MN

May 15, 1991

Dear Parent,

THANK YOU SO MUCH FOR PARTICIPATING IN THE STUDY ON SOCIAL SKILLS OF ADD BOYS! We really appreciate you and your son
completing the materials, even though it may have been difficult for you. Enclosed is your check for $8.00.

PLEASE CONTINUE TO ENCOURAGE YOUR CHILD'S TEACHER TO RETURN MATERIALS ALSO! We still need a few more data sets in order to complete this study. If the teacher cannot find her materials, please call me collect at (405) 524-4087 and I will be glad to forward him/her another set.

THANKS AGAIN for all your help.

Sincerely,

Susan Istre, RN, MN

May 25, 1991

Dear Parent,

THANK YOU SO MUCH FOR PARTICIPATING IN THE STUDY ON SOCIAL SKILLS OF ADD BOYS!! We really appreciate you and your son completing the materials in such a timely way. Enclosed is a check for $8.00 for your participation. Please be aware that your son's teacher has returned her materials and has also been paid.

THANKS AGAIN FOR ALL YOUR HELP!

Sincerely,

Susan Istre, RN, MN

RE: STUDY ON SOCIAL SKILLS OF ADD BOYS

HELP!!! HELP!!! HELP!!! HELP!!! HELP!!! HELP!!!

WE KNOW YOU ARE BUSY BUT WOULD LIKE TO REMIND YOU TO RETURN YOUR FORMS FOR THE STUDY ON SOCIAL SKILLS OF ADD BOYS AS SOON AS POSSIBLE.

PLEASE BE AWARE THAT YOUR CHILD'S TEACHER HAS___ HAS NOT___ RETURNED HIS/HER FORMS.

REMEMBER: WE MUST HAVE THE FORMS RETURNED BEFORE SCHOOL IS OUT OR WE CANNOT COMPLETE THE STUDY. **PLEASE HELP US GET FINISHED!**

CALL SUSAN COLLECT AT (405) 524-4087 IF YOU HAVE ANY QUESTIONS OR PROBLEMS.

June 3, 1991

Dear Parent,

As we recently discussed on the phone, the time is almost up for all forms to be returned for the study on social skills of ADD boys. Although we already have your family data, it is critical that we also receive the data from your child's teacher. Dr. Irwin and I have only received data from twenty teachers and must have twenty-five in order to perform the statistical analysis planned. I hope you were able to contact the teacher to encourage his/her participation in the study. If the teacher cannot locate the forms or has any questions or problems, please call me collect at (405) 524-4087. I am very anxious to conclude the data collection portion of this study so that we can begin analyzing the results. PLEASE HELP IF YOU CAN!!!

Very Sincerely,

Susan Istre, RN, MN

Appendix F

Instruments Used in the Study

1. Physician Survey

   Screening Information
   DSM-III-R Checklist for ADHD
   Treatment History Information

2. Family Background Questionnaire

3. Teacher Questionnaire

   General Information
   ADHD Rating Scale
   Conner's Teacher Rating Scale
   ADHD: Comprehensive Teacher's Rating Scale
   The Walker-McConnell Scale of Social Competence and School Adjustment
   Taxonomy of Problematic Situations

4. The Child Behavior Checklist--Teacher Report Form

5. The Gresham Social Skills Rating System-Teacher Form

PHYSICIAN SURVEY

SCREENING INFORMATION
CHILD'S ID #_____

BIRTHDATE_____
(WITHIN 4/79 - 2/83)

	YES	NO
DIAGNOSED BY SAME PHYSICIAN		
SEEN WITHIN 6 MO.-1 YR		
BIOLOGICAL CHILD OF PARENT		
CURRENT PRESENCE OF DSM-III-R DX:		
ADHD		
OPPOSITIONAL DEFIANT DISORDER		
SPECIFIC DEVELOPMENTAL DISORDERS-		
DEVELOPMENTAL ARTIC. DISORDER (MILD)		
DEVELOPMENTAL COORD. DISORDER (DYSGRAPHIA)		
DEVELOPMENTAL DISORDERS NOS (E.G. AUDITORY MEMORY DEFICIT, MILD OTHER DX)		
SPECIFY:_____		
CURRENT ABSENCE OF OTHER DSM III-R DX (ATTACH/ADJUSTMENT DISORDERS, DEPRESSION, OTHER LD, ETC.)		
ABSENCE OF SCHOOL BASED DX OF LD /SPECIAL CLASSES		
ABSENCE OF MAJOR MEDICAL DISORDERS (SEIZURES, CP, DIABETES, ETC.)		
WITHIN NORMAL LIMITS FOR HEIGHT & WEIGHT		
*ABSENCE OF SUBSTANCE ABUSE DURING PREGNANCY		
RX MEDS		
ALCOHOL		
OTHER (SPECIFY CIGARETTES, ETC.)_____		

PREGNANCY WAS CARRIED TO TERM _____

ABSENCE OF FETAL DISTRESS _____

ABSENCE OF HARD NEUROLOGICAL FINDINGS _____
APPROPRIATE DEVELOPMENTAL MILESTONES _____

SITTING UP _____

CRAWLING/WALKING _____

TALKING _____

BIRTHWEIGHT > 6 LBS. < 10 LBS. _____

ABSENCE OF MOD/SEVERE VISION OR HEARING PROBS._____

ABSENCE OF HISTORY OF PHYSICAL/SEXUAL ABUSE _____

DSM III-R CHECKLISTS:

INDICATE FREQUENCY OF SYMPTOMS AS FOLLOWS:

1 = RARELY 2 = OCCASIONALLY 3 = PRETTY OFTEN
4 = VERY OFTEN

ATTENTION DEFICIT HYPERACTIVITY DISORDER (SX AT TIME OF DX)

1	2	3	4	1) OFTEN FIDGETS WITH HANDS OR FEET OR SQUIRMS IN SEAT
1	2	3	4	2) HAS DIFFICULTY REMAINING SEATED WHEN IT IS REQUIRED
1	2	3	4	3) IS EASILY DISTRACTED BY EXTRANEOUS STIMULI
1	2	3	4	4) HAS DIFFICULTY AWAITING TURN IN GAMES OR GROUP SITUATIONS
1	2	3	4	5) OFTEN BLURTS OUT ANSWERS TO QUESTIONS BEFORE THEY HAVE BEEN COMPLETED
1	2	3	4	6) HAD DIFFICULTY FOLLOWING THROUGH ON INSTRUCTIONS FROM OTHERS (NOT DUE TO OPPOSITIONAL BEHAVIOR OR FAILURE OF COMPREHENSION), E.G. FAILS TO FINISH CHORES
1	2	3	4	7) HAS DIFFICULTY SUSTAINING ATTENTION IN TASKS OR PLAY
1	2	3	4	8) OFTEN SHIFTS FROM ONE UNCOMPLETED ACTIVITY TO ANOTHER

1 2 3 4 9) HAD DIFFICULTY PLAYING QUIETLY
1 2 3 4 10) OFTEN TALKS EXCESSIVELY
1 2 3 4 11) OFTEN INTERRUPTS OR INTRUDES ON OTHERS, E.G. BUTTS INTO OTHER CHILDREN'S GAMES
1 2 3 4 12) OFTEN DOES NOT SEEM TO LISTEN TO WHAT IS BEING SAID TO HIM
1 2 3 4 13) OFTEN LOSES THINGS NECESSARY FOR TASKS OR ACTIVITIES AT SCHOOL OR HOME, E.G. TOYS, PENCILS, BOOKS, HOMEWORK
1 2 3 4 14) OFTEN ENGAGES IN PHYSICALLY DANGEROUS ACTIVITIES WITHOUT CONSIDERING POSSIBLE CONSEQUENCES (NOT FOR THE PURPOSE OF THRILL SEEKING), E.G. RUNS INTO STREET WITHOUT LOOKING

AT LEAST 8 ITEMS ARE MARKED EITHER 3 OR 4?
YES____ NO____
PRESENCE OF SYMPTOMS FOR AT LEAST SIX MONTHS?
YES____ NO____
SEVERITY OF THE PROBLEM MILD____ MODERATE____ SEVERE___

OPPOSITIONAL DEFIANT DISORDER (CURRENT SX)

1 2 3 4 1) OFTEN LOSES TEMPER
1 2 3 4 2) OFTEN ARGUES WITH ADULTS
1 2 3 4 3) OFTEN ACTIVELY DEFIES OR REFUSES ADULT REQUESTS OR RULES, E.G., REFUSES TO DO CHORES AT HOME
1 2 3 4 4) OFTEN DELIBERATELY DOES THINGS THAT ANNOY OTHER PEOPLE, E.G., GRABS OTHER CHILDREN'S HATS
1 2 3 4 5) OFTEN BLAMES OTHERS FOR HIS OR HER OWN MISTAKES
1 2 3 4 6) IS OFTEN TOUCHY OR EASILY ANNOYED BY OTHERS
1 2 3 4 7) IS OFTEN ANGRY AND RESENTFUL
1 2 3 4 8) IS OFTEN SPITEFUL OR VINDICTIVE
1 2 3 4 9) OFTEN SWEARS OR USES OBSCENE LANGUAGE

AT LEAST 5 ITEMS ARE MARKED 3 OR 4 YES_____ NO_____

SYMPTOMS PRESENT FOR AT LEAST SIX MONTHS YES____ NO____

SEVERITY OF THE PROBLEM
MILD_____ MODERATE_____ SEVERE_____

HAS CHILD EVER BEEN FORMALLY DX AS ODD? YES____ NO____

TREATMENT HISTORY INFORMATION:
AGE OF ONSET OF ADHD SYMPTOMS_____
AGE AT DIAGNOSIS_____
NUMBER OF TIMES SEEN IN CLINIC_____

	YES	NO
AGGRESSIVE BEHAVIOR PRESENT		
PEER RELATIONSHIP PROBLEMS PRESENT		

HISTORY OF DRUG TREATMENT FOR ADHD
(INCLUDE DURATION IN MONTHS):
RITALIN_____

DEXEDRINE_____

TOFRANIL_____

OTHER_____

STIMULANTS GIVEN AT TIMES OTHER THAN SCHOOL HOURS_____

MEDICATION TX EFFECTIVE IN ALLEVIATING ADHD SX _____

HISTORY OF PSYCHOLOGICAL TREATMENT FOR ADHD _____
(INCLUDE YEAR, DIAGNOSIS & DURATION OF TREATMENT):
INDIVIDUAL PSYCHOTHERAPY_____

GROUP PSYCHOTHERAPY_____

SOCIAL SKILLS TRAINING_____

FAMILY THERAPY_____

INPATIENT EVALUATION/RX_____

HISTORY OF EDUCATIONAL TREATMENT FOR ADHD:

SPECIAL CLASSROOM	_____
PERSONAL SOCIAL ADJUSTMENT (PSA) CLASS	_____
RESOURCE ROOM/LD LAB	_____
SPEECH/LANGUAGE THERAPY	_____
DEVELOPMENTAL 1ST GRADE OR RETAINED A GRADE	_____
TUTORING	_____

PUBLIC SCHOOL_____
PRIVATE SCHOOL_____

IQ: NAME OF TEST_____ VERB_____ PERF_____
FULL SCALE_____
ACHIEVEMENT: NAME OF TEST_____ SCORE_____

ADD SOCIAL SKILLS STUDY
PARENT QUESTIONNAIRE

PLEASE ANSWER THE FOLLOWING QUESTIONS BY PLACING AN "X" IN THE BOX THAT BEST DESCRIBES YOUR RESPONSE. AFTER COMPLETING THE FIRST SECTION, THERE ARE SEVERAL RATING SCALES WITH NUMBERS FOR YOU TO CIRCLE AS YOUR RESPONSE. DO NOT SPEND VERY MUCH TIME THINKING ABOUT YOUR ANSWERS. JUST CIRCLE THE NUMBER THAT SEEMS TO BEST DESCRIBE YOUR GENERAL FEELING ABOUT THE QUESTION. THANK YOU IN ADVANCE FOR HELPING US TO LEARN MORE ABOUT THE SOCIAL SKILLS OF YOUR ADD CHILD.

FAMILY BACKGROUND INFORMATION

FAMILY ID#_____

YOUR RELATION TO CHILD: MOTHER__STEPMOTHER__FATHER_ STEPFATHER__
OTHER (PLEASE EXPLAIN)_____

GENERAL INFORMATION
EDUCATION COMPLETED (CHECK ONLY ONE):

	YOURSELF	YOUR SPOUSE
1. GRADUATE/PROFESSIONAL		
2. FOUR YEAR COLLEGE		
3. SOME COLLEGE/TECHNICAL		
4. FINISHED HIGH SCHOOL		
5. SOME HIGH SCHOOL		
6. FINISHED ELEMENTARY		
7. SOME ELEMENTARY		

OCCUPATION:

FATHER'S JOB TITLE_____

MOTHER'S JOB TITLE_____

INDICATE HOW YOU WOULD CLASSIFY--	YOURSELF	YOUR SPOUSE
1. PROFESSIONAL, DOCTOR, LAWYER, EXECUTIVE		
2. OTHER PROFESSIONAL, MANAGER, TEACHER, RN		
3. SKILLED AND BUILDING TRADES, FARMER		
4. SALES, TECHNICIANS, CLERICAL		
5. LABORER, FACTORY WORKER, WAITRESS		
6. GENERAL SERVICE EMPLOYEE		
7. HOMEMAKER		
8. STUDENT		
9. UNEMPLOYED		
10. OTHER (PLEASE DESCRIBE)_____		

ETHNIC BACKGROUND

	YOURSELF	YOUR SPOUSE
1. AFRO-AMERICAN (BLACK)		
2. ASIAN-AMERICAN		
3. CAUCASIAN (WHITE)		
4. NATIVE AMERICAN (INDIA		
5. SPANISH DESCENT		
6. OTHER (PLEASE DESCRIBE_____		

MARITAL STATUS

1. SINGLE, NEVER MARRIED ___
2. SINGLE, PREVIOUSLY MARRIED ___
3. SINGLE, WIDOWED ___
4. MARRIED, SEPARATED ___
5. MARRIED, FIRST MARRIAGE ___
6. REMARRIED ___

MARITAL HISTORY:	YEAR MARRIED	YEAR DIVORCED
1ST MARRIAGE		
2ND MARRIAGE		
3RD MARRIAGE		

PLEASE LIST ALL THE CHILDREN IN YOUR CURRENT FAMILY
(ADD = ATTENTION DEFICIT DISORDER; Y = YES; N = NO)

OLDEST CHILD	2ND OLDEST CHILD	3RD OLDEST CHILD	4TH OLDEST CHILD	5TH OLDEST CHILD
SEX M F	SEX M F	SEX M F	SEX M F	SEX M F
AGE	AGE	AGE	AGE	AGE
ADD Y N	ADD Y N	ADD Y N	ADD Y N	ADD Y N
ADOPTED Y N	ADOPTED Y N	ADOPTED Y N	ADOPTED Y N	ADOPTED Y N
STEPCHILD Y N	STEPCHILD Y N	STEPCHILD Y N	STEPCHILD Y N	STEPCHILD Y N
LIVING IN YOUR HOME Y N	LIVING IN YOUR HOME Y N	LIVING IN YOUR HOME Y N	LIVING IN YOUR HOME Y N	LIVING IN YOUR HOME Y N

IS YOUR CURRENT RESIDENCE _____RURAL _____URBAN

HOW MANY TIMES HAVE YOU MOVED SINCE YOUR ADHD CHILD WAS BORN?

NEVER___ ONCE___ TWICE___ 3 TIMES_____ 4 TIMES___
MORE THAN 5___

HOW MANY MONTHS DID YOUR ADHD CHILD SPEND IN HIS LONGEST RESIDENCE?

1-6MO__ 7-12MO__1-2 YRS__ 3-5 YRS__ 5-10 YRS__ >10 YRS__

FAMILY HISTORY:

PLEASE DESCRIBE IF YOU OR ANY MEMBERS OF YOUR IMMEDIATE FAMILY HAVE EVER EXPERIENCED THE FOLLOWING SITUATIONS/CONDITIONS:

	MOTHER	FATHER	ADHD CHILD	BROTHER	SISTER
PROBLEMS WITH AGGRESSIVENESS					
DEFIANCE, & OPPOSITIONAL BEHAVIOR					
PROBLEMS WITH ATTENTION, ACTIVITY, & IMPULSE CONTROL AS A CHILD					
ACADEMIC DIFFICULTY OR LEARNING DISABILITIES					
FREQUENT JOB CHANGES					
PROBLEMS WITH TEMPER					
MENTAL RETARDATION					
SCHIZOPHRENIA					
MANIC DEPRESSION					
DEPRESSION ONLY					
ALCOHOL OR DRUG ABUSE					
TROUBLE WITH THE LAW					

ADHD CHILDS' EARLY DEVELOPMENTAL AND CURRENT SOCIAL HISTORY

	YES	NO
DID HE HAVE COLIC AND CRY A LOT AS AN INFANT?		
DOES HE GET UPSET EASILY NOW?		
WERE THERE EARLY SLEEP PATTERN DIFFICULTIES?		
DOES HE STILL HAVE PROBLEMS FALLING/STAYING ASLEEP?		
IF YES, DO YOU THINK THIS MAKES HIM DROWSY AND/OR IRRITABLE ALL THE FOLLOWING DAY?		
WAS HE VERY CUDDLY AS AN INFANT?		
IS HE VERY FRIENDLY NOW THAT HE IS OLDER?		
WAS HE PERSISTENT AS AN INFANT WHEN HE WANTED SOMETHING?		
IS HE ABLE TO ACCEPT "NO" FOR AN ANSWER NOW?		
WAS HE ABNORMALLY ACTIVE AND IN TO THINGS AS A YOUNGSTER?		
IS HE STILL MORE ACTIVE THAN OTHERS HIS AGE?		
DID THE CHILD HAVE DIFFICULTY WITH BOWEL OR BLADDER CONTROL PAST THREE YEARS OF AGE?		
DOES HE STILL EVER WET OR SOIL HIS PANTS DURING THE DAY?		
IF YES, DO OTHER CHILDREN MAKE FUN OF HIM FOR THIS?		
IF YES, DOES HE AVOID OVERNIGHT STAYS WITH OTHERS?		
DID THE CHILD GO TO PRESCHOOL BY AGE OF FOUR OR FIVE?		
IF YES, WAS THIS A GOOD EXPERIENCE FOR HIM?		
WAS THE TEACHER VERY SYMPATHETIC AND HELPFUL?		
WAS THE CLASSROOM SMALL AND STRUCTURED?		
WAS YOUR CHILD EVER PUT IN DEVELOPMENTAL 1ST GRADE OR HELD BACK A GRADE BECAUSE OF SOCIAL IMMATURITY?		
DO YOU THINK THIS WAS THE RIGHT THING TO DO?		
DID IT HELP YOUR CHILD?		

DOES YOUR CHILD GET ALONG WITH HIS BROTHERS AND SISTERS AS WELL AS OTHER CHILDREN HIS AGE? _____
IF NOT, IS IT BECAUSE HE STARTS MORE FIGHTS? _____

IS YOUR CHILD ABLE TO MAKE FRIENDS EASILY? _____
DOES YOUR CHILD USUALLY KEEP FRIENDS A LONG TIME? _____
DOES YOUR CHILD CURRENTLY HAVE A "BEST FRIEND"? _____

HAS YOUR CHILD EVER BEEN AGGRESSIVE TO OTHER CHILDREN? _____
IF YES, IS YOUR CHILD STILL AGGRESSIVE? _____

HAVE YOU HAD DIFFICULTY DISCIPLINING YOUR CHILD? _____
HAS YOUR ADHD CHILD BEEN MORE DIFFICULT TO DISCIPLINE THAN HIS BROTHERS OR SISTERS? _____

ON THE AVERAGE, DOES YOUR ADHD CHILD MIND YOU:
TWO OR THREE TIMES OUT OF TEN? _____
FOUR TO SIX TIMES OUT OF TEN? _____
MORE THAN SIX TIMES OUT OF TEN? _____

WILL HE EVENTUALLY DO WHAT YOU ASK HIM TO? _____

PLEASE INDICATE WHICH DISCIPLINE STRATEGIES YOU USE:
VERBAL REPRIMANDS _____
TIME-OUT (ISOLATION) _____
REMOVAL OF PRIVILEGES _____
REWARDS _____
PHYSICAL PUNISHMENT _____
GIVING IN TO THE CHILD _____
AVOIDING OR IGNORING THE CHILD _____

WHICH OF THE FOLLOWING WOULD YOU ADVISE YOUR CHILD TO DO IF HE WERE TEASED/PICKED ON BY OTHER CHILDREN:
IGNORE THEM/WALK AWAY _____
ASK THEM TO STOP _____
TEASE THEM BACK _____
HIT THEM _____
TELL AN ADULT _____

HAVE YOU EVER OBTAINED COUNSELING TO HELP YOU DEAL WITH ANY PROBLEM BEHAVIORS OF YOUR ADHD CHILD? _____
DID IT HELP? _____

OVERALL, WOULD YOU SAY YOUR CHILD HAS SOCIAL SKILLS PROBLEMS? _____

IF YES, DID YOU OR THE CHILD'S OTHER PARENT HAVE SIMILAR PROBLEMS AS A CHILD? _____

FAMILY STRESS INDEX

HAVE ANY OF THE FOLLOWING STRESS EVENTS OCCURRED IN YOUR FAMILY

WITHIN THE LAST TWELVE MONTHS?	YES	NO
PARENTS DIVORCED OR SEPARATED		
CHANGE(S) IN THOSE LIVING IN YOUR HOUSEHOLD		
FAMILY ACCIDENT OR ILLNESS		
DEATH IN THE FAMILY		
PARENT CHANGED JOB		
CHANGED SCHOOLS		
FAMILY MOVED		
FAMILY FINANCIAL PR		
OTHER EVENT THAT WAS TRAUMATIC TO THE CHILD		

DO YOU THINK YOUR CHILD IS SHOWING ANY SOCIAL SKILLS PROBLEMS AS A RESULT OF THESE CHANGES? _____

IF YES, DO YOU EXPECT THEM TO BE TEMPORARY? _____

ADD SOCIAL SKILLS STUDY
TEACHER QUESTIONNAIRE

PLEASE COMPLETE THE FOLLOWING QUESTIONS BY CIRCLING THE ANSWER. DO NOT SPEND VERY MUCH TIME THINKING ABOUT YOUR ANSWERS. JUST MARK THE RESPONSE THAT SEEMS TO BE THE BEST CHOICE.

GENERAL INFORMATION:

CHILD'S ID #_____ BIRTHDATE:_____

CHILD'S STATUS: ADHD CHILD_____ COMPARISON CHILD_____

SCHOOL:_____ GRADE:_____

TEACHER'S NAME:_____ DATE:_____

YES NO

DO YOU BELIEVE THIS CHILD HAS MORE PROBLEMS WITH POOR ATTENTION THAN OTHER CHILDREN THE SAME AGE?_____

DO YOU BELIEVE THIS CHILD HAS MORE PROBLEMS WITH OVERACTIVITY THAN OTHER CHILDREN THE SAME AGE? _____

HOW WOULD YOU DESCRIBE THIS CHILD'S SOCIAL STATUS IN YOUR CLASSROOM?
SOCIALLY ISOLATED____ SOCIALLY REJECTED____
SOCIALLY ACCEPTED____

ABOUT HOW MANY FRIENDS DOES THIS CHILD HAVE IN YOUR CLASSROOM?
NONE____ ONE____ TWO OR THREE____ FOUR OR MORE____

IS THIS CHILD VERBALLY AGGRESSIVE WITH OTHER CHILDREN?

YES____ NO____

IS HE PHYSICALLY AGGRESSIVE WITH OTHER CHILDREN?
YES____ NO____

ON THE AVERAGE, HOW WOULD YOU CHARACTERIZE HIS SOCIAL SKILLS?
POOR____ FAIR____ GOOD____ VERY GOOD____ EXCELLENT_____

ADHD RATING SCALE

COMPARED WITH OTHER CHILDREN THE SAME AGE, PLEASE INDICATE HOW OFTEN YOU HAVE OBSERVED THE FOLLOWING BEHAVIORS IN THIS CHILD:

1 = RARELY 2 = OCCASIONALLY 3 = PRETTY OFTEN
4 = VERY OFTEN

1	2	3	4	1)	OFTEN FIDGETS WITH HANDS OR FEET OR SQUIRMS IN SEAT
1	2	3	4	2)	HAS DIFFICULTY REMAINING SEATED WHEN IT IS REQUIRED
1	2	3	4	3)	IS EASILY DISTRACTED BY EXTRANEOUS STIMULI
1	2	3	4	4)	HAS DIFFICULTY AWAITING TURN IN GAMES OR GROUP SITUATIONS
1	2	3	4	5)	OFTEN BLURTS OUT ANSWERS TO QUESTIONS BEFORE THEY HAVE BEEN COMPLETED
1	2	3	4	6)	HAD DIFFICULTY FOLLOWING THROUGH ON INSTRUCTIONS FROM OTHERS (NOT DUE TO OPPOSITIONAL BEHAVIOR OR FAILURE OF COMPREHENSION), E.G. FAILS TO FINISH CHORES
1	2	3	4	7)	HAS DIFFICULTY SUSTAINING ATTENTION IN TASKS OR PLAY
1	2	3	4	8)	OFTEN SHIFTS FROM ONE UNCOMPLETED ACTIVITY TO ANOTHER
1	2	3	4	9)	HAD DIFFICULTY PLAYING QUIETLY
1	2	3	4	10)	OFTEN TALKS EXCESSIVELY
1	2	3	4	11)	OFTEN INTERRUPTS OR INTRUDES ON OTHERS, E.G. BUTTS INTO OTHER CHILDREN'S GAMES
1	2	3	4	12)	OFTEN DOES NOT SEEM TO LISTEN TO WHAT IS BEING SAID TO HIM
1	2	3	4	13)	OFTEN LOSES THINGS NECESSARY FOR TASKS OR ACTIVITIES AT SCHOOL OR HOME, E.G. TOYS, PENCILS, BOOKS, HOMEWORK
1	2	3	4	14)	OFTEN ENGAGES IN PHYSICALLY DANGEROUS ACTIVITIES WITHOUT CONSIDERING POSSIBLE CONSEQUENCES (NOT FOR THE PURPOSE OF THRILL SEEKING), E.G. RUNS INTO STREET WITHOUT LOOKING

HOW SEVERE ARE THESE PROBLEMS? MILD___ MODERATE___ SERIOUS___

CONNERS' TEACHER RATING SCALE

PLEASE RATE THIS CHILD AS FOLLOWS:
0 = NOT AT ALL 1 = JUST A LITTLE 2 = PRETTY MUCH
3 = VERY MUCH

1.	Restless in the "squirmy" sense	0	1	2	3
2.	Makes inappropriate noises when he shouldn't	0	1	2	3
3.	Demand must be met immediately	0	1	2	3
4.	Acts "smart" (impudent or sassy)	0	1	2	3
5.	Temper outbursts and unpredictable behavior	0	1	2	3
6.	Overly sensitive to criticism	0	1	2	3
7.	Distractibility or attention span a problem	0	1	2	3
8.	Disturbs other children	0	1	2	3
9.	Daydreams	0	1	2	3
10.	Pouts and sulks	0	1	2	3
11.	Mood changes quickly and drastically	0	1	2	3
12.	Quarrelsome	0	1	2	3
13.	Submissive attitude toward authority	0	1	2	3
14.	Restless, always up and on the go	0	1	2	3
15.	Excitable, impulsive	0	1	2	3
16.	Excessive demands for teacher's attention	0	1	2	3
17.	Appears to be unaccepted by group	0	1	2	3
18.	Appears to be easily led by other children	0	1	2	3
19.	No sense of fair play	0	1	2	3
20.	Appears to lack leadership	0	1	2	3
21.	Fails to finish things that he starts	0	1	2	3
22.	Childish and immature	0	1	2	3
23.	Denies mistakes or blames others	0	1	2	3
24.	Does not get along well with other children	0	1	2	3
25.	Uncooperative with classmates	0	1	2	3
26.	Easily frustrated in efforts	0	1	2	3
27.	Uncooperative with teacher	0	1	2	3
28.	Difficulty in learning	0	1	2	3

ADHD: COMPREHENSIVE TEACHER'S RATING SCALE

		ALMOST NEVER				ALMOST ALWAYS
1.	Works well independently	1	2	3	4	5

2. Persists with task for reasonable amount of time	1	2	3	4	5
3. Completes assigned task satisfactorily with little additional assistance	1	2	3	4	5
4. Follows simple directions accurately	1	2	3	4	5
5. Follows a sequence of instructions	1	2	3	4	5
6. Functions well in the classroom	1	2	3	4	
5. Extremely overactive (out of seat, on the go)	1	2	3	4	5
8. Overreacts	1	2	3	4	5
9. Fidgety (hands always busy)	1	2	3	4	5
10. Impulsive (acts or talks without thinking)	1	2	3	4	5
11. Restless (squirms in seat)	1	2	3	4	5
12. Behaves positively with peers/classmates	1	2	3	4	5
13. Verbal communication clear and "connected"	1	2	3	4	5
14. Nonverbal communication accurate	1	2	3	4	5
15. Follows group norms/ social rules	1	2	3	4	5
16. Cites general rule when criticizing ("We aren't supposed to do that")	1	2	3	4	5
17. Skillful at making new friends	1	2	3	4	5
18. Approaches situations confidently	1	2	3	4	5
19. Tries to get others into trouble	1	2	3	4	5
20. Starts fights over nothing	1	2	3	4	5
21. Makes malicious fun of people	1	2	3	4	5
22. Defies authority	1	2	3	4	5
23. Picks on others	1	2	3	4	5
24. Mean and cruel to other children	1	2	3	4	5

PLEASE CIRCLE THE NUMERAL 1 THROUGH 5 THAT MOST CLOSELY DESCRIBES THE BEHAVIOR OF CLASSMATES AND TEACHER TOWARD THE CHILD:

This child:

25. Is readily accepted by peers/classmates	1	2	3	4	5
26. Is in demand for group activities	1	2	3	4	5
27. Requires a great deal of teacher time for help with social or emotional problems	1	2	3	4	5
28. Requires a great deal of teacher time for help with academic problems	1	2	3	4	5

THE WALKER-McCONNELL SCALE OF SOCIAL COMPETENCE AND SCHOOL ADJUSTMENT

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PLEASE READ EACH ITEM BELOW CAREFULLY AND RATE THE CHILD'S BEHAVIORAL STATUS IN RELATION TO IT. IF YOU HAVE NOT OBSERVED THE CHILD DISPLAYING A PARTICULAR SKILL DEFINED BY AN ITEM, CHECK 1, INDICATING NEVER. IF THE CHILD EXHIBITS THE SKILL AT A HIGH RATE OF OCCURRENCE, CHECK 5, FOR FREQUENTLY. IF THE CHILD'S FREQUENCY IS IN BETWEEN THESE TWO EXTREMES, PLEASE CHECK 2, 3, OR 4, INDICATING YOUR BEST ESTIMATE OF ITS RATE OF OCCURRENCE.

PLEASE ANSWER EACH ITEM. DO NOT MARK BETWEEN THE NUMBERS ON THE RATING SCALE. CHECK ONE OF THE NUMBERS FROM 1 TO 5 TO INDICATE YOUR FREQUENCY ESTIMATE.

1 = NEVER 5 = FREQUENTLY

1. Other children seek child out to involve him in activities	1	2	3	4	5
2. Changes activities with peers to permit continued interaction	1	2	3	4	5
3. Uses free time appropriately	1	2	3	4	5
4. Shares laughter with peers	1	2	3	4	5
5. Shows sympathy for others	1	2	3	4	5
6. Makes friends easily with other children	1	2	3	4	5

7.	Has good work habits, e.g., is organized, makes efficient use of class time, etc.	1	2	3	4	5
8.	Asks questions that request information about someone or something	1	2	3	4	5
9.	Compromises with peers when situation calls for it	1	2	3	4	5
10.	Responds to teasing or name calling by ignoring, changing the subject, or some other constructive means	1	2	3	4	5
11.	Spends recess and free time interacting with peers	1	2	3	4	5
12.	Accepts constructive criticism from peers without becoming angry	1	2	3	4	5
13.	Plays or talks with peers for extended periods of time	1	2	3	4	5
14.	Voluntarily provides assistance to peers who require it	1	2	3	4	5
15.	Assumes leadership role in peer activities	1	2	3	4	5
16.	Is sensitive to the needs of others	1	2	3	4	5
17.	Initiates conversation(s) with peers in normal situations	1	2	3	4	5
18.	Expresses anger appropriately e.g., reacts to situation without becoming violent or destructive	1	2	3	4	5
19.	Listens carefully to teacher instructions and directions for assignments	1	2	3	4	5
20.	Answers or attempts to answer questions asked by the teacher	1	2	3	4	5
21.	Displays independent study skills e.g. can work adequately with minimum teacher support	1	2	3	4	5
22.	Appropriately copes with aggression from others e.g., tries to avoid a fight, walks away, seeks assistance, defends self	1	2	3	4	5
23.	Responds to conventional behavior management techniques, e.g., praise, reprimands, time-out	1	2	3	4	5
24.	Cooperates with peers in group activities or situations	1	2	3	4	5

25. Interacts with a number of different ways	1	2	3	4	5
26. Uses physical contact with peers appropriately	1	2	3	4	5
27. Responds to requests promptly	1	2	3	4	5
28. Listens while others are speaking,e.g., as in circle or sharing time	1	2	3	4	5
29. Controls temper	1	2	3	4	5
30. Compliments others regarding personal attributes, e.g., appearance, special skills, etc.	1	2	3	4	5
31. Can accept not getting his own way	1	2	3	4	5
32. Is socially perceptive, e.g., reads social situations accurately	1	2	3	4	5
33. Attends to assigned tasks	1	2	3	4	5
34. Plays games and activities at recess skillfully	1	2	3	4	5
35. Keeps conversation with peers going	1	2	3	4	5
36. Finds another way to play when requests to join others are refused	1	2	3	4	5
37. Is considerate of the feelings of others	1	2	3	4	5
38. Maintains eye contact when speaking or being spoken to	1	2	3	4	5
39. Gains peers' attention in an appropriate manner	1	2	3	4	5
40. Accepts suggestions and assistance from peers	1	2	3	4	5
41. Invites peers to play or share activities	1	2	3	4	5
42. Does seatwork assignments as directed	1	2	3	4	5
43. Produces work of acceptable quality given his skills level	1	2	3	4	5

TAXONOMY OF PROBLEMATIC SITUATIONS

INSTRUCTIONS: For each situation listed on the following pages, please tell us how this child is likely to respond. A problematic response might be hitting, yelling, crying, or asking the teacher for help. Other types of behavior that are immature, unacceptable or unsuccessful would be also be considered a problem.

Please respond in the following way:

Circle 1 if this situation is **NEVER** a problem for this child.

Circle 2 if this situation is **RARELY** a problem for this child.

Circle 3 if this situation is **SOMETIMES** a problem for this child.

Circle 4 if this situation is **OFTEN** a problem for this child.

Circle 5 if this situation is **ALWAYS** a problem for this child.

EXAMPLE: When this child is teased by peers
You may feel that when this child is teased he almost always responds inappropriately. (An inappropriate response might be crying.) If so, you would circle 5. On the other hand, you might feel that this child almost always responds in an effective way. If this is the case, you would circle 1. We are not interested in how often this situation occurs. We are only interested in this child's response when it does occur.

Please complete the following questionnaire by circling the answers you feel best describe this child.

1. When this child is working on a class project that requires sharing or cooperation. 1 2 3 4 5

2. When peers notice that this child is somehow different (for example, wearing peculiar clothes, or walking funny. 1 2 3 4 5

3.	When this child has won a game against a peer.	1	2	3	4	5
4.	When a peer takes this child's turn during a game.	1	2	3	4	5
5.	When this child is playing a game with a peer and realizes that the peer is about to win.	1	2	3	4	5
6.	When peers call this child a bad name.	1	2	3	4	5
7.	When a peer is allowed a privilege (such as winning a prize or standing first in line) that this child cannot enjoy.	1	2	3	4	5
8.	When a peer performs better than this child in a game.	1	2	3	4	5
9.	When this child asks a peer to play and the peer chooses to play with a third child instead.	1	2	3	4	5
10.	When a peer performs better than this child in schoolwork.	1	2	3	4	5
11.	When peers laugh at this child for having difficulty in a game or play activity.	1	2	3	4	5
12.	When this child performs better than a peer in a game.	1	2	3	4	5
13.	When peers laugh at this child for having difficulty with a schoolwork problem.	1	2	3	4	5
14.	When this child performs better than a peer in schoolwork.	1	2	3	4	5
15.	When this child is having difficulty with a schoolwork problem.	1	2	3	4	5

16. When a peer has something belonging to this child, and this child wants it back. 1 2 3 4 5

17. When this child finds out that he or she has been left out of a group, game, or activity of peers. 1 2 3 4 5

18. When this child has something belonging to a peer and the peer wants it back before this child is through with it. 1 2 3 4 5

19. When this child is playing with a peer, and the peer accidentally breaks this child's toy. 1 2 3 4 5

20. When this child is teased by peers. 1 2 3 4 5

21. When a group of peers have started a club or a group and have not included this child. 1 2 3 4 5

22. When this child wants to play with a group of peers who are already playing a game. 1 2 3 4 5

23. When this child tries to join in with a group of peers who are playing a game, and they tell him or her to wait until they are ready to play. 1 2 3 4 5

24. When this child is accidentally provoked by a peer (such as a peer who accidentally bumps into this child in line). 1 2 3 4 5

25. When this child is asked by a peer to share his or her toy or game (or pencil or some other object). 1 2 3 4 5

26. When the teacher asks this child to work on a class assignment that will take a long time and will be difficult. 1 2 3 4 5

27. When the teacher is trying to speak to the entire class. 1 2 3 4 5

28. When this child is standing in line with peers and must wait a long time. 1 2 3 4 5

29. When this child is on the playground and a teacher is not nearby. 1 2 3 4 5

30. When this child is in the classroom with peers and the teacher must leave the room for a short period of time. 1 2 3 4 5

31. When this child is seated at lunch with a group of peers and a teacher is not nearby. 1 2 3 4 5

32. When a peer tries to start a conversation with this child. 1 2 3 4 5

33. When this child is sad, and a peer asks him or her how he is feeling. 1 2 3 4 5

34. When a peer has a toy, game or object that this child wants. 1 2 3 4 5

35. When this child has an extra toy and a peer asks him or her to share it. 1 2 3 4 5

36. When a peer expresses anger at this child. 1 2 3 4 5

37. When a peer has performed quite well at a task and is deserving of a compliment from this child. 1 2 3 4 5

38. When a peer is troubled, worried, or upset and needs comfort from this child. 1 2 3 4 5

39. When a peer has been helpful to this child, and this child should thank him or her. 1 2 3 4 5

40. When a peer cuts into line in front of this child. 1 2 3 4 5

41. When a peer tries to talk with this child. 1 2 3 4 5

42. When this child has accidentally hurt a peer and should apologize. 1 2 3 4 5

43. When this child needs help from a peer and should ask for help. 1 2 3 4 5

44. When this child loses a game with peers. 1 2 3 4 5

THANK YOU FOR YOUR TIME AND PATIENCE!!!!!

— for office use only —
IDENTIFICATION #

CHILD BEHAVIOR CHECKLIST - TEACHER'S REPORT FORM

PUPIL'S AGE	PUPIL'S SEX ☐ Boy ☐ Girl	RACE	PUPIL'S NAME
GRADE	THIS FORM FILLED OUT BY ☐ Teacher (name) _____		
DATE	☐ Counselor (name) _____ ☐ Other (specify) _____ name		SCHOOL

PARENTS' TYPE OF WORK (Please be specific — for example, auto mechanic, high school teacher, homemaker, laborer, lathe operator, shoe salesman, army sergeant)

FATHER'S TYPE OF WORK _____ MOTHER'S TYPE OF WORK _____

I. How long have you known this pupil?

II. How well do you know him/her? ☐ Very Well ☐ Moderately Well ☐ Not Well

III. How much time does he/she spend in your class per week?

IV What kind of class is it? (Please be specific, e g , regular 5th grade, 7th grade math, etc)

V. Has he/she ever been referred for special class placement, services, or tutoring?

☐ No ☐ Don't Know ☐ Yes — what kind and when?

VI Has he/she ever repeated a grade?

☐ No ☐ Don't Know ☐ Yes — grade and reason

VII Current school performance — list academic subjects and check appropriate column

Academic subject	1 Far below grade	2. Somewhat below grade	3 At grade level	4 Somewhat above grade	5 Far above grade
1 _____	☐	☐	☐	☐	☐
2 _____	☐	☐	☐	☐	☐
3 _____	☐	☐	☐	☐	☐
4 _____	☐	☐	☐	☐	☐
5 _____	☐	☐	☐	☐	☐
6 _____	☐	☐	☐	☐	☐

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9/85 Edition

VIII. Compared to typical pupils of the same age:	1 Much less	2. Somewhat less	3. Slightly less	4 About average	5. Slightly more	6 Somewhat more	7 Much more
1 How hard is he/she working?	☐	☐	☐	☐	☐	☐	☐
2 How appropriately is he/she behaving?	☐	☐	☐	☐	☐	☐	☐
3 How much is he/she learning?	☐	☐	☐	☐	☐	☐	☐
4 How happy is he/she?	☐	☐	☐	☐	☐	☐	☐

IX. Most recent achievement test scores (if available)

Name of test	Subject	Date	Percentile or grade level obtained

X. IQ, readiness, or aptitude tests (if available).

Name of test	Date	IQ or equivalent scores

XI. Please feel free to write any comments about this pupil's work, behavior, or potential, using extra pages if necessary

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

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

0 1 2 1. Acts too young for his/her age
0 1 2 2. Hums or makes other odd noises in class

0 1 2 3. Argues a lot
0 1 2 4. Fails to finish things he/she starts

0 1 2 5. Behaves like opposite sex
0 1 2 6. Defiant, talks back to staff

0 1 2 7. Bragging, boasting
0 1 2 8. Can't concentrate, can't pay attention for long

0 1 2 9. Can't get his/her mind off certain thoughts, obsessions (describe) _____

_____

0 1 2 10. Can't sit still, restless, or hyperactive

0 1 2 11. Clings to adults or too dependent

0 1 2 12. Complains of loneliness

0 1 2 13. Confused or seems to be in a fog
0 1 2 14. Cries a lot

0 1 2 15. Fidgets
0 1 2 16. Cruelty, bullying, or meanness to others

0 1 2 17. Daydreams or gets lost in his/her thoughts
0 1 2 18. Deliberately harms self or attempts suicide

0 1 2 19. Demands a lot of attention
0 1 2 20. Destroys his/her own things

0 1 2 21. Destroys property belonging to others
0 1 2 22. Difficulty following directions

0 1 2 23. Disobedient at school
0 1 2 24. Disturbs other pupils

0 1 2 25. Doesn't get along with other pupils
0 1 2 26. Doesn't seem to feel guilty after misbehaving

0 1 2 27. Easily jealous
0 1 2 28. Eats or drinks things that are not food (describe) _____

_____

0 1 2 29. Fears certain animals, situations, or places other than school (describe) _____

_____

0 1 2 30. Fears going to school

0 1 2 31. Fears he/she might think or do something bad
0 1 2 32. Feels he/she has to be perfect

0 1 2 33. Feels or complains that no one loves him/her
0 1 2 34. Feels others are out to get him/her

0 1 2 35. Feels worthless or inferior
0 1 2 36. Gets hurt a lot, accident-prone

0 1 2 37. Gets in many fights
0 1 2 38. Gets teased a lot

0 1 2 39. Hangs around with others who get in trouble
0 1 2 40. Hears things that aren't there (describe)

_____

0 1 2 41. Impulsive or acts without thinking
0 1 2 42. Likes to be alone

0 1 2 43. Lying or cheating
0 1 2 44. Bites fingernails

0 1 2 45. Nervous, high-strung, or tense
0 1 2 46. Nervous movements or twitching (describe)

_____

0 1 2 47. Overconforms to rules
0 1 2 48. Not liked by other pupils

0 1 2 49. Has difficulty learning
0 1 2 50. Too fearful or anxious

0 1 2 51. Feels dizzy
0 1 2 52. Feels too guilty

0 1 2 53. Talks out of turn
0 1 2 54. Overtired

0 1 2 55. Overweight

56. Physical problems without known medical cause
0 1 2 a. Aches or pains
0 1 2 b. Headaches
0 1 2 c. Nausea, feels sick
0 1 2 d. Problems with eyes (describe) _____

_____

0 1 2 e. Rashes or other skin problems
0 1 2 f. Stomachaches or cramps
0 1 2 g. Vomiting, throwing up
0 1 2 h. Other (describe) _____

_____

Please see other side

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

0 1 2 57 Physically attacks people
0 1 2 58 Picks nose, skin, or other parts of body (describe) _____
_____
0 1 2 59 Sleeps in class
0 1 2 60 Apathetic or unmotivated
0 1 2 61 Poor school work
0 1 2 62. Poorly coordinated or clumsy
0 1 2 63 Prefers being with older children
0 1 2 64 Prefers being with younger children
0 1 2 65 Refuses to talk
0 1 2 66 Repeats certain acts over and over; compulsions (describe) _____
_____
0 1 2 67 Disrupts class discipline
0 1 2 68 Screams a lot
0 1 2 69 Secretive, keeps things to self
0 1 2 70 Sees things that aren t there (describe)
_____
_____
0 1 2 71 Self conscious or easily embarrassed
0 1 2 72. Messy work
0 1 2 73 Behaves irresponsibly (describe) _____
_____
0 1 2 74 Showing off or clowning
0 1 2 75 Shy or timid
0 1 2 76 Explosive and unpredictable behavior
0 1 2 77 Demands must be met immediately, easily frustrated
0 1 2 78 Inattentive, easily distracted
0 1 2 79 Speech problem (describe) _____
_____
0 1 2 80 Stares blankly
0 1 2 81 Feels hurt when criticized
0 1 2 82. Steals
0 1 2 83 Stores up things he/she doesn t need (describe)
_____
_____
0 1 2 84 Strange behavior (describe). _____
_____
0 1 2 85 Strange ideas (describe) _____
_____
0 1 2 86 Stubborn, sullen, or irritable
0 1 2 87 Sudden changes in mood or feelings
0 1 2 88 Sulks a lot
0 1 2 89 Suspicious
0 1 2 90 Swearing or obscene language
0 1 2 91 Talks about killing self
0 1 2 92. Underachieving, not working up to potential
0 1 2 93 Talks too much
0 1 2 94 Teases a lot
0 1 2 95 Temper tantrums or hot temper
0 1 2 96. Seems preoccupied with sex
0 1 2 97. Threatens people
0 1 2 98 Tardy to school or class
0 1 2 99 Too concerned with neatness or cleanliness
0 1 2 100 Fails to carry out assigned tasks
0 1 2 101 Truancy or unexplained absence
0 1 2 102. Underactive, slow moving, or lacks energy
0 1 2 103 Unhappy, sad, or depressed
0 1 2 104 Unusually loud
0 1 2 105 Uses alcohol or drugs (describe) _____
_____
0 1 2 106 Overly anxious to please
0 1 2 107 Dislikes school
0 1 2 108 Is afraid of making mistakes
0 1 2 109 Whining
0 1 2 110 Unclean personal appearance
0 1 2 111 Withdrawn, doesn t get involved with others
0 1 2 112. Worrying
113 Please write in any problems the pupil has that were not listed above
0 1 2 _____
0 1 2 _____
0 1 2 _____

PLEASE BE SURE YOU HAVE ANSWERED ALL ITEMS

Social Skills

Teacher Form
Elementary Level

Rating System

Grades K-6
Social Skills Questionnaire

Frank M. Gresham and Stephen N. Elliott

Directions

This questionnaire is designed to measure **how often** a student exhibits certain social skills and **how important** those skills are for success in *your* classroom. Ratings of problem behaviors and academic competence are also requested. First, complete the information about the student and yourself.

Student Information

Student's name _____ Date _____
(First, Middle, Last) (Month, Day, Year)

School _____ City _____ State _____

Grade _____ Birth date _____ Sex: ☐ Female ☐ Male
(Month, Day, Year)

Ethnic group (optional)

- ☐ Asian
- ☐ Black
- ☐ Hispanic
- ☐ Indian (Native American)
- ☐ White
- ☐ Other _____

Is this student handicapped? ☐ Yes ☐ No

If handicapped, this student is classified as:

- ☐ Learning-disabled
- ☐ Behavior-disordered
- ☐ Mentally handicapped
- ☐ Other handicap (specify) _____

Teacher Information

Teacher's name _____ Sex: ☐ Female ☐ Male
(First, Middle, Last)

What is your assignment?

☐ Regular ☐ Resource ☐ Self-contained ☐ Other (specify) _____

Next, read each item on pages 2 and 3 (items 1 - 48) and think about this student's behavior during the past month or two. Decide **how often** the student does the behavior described.

If the student **never** does this behavior, circle the **0.**
If the student **sometimes** does this behavior, circle the **1.**
If the student **very often** does this behavior, circle the **2.**

For items 1 - 30, you should also rate **how important** each of these behaviors is for success in *your* classroom

If the behavior is **not important** for success in your classroom, circle the **0**
If the behavior is **important** for success in your classroom, circle the **1.**
If the behavior is **critical** for success in your classroom, circle the **2.**

Here are two examples:

	How Often?			How Important?		
	Never	Sometimes	Very Often	Not Important	Important	Critical
Shows empathy for peers	0	1	(2)	0	(1)	2
Asks questions of you when unsure of what to do in schoolwork	0	(1)	2	0	1	(2)

*This student **very often** shows empathy for classmates. Also, this student **sometimes** asks questions when unsure of schoolwork. This teacher thinks that showing empathy is **important** for success in his or her classroom and that asking questions is **critical** for success.*

Please do not skip any items. In some cases you may not have observed the student perform a particular behavior Make an estimate of the degree to which you think the student would probably perform that behavior

FOR OFFICE USE ONLY How Often? C	A	S		Social Skills	How Often? Never	Sometimes	Very Often	How Important? Not Important	Important	Critical
			1	Controls temper in conflict situations with peers.	0	1	2	0	1	2
			2	Introduces herself or himself to new people without being told	0	1	2	0	1	2
			3.	Appropriately questions rules that may be unfair	0	1	2	0	1	2
			4	Compromises in conflict situations by changing own ideas to reach agreement	0	1	2	0	1	2
			5	Responds appropriately to peer pressure.	0	1	2	0	1	2
			6	Says nice things about himself or herself when appropriate.	0	1	2	0	1	2
			7	Invites others to join in activities.	0	1	2	0	1	2
			8	Uses free time in an acceptable way	0	1	2	0	1	2
			9	Finishes class assignments within time limits.	0	1	2	0	1	2
			10	Makes friends easily	0	1	2	0	1	2
			11	Responds appropriately to teasing by peers.	0	1	2	0	1	2
			12	Controls temper in conflict situations with adults.	0	1	2	0	1	2
			13	Receives criticism well	0	1	2	0	1	2
			14	Initiates conversations with peers.	0	1	2	0	1	2
			15	Uses time appropriately while waiting for help.	0	1	2	0	1	2
			16	Produces correct schoolwork.	0	1	2	0	1	2
C	A	S		SUMS OF HOW OFTEN COLUMNS						

FOR OFFICE USE ONLY How Often? C	A	S	Social Skills (cont.)	How Often? Never	Sometimes	Very Often	How Important? Not Important	Important	Critical
			17. Appropriately tells you when he or she thinks you have treated him or her unfairly	0	1	2	0	1	2
			18. Accepts peers' ideas for group activities.	0	1	2	0	1	2
			19 Gives compliments to peers	0	1	2	0	1	2
			20. Follows your directions	0	1	2	0	1	2
			21 Puts work materials or school property away	0	1	2	0	1	2
			22. Cooperates with peers without prompting	0	1	2	0	1	2
			23. Volunteers to help peers with classroom tasks.	0	1	2	0	1	2
			24 Joins ongoing activity or group without being told to do so.	0	1	2	0	1	2
			25. Responds appropriately when pushed or hit by other children	0	1	2	0	1	2
			26 Ignores peer distractions when doing class work	0	1	2	0	1	2
			27 Keeps desk clean and neat without being reminded	0	1	2	0	1	2
			28 Attends to your instructions	0	1	2	0	1	2
			29 Easily makes transition from one classroom activity to another	0	1	2	0	1	2
			30 Gets along with people who are different	0	1	2	0	1	2
C	A	S	SUMS OF HOW OFTEN COLUMNS						

FOR OFFICE USE ONLY How Often? E	I	H	Problem Behaviors	How Often? Never	Sometimes	Very Often
			31 Fights with others	0	1	2
			32. Has low self-esteem	0	1	2
			33. Threatens or bullies others	0	1	2
			34 Appears lonely	0	1	2
			35. Is easily distracted.	0	1	2
			36 Interrupts conversations of others	0	1	2
			37 Disturbs ongoing activities	0	1	2
			38. Shows anxiety about being with a group of children	0	1	2
			39. Is easily embarrassed	0	1	2
			40 Doesn't listen to what others say.	0	1	2
			41 Argues with others	0	1	2
			42. Talks back to adults when corrected	0	1	2
			43. Gets angry easily	0	1	2
			44 Has temper tantrums	0	1	2
			45 Likes to be alone.	0	1	2
			46. Acts sad or depressed.	0	1	2
			47 Acts impulsively	0	1	2
			48. Fidgets or moves excessively	0	1	2
E	I	H	SUMS OF HOW OFTEN COLUMNS			

Do not make importance ratings for items 31 48

Go on to Page 4 ➡

Academic Competence

The next nine items require your judgments of this student's academic or learning behaviors as observed in your classroom. Compare the student with other children who are in the same classroom.

Rate all items using a scale of 1 to 5. Circle the number that best represents your judgment. The number 1 indicates the lowest or least favorable performance, placing the student in the lowest 10% of the class. Number 5 indicates the highest or most favorable performance, placing the student in the highest 10% compared with other students in the classroom

FOR OFFICE USE ONLY		Lowest 10%	Next Lowest 20%	Middle 40%	Next Highest 20%	Highest 10%
	49. Compared with other children in my classroom, the **overall academic performance** of this child is:	1	2	3	4	5
	50 In **reading**, how does this child compare with other students?	1	2	3	4	5
	51 In **mathematics**, how does this child compare with other students?	1	2	3	4	5
	52 In terms of grade-level expectations, this child's skills in **reading** are:	1	2	3	4	5
	53. In terms of grade-level expectations, this child's skills in **mathematics** are:	1	2	3	4	5
	54 This child's **overall motivation** to succeed academically is:	1	2	3	4	5
	55 This child's **parental encouragement** to succeed academically is:	1	2	3	4	5
	56 Compared with other children in my classroom this child's **intellectual functioning** is:	1	2	3	4	5
	57 Compared with other children in my classroom this child's **overall classroom behavior** is:	1	2	3	4	5
AC	SUM OF COLUMN					

Stop. Please check to be sure all items have been marked.

FOR OFFICE USE ONLY

SUMMARY

SOCIAL SKILLS	PROBLEM BEHAVIORS	ACADEMIC COMPETENCE
HOW OFTEN? TOTAL (sums from p. 2) (sums from p. 3)	HOW OFTEN? TOTAL (sums from page 3)	RATING TOTAL (sum from page 4)
BEHAVIOR LEVEL (see Appendix A) Fewer Average More	BEHAVIOR LEVEL (see Appendix A) Fewer Average More	COMPETENCE LEVEL (see Appendix A) Below Average Above
C + =	E	Total AC
A + =	I	
S + =	H	
Total (C + A + S)	Total (E + I + H)	
(see Appendix B) Standard Score / Percentile Rank	(see Appendix B) Standard Score / Percentile Rank	(see Appendix B) Standard Score / Percentile Rank
(see Appendix E) SEM ± Confidence Level 68% ☐ 95% ☐	(see Appendix E) SEM ± Confidence Level 68% ☐ 95% ☐	(see Appendix E) SEM ± Confidence Level 68% ☐ 95% ☐
Confidence Band (standard scores) to	Confidence Band (standard scores) to	Confidence Band (standard scores) to

Norms used: ☐ Handicapped ☐ Nonhandicapped

Note To obtain a detailed analysis of this student's Social Skills strengths and weaknesses, complete the Assessment-Intervention Record.

VITA 2

Susan M. Istre

Candidate for the Degree of

Doctor of Philosophy

Thesis: Social Skills of Preadolescent Boys with Attention Deficit Hyperactivity Disorder

Major Field: Home Economics

Area of Specialization: Family Relations and Child Development

Biographical:

Personal Data: Born in Tulsa, Oklahoma, May 15, 1950, the daughter of Bernard E. and Mary Ellen Smith.

Education: Graduated from Will Rogers High School, Tulsa, Oklahoma, in May, 1968; received Bachelor of Science in Nursing from the University of Oklahoma in May, 1972; received Master of Nursing degree from the University of California at Los Angeles in May, 1975; completed requirements for the Doctor of Philosophy degree at Oklahoma State University in May, 1992.

Professional Experience: Various positions in nursing, including staff nurse, pediatric clinical nurse specialist, continuing education coordinator, assistant clinical professor, coordinator for high risk and handicapped children's programs, and private consultant.