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A PILOT STUDY FOR THE USE OF THE CHILDREN'S SELF-REPORT SOCIAL
SKILLS SCALE WITH AN ADHD POPULATION: PRELIMINARY VALIDITY
AND SUGGESTIONS FOR FUTURE RESEARCH

Thesis

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The College of Arts and Sciences of the
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the Degree

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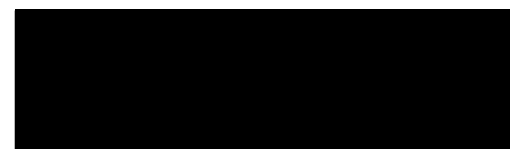
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ABSTRACT

A PILOT STUDY FOR THE USE OF THE CHILDREN'S SELF-REPORT SOCIAL SKILLS SCALE WITH AN ADHD POPULATION: PRELIMINARY VALIDITY AND SUGGESTIONS FOR FUTURE RESEARCH

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Social skills are an essential part of child development. Unfortunately, parents or teachers, the typical reporters of children's social skill problems, frequently do not identify social skill deficits promptly. Children experiencing these social issues may be more likely to notice the problems as they become troubling. The Children's Self-report Social Skills Scale (CS⁴) was developed by Danielson and Phelps (2003) to create a way for children to report the degree to which they exhibit social behaviors or abilities. The purpose of the present study was to provide preliminary validation of the CS⁴ as well as to pilot the use of the scale with an ADHD population. The present study sought to assess preliminary convergent and discriminant validity of the CS⁴ by assessing the relationship between the CS⁴ and social intelligence, healthy friendships, peer victimization, and externalizing aggressive behavior. Children with and without ADHD were compared to determine preliminary construct validity of the CS⁴. While the small sample size reduces the external validity, and therefore the generalizability, of the results, this pilot study

provides possible avenues of exploration for future research. The CS⁴ positively correlated with social skills as measured by a scale of social intelligence as well as with guidance in friendships. Correlations between the CS⁴ and protection from victimization as well as overall friendship scores approached significance. The inverse correlation between peer victimization and CS⁴ scores also approached significance. Children with ADHD reported significantly stronger beliefs in the resiliency of their friendships than did children without ADHD. Future research should focus on utilizing larger samples to provide further validation of the CS⁴, investigating the hypotheses generated by the current study, and applying the CS⁴ to additional clinical populations. Limitations of the present study are also discussed.

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CHAPTER I

INTRODUCTION

Social skills are an essential part of child development. Early identification of maladaptive socialization is crucial for clinicians and other professionals involved in the lives of children because delays in social skill development can produce significant difficulties in childhood and later development (e.g., Cowen, Pederson, Babigian, Izzo, & Trost, 1973; Elliot, Malecki, & Demaray, 2001; Merrell, 1993; Ray & Elliot, 2006; Sørli, Hagen, & Ogden, 2008). Unfortunately, parents or teachers, the typical reporters of children's social skill problems, frequently do not identify social skill deficits promptly (Kmett, 1999). Children experiencing these social issues may be more likely to notice the problems as they become troubling. A variety of factors have been shown to alter adult ratings of child social skill difficulties, including reporting biases (such as "middle-class" bias) and depression (Youngstrom, Izard, & Ackerman, 1999; Youngstrom, Loeber, & Stouthamer-Loeber, 2000). Danielson and Phelps (2003) used this rationale to justify the development of the Children's Self-report Social Skills Scale (CS⁴). Preliminary assessment of the measure indicated good reliability and validity, but Danielson and Phelps recommended further evaluation of validity as well as application of the CS⁴ to clinical populations. The current research will provide preliminary assessment of the construct validity of the CS⁴, examining convergent validity through

the positive correlation of CS⁴ scores and scores on measures of social intelligence and healthy friendships, and evaluating discriminant validity through the inverse correlation of CS⁴ scores and scores on measures of peer victimization, and externalizing aggressive behavior. The current study will also pilot the use of the CS⁴ children with Attention-Deficit/Hyperactivity Disorder (ADHD), a population of children who often have difficulty using appropriate social skills. Finally, the results of this research will offer a possible framework for administering the CS⁴ along with other measures to evaluate the effectiveness of social skills programs designed for children with ADHD, a group that typically demonstrates poor judgment in social skills self-report. While the current research is speculative, it will generate hypotheses for further investigation in the future.

Development of Social Skills

As social creatures, humans spend a great deal of time interacting with others. As such, the acquisition of social skills is a crucial part of human development. There are several proposed definitions of social skills, but the most useful for the area of social skills assessment is that proposed by Danielson and Phelps (2003): “interactions and tasks that a child performs completely within his or her social milieu.” This definition builds upon McFall’s (1982) definition relating social skills to abilities that allow one to exhibit specific task proficiency. Danielson and Phelps believed that the focus should be on the actual usage of social tasks rather than on the potential for performing social tasks, and that social skills assessments should evaluate the extent to which children truly demonstrate social skills.

After exploring both theory and existing theoretical research, Rubin, Booth, Rose-Krasnor, and Mills (1995) concluded that the development of social skills results from constitutional and genetic characteristics, the degree of activity and passivity in parenting, the quality of the child's interpersonal relationships, and the effects of culture, stress, and social support on the child and family. These researchers hypothesized that the combination of even temperament, receptive parenting, and lack of early stress should lead to the development of secure attachment in parent-child relationships, which in turn leads to successful social skills. This simplified scenario is known as the "Fantasyland" perspective because although it is the ideal developmental situation, it may not be entirely realistic.

A critical component of the "Fantasyland" perspective is the parent-child relationship, and three roles of parent-child relationships are essential to understanding this perspective (Hartup, 1985). First, parent-child relationships provide environments for the development of social skills. Parents teach children social skills directly, by supervising the children's social activities, and indirectly, by giving the children opportunities for socialization (Maccoby & Martin, 1983). Second, parents provide cognitive and affective resources for their children to explore both social and nonsocial realms. Third, the initial parent-child relationship may function as a prototype for all other interpersonal relationships in the child's life (e.g., Bowlby, 1973).

An important influence on the parent-child relationship is parenting style. A great deal of evidence suggests that effective parenting leads to secure attachment, a significant factor in the development of both social skills and healthy interpersonal relationships. A

particular style of parenting that tends to result in and preserve secure attachment is receptive parenting (Spieker & Booth, 1988). This parenting style includes being sensitive to children's behaviors, proficiently processing social information provided by children, understanding and appropriately responding to children's signals, and exhibiting unconditional positive regard for children. Ainsworth's (1972) seminal research in this area indicated that comprehensive clinical ratings of maternal sensitivity recorded throughout the infant's first year differentiate between secure and insecure attachment groups at 12 months. Subsequent, multicultural studies have replicated Ainsworth's results (e.g., Bates, Maslin, & Frankel, 1985; Egeland & Farber, 1984; Grossman, Grossman, Spangler, Suess, & Unzner, 1985). Secure attachment has also been linked with positive future interpersonal outcomes. In the Minnesota preschool project (Sroufe, 1983), observers and teachers regarded children who had histories of secure attachment as being more adept at peer interaction, more optimistic, more empathic, and more likely to make friends. Teachers also considered these children to be more mature, treated them warmly, and exercised minimal control over them while still expecting compliance (Motti, 1986). Securely-attached children were viewed by peers as more popular, and tended to have deeper and less hostile peer relationships (Pancake, 1985). They also did not participate in peer victimization, either as the victimizer or as the victim (Troy & Sroufe, 1987).

The parent-child relationship also makes an essential contribution to social skill acquisition. This relationship is an example one of two types that are essential to a child's successful development, vertical attachment. Vertical attachments are those one makes to

people who have knowledge and social power superior to one's own, and therefore typically involve children and adults (Hartup, 1989). Youniss (1980) found adult behavior toward children primarily reflects nurturance or control, and that children's actions concerning adults commonly involve submissive behaviors and requests for help and comfort. Vertical relationships offer children protection and security throughout their period of dependency, and provide the foundation for basic social skills (Hartup, 1989). Secure parent-child relationships are theoretically connected with the competent development of social skills because this type of relationship causes the child to develop a cognitive schema that contains a view of the parent as accessible and sensitive. This schema allows the child to feel safe and confident when presented with unknown circumstances, an approach that encourages the child to explore the interpersonal milieu (Sroufe, 1983). This exploration allows the child to attend to probing, "other directed" questions (e.g., "What is *he* like?"), which when answered, lead to "self-directed" questions (e.g., "What can *I* do?"). Therefore, "felt security" promotes interpersonal exploration, and such exploration results in peer interaction (Rubin, Fein, & Vandenberg, 1983).

Peer relationships represent horizontal attachment, the second kind of relationship vital to appropriate child development. Horizontal relationships are those one has with people who share social power equal to one's own influence. These relationships are the milieus in which children expand social skills formed in vertical relationships with others who are more like themselves. Such relationships allow the child to master the intricacies

involved in cooperation and competition, and are the environments in which the child's first social "intimacy" is attained (Hartup, 1989).

In young children, peer interaction is typically exhibited through play. Peer play is the vehicle through which children participate in the mutual exchange of thoughts, roles, actions, and points of view. Through this process of interaction, children learn to recognize others' ideas, feelings, and goals (e.g., Piaget, 1959). Development of empathic understanding allows children to begin to consider the consequences of their interpersonal behaviors for both themselves and for others, which fosters effective, appropriate social skills (e.g., Selman, 1985). Peers influence a child's socialization in a variety of ways, including reinforcement and modeling. Reinforcement occurs when peers' reactions to a child's behavior increase the frequency of that behavior. Research has demonstrated that peer interaction involves reinforcing events, that children's intent to use these events increases with age, and that adults can modify the contingencies supporting these events (e.g., Furman & Masters, 1980; Lamb & Roopnarine, 1979; Solomon & Wahler, 1973). This indicates that peer interaction is a context that encourages the modification and maintenance of behavior through the process of selective reinforcement (Hartup, 1983). Modeling in peer interaction can be observed in a variety of forms. A particularly pertinent area of influence for peer modeling is that of prosocial actions. For example, imitation is involved in preschoolers' choice to share with peers (Canale, 1977) or to laugh and smile in amusing situations (Brown, Wheeler, & Cash, 1980).

Parental behavior related to peer interaction can also enrich the child's social learning, or the child's learning of social behaviors based on observation, imitation, reinforcement, and punishment (Bandura, 1977). Parents are likely to reinforce appropriate peer play when they believe this activity to be essential to adaptive development. For example, if a father sees his child taking turns on the playground, he will praise the child for demonstrating this positive behavior. Additionally, interpersonally competent children are given opportunities to experience peer play, and parents carefully supervise this socialization (Putallaz & Heflin, 1990).

In sum, the development of social skills appears to be influenced by a variety of factors, both internal and external. Constitutional and genetic characteristics may predispose a child to the development of effective or ineffective social skills. Parenting style contributes to the social growth of the child, particularly the style of receptive parenting. Secure attachment also plays a role in both vertical and horizontal relationships, which in turn influence social skill formation. Additionally, peer interaction is an important component of social development, primarily manifesting itself through play. Finally, parental behavior relating to positive peer interaction can impact social growth.

Importance of Social Skills

Research suggests that social competence is an essential component of child development (Merrell, 1993). The concept of successful development is intertwined with a child's sense of interpersonal ability and positive peer evaluation (Landau & Moore, 1991). The ability to interact with others effectively is an important factor in the progress

and development of children (Hartup, 1983). Much research regarding the importance of social skills involves the “social skill hypothesis”, or the assertion that children’s social skills influence the quality of their relationships with peers (Asher, Oden, & Gottman, 1977; Conger & Keane, 1981; Ladd & Asher, 1985; Ladd & Mize, 1983). Frequently, this research has focused on demonstrating that changing children’s social competence affects their peer relationships (Ladd, 2005). Gresham and Nagel (1980) found that after third- and fourth-grade children who were not accepted by classmates viewed narrated videotapes with peer models demonstrating various social skills, both the number of positive peer interactions and overall peer group acceptance of these children increased. Similarly, Ladd (1981) discovered that social skill coaching significantly improved both the social skills of and the peer acceptance experienced by rejected third-graders. An experiment involving social skill coaching of low-accepted preadolescents also provided results consistent with the social skill hypothesis (Bierman & Furman, 1984).

Further support for the social skill hypothesis was generated with Bierman’s (1986) reanalysis of his previous research (Bierman & Furman). This investigation revealed that in children who experienced both social skill coaching and positive peer experience, improvements in conversational skills predicted increases in peer acceptance. These findings indicate that the coaching programs improved children’s peer acceptance by facilitating their appreciation of the effects of their behavior on peers and by encouraging them to use this awareness as motivation to develop and improve their social skills. Evidence also supports the connection between appropriate social skill development and academic success (Walker and Hops, 1976), high self-esteem (Boivin &

Bégin, 1989), increased quality of life (Rubin, Booth, Rose-Krasnor, & Mills, 1995), and favorable parental treatment and respect (Putallaz & Heflin, 1990).

However, there have also been social skills programs that have not resulted in significant findings. For example, Lane (1999) compared academic and social skills interventions conducted with at-risk first graders. Neither intervention resulted in significant gains in social competence, although improvements did occur. Mathur and Rutherford (1996) reviewed the social skills training literature, and concluded that there are several important issues within this area. First, these authors claimed that many social skills programs are not built upon substantial theoretical foundations. They also discussed several debates concerning the essence of social skills deficits. Additionally, they emphasized that several methods of assessing social skills are imprecise. Furthermore, these authors encountered some ambiguity in authors' descriptions of social skills interventions. Finally, Mathur and Rutherford discussed the tendency of many social skills programs to lack achieved generalization.

Likewise, inadequate social skill development adversely affects a child's current and future functioning in a variety of areas. Cowen, Pederson, Babigian, Izzo, and Trost (1973) conducted what has become a classic study in which third grade students were examined for 11 to 13 years. Results of this study provided compelling evidence of a predictive relationship between issues in early peer relationships and later mental health problems. Poor childhood social skills and interpersonal difficulties have also been connected with the development of many serious problems later in life, such as juvenile delinquency, school dropout, job termination, persistent unemployment or

underemployment, dishonorable discharge from the military, and psychiatric hospitalizations (Loeber, 1985; Merrell, 1993; Parker & Asher, 1987; Roff, Sells, & Golden, 1972). Furthermore, various clinical disorders and issues have been associated with insufficient social skills and rejection from peers across childhood, adolescence, and early adulthood. According to McFall (1982), some of these problems include alcoholism, depression, schizophrenia, mental retardation, child abuse, children's social isolation, juvenile delinquency, ulcers, test anxiety, and fear of public speaking.

As previously mentioned, social skill development also significantly affects academic achievement. Walker and Hops (1976) demonstrated that childhood social skills and resulting peer relationships favorably influence academic success. Rubin, Hymel, and Mills (1989) indicated that teachers frequently show admiration for socially competent children. Children with social skill deficits are likely to experience academic problems. Research indicates that children with inadequate social skills often demonstrate a lower degree of academic achievement and commonly score below average on measures of cognitive and emotional development (Green, Forehand, Beck, & Vosk, 1980; Hubbard & Cole, 1994). Deficient social skills have also been connected with classroom adjustment problems, including lack of cooperation, failure to communicate needs, negative response to peers, and difficulty making friends (Gottman, Gonso, & Rasmussen, 1975; Gottman, Gonso, & Schuler, 1976; Gresham & Nagle, 1980; LaGreca & Santogrossi, 1980; Oden & Asher, 1977).

From this brief review, it is clear that the development of appropriate social skills leads to benefits for a child and that social skill deficits indicate the possibility of future

problems. The effects of social skill development influence every aspect of a child's life – school, home, and both vertical and horizontal relationships. Due to their correlation with future success or difficulty, social skills are an essential part of a child's development and functioning.

Social Skill Deficits in Children with ADHD

As previously indicated, social skill deficits increase the risk for unfavorable future outcomes. As such, any population that characteristically exhibits social skill problems should be examined and interventions to improve the population's social skills should be developed. Children with Attention-Deficit/Hyperactivity Disorder (ADHD) are such a population. ADHD is a developmental disorder characterized by excessive inattention, impulsivity, and hyperactivity (American Psychiatric Association, 2000). ADHD can manifest itself in three different symptom configurations: Predominately Inattentive Type, Predominately Hyperactive Type, and Combined Type. Wallandar and Hubert (1987) concluded that although children with ADHD are primarily categorized by their difficulties with hyperactivity and inattention, social problems most significantly hinder these children's development. The possibility of social impairment is discussed in the DSM-IV-TR (American Psychiatric Association) definition of ADHD. Several hallmarks of ADHD also clearly indicate social skill problems and deficits; for example, children with ADHD often interrupt others and tend to have difficulty taking turns. Research concerning ADHD-related social issues can be classified into four different

categories: intrusive overt behaviors, poor communication and reciprocity, bias in social-cognitive skills, and deficient emotional regulation.

Intrusive Overt Behaviors

Children with ADHD often cannot identify and do not value social boundaries. This can create negative peer interactions and can lead to peer rejection and victimization, even after only brief contact with the child (e.g., Fine & Kotkin, 2003; Landau & Moore, 1991; Pelham and Bender, 1982; Shea & Wiener, 1985). Landau and Moore proposed that children with ADHD induce negative peer reactions, and consequently are frequently rejected by peers due to an externalizing behavior pattern. Pope, Bierman, and Mumma (1991) indicated that three types of behaviors impact peer rejection in elementary school: aggression, hyperactivity, and inattention-immaturity. According to these researchers, hyperactivity and inattention-immaturity are especially detrimental to peer relationships and cause interpersonal difficulties distinct from those caused by aggression. Stormont (2001) proposed that children with ADHD are typically less accepted by their peers and that aggression displayed toward peers is highly correlated with degree of peer rejection. Disobedience, disruptive behavior, and the inability to display self-control are other features of ADHD that also seem to significantly affect peer acceptance (Flicek, 1992).

Poor Communication and Reciprocity

Communication deficits are clear in children with ADHD. A child with ADHD will likely be less receptive to social initiations made by a non-ADHD peer than the peer without ADHD will be to initiations made by the child with ADHD. Social initiations

made or questions asked by others often go ignored by children with ADHD (Milich & Landau, 1982; Whalen, Henker, Collins, McAuliffe, & Vaux, 1979). Children with ADHD are also less apt to alter their communication behaviors to meet a situation's fluctuating requirements. For example, in cooperative tasks, children with ADHD typically exhibit greater degrees of intrusiveness in their communication styles, voice more disagreement, and are less prone to ask for feedback about their performance within the group than are children without ADHD (Whalen et al., 1979). Furthermore, when children with ADHD must complete tasks that involve the organization and production of speech in compliance with precise task requirements, these children speak less, are less able to produce clear speech, and are less adept in organizing their verbalizations (e.g., Hamlett, Pelligrinni, & Conners, 1987). Guevremont and Dumas (1994) indicated that overall, the studies in this area "suggest that the social exchange skills of children with ADHD may be interrupted by (a) problems shifting roles between giving and receiving information in dyadic interactions, (b) increased inappropriate and/or disagreeable verbal exchanges, (c) inefficient reciprocity in conversations, (d) poorer organization of speech, and (e) greater difficulty remaining on task" (p. 165).

Bias in Social-cognitive Skills

Children with ADHD may exhibit biased and/or deficient social-cognitive skills in areas such as social knowledge, consideration of relevant social cues, and interpretation of social information (Dodge & Newman, 1981). Aggressive children with ADHD typically gather less information about peers before they make behavioral attributions. Those with ADHD also tend to know less about proper social behaviors than

do those without ADHD (Dodge & Newman; Grenell, Glass, & Katz, 1987). Aggressive children frequently demonstrate poor social problem-solving and decision-making skills (Dodge & Coie, 1987; Guevremont & Foster, 1993), may regard aggression more positively than non-aggressive peers, and expect that violence will produce favorable outcomes (Dodge & Coie). Additionally, aggressive children with ADHD are apt to make hostile attributions about others' neutral actions and tend to respond belligerently even when only nominally provoked (Milich & Dodge, 1984)

Deficient Emotional Regulation

Children with ADHD frequently display high degrees of emotionality such as explosive, erratic, and oppositional behavior. These children often overreact to trivial issues and may appear to be excessively stimulated when in arousing situations. These tendencies lead to problems and delays associated with reducing such reactions in circumstances that necessitate behavioral inhibition (Barkley, 1990).

Characteristics of ADHD-related Social Skill Deficits

Social skill deficits in children with ADHD have several disturbing characteristics, all of which indicate the necessity of interventions to improve these interpersonal difficulties. ADHD-related social problems are predominant and pervasive (Ross & Ross, 1982). Social issues are typically the most troubling ADHD problem behavior for parents and teachers. Researchers have also proposed that children with ADHD may exhibit biases and deficits in social-cognitive skills, such as attention to pertinent social cues and interpretation of social information (Guevremont & Dumas, 1994). These social deficits also tend to be enduring, recurrent, and often increasing in

intensity with time. Some research has indicated that children with negative social status both maintain their unfavorable reputations over time (Bukowski & Newcomb, 1984; Coie & Dodge, 1983) and reestablish them quickly upon initial interactions with new peers (Coie & Kupersmidt, 1983; Pelham & Bender, 1982). Furthermore, although some difficulties associated with hyperactivity diminish with age, social deficits tend to remain stable or even intensify over time (Ross & Ross, 1982; Waddell, 1984). The literature also indicates that hyperactive children may be “negative social catalysts” (Whalen & Henker, 1985, p. 448) educating unfavorable behavior from others. Several studies have suggested that hyperactive children elicit negative behavior from siblings (Mash & Johnston, 1983) and classmates (Campbell, Endman, & Bernfeld, 1977). Hyperactive children also appear to decrease the receptivity and increase the intensity, directiveness, and negativity of parents (Mash & Johnston, 1982; Tallmadge & Barkley, 1983) and teachers (Stormont, 2001; Whalen, Henker, & Dotemoto, 1980, 1981). These adult reactions to hyperactive children appear to stabilize when the children are treated with medication (Barkley & Cunningham, 1979; Whalen, Collins, Henker, Alkus, Adams, & Stapp, 1978), indicating that parent and teacher behavior is truly reactive to the hyperactive children’s actions.

Future Implications Associated with Social Skill Deficits

Many studies indicate that rejection by peers may lead to loneliness, low self-esteem, poor academic achievement, school dropout, and juvenile delinquency (Fine & Kotkin, 2003). Troubled peer relations also predict later problems in adult life, including job dismissal, dishonorable discharges from the military, arrests, and psychiatric

hospitalization (Parker & Asher, 1987). A particularly compelling finding from Cowen, Pederson, Babigan, Izzo, and Trost (1973) was that third grade classmates' negative nominations on a peer rating scale was the best predictor of future psychiatric difficulties. Other predictors in this study included teacher ratings, psychometric results, self-reports, achievement scores, and evaluations conducted by mental health professionals. Landau and Milich (1990) suggest that early interpersonal issues both signify present problems for the child and denote a significant "at-risk" indicator for future affective and behavioral difficulty. As many as 50% of children with ADHD experience significant problems in peer relationships and are rejected by their peers, in comparison to 15% to 30% of children without ADHD (Coie, Dodge, & Coppotelli, 1982; Guevremont & Dumas, 1994). Clearly, interpersonal problems and peer rejection are crucial issues for children with ADHD.

Bullying, peer victimization, and ADHD. The deficient social skills of children with ADHD also increase the likelihood of these children being bullied by peers or becoming bullies themselves (Salmon, James, Cassidy, & Javaloyes, 2000). Martlew and Hodson (1991) indicated that children with ADHD are more likely to be bullied and/or teased by peers, and that this teasing increases with age. O'Moore and Hillery (1989) discovered that peers bullied children with ADHD twice as frequently as children without ADHD. Furthermore, those with ADHD commonly misinterpret subtle interpersonal cues that lead to teasing, bullying, or social exile (Stormont, 2001). Children with ADHD also are frequently bullies themselves. According to Stormont, aggression is one of the most pervasive issues for children with ADHD. Children with ADHD instigate more fights and

arguments than children without ADHD. They also appear to have a bias toward aggressive solutions that results in reduced peer desire for cooperative work. Research has indicated that about half of all children with ADHD also exhibit aggression (Loney & Milich, 1982). The aggressive tendencies of many children with ADHD are particularly detrimental to peer relationships (e.g., Fine & Kotkin, 2003; Landau & Moore, 1991; Wheeler and Carlson, 1994). Generally, children with ADHD who are also aggressive experience more peer rejection than children who are either solely aggressive or who have ADHD but are not aggressive (Guevremont & Dumas, 1994). However, lack of aggression in a child with ADHD does not necessarily protect the child from interpersonal problems (Milich & Landau, 1989). Hyperactivity may create as much risk for social difficulty as aggression (Pope, Bierman, & Mumma, 1991). Social issues for children with ADHD have been associated with undesirable outcomes in adulthood, such as elevated substance abuse risk, family problems, difficulty in school, and disadvantages in employment (Semrud-Clikeman & Schafer, 2000). Consequently, the early identification and remediation of social skill problems is even more crucial in children with ADHD.

Models for ADHD-related social skill deficits. Dodge (1986) developed a social-information-processing model for the existence of social skill deficits in aggressive children and children with conduct disorder. He theorized that these deficits stem from difficulties in identifying, comprehending, or interpreting social cues. Fine and Kotkin (2003) applied this model to children with ADHD, indicating that in children with ADHD, this deficit appears to manifest itself through deficiency in the process of

encoding and recognizing environmental cues. These children also frequently exhibit deficits in social performance, understanding appropriate behavior but failing to apply this knowledge to their own social interactions. Fine's (1993) earlier research provides further support for this view, reporting that children with ADHD are often able to recognize the correct answer to social problems in real-life situations, but demonstrate significant difficulty in solving their own dilemmas. They are not conscious of many social cues, creating problems in adapting behavior to meet the circumstances. Several other studies have indicated that children with ADHD exhibit a deficit in performance rather than deficient social knowledge (Grenell, Glass, & Katz, 1987; Loney & Milich, 1982; Whalen & Henker, 1985). Due to the heterogeneity of the ADHD population, it is likely that some children possess inadequate social knowledge, while others experience behavioral interference that prevents them from using their social knowledge during interpersonal interaction (Nixon, 2001). Barkley (1994; 1997) offered another model for problems experienced by children with ADHD, claiming that every difficulty associated with ADHD originates from these children's inability to inhibit their behavior. He argued that behavioral inhibition is required for the effective functioning of four executive systems: working memory, internalization of speech, self-regulation of affect-motivation-arousal, and reconstitution. The lack of inhibitory control affects the functioning of these systems, creating difficulties in many social information-processing behaviors.

Children with ADHD who exhibit social skill deficits frequently lack awareness of social norms and of their own violation of social expectations. Therefore, these children are typically not accurate reporters of their own social skill (Kmett, 1999;

Semrud-Clikeman & Schafer, 2000). This inaccuracy in self-report creates a difficulty for performance of children with ADHD on self-report measures of social skills. However, when considered in conjunction with measures of other variables that are traditionally associated with social skill deficits, the combination of assessment measures can be used to provide a more accurate picture of the child's true social skills. These associated constructs include peer victimization (e.g., Fine & Kotkin, 2003; Landau & Moore, 1991; Shea & Wiener, 1985), externalizing aggressive behavior (e.g., Fine & Kotkin, 2003; Landau & Moore, 1991; Wheeler and Carlson, 1994), social intelligence (Greene, Biederman, Faraone, Quелlette, Penn, & Griffin, 1996), healthy friendships, and externalizing behavior problems (Guevremont & Dumas, 1994).

Self-Report Measures and the Children's Self-report Social Skills Scale

Self-report measures for children have many advantages, both when used alone and when used in conjunction with parent and teacher scales. Children are the only reporters who can provide information about their behaviors across a variety of different situations, including home, school, play, and extracurricular activities. Child self-report measures are typically inexpensive and simple to administer in many different settings (Beitchman & Corradini, 1988). They also provide important information that is not available to other reporters, such as the child's thoughts and perceptions. This particular purpose is especially useful in the frequent practice of gathering data regarding the child's behavior from several informants (Kolko & Kazdin, 1993). Collecting data from as many sources as possible offers a more complete representation of the child. It is crucial to have a variety of measures that permit each informant to provide his or her

portion in a meaningful and practical manner. Several children's self-report scales are now being used in research as well as for clinical purposes. These scales assess depression (e.g., Birmaher, 1981; Kovacs, 1981), coping skills (Causey & Dubow, 1992), and general functioning (e.g., Achenbach, 1991). However, social skills is a domain that has been largely neglected in children's self-report. Only a few self-report social skill measures exist, and these have problems in isolating and exclusively assessing social skills.

An important application of self-report measures in which a brief measure of social skills would be valuable is that of the use of screening instruments in a multiple-gating approach to assessment. Multiple gating (Reynolds, 1994) is a method that is used for early identification and primary prevention intervention. It involves three stages, starting with administering a short screening measure to a large group of students. Children who surpass an established screening score are retested. If these children meet the designated cutoff score on the retest, the children then are referred for an individual clinical interview. This procedure is cost effective and provides the ability to screen many children effectively. A brief self-report social skills scale would be an effective early screening tool to identify and provide interventions for children with social skill deficits. Danielson and Phelps (2003) addressed this need for a brief children's self-report social skills measure by developing the Children's Self-report Social Skills Scale (CS⁴). This measure fills this particular gap in the literature, providing a concise method of assessing social skills from the child's perspective.

Present Study

Cronbach and Meehl (1955) defined a construct as “some postulated attribute of people, assumed to be reflected in test performance” (p. 283). They described three general features of constructs. First, a construct is a hypothesized feature with no single, distinct external criterion. Second, a construct exists in a nomological network, or a structure of synergistic conjectures and predictions originating from theoretical ideas about the construct in question. The nomological network explains the construct’s relationships with other constructs and with observed variables. Finally, the nomological network must encounter variables in the observable world. Construct validity, or the degree to which a test measures a particular construct, is considered to be comprehensive, subsuming other types of validity (Anastasi & Urbina, 1997).

Convergent and discriminant validity are two types of construct validity. Convergent validity reflects the concept that a measure should correlate highly with variables to which it is theoretically related, while discriminant validity is the extent to which a measure does not correlate with variables from which it is theoretically different (Campbell and Fiske, 1959). Another way to assess discriminant validity is to examine the degree to which a measure negatively correlates with variables from which it should theoretically differ. Both convergent and discriminant validity will be assessed to attempt to provide further construct validity for the Children’s Self-report Social Skills Scale (CS⁴).

Convergent Validity. Preliminary convergent validity of the CS⁴ will be examined by assessing the degree to which constructs that should theoretically correlate with social

skills positively correlate with the CS⁴. One such construct is social intelligence, or “the ability to understand other people and how they will react to different social situations” (Silvera, Martinussen, & Dahl, 2001, p. 314). These researchers identified three underlying factors of social intelligence: social information processing, social skills, and social awareness. Since social skill is a factor of social intelligence, it follows that a measure of social skills should correlate highly with a measure of social intelligence. Therefore, it is expected that a measure of social intelligence will positively correlate highly with the CS⁴. Another construct expected to correlate with social skills is that of healthy friendships. Adequate social skills are necessary to develop adaptive friendships, while social skill deficits are related to peer rejection and social isolation (Asher, Oden, & Gottman, 1977; Asher and Taylor, 1981; Gottman, Gonso, & Rasmussen, 1975). A high positive correlation between the CS⁴ and a friendship measure is anticipated.

Discriminant Validity. Preliminary discriminant validity can be established by showing that constructs that should theoretically inversely correlate with appropriate social skills, such as peer victimization and externalizing aggressive behavior, inversely correlate with the CS⁴. As previously discussed, peer victimization is strongly related to poor social skills (Fox & Boulton, 2006). Therefore, the CS⁴ is expected to inversely correlate with a measure of peer victimization. Externalizing aggressive behavior is also highly associated with inadequate social skills (e.g., Gottman, Gonso, & Schuler, 1976; Gresham & Nagle, 1980; LaGreca & Santogrossi, 1980; Oden & Asher, 1977), and as such, the CS⁴ should inversely correlate with a measure of aggression.

Hypotheses for the Current Study: Convergent Validity

1. Social intelligence, as measured by the Tromsø Social Intelligence Scale (TSIS; Silvera, Martinussen, & Dahl, 2001), will exhibit a significant positive correlation with the Children's Self-report Social Skills Scale (CS⁴; Danielson & Phelps, 2003).
2. The social skills subscale of the TSIS will significantly positively correlate with the CS⁴.
3. Quality of friendships, as measured by the Friendship Qualities Scale (FQS; Bukowski, Hoza, & Boivin, 1994), will be significantly positively correlated with the CS⁴.
4. The assertive behavior subscale of the Children's Action Tendency Scale (CATS; Deluty, 1979) will be significantly positively correlated with the assertiveness subscale of the CS⁴.

Hypotheses for the Current Study: Discriminant Validity

5. Peer victimization, as measured by the Self-Report Victimization Scale (SVS; Ladd & Kochenderfer-Ladd, 2002), will demonstrate a significant inverse correlation with the CS⁴.
6. The aggressive behavior subscale of the CATS will significantly inversely correlate with the CS⁴.

Hypotheses for the Current Study: Construct Validity

7. Since children with ADHD typically provide poor self-reports of their own social skills, it is hypothesized that children with ADHD will not significantly

differ from children without ADHD on total scores on the CS⁴ or the social skills subscale of the Tromsø Social Intelligence Scale.

8. Children with ADHD will differ significantly from children without ADHD on all other measures. More specifically, children with ADHD will have significantly lower scores on the FQS, the social information processing and social awareness subscales of the TSIS, and the assertive behavior subscale of the CATS. Children with ADHD will score significantly higher on the SVS and the aggressive behavior subscale of the CATS.

CHAPTER II

METHOD

Participants

A total of 300 surveys were distributed; 17 participants returned surveys. Please refer to Table 1 for more specific summary data concerning response rate. Six of these children were excluded from the data analyses due to diagnoses that typically result in social skill difficulties, such as Asperger's Disorder and Autism. This study was only interested in social skill deficits created by ADHD. Of the 11 participants used, four of them had ADHD and seven of them had no psychiatric diagnoses. Two of the participants in the ADHD group also had Oppositional Defiant Disorder, and one had anxiety difficulties. The participants were recruited from two summer programs, a general summer day camp and a camp for children with ADHD and/or autistic spectrum disorders. Participants were between eight and twelve years of age, with an average participant age of 10.09 years old. Parents of the participating children also completed two surveys. Permission for participation of each child was obtained from his or her parents using an informed consent permission form. The "Ethical Principles of Psychologists and Code of Conduct" (American Psychological Association, 2002) was followed throughout all interactions with the participants and their parents.

Table 1

Response Rate Summary Statistics

	ADHD sample	Non-ADHD sample	Total
Surveys distributed	150	150	300
Surveys returned	9	8	17
Surveys excluded	6	0	6
Surveys included	4	7	11
Return rate	6.00%	5.33%	5.66%

Materials

Five different measures were administered to each child participating in the study. One measure, the Children's Self-report Social Skills Scale (CS⁴; Danielson & Phelps, 2003) was used to measure social skills. The Tromsø Social Intelligence Scale (TSIS; Silvera, Martinussen, & Dahl, 2001) was used to assess social intelligence, and the Friendship Quality Scale (FQS; Bukowski, Hoza, & Boivin, 1994) was used to measure quality of friendships. Finally, the Children's Action Tendency Scale (CATS; Deluty, 1979) was used to measure externalizing aggressive behavior, and the Self-Report Victimization Scale (SVS; Ladd & Kochenderfer-Ladd, 2002) was used to assess peer victimization. Parents completed a version of the CS⁴ adapted for parent report as well as a demographic questionnaire.

Children's Self-report Social Skills Scale (CS⁴). The CS⁴ (Appendix A) is a 21-item questionnaire that assesses a child's perception of his or her own social skills. All

items are ranked on a 5-point Likert scale (1 = *Never*, 2 = *Hardly Ever*, 3 = *Sometimes*, 4 = *Most of the Time*, and 5 = *Always*). The CS⁴ measures the degree to which the child exhibits social behaviors or abilities rather than simply detecting the existence of these behaviors or abilities. Seven items are reverse scored; these items are the ones that measure poor social skills. All other items are scored as indicated by the child. Scoring is additive, and high scores indicate better social skills. Possible scores range from 21 to 105 (Danielson & Phelps, 2003).

The CS⁴ examines four different areas within the domain of social skills, all of which are important in treatment of children with social skill difficulties: communication skills (items 1, 7, and 9), self-control (items 4, 17, and 21), social rules (items 3, 6, 8, 10, 11, and 14), and assertiveness (items 5, 12, 15, and 20). Communication skills are those that aid interpersonal interaction. The area of self-control involves behavior that is impulsive, antagonistic, and fails to show consideration for others' personal boundaries. Social rules are characteristics of interactions between individuals that our society accepts as respectful and just. The domain of assertiveness ranges from submissive to domineering. Four additional questions involving general statements about friendships (items 2, 3, 16, and 18) were included to examine validity (Kmett, 1999).

In Danielson and Phelps' (2003) investigation of the CS⁴, test-retest reliability ($r = .74, p < .001$) and internal consistency were established. Preliminary evidence of construct validity was also provided; the CS⁴ demonstrated a significant positive correlation with favorable peer nominations, and a significant negative correlation with scores on a measure of depression. Principal component analysis of the CS⁴ indicated

three reliable components: Social Rules, Likeability, and Social Ingenuousness. The Social Rules component, as indicated above, assesses the extent to which a child follows societal standards of politeness. The Likeability component involves items that measure a child's perceived popularity among peers. Social-Ingenuousness consists of items that evaluate inadequate identification and/or comprehension of the more subtle aspects of interpersonal interactions. These items include social skill deficits found in children with ADHD. To provide a method of comparing parent and child impressions of social skills, the CS⁴ was also adapted for parent use (Appendix B). Wording was modified to reflect the individual completing the survey (i.e., "I" and "me" were changed to "my child").

Tromsø Social Intelligence Scale (TSIS). The TSIS (Appendix C) is a 21-item self-report instrument that measures social intelligence. All items are assessed on a 7-point Likert scale, with only the endpoints of the scale labeled (1 = *Describes me extremely poorly*, 7 = *Describes me extremely well*). Scoring is additive, with high scores representing higher social intelligence. Possible full-scale scores range from 21 to 147.

This measure contains three subscales: social information processing (items 1, 3, 6, 9, 14, 17, and 19), social skills (items 4, 7, 10, 12, 15, 18, and 20), and social awareness (items 2, 5, 8, 11, 13, 16, and 21). Sample items include "I can predict other peoples' behavior" (social information processing), "I often feel uncertain around new people who I don't know" (social skills), and "I often feel that it is difficult to understand others' choices" (social awareness). Items 2, 4, 5, 8, 11, 12, 13, 16, and 21 are keyed negatively and must be reverse-scored. Scores for each subscale range from 7 to 49, with higher scores indicating better social information processing, social skills, and social

awareness, respectively. Each subscale represents one of three factors that were revealed in a series of confirmatory factor analyses. While the existing reliability and validity research regarding the TSIS is limited, both the scale's three-factor structure and the internal consistency of each factor are considered adequate (Silvera, Martinussen, & Dahl, 2001).

Friendship Qualities Scale (FQS). The FQS (Appendix D) is a 46-item self-report scale that examines six different dimensions of friendship. These dimensions include companionship (items 1, 3, 6, 22, 29, and 30), balance (items 8, 13, 26, 35, 37, and 45), conflict (items 17, 20, 24, 41, and 42), help (items 2, 4, 7, 10, 12, 19, 21, 25, 28, 31, 34, and 39), security (items 5, 9, 15, 23, 27, 32, 36, 40, and 43), and closeness (items 11, 14, 16, 18, 33, 38, 44, and 46). In addition, the help, security, and closeness scales have further subdivisions. The help dimension is divided into aid (items 4, 10, 25, 28, 34, and 39), protection from victimization (items 7, 19, and 21), and guidance (items 2, 12, and 31). The security scale is split into transcending problems (items 5, 15, 27, 40, and 43) and reliable alliance (items 9, 23, 32, and 36). Finally, the closeness dimension is separated into affective bond (items 11, 18, 44, and 46) and reflected appraisal (items 14, 16, 33, and 38). There are two versions of the FQS, one for boys and one for girls. The only difference between the two versions of the FQS is that items that use pronouns such as "he" and "she" are gender specific. For example, item 11 reads, "If my friend had to move away, I would miss him" on the scale for boys and, "If my friend had to move away, I would miss her" on the scale for girls. The version of the FQS in Appendix D is the male version. Items that require pronoun changes for females are 11, 17, 18, 24, 27,

and 45. Each item has a 5-point Likert scale (1 = *the sentence is probably not true for your friendship*, 2, = *it might be true*, 3 = *it is usually true*, 4 = *it is very true*, and 5 = *it is really true for your friendship*). Scoring is additive, and results in scores for each friendship dimension as well as an overall friendship score. Possible overall friendship scores range from 46 to 230, with higher scores indicating greater degrees of friendship. Scores for the friendship dimensions can fall within the following ranges: 5 to 25 (conflict), 5 to 30 (companionship and balance), 5 to 40 (closeness), 5 to 45 (security), and 5 to 60 (help).

In Bukowski, Hoza, and Boivin's (1994) analysis of the FQS, both reliability and validity of the measure were investigated. A confirmatory factor analysis indicated that the friendship domains examined by the FQS subscales are unique but related facets of the construct of friendship. Each dimension of friendship also demonstrated a high degree of internal consistency. Finally, preliminary validity was established with the evidence of higher FQS ratings for mutual friends than for non-mutual friends and for stable friends than for unstable friends.

Children's Action Tendency Scale (CATS). The CATS (Appendix E) is a 39-item self-report measure that assesses children's assertive, aggressive, and submissive behavior. The instrument consists of 13 situations, each of which has three sets of choices. The child must choose one response from each pair of choices, leaving each scenario with three selected response strategies. Each situation has all possible combinations of type of behavioral response (assertive/aggressive,

aggressive/submissive, and assertive/submissive). Scores on each scale range from 0 to 26, with higher scores indicating more assertive, aggressive, or submissive behavior.

The CATS has exhibited high internal consistency and acceptable test-retest reliability. Construct validity has been shown through the assessment of convergent validity; the measure correlates positively with self-esteem scores and with peer and teacher ratings of behavior. Good known-groups validity has also been demonstrated with the successful use of CATS scores to discriminate between samples of normal and clinically aggressive children (Deluty, 1979).

Self-Report Victimization Scale (SVS). The SVS (Appendix F) is a 12-item self-report instrument that measures degree of peer victimization. Only four of the scale's items actually assess peer victimization (items 1, 6, 7, and 9); all other items are filler items. Each item examines one aspect of peer victimization: physical (item 9), direct verbal (item 6), indirect verbal (item 7), or general (item 1). In young children, this measure is traditionally administered in an individual interview format. However, the authors of the SVS indicated that a group paper-and-pencil format would be appropriate for older children (B. K. Ladd, personal communication, May 6, 2007). Each question has a 3-point Likert scale (1 = *Never*, 2 = *Sometimes*, 3 = *A lot*). Scoring is additive, with higher scores indicating higher levels of peer victimization. Scores range from 4 to 12. The SVS has demonstrated good test-retest reliability and internal consistency. Construct validity has been established through significant confirmatory factor analyses and positive correlations between the SVS and ratings from peers, teachers, and parents.

Procedure

Summer camps serving ADHD and normative populations were contacted, and two camps were selected for participation. These camps were a camp in California specializing in ADHD and autistic spectrum disorders and a general day camp in Virginia. Due to geographic restrictions, survey packets were not administered in person. The first camp mailed survey packets to the homes of the families before the children attended camp, and the second camp handed out packets at the beginning of each two-week session. Parents from the former camp used a self-addressed, stamped envelope to mail completed packets to the researcher prior to the child attending camp, while parents from the latter camp returned the surveys to camp before the end of each two-week session. One hundred fifty packets were distributed by each camp. The survey packets contained an informed consent sheet explaining the study and allowing parents to give permission for their children to participate (Appendix G), the self-report CS⁴, the TSIS, the FQS, the SVS, the CATS, the parent version of the CS⁴, a parent demographic questionnaire (Appendix H), and parent and child debriefing forms (Appendices I and J). Parents were also provided with an entry form for a drawing for an iPod Shuffle (Appendix K). The child surveys were randomly ordered using a modified Latin Squares design, and were copied on green paper. The parent surveys were copied on white paper and were placed after the child surveys.

CHAPTER III

RESULTS

Eighteen correlational analyses were conducted to determine the relationship between total scores on the Children's Self-report Social Skills Scale (CS⁴; Danielson & Phelps, 2003) and total and subscale scores on the other measures. Twenty-two independent-samples *t* tests were also conducted to examine differences between the ADHD and non-ADHD samples on social skills, social intelligence, friendship, peer victimization, and externalizing aggressive behavior. Corrections for the number of correlations and *t*-tests that were performed were not used in the discussion of current results due to the small sample size. With corrections, very few significant results would have been found and the results would not have merited discussion. This is demonstrated in Table 2, which compares the significance of results with and without corrections, as well as the results of a one-tailed test. This table demonstrates all possible methods of handling the current study's data, from most conservative to most liberal. The results with corrections are the professionally-accepted method of analysis, regardless of sample size. However, the more liberal non-corrected and one-tailed results are presented to encourage discussion as well as to provide speculative hypotheses for the future. The discussion in the current paper will be based upon speculative hypotheses generated by the results without corrections. The small number of participants in the current study

resulted in a study that was like a pilot study, and therefore it was appropriate to take the risk of inflated Type I error to determine whether patterns existed that supported the research hypotheses. These relationships can be examined in more depth with a larger sample in future research. While the results discussed below are highly speculative, they provide researchers with hypotheses for additional investigation.

Table 2

Correlations between the Children's Self-report Social Skills Scale (CS⁴) and other Study Measures

	<i>r</i> (With Bonferroni corrections)	<i>r</i> (Without corrections)	<i>r</i> (One-tailed)
Tromsø Social Intelligence Scale			
Social Skills Subscale	.85*** (<i>N</i> = 11)	.85** (<i>N</i> = 11)	.85**** (<i>N</i> = 11)
Total Score	.48 (<i>N</i> = 11)	.48 (<i>N</i> = 11)	.48 (<i>N</i> = 11)
Friendship Qualities Scale			
Guidance Component (Help Subscale)	.68 (<i>N</i> = 9)	.68* (<i>N</i> = 9)	.68* (<i>N</i> = 9)
Protection from Victimization Component (Help Subscale)	.57 (<i>N</i> = 11)	.57 (<i>N</i> = 11)	.57* (<i>N</i> = 11)
Total Score	.62 (<i>N</i> = 9)	.62 (<i>N</i> = 9)	.62* (<i>N</i> = 9)
Children's Action Tendency Scale			
Assertive Behavior Subscale	-.31 (<i>N</i> = 10)	-.31 (<i>N</i> = 10)	-.31 (<i>N</i> = 10)
Aggressive Behavior Subscale	-.06 (<i>N</i> = 10)	-.06 (<i>N</i> = 10)	-.06 (<i>N</i> = 10)
Self-Report Victimization Scale	-.57 (<i>N</i> = 11)	-.57 (<i>N</i> = 11)	-.57* (<i>N</i> = 11)

* Significant at the 0.05 level

** Significant at the 0.01 level

*** Significant with Bonferroni corrections at the 0.002 level

**** Significant at the 0.001 level

Convergent Validity

The first hypothesis was that social intelligence, as measured by the Tromsø Social Intelligence Scale (TSIS; Silvera, Martinussen, & Dahl, 2001) would demonstrate a significant positive correlation with the CS⁴, indicating that as scores on the CS⁴ increase, social intelligence scores increase. The correlation between the CS⁴ and the TSIS was not significant, but was in the expected direction (see Table 2).

The second hypothesis was that the Social Skills subscale of the TSIS would significantly positively correlate with the CS⁴, a result that is particularly pertinent to establishing convergent validity for the CS⁴. The Social Skills subscale of the TSIS was significantly positively correlated with the CS⁴ (see Table 2). Therefore, as CS⁴ scores increased, social skills scores on the TSIS also increased.

The third hypothesis was that quality of friendships, as measured by the Friendship Qualities Scale (FQS; Bukowski, Hoza, & Boivin, 1994) would exhibit a significant positive correlation with the CS⁴. This would indicate that as scores on the CS⁴ increase, friendship scores also increase. To examine this hypothesis, correlational analyses were performed to determine the relationship between the CS⁴ and each subscale of the FQS, as well as between the CS⁴ and total FQS scores. The guidance component of the FQS help subscale was significantly positively correlated with the CS⁴, suggesting that participants who reported better social skills on the CS⁴ also described more attempts to seek guidance from friends on the FQS (see Table 2). The protection from victimization component of the FQS help subscale approached significance, indicating that participants who reported better social skills on the CS⁴ also reported a greater

likelihood of their friends protecting them from peer teasing (see Table 2). When correlated with scores on the CS⁴, total scores on the FQS approached significance (see Table 2).

The fourth hypothesis was that assertiveness, as measured by the assertive behavior subscale of the Children's Action Tendency Scale (CATS; Deluty, 1979) would demonstrate a significant positive correlation with the assertiveness subscale of the CS⁴, indicating that as scores on the assertiveness subscale of the CS⁴ increase, CATS assertiveness scores also increase. The assertiveness subscale of the CATS was not significantly correlated with the assertiveness subscale of the CS⁴ (see Table 2).

Discriminant Validity

The fifth hypothesis was that peer victimization, as measured by the Self-Report Victimization Scale (SVS; Ladd & Kochenderfer-Ladd, 2002) would be significantly inversely correlated with the CS⁴. This would indicate that as scores on the CS⁴ increase, peer victimization decreases. The correlation between the SVS and the CS⁴ approached significance (see Table 2). This suggests that participants who reported better social skills on the CS⁴ also reported experiencing less peer victimization.

The sixth hypothesis was that aggressive behavior, as measured by the aggressive behavior subscale of the CATS, would exhibit a significant inverse correlation with the CS⁴, indicating that as scores on the CS⁴ increase externalizing aggression scores decrease. The aggressive behavior subscale of the CATS was not significantly correlated with the CS⁴ (see Table 2).

Construct Validity

The seventh hypothesis was that children with ADHD would not significantly differ from children without ADHD on total scores on the CS⁴ or the social skills subscale of the TSIS. To test this hypothesis, two independent-samples *t* tests were performed. The first *t* test compared the ADHD and non-ADHD samples' scores on the CS⁴, and the second *t* test compared the two samples' scores on the social skills subscale of the TSIS. Both *t* tests failed to find significant differences between the ADHD and non-ADHD samples (see Table 3).

Table 3

Independent-samples *t* tests for CS⁴ and TSIS Social Skills Subscale Scores

	ADHD Sample			Non-ADHD Sample			<i>t</i>	<i>df</i>	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>			
CS ⁴	72.50	5.51	4	72.14	4.63	7	.12	9	.911
TSIS Social Skills	35.50	8.89	4	33.86	7.01	7	.34	9	.741

The eighth hypothesis was that children with ADHD would differ significantly from children without ADHD on all other measures. More specifically, it was hypothesized that children with ADHD would demonstrate significantly lower scores on the FQS, the social information processing and social awareness subscales of the TSIS, and the assertiveness behavior subscale of the CATS. It was also hypothesized that children with ADHD would exhibit significantly higher scores on the SVS and the

aggressiveness behavior subscale of the CATS. Nineteen independent-samples *t* tests were performed to assess this hypothesis, comparing the ADHD and non-ADHD samples' total scores and subscale scores for each measure (see Table 4 for significant results).

Table 4
Independent-samples *t* tests for FQS Subscales and Components

	ADHD Sample			Non-ADHD Sample			<i>t</i>	<i>df</i>	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>			
FQS transcending problems	21.00	0.00	4	18.00	2.31	7	3.44	6	.014
FQS security	40.50	0.58	4	34.00	6.83	7	1.86	9	.096
FQS reflected appraisal	19.00	2.00	4	14.86	3.98	7	1.91	9	.087

The independent-samples *t* test examining differences between ADHD and non-ADHD samples on the FQS transcending problems component of the security subscale was significant. However, the direction of the results was not what was proposed in the research hypothesis. Children with ADHD had significantly higher scores on the FQS transcending problems component of the security subscale than did children without ADHD. This suggested that participants with ADHD had a stronger belief that their friendships can withstand problems that may arise between themselves and their friends. The independent-samples *t* test exploring differences between ADHD and non-ADHD samples on the FQS security subscale approached significance. These results also

contradicted the research hypothesis, with children with ADHD scoring higher on the FQS security subscale than children without ADHD. This indicated that participants with ADHD reported a greater degree of security within their friendships, regardless of problems that arise, and that these participants held stronger beliefs that their friends are trustworthy and dependable. The independent-samples *t* test assessing differences between ADHD and non-ADHD samples on the FQS reflected appraisal component of the closeness subscale approached significance. Again, the results in this *t* test were not what was expected. Children with ADHD scored higher on the FQS reflected appraisal component of the closeness subscale than did children without ADHD.

CHAPTER IV

DISCUSSION

Before further discussing the current course of research, it is crucial to mention that the small sample size greatly reduces the external validity of the research results. Therefore, results must be interpreted with caution and may not be generalizable to the larger populations of children with ADHD and children without ADHD. The small sample size also resulted in few significant findings. The extremely low response rate for the mail surveys and the difficulties with recruitment resulted in very low power and therefore a lowered ability to find differences that may truly exist. For all of these reasons, the results discussed below are highly speculative and should only be used to provide direction for future research rather than as conclusions in and of themselves.

Validity Analyses and Results

Of the correlational hypotheses, only two subscales significantly correlated with the Children's Self-report Social Skills Scale (CS⁴; Danielson & Phelps, 2003) in the hypothesized direction; three subscale components approached significance. Although the overall scores on the Tromsø Social Intelligence Scale (TSIS; Silvera, Martinussen, & Dahl, 2001) did not significantly correlate with the CS⁴, the correlation between the CS⁴ and the Social Skills Subscale of the TSIS was strong ($r = .85, p < .01, N = 11$). This significant positive correlation was achieved despite the small sample size, and suggests

that the CS⁴ and the Social Skills Subscale of the TSIS measure the same construct. Although the small sample size reduces the external validity of the results, this finding is promising, as it would be expected that the CS⁴ and the Social Skills Subscale of the TSIS examine similar skills. The other significant correlation was between the CS⁴ and the guidance component of the Friendship Qualities Scale (FQS; Bukowski, Hoza, & Boivin, 1994) help subscale. Therefore, as scores on the CS⁴ increase, scores on the guidance component of the FQS help subscale also increase. Correlations between the CS⁴ and total FQS scores as well as the protection from victimization component of the FQS help subscale also approached significance. These results may indicate that the CS⁴ and the FQS measure similar constructs. Specifically, it is likely that the Likeability component of the CS⁴ overlaps with the FQS. The last correlation that approached significance was between the CS⁴ and the Self-Report Victimization Scale (SVS; Ladd & Kochenderfer-Ladd, 2002). These results suggest that, as hypothesized, peer victimization is inversely correlated with CS⁴ scores. Therefore, as scores on the CS⁴ increase, scores on the SVS decrease. In particular, this inverse correlation may reflect an inverse relationship with the Likeability component of the CS⁴.

ADHD-related Analyses and Results

In addition to assessing the validity of the Children's Self-report Social Skills Scale (CS⁴; Danielson & Phelps, 2003), the current study examined differences between children with and without ADHD in reported social skills and other related constructs. There were significant differences between the ADHD and non-ADHD samples on the FQS transcending problems component of the security subscale. However, these

differences were not in the expected direction; children with ADHD reported a stronger belief that their friendships would be resilient enough to endure through negative events within the friendships. This may reflect a tendency for children with ADHD to overestimate the strength of their friendships, or it may simply be an artifact of the small sample size and lack of external validity. It is unlikely that this indicates a true difference between friendships of children with and without ADHD, as children with ADHD tend to experience greater difficulties in peer relationships and more negative peer interactions than do children without ADHD (Coie, Dodge, & Coppotelli, 1982; Guevremont & Dumas, 1994). Similar conjectures may be made about the differences between the ADHD and non-ADHD sample on the FQS security subscale. These differences approached significance and were not in the expected direction, with the ADHD sample reporting higher feelings of security within friendships. As with the unexpected results in reported ability to transcend problems in friendships, children in the ADHD sample may have overestimated the security of their friendships, or the results may simply be due to the small sample size. Finally, the results of the FQS reflected appraisal component of the closeness subscale approached significance, and the direction of these results also contradicted the corresponding research hypothesis. Children with ADHD reported experiencing more positive feelings surrounding their friendships and indicated that they believe they are more important to their friends than did children without ADHD. Since this component fully reflects the child's beliefs rather than the reality of the friendship (while the other components are more indicative of the reality as long as the child is able to report the truth about his or her friendships), this difference may be accurate. Children

with ADHD may truly experience more positive feelings about their friendships than children without ADHD. These results might again reflect an overestimation of aspects of friendship. Specifically, children with ADHD may believe that they are more important to their friends than they actually are. The results may also simply be yet another artifact of the small sample size and lack of external validity.

Suggestions for Improving Future Research

The largest difficulty encountered in the current research involved issues with recruitment and participant response-rate. This is a common issue in psychological research, and especially in research involving children. This particular program of research is an important area of investigation, and should be pursued by other researchers in the future. However, the methodology of the current study was not effective for collecting data from this specific population. Researchers should be cautious about the use of mail surveys, even if they are distributed by a source with which the participants are familiar (in this case, summer camps). Collecting data in person may improve response rate by personalizing the research and allowing participants and their parents to put a face with the project. Performing research in schools or during a school-related program may also be a more effective method of data collection. This was originally rejected as a method of data collection in the current study due to difficulties contacting the parents. However, if the data could be collected in a location at which both parents and children were present, response rate may be greatly improved. For example, a meeting of a local chapter of Children and Adults with Attention Deficit/Hyperactivity Disorder (CHADD) or another similar ADHD organization could be a useful recruitment

resource. This was pursued in the current study, but the chapter in question never responded to the researcher. Affiliations with local psychologists may also be helpful for recruitment (e.g., the psychologist could hand out study materials to clients, and if the clients wished to participate, they could return the materials to the psychologist). Involved psychologists would have to be careful to emphasize that participation in the research is completely voluntary, and that it is not a part of treatment. In addition to changing recruitment strategies, future studies should also examine the possibility of the battery of measures involved in the current research as a practical and effective method of examining the effects of social skills programs. Furthermore, the CS⁴ should be applied to other clinical populations, such as children with anxiety disorders. Finally, additional validation of the CS⁴ should be performed.

APPENDIX A

Children's Self-report Social Skills Scale

NAME:

AGE:

TEACHER:

GRADE:

INSTRUCTIONS: Below are a number of sentences that may or may not be true about you. Please circle the answer that is most true for you. Your teacher will not see your answers and neither will your classmates. Be as honest as you can. Use the following rating scale.

RATING SCALE:

1 = NEVER
2 = HARDLY EVER
3 = SOMETIMES
4 = MOST OF THE TIME
5 = ALWAYS

1) I look at others in the face when they talk.

NEVER	HARDLY EVER	SOMETIMES	MOST OF THE TIME	ALWAYS
1	2	3	4	5

2) Others like me and have fun with me.

NEVER	HARDLY EVER	SOMETIMES	MOST OF THE TIME	ALWAYS
1	2	3	4	5

3) I say thank you when someone does something nice for me.

NEVER	HARDLY EVER	SOMETIMES	MOST OF THE TIME	ALWAYS
1	2	3	4	5

4) I kick or hit someone else if they make me angry.

NEVER	HARDLY EVER	SOMETIMES	MOST OF THE TIME	ALWAYS
1	2	3	4	5

5) I am bossy.

NEVER	HARDLY EVER	SOMETIMES	MOST OF THE TIME	ALWAYS
1	2	3	4	5

6) I take turns with others.

NEVER	HARDLY EVER	SOMETIMES	MOST OF THE TIME	ALWAYS
1	2	3	4	5

7) When I come over, others ask me to move or give them more space.

NEVER	HARDLY EVER	SOMETIMES	MOST OF THE TIME	ALWAYS
1	2	3	4	5

8) I don't play fairly.

NEVER	HARDLY EVER	SOMETIMES	MOST OF THE TIME	ALWAYS
1	2	3	4	5

9) I listen to others when they talk.

NEVER	HARDLY EVER	SOMETIMES	MOST OF THE TIME	ALWAYS
1	2	3	4	5

10) I share games and activities with others.

NEVER	HARDLY EVER	SOMETIMES	MOST OF THE TIME	ALWAYS
1	2	3	4	5

11) I say I'm sorry when I hurt someone by accident.

NEVER	HARDLY EVER	SOMETIMES	MOST OF THE TIME	ALWAYS
1	2	3	4	5

12) When I see others playing a game I would like to play, I ask if I can join them.

NEVER	HARDLY EVER	SOMETIMES	MOST OF THE TIME	ALWAYS
1	2	3	4	5

13) I make friends easily.

NEVER	HARDLY EVER	SOMETIMES	MOST OF THE TIME	ALWAYS
1	2	3	4	5

14) I say I'm sorry when I hurt someone on purpose.

NEVER	HARDLY EVER	SOMETIMES	MOST OF THE TIME	ALWAYS
1	2	3	4	5

15) I walk up to others and start conversations.

NEVER	HARDLY EVER	SOMETIMES	MOST OF THE TIME	ALWAYS
1	2	3	4	5

16) Others do not like me.

NEVER	HARDLY EVER	SOMETIMES	MOST OF THE TIME	ALWAYS
1	2	3	4	5

17) I speak or interrupt if someone else is talking.

NEVER	HARDLY EVER	SOMETIMES	MOST OF THE TIME	ALWAYS
1	2	3	4	5

18) Others ask me to play.

NEVER	HARDLY EVER	SOMETIMES	MOST OF THE TIME	ALWAYS
1	2	3	4	5

19) I help others when they need help.

NEVER	HARDLY EVER	SOMETIMES	MOST OF THE TIME	ALWAYS
1	2	3	4	5

20) I ask others to play.

NEVER	HARDLY EVER	SOMETIMES	MOST OF THE TIME	ALWAYS
1	2	3	4	5

21) I am too loud when I talk.

NEVER	HARDLY EVER	SOMETIMES	MOST OF THE TIME	ALWAYS
1	2	3	4	5

APPENDIX B

Parent Version of Children's Self-report Social Skills Scale

INSTRUCTIONS: Below are a number of sentences that may or may not be true about your child. Please circle the answer that is most true for your child. Be as honest as you can. Use the following rating scale.

RATING SCALE:

1 = NEVER
2 = HARDLY EVER
3 = SOMETIMES
4 = MOST OF THE TIME
5 = ALWAYS

- 1) My child looks at others in the face when they talk.

NEVER	HARDLY EVER	SOMETIMES	MOST OF THE TIME	ALWAYS
1	2	3	4	5

- 2) Others like my child and have fun with my child

NEVER	HARDLY EVER	SOMETIMES	MOST OF THE TIME	ALWAYS
1	2	3	4	5

- 3) My child says thank you when someone does something nice for him or her.

NEVER	HARDLY EVER	SOMETIMES	MOST OF THE TIME	ALWAYS
1	2	3	4	5

- 4) My child kicks or hits someone else if they make him or her angry.

NEVER	HARDLY EVER	SOMETIMES	MOST OF THE TIME	ALWAYS
1	2	3	4	5

- 5) My child is bossy.

NEVER	HARDLY EVER	SOMETIMES	MOST OF THE TIME	ALWAYS
1	2	3	4	5

- 6) My child takes turns with others.

NEVER	HARDLY EVER	SOMETIMES	MOST OF THE TIME	ALWAYS
1	2	3	4	5

- 7) When my child approaches other children, the others ask my child to move or give them more space.

NEVER	HARDLY EVER	SOMETIMES	MOST OF THE TIME	ALWAYS
1	2	3	4	5

- 8) My child doesn't play fairly.

NEVER	HARDLY EVER	SOMETIMES	MOST OF THE TIME	ALWAYS
1	2	3	4	5

- 9) My child listens to others when they talk.

NEVER	HARDLY EVER	SOMETIMES	MOST OF THE TIME	ALWAYS
1	2	3	4	5

- 10) My child shares games and activities with others.

NEVER	HARDLY EVER	SOMETIMES	MOST OF THE TIME	ALWAYS
1	2	3	4	5

- 11) My child says he or she is sorry when he or she hurts someone by accident.

NEVER	HARDLY EVER	SOMETIMES	MOST OF THE TIME	ALWAYS
1	2	3	4	5

- 12) When my child sees others playing a game he or she would like to play, my child asks if he or she can join them.

NEVER	HARDLY EVER	SOMETIMES	MOST OF THE TIME	ALWAYS
1	2	3	4	5

- 13) My child makes friends easily.

NEVER	HARDLY EVER	SOMETIMES	MOST OF THE TIME	ALWAYS
1	2	3	4	5

- 14) My child says he or she is sorry when he or she hurts someone on purpose.

NEVER	HARDLY EVER	SOMETIMES	MOST OF THE TIME	ALWAYS
1	2	3	4	5

15) My child walks up to others and starts conversations.

NEVER	HARDLY EVER	SOMETIMES	MOST OF THE TIME	ALWAYS
1	2	3	4	5

16) Others do not like my child.

NEVER	HARDLY EVER	SOMETIMES	MOST OF THE TIME	ALWAYS
1	2	3	4	5

17) My child speaks or interrupts if someone else is talking.

NEVER	HARDLY EVER	SOMETIMES	MOST OF THE TIME	ALWAYS
1	2	3	4	5

18) Others ask my child to play.

NEVER	HARDLY EVER	SOMETIMES	MOST OF THE TIME	ALWAYS
1	2	3	4	5

19) My child helps others when they need help.

NEVER	HARDLY EVER	SOMETIMES	MOST OF THE TIME	ALWAYS
1	2	3	4	5

20) My child asks others to play.

NEVER	HARDLY EVER	SOMETIMES	MOST OF THE TIME	ALWAYS
1	2	3	4	5

21) My child is too loud when he or she talks.

NEVER	HARDLY EVER	SOMETIMES	MOST OF THE TIME	ALWAYS
1	2	3	4	5

APPENDIX C

Tromsø Social Intelligence Scale

Please rate the degree to which each of the following items describes you. Use the following scale to indicate your rating:

Describes me extremely poorly	1	2	3	4	5	6	7	Describes me extremely well
_____	1.	I can predict other peoples' behavior						
_____	2.	I often feel that it is difficult to understand others' choices.						
_____	3.	I know how my actions will make others feel.						
_____	4.	I often feel uncertain around new people who I don't know.						
_____	5.	People often surprise me with the things they do.						
_____	6.	I understand other peoples' feelings.						
_____	7.	I fit in easily in social situations.						
_____	8.	Other people become angry with me without me being able to explain why.						
_____	9.	I understand others' wishes.						
_____	10.	I am good at entering new situations and meeting people for the first time.						
_____	11.	It seems as though people are often angry or irritated with me when I say what I think.						
_____	12.	I have a hard time getting along with other people.						
_____	13.	I find people unpredictable.						
_____	14.	I can often understand what others are trying to accomplish without the need for them to say anything.						
_____	15.	It takes a long time for me to get to know others well.						
_____	16.	I have often hurt others without realizing it.						

- _____ 17. I can predict how others will react to my behavior.
- _____ 18. I am good at getting on good terms with new people.
- _____ 19. I can often understand what others really mean through their expression, body language, etc.
- _____ 20. I frequently have problems finding good conversation topics.
- _____ 21. I am often surprised by others' reactions to what I do.

APPENDIX D

Friendship Qualities Scale

FRIENDSHIP ACTIVITY QUESTIONNAIRE

Put the name of your very best friend here _____.

We want to ask some questions just about you and the person you think of as your best friend so we can know what your best friend is like. We have some sentences that we would like you to read. Please tell us whether this sentence describes your friendship or not. Some of the sentences might be really true for your friendship while other sentences might be not very true for your friendship. We simply want you to read the sentence and tell us how true the sentence is for your friendship. Remember, there are no right or wrong ways to answer these questions, and you can use any of the numbers on the scale.

After each sentence there is a scale that goes from 1 to 5.

"1" means the sentence is probably not true for your friendship,

"2" means that it might be true,

"3" means that it is usually true,

"4" means that it is very true,

"5" means that it is really true for your friendship.

Circle the number on the scale that is best for you. Be sure to read carefully and answer as honestly as possible.

Example

X1. My friend and I play games and other activities with each other.	Not True				Really True
	1	2	3	4	5
1. My friend and I spend a lot of our free time together.	Not True				Really True
	1	2	3	4	5
2. My friend gives me advice when I need it.	Not True				Really True
	1	2	3	4	5

**BE SURE TO THINK ABOUT YOUR BEST FRIEND WHOM YOU NAMED ON
THE FIRST PAGE WHEN YOU ANSWER THESE QUESTIONS AND BE SURE
TO READ EACH ITEM CAREFULLY.**

- | | | | | |
|---|----------|---|---|-------------|
| 3. My friend and I do things together. | Not True | | | Really True |
| | 1 | 2 | 3 | 4 5 |
| 4. My friend and I help each other. | Not True | | | Really True |
| | 1 | 2 | 3 | 4 5 |
| 5. Even if my friend and I have an argument
we would still be able to be friends
with each other. | Not True | | | Really True |
| | 1 | 2 | 3 | 4 5 |
| 6. My friend and I play together at recess. | Not True | | | Really True |
| | 1 | 2 | 3 | 4 5 |
| 7. If other kids were bothering me, my
friend would help me. | Not True | | | Really True |
| | 1 | 2 | 3 | 4 5 |
| 8. Our friendship is just as important to
me as it is to my friend. | Not True | | | Really True |
| | 1 | 2 | 3 | 4 5 |
| 9. I can trust and rely upon my friend. | Not True | | | Really True |
| | 1 | 2 | 3 | 4 5 |
| 10. My friend helps me when I am having
trouble with something. | Not True | | | Really True |
| | 1 | 2 | 3 | 4 5 |
| 11. If my friend had to move away I would
miss them. | Not True | | | Really True |
| | 1 | 2 | 3 | 4 5 |
| 12. If I can't figure out how to do something,
my friend shows me how. | Not True | | | Really True |
| | 1 | 2 | 3 | 4 5 |
| 13. Sometimes it seems that I care more about
our friendship than my friend does. | Not True | | | Really True |
| | 1 | 2 | 3 | 4 5 |
| 14. When I do a good job at something my
friend is happy for me. | Not True | | | Really True |
| | 1 | 2 | 3 | 4 5 |
| 15. There is nothing that would stop my friend
and I from being friends. | Not True | | | Really True |
| | 1 | 2 | 3 | 4 5 |

**BE SURE TO THINK ABOUT YOUR BEST FRIEND WHOM YOU NAMED ON
THE FIRST PAGE WHEN YOU ANSWER THESE QUESTIONS AND BE SURE
TO READ EACH ITEM CAREFULLY.**

- | | | |
|--|-----------------------------|-------------------------|
| 16. Sometimes my friend does things for me or makes me feel special. | Not True
1 2 3 | Really True
4 5 |
| 17. When my friend and I have an argument, he can hurt my feelings. | Not True
1 2 3 | Really True
4 5 |
| 18. When I have not been with my friend for a while I really miss being with him. | Not True
1 2 3 | Really True
4 5 |
| 19. If somebody tried to push me around, my friend would help me. | Not True
1 2 3 | Really True
4 5 |
| 20. I can get into fights with my friend. | Not True
1 2 3 | Really True
4 5 |
| 21. My friend would stick up for me if another kid was causing me trouble. | Not True
1 2 3 | Really True
4 5 |
| 22. When we have free time at school, such as at lunchtime or recess, my friend and I usually do something together or spend time with each other. | Not True
1 2 3 | Really True
4 5 |
| 23. If I have a problem at school or at home I can talk to my friend about it. | Not True
1 2 3 | Really True
4 5 |
| 24. My friend can bug me or annoy me even though I ask them not to. | Not True
1 2 3 | Really True
4 5 |
| 25. If I forgot my lunch or needed a little money my friend would loan it to me. | Not True
1 2 3 | Really True
4 5 |
| 26. I think of things for us to do more often than my friend does. | Not True
1 2 3 | Really True
4 5 |
| 27. If I said I was sorry after I had a fight with my friend they would still stay mad at me. | Not True
1 2 3 | Really True
4 5 |

**BE SURE TO THINK ABOUT YOUR BEST FRIEND WHOM YOU NAMED ON
THE FIRST PAGE WHEN YOU ANSWER THESE QUESTIONS AND BE SURE
TO READ EACH ITEM CAREFULLY.**

- | | | |
|--|-----------------------------|-------------------------|
| 28. My friend helps me with tasks that are hard or that need two people. | Not True
1 2 3 | Really True
4 5 |
| 29. My friend and I go to each other's houses after school and on weekends. | Not True
1 2 3 | Really True
4 5 |
| 30. Sometimes my friend and I just sit around and talk about things like school, sports, and other things we like. | Not True
1 2 3 | Really True
4 5 |
| 31. If I have questions about something my friend would help me get some answers. | Not True
1 2 3 | Really True
4 5 |
| 32. Even if other persons stopped liking me, my friend would still be my friend. | Not True
1 2 3 | Really True
4 5 |
| 33. I know that I am important to my friend. | Not True
1 2 3 | Really True
4 5 |
| 34. My friend would help me if I needed it. | Not True
1 2 3 | Really True
4 5 |
| 35. Being friends together is more important to me than it is to my friend. | Not True
1 2 3 | Really True
4 5 |
| 36. If there is something bothering me I can tell my friend about it even if it is something I can not tell to other people. | Not True
1 2 3 | Really True
4 5 |
| 37. Things are usually pretty even in my friendship. | Not True
1 2 3 | Really True
4 5 |
| 38. My friend puts our friendship ahead of other things. | Not True
1 2 3 | Really True
4 5 |
| 39. When I have to do something that is hard I can count on my friend for help. | Not True
1 2 3 | Really True
4 5 |

**BE SURE TO THINK ABOUT YOUR BEST FRIEND WHOM YOU NAMED ON
THE FIRST PAGE WHEN YOU ANSWER THESE QUESTIONS AND BE SURE
TO READ EACH ITEM CAREFULLY.**

- | | | |
|--|-----------------------------|-------------------------|
| 40. If my friend or I do something that bothers the other one of us we can make up easily. | Not True
1 2 3 | Really True
4 5 |
| 41. My friend and I can argue a lot. | Not True
1 2 3 | Really True
4 5 |
| 42. My friend and I disagree about many things. | Not True
1 2 3 | Really True
4 5 |
| 43. If my friend and I have a fight or argument we can say "I'm sorry" and everything will be alright. | Not True
1 2 3 | Really True
4 5 |
| 44. I feel happy when I am with my friend. | Not True
1 2 3 | Really True
4 5 |
| 45. My friend likes me as much as I like them. | Not True
1 2 3 | Really True
4 5 |
| 46. I think about my friend even when my friend is not around. | Not True
1 2 3 | Really True
4 5 |

APPENDIX E

Children's Action Tendency Scale

Below are thirteen situations. After each you are asked to decide what you would do in that situation by selecting *one* of the choices from each of the three pairs of alternatives. Indicate your answer by circling either alternative "a" or alternative "b". Remember to select one answer for each of the 39 pairs of choices. We are concerned with what you *would* do and not with what you *should* do. There are no "right" or "wrong" answers. You are not going to be graded on this, so please be honest.

1. You're playing a game with your friends. You try your very best but you keep making mistakes. Your friends start teasing you and calling you names. What would you do?
 - a. Punch the kid who's teasing me the most, *or* (Agg)
 - b. Quit the game and come home (Sub)
2. You're playing a game with your friends. You try your very best but you keep making mistakes. Your friends start teasing you and calling you names. What would you do?
 - a. Tell them to stop because they wouldn't like it if I did it to them (As), *or*
 - b. Punch the kid who's teasing me the most
3. You're playing a game with your friends. You try your very best but you keep making mistakes. Your friends start teasing you and calling you names. What would you do?
 - a. Quit the game and come home, *or*
 - b. Tell them to stop because they wouldn't like it if I did it to them
4. You and a friend are playing in your house. Your friend makes a big mess, but your parents blame you and punish you. What would you do?
 - a. Ask my friend to help me clean up the mess, *or* (As)
 - b. Refuse to talk or listen to my parents the next day (Agg)

5. You and a friend are playing in your house. Your friend makes a big mess, but your parents blame you and punish you. What would you do?
 - a. Clean up the mess, *or* (Sub)
 - b. Ask my friend to help me clean up the mess
6. You and a friend are playing in your house. Your friend makes a big mess, but your parents blame you and punish you. What would you do?
 - a. Refuse to talk to or listen to my parents the next day, *or*
 - b. Clean up the mess
7. One morning before class, a friend comes over to you and asks if they can copy your homework. They tell you that if you don't give them your answers, they'll tell everyone that you're really mean. What would you do?
 - a. Tell them to do their own work, *or* (As)
 - b. Give them the answers (Sub)
8. One morning before class, a friend comes over to you and asks if they can copy your homework. They tell you that if you don't give them your answers, they'll tell everyone that you're really mean. What would you do?
 - a. Tell them that I'll tell everyone that they're a cheater, *or* (Agg)
 - b. Tell them to do their own work
9. One morning before class, a friend comes over to you and asks if they can copy your homework. They tell you that if you don't give them your answers, they'll tell everyone that you're really mean. What would you do?
 - a. Give them the answers, *or*
 - b. Tell them that I'll tell everyone they're a cheater
10. You're standing in line for a drink of water. A kid your age and size walks over and just shoves you out of line. What would you do?
 - a. Push the kid back out of line, *or* (Agg)
 - b. Tell the kid, "You've no right to do that." (As)
11. You're standing in line for a drink of water. A kid your age and size walks over and just shoves you out of line. What would you do?
 - a. I'd go to the end of the line, *or* (Sub)
 - b. Push the kid back out of line

12. You're standing in line for a drink of water. A kid your age and size walks over and just shoves you out of line. What would you do?
 - a. Tell the kid, "You've no right to do that."
 - b. I'd go to the end of the line
13. You lend a friend your favorite book. A few days later it is returned, but some of the pages are torn and the cover is dirty and bent out of shape. What would you do?
 - a. Ask my friend, "How did it happen?" *or* (As)
 - b. Call the kid names (Agg)
14. You lend a friend your favorite book. A few days later it is returned, but some of the pages are torn and the cover is dirty and bent out of shape. What would you do?
 - a. Ignore it, *or* (Sub)
 - b. Ask my friend, "How did it happen?"
15. You lend a friend your favorite book. A few days later it is returned, but some of the pages are torn and the cover is dirty and bent out of shape. What would you do?
 - a. Call the kid names, *or*
 - b. Ignore it
16. You're coming out of school. A kid who is smaller and younger than you are throws a snowball right at your head. What would you do?
 - a. Beat the kid up, *or* (Agg)
 - b. Ignore it (Sub)
17. You're coming out of school. A kid who is smaller and younger than you are throws a snowball right at your head. What would you do?
 - a. Tell the kid that throwing at someone's head is very dangerous *or* (As)
 - b. Beat the kid up
18. You're coming out of school. A kid who is smaller and younger than you are throws a snowball right at your head. What would you do?
 - a. Ignore it, *or*
 - b. Tell the kid that throwing at someone's head is very dangerous

19. You see some kids playing a game. You walk over and ask if you can join. They tell you that you can't play with them because you're not good enough. What would you do?
- a. Ask them to give me a chance, *or* (As)
 - b. Walk away, feeling hurt (Sub)
20. You see some kids playing a game. You walk over and ask if you can join. They tell you that you can't play with them because you're not good enough. What would you do?
- a. Interfere with their game so that they won't be able to play, *or* (Agg)
 - b. Ask them to give me a chance
21. You see some kids playing a game. You walk over and ask if you can join. They tell you that you can't play with them because you're not good enough. What would you do?
- a. Walk away, feeling hurt, *or*
 - b. Interfere with their game so that they won't be able to play
22. You're watching a really terrific show on television. In the middle of the show, your parents tell you that it's time for bed and turn off the TV. What would you do?
- a. Scream at them, "I don't want to!" *or* (Agg)
 - b. Start crying (Sub)
23. You're watching a really terrific show on television. In the middle of the show, your parents tell you that it's time for bed and turn off the TV. What would you do?
- a. Promise to go to bed early tomorrow night if they let me stay up late tonight, *or* (As)
 - b. Scream at them, "I don't want to!"
24. You're watching a really terrific show on television. In the middle of the show, your parents tell you that it's time for bed and turn off the TV. What would you do?
- a. Start crying, *or*
 - b. Promise to go to bed early tomorrow night if they let me stay up late tonight

25. You're having lunch in the cafeteria. Your friend has a big bag of delicious chocolates for dessert. You ask if you can have just one, but your friend says, "No." What would you do?
- a. Offer to trade something of mine for the chocolate, *or* (As)
 - b. Call the kid mean and selfish (Agg)
26. You're having lunch in the cafeteria. Your friend has a big bag of delicious chocolates for dessert. You ask if you can have just one, but your friend says, "No." What would you do?
- a. Forget about it and continue eating my lunch, *or* (Sub)
 - b. Offer to trade something of mine for the chocolate
27. You're having lunch in the cafeteria. Your friend has a big bag of delicious chocolates for dessert. You ask if you can have just one, but your friend says, "No." What would you do?
- a. Call the kid mean and selfish, *or*
 - b. Forget about it and continue eating my lunch
28. A kid in your class brags that they're much smarter than you. However, you know for sure that the kid is wrong and that really you're smarter. What would you do?
- a. Tell the kid to shut up, *or*(Agg)
 - b. Suggest that we ask each other questions to find out who is smarter (As)
29. A kid in your class brags that they're much smarter than you. However, you know for sure that the kid is wrong and that really you're smarter. What would you do?
- a. Ignore the kid and just walk away, *or* (Sub)
 - b. Tell the kid to shut up
30. A kid in your class brags that they're much smarter than you. However, you know for sure that the kid is wrong and that really you're smarter. What would you do?
- a. Suggest that we ask each other questions to find out who is smarter, *or*
 - b. Ignore the kid and just walk away

31. You and another kid are playing a game. The winner of the game will win a really nice prize. You try very hard, but lose by just one point. What would you do?
- a. Tell the kid that they cheated, *or* (Agg)
 - b. Practice, so I'll win the next time (As)
32. You and another kid are playing a game. The winner of the game will win a really nice prize. You try very hard, but lose by just one point. What would you do?
- a. Go home and cry, *or* (Sub)
 - b. Tell the kid that they cheated
33. You and another kid are playing a game. The winner of the game will win a really nice prize. You try very hard, but lose by just one point. What would you do?
- a. Practice, so I'll win the next time, *or*
 - b. Go home and cry
34. Your parents do something that really bugs you. They know that it bugs you, but they just ignore how you feel and keep doing it anyway. What would you do?
- a. Get back at them by doing something that bugs them, *or* (Agg)
 - b. Tell them that they are bugging me (As)
35. Your parents do something that really bugs you. They know that it bugs you, but they just ignore how you feel and keep doing it anyway. What would you do?
- a. Try to ignore it, *or* (Sub)
 - b. Get back at them by doing something that bugs them
36. Your parents do something that really bugs you. They know that it bugs you, but they just ignore how you feel and keep doing it anyway. What would you do?
- a. Tell them that they are bugging me, *or*
 - b. Try to ignore it

37. You're playing with a friend in your house and you're making a lot of noise. Your parents get really angry and start yelling at you for making so much noise. What would you do?
- a. Find something else to do, *or* (Sub)
 - b. Ignore their yelling and continue to make noise (Agg)
38. You're playing with a friend in your house and you're making a lot of noise. Your parents get really angry and start yelling at you for making so much noise. What would you do?
- a. Tell them, "I'm sorry, but I can't play the game without making noise," *or* (As)
 - b. Find something else to do
39. You're playing with a friend in your house and you're making a lot of noise. Your parents get really angry and start yelling at you for making so much noise. What would you do?
- a. Ignore their yelling and continue to make noise
 - b. Tell them, "I'm sorry, but I can't play the game without making noise."

APPENDIX F

Self-Report Victimization Scale

Items	NO?	or	YES?
	Never	Sometimes	A lot
(Training Items) ARE THERE TIMES WHEN YOU:	1	2	3
Have ice cream for desert?	1	2	3
Ride the bus to school?			
Eat breakfast at night time?	1	2	3
WHEN IN SCHOOL, DOES ANYONE IN YOUR CLASS:			
1. Pick on you at school?	1	2	3
2. Play games with you?	1	2	3
3. Tell you you're good at doing things?	1	2	3
4. Make you feel better if you are having a bad day?	1	2	3
5. Let you play with them?	1	2	3
6. Say mean things to you?	1	2	3
7. Say bad things about you to other kids?	1	2	3
8. Share things like games and activities with you?	1	2	3
9. Hit or kick you?	1	2	3
10. Miss you if you weren't in school?	1	2	3
11. Cheer you up if you feel sad?	1	2	3
12. Help you if kids are being mean to you?	1	2	3

APPENDIX G

Letter to Parents and Permission Slip

Dear Parent(s) and/or Guardian(s),

My name is Stacey Langsner and I am a graduate student at the University of Dayton. In collaboration with Dr. Carolyn Roecker Phelps, I am conducting research in which I am attempting to demonstrate the effectiveness of a tool that measures a child's perception of his or her own social skills. Such a tool gives parents, teachers, and researchers a greater understanding about how a child perceives his or her own skills. I am requesting that you, as parent or guardian, permit your child to participate in the project. I am also asking you to provide some information. Enclosed is a packet of surveys for you and your child to complete. The surveys for your child include questionnaires about his or her social skills, social awareness, friendships, and experiences in social situations. It will take between 30 and 60 minutes for your child to complete the questionnaires. I request that you provide any assistance necessary for your child to understand the surveys, but that you allow your child to provide his or her own answers independently. Your portion of the packet consists of a demographic questionnaire and a short survey regarding your own perceptions of your child's social skills. The surveys for your child to complete are in green, and your forms are in white.

Your participation and that of your child is completely voluntary. You and your child can refuse to answer any question. If for any reason you or your child wish to withdraw from the project, you will be free to do so at any time without penalty. Anticipated risks of participation in this research are minimal; however, there is a possibility that completion of the surveys may result in frustration, sadness, feelings of low self-esteem, or other such emotions.

All information will be kept confidential. No records of your participation in this research will be disclosed to others. Your data will be pooled with data from other research participants and only summary results will be made public. Your name will not be revealed in any document resulting from this research. Your data will be recorded anonymously. Only a randomly assigned identification number will be recorded with your data; your name or other identification will not be recorded with the data.

For participating in this study, you are invited to be entered into a drawing for an iPod Shuffle. If you choose to enter, please complete the additional form requesting contact information. This contact information will be kept separate from all questionnaire responses and there will be no way to connect the contact information form with the corresponding questionnaires.

This research is not affiliated with your child's summer program, and therefore, site staff will not be able to answer questions regarding the research. If you have any questions about this project or about your child's participation in it, please do not hesitate to contact me. Please feel free to call me, Stacey Langsner, at (937) 648-5572 or (703) 309-1710, or Dr. Carolyn Roecker Phelps at (937) 229-2168. Questions about your child's legal rights as a research participant should be directed to Jon Nieberding, Chair, University of Dayton Institutional Review Board, (937) 229-4053 or jon.nieberding@udri.udayton.edu. To give your child permission to participate in this project, please sign and date the form below and return it with the completed questionnaires [to your child's camp/ to me via the enclosed addressed, stamped envelope] by [date here]. If two parents/ guardians are present, both must sign the form below.

Your cooperation is greatly appreciated.

Sincerely,

Stacey A. Langsner, B.S.
Graduate Student
University of Dayton

Carolyn Roecker Phelps, Ph.D.
Master's Thesis Chair
University of Dayton

If you voluntarily agree for both you and your child to participate in this study, please sign and date this form.

Parent/Guardian Signature

Printed Name

Date

Parent/Guardian Signature

Printed Name

Date

APPENDIX H

Parent Demographic Survey

Questions about you:

1. What is your age? _____ If you have a spouse, what is his or her age? _____

2. What is your highest level of education? Spouse's highest level of education?

_____ Less than high school

_____ Less than high school

_____ High school

_____ High school

_____ Some college

_____ Some college

_____ Undergraduate degree

_____ Undergraduate degree

_____ Some graduate work

_____ Some graduate work

_____ Graduate degree

_____ Graduate degree

3. What is your approximate total household annual income?

_____ Under \$20,000

_____ \$20,000 to \$29,000

_____ \$30,000 to \$39,000

_____ \$40,000 to \$49,000

_____ \$50,000 to \$59,000

_____ \$60,000 to \$69,000

_____ \$70,000 to \$79,000

_____ \$80,000 to \$89,000

_____ \$90,000 or above

4. What is your ethnicity?

- ☐ African-American (not of Hispanic origin)
☐ Asian or Pacific Islander
☐ Caucasian
☐ Hispanic
☐ Native American or Alaskan Native
☐ Other (please list) _____

5. Spouse's ethnicity?

- ☐ African-American (not of Hispanic origin)
☐ Asian or Pacific Islander
☐ Caucasian
☐ Hispanic
☐ Native American or Alaskan Native
☐ Other (please list) _____

Questions about your child:

1. What is your child's age? _____
2. How many siblings does your child have? _____
3. Has your child ever needed to repeat a grade in school? Yes No
4. Has your child ever been diagnosed with any of the following? (Please circle all that apply.)
 - Attention-Deficit/Hyperactivity Disorder (Also known as ADHD or ADD)
 - Oppositional Defiant Disorder
 - Conduct Disorder
 - Major Depression
 - Bipolar Disorder
 - Obsessive-Compulsive Disorder
 - Asperger's Disorder
 - Tourette's Disorder
5. Please list any other psychological disorders with which your child has been diagnosed.

APPENDIX I

Parent Debriefing Form

The object of this study is to examine the effectiveness of a measure of children's awareness of their own social skills. Surveys that children can fill out themselves provide us with valuable and unique information that only they can supply. Another component of this research is to examine the use of this questionnaire with children with Attention-Deficit/Hyperactivity Disorder (ADHD), a group of children who often have social skill difficulties. Thus, some children who were asked to participate were invited due to a diagnosis of ADHD.

The first survey your child completed was a measure of his or her awareness of his or her own social skills. This questionnaire is the one of primary interest in the study. The social skills survey that you answered was an adaptation of the social skills questionnaire your child completed. These two versions of the social skills survey measured the degree to which your child exhibits social behaviors or abilities, and examined four areas within the domain of social skills: communication skills, self-control, social rules, and assertiveness.

The second questionnaire your child answered measured social intelligence, which is the ability to understand others and the ways they may respond in various social situations. This survey assessed three components of social intelligence: the way your child processes social information, the social skills your child possesses, and the degree of social awareness your child exhibits. The third survey your child completed was a measure of the quality of his or her closest friendship. The fourth questionnaire your child answered measured the way your child tends to respond to various social situations. Finally, the fifth survey your child completed was a measure of the degree of peer victimization your child experiences; victimization has been shown to be related to social skills. I will run statistical tests on the responses of all participating children and parents to see how social intelligence, friendship quality, social behaviors, and peer victimization relate to social skills. I will also examine how well the child and parent responses on the social skills measure match each other. For further information about this area of psychological research, please see the two articles cited below. The first citation is an article about the social skills measure with which this research is concerned, and the second is a useful book chapter discussing the social skills of children with ADHD.

References

- Danielson, C. K., & Phelps, C. R. (2003). The assessment of children's social skills through self-report: A potential screening instrument for classroom use. *Measurement & Evaluation in Counseling & Development*, 35(4), 218-229.

Fine, A. H. & Kotkin, R. A. (2003). Social skills and children with attention deficit hyperactivity disorder and/or learning disabilities realities and direction for treatment. In A. H. Fine & R. A. Kotkin (Eds.), *Therapist's guide to learning and attention disorders* (pp. 295-334). San Diego: Academic Press.

All responses are confidential, and each parent-child pair will only be identified as a participant number in the data set. If you provided your name and contact information for the drawing, this will only be used to notify you and to mail your prize to you if you win. If these questionnaires have raised any concerns for you or if your child has expressed concerns that you feel you may need help in addressing, it may be beneficial for you or your child to speak with a professional. Contact your pediatrician or a local children's hospital for a list of professionals who specialize in working with children and special behavioral or emotional needs.

If you have further questions or problems regarding this research, please contact Stacey Langsner at (703) 309-1710 / (937) 648-5572 or at langsnsa@notes.udayton.edu. You may also contact the faculty chair of this research, Carolyn Roecker Phelps, Ph.D. at (937) 229-2168 or at Carolyn.Roecker-Phelps@notes.udayton.edu. An additional contact is the Chair of the Research Review and Ethics Committee, Greg Elvers, Ph.D., who can be reached at (937) 229-2171 or at Greg.Elvers@notes.udayton.edu.

I would like to thank both you and your child for participating in this study – I greatly appreciate your willingness to help with my research!

APPENDIX J

Debriefing for Children

Thank you for helping with my study! Your participation will help me figure out whether the surveys you filled out today are good ways of measuring how kids see the way they interact with other people. These surveys will also show me how social skills are connected with things like friendships, social behaviors, social intelligence, and treatment from other kids. All of your answers will be combined with answers from other kids, and will not be connected with your name or your parent(s)' name(s). If these surveys made you feel sad, frustrated, or bad about yourself, you can talk to your mom, dad, or another adult who you trust such as a teacher, school counselor, or pastor. Thank you again for taking time out of your summer to help with my research!

APPENDIX K

Entry Form for Drawing

If you wish to be entered into the drawing for an iPod Shuffle, please provide the following information:

Parent name and address:

Best way to contact you should you win (please circle):

Phone

E-mail

Preferred phone number or e-mail address:

REFERENCES

- Achenbach, T. M. (1991). *Integrative guide for the 1991 CBCL/4-18, YSR, and TRF profiles*. Burlington: University of Vermont Department of Psychiatry.
- Ainsworth, M. D. (1972). *Attachment and dependency: A comparison*. Oxford, England: V. H. Winston & Sons.
- Ainsworth, M. D. S., Blehar, M. C., Waters, E. & Wall, S. (1978). *Patterns of attachment*. Hillsdale, NJ: Erlbaum.
- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed.). (text revision). Washington, DC: Author.
- American Psychological Association. (2002). Ethical Principles of Psychologists and Code of Conduct. *American Psychologist*, 57(12), 1060-1073.
- Anastasi, A., & Urbina, S. (1997). *Psychological testing* (7th ed.). Upper Saddle River, NJ: Prentice Hall.
- Asher, S. R., Oden, S. L., & Gottman, J. M. (1977). Children's friendships in school settings. In L. G. Katz (Ed.), *Current topics in early childhood education* (Vol. 1, pp. 33-61). Norwood, NJ: Ablex.
- Asher, S. R., & Taylor, A. R. (1981). The social outcomes of mainstreaming: Assessment and beyond. *Exceptional Children Quarterly*, 1, 13-30.
- Bandura, A. (1977). *Social learning theory*. Englewood Cliffs, NJ: Prentice-Hall.

- Barkley, R. A. (1990). *Attention deficit hyper-activity disorder: A handbook for diagnosis and treatment*. New York: Guilford.
- Barkley, R. A. (1994). Impaired delayed responding: A unified theory of Attention-Deficit Hyperactivity Disorder. In D. K. Routh (Ed.), *Disruptive Behavior Disorders in Childhood*, (pp. 11-57). New York: Plenum.
- Barkley, R. A. (1997). Behavioral inhibition, sustained attention, and executive functions: Constructing a unified theory of ADHD. *Psychological Bulletin*, 121, 65-94.
- Barkley, R. A., & Cunningham, E. (1979). The effects of methylphenidate on the mother-child interactions of hyperactive children. *Archives of General Psychiatry*, 36(2), 201-208.
- Bates, J. E., Maslin, C. A., & Frankel, K. A. (1985). Attachment security, mother-child interaction, and temperament as predictors of behavior-problem ratings at age three years. *Monographs of the Society for Research in Child Development*, 50(1-2), 167-193.
- Beitchman, J. H., & Corradini, A. (1988). Self-report measures for use with children: A review and comment. *Journal of Clinical Psychology*, 44(4), 477-490.
- Bierman, K. L. (1986). Process of change during social skills training with preadolescents and its relation to treatment outcome. *Child Development*, 57, 230-240.
- Bierman, K. L., & Furman, W. (1984). The effects of social skills training and peer involvement on the social adjustment of preadolescents. *Child Development*, 55, 151-162.

- Birleson, P. (1981). The validity of depressive disorder in childhood and the development of a self-rating scale: A research report. *Journal of Child Psychology and Psychiatry*, 22(1), 73-88.
- Boivin, M., & Bégin, G. (1989). Peer status and self-perception among early elementary school children: The case of rejected children. *Child Development*, 60, 591-596.
- Bowlby, J. (1973). *Attachment and loss. Vol. 2: Separation, anxiety, and anger*. New York: Basic Books.
- Brown, G. E., Wheeler, K. J., & Cash, M. (1980). The effects of a laughing versus a nonlaughing model on humor responses in preschool children. *Journal of Experimental Clinical Psychology*, 29, 334-339.
- Bukowski, W. M., Hoza, B., & Boivin, M. (1994). Measuring friendship quality during pre- and early adolescence: The development and psychometric properties of the Friendship Qualities Scale. *Journal of Social and Personal Relationships*, 11, 471-484.
- Bukowski, W. M., & Newcomb, F. (1984). Stability and determinants of sociometric status and friendship choice: A longitudinal perspective. *Developmental Psychology*, 20(5), 941-952.
- Campbell, S. B., Endman, M. W., & Bernfeld, G. (1977). A three-year follow-up of hyperactive preschoolers into elementary school. *Journal of Child Psychology and Psychiatry*, 18(3), 239-249.
- Campbell, D. T., & Fiske, D. W. (1959). Convergent and discriminant validation by the multitrait-multimethod matrix. *Psychological Bulletin*, 56 (2), 81-105.

- Canale, J. R. (1977). The effect of modeling and length of ownership on sharing behavior of children. *Social Behavior and Personality*, 5, 187-191.
- Causey, D. L., & Dubow, F. (1992). Development of a self-report coping measure for elementary school children. *Journal of Clinical Child Psychology*, 21(1), 47-59.
- Coie, J. D., & Dodge, A. (1983). Continuities and changes in children's social status: A five-year longitudinal study. *Merrill-Palmer Quarterly*, 29(3), 261-282.
- Coie, J. D., Dodge, K. A., & Coppotelli, H. (1982). Dimensions and types of social status: A cross-age perspective. *Developmental Psychology*, 18, 557-570.
- Coie, J. D., & Kupersmidt, B. (1983). A behavioral analysis of emerging social status in boys' groups. *Child Development*, 54(6), 1400-1416.
- Conger, J. C., & Keane, S. (1981). Social skills intervention in the treatment of isolated or withdrawn children. *Psychological Bulletin*, 90, 478-495.
- Cowen, E. L., Pederson, A., Babigian, H., Izzo, L. D., & Trost, M. A. (1973). Long-term follow-up of early detected vulnerable children. *Journal of Consulting and Clinical Psychology*, 41(3), 438-446.
- Cronbach, L. J., & Meehl, P. E. (1955). Construct validity in psychological tests. *Psychological Bulletin*, 52 (4), 281-302.
- Danielson, C. K., & Phelps, C. R. (2003). The assessment of children's social skills through self-report: A potential screening instrument for classroom use. *Measurement & Evaluation in Counseling & Development*, 35(4), 218-229.

- Deluty, R. H. (1979). Children's Action Tendency Scale: A self-reported measure of aggressiveness, assertiveness, and submissiveness in children. *Journal of Consulting and Clinical Psychology, 47*, 1061-1071.
- Dodge, K. A. (1986). A social information processing model of social competence in children. In M. Perlmutter (Ed.), *The Minnesota symposia on child psychology* (Vol. 18, pp. 77-125). Hillsdale, NJ: Laurence Erlbaum Associates.
- Dodge, K. A., & Coie, J. D. (1987). Social information processing factors in reactive and proactive aggression in children's peer group. *Journal of Personality and Social Psychology, 6*, 1146-1158.
- Dodge, K. A., & Newman, J. P. (1981). Biased decision making processes in aggressive boys. *Journal of Abnormal Psychology, 90*, 375-379.
- Egeland, B., & Farber, A. (1984). Infant-mother attachment: Factors related to its development and changes over time. *Child Development, 55*(3), 753-771.
- Elliot, S. N., Malecki, C. K., & Demaray, M. K. (2001). New directions in social skills assessment and intervention for elementary and middle school students. *Exceptionality, 9*, 19-32.
- Fine, A. H. (1993, October). *Friendship, social skills, and getting along*. Paper presented at the annual meeting of the Learning Disabilities Association of California State Conference, Pomona, CA.

- Fine, A. H. & Kotkin, R. A. (2003). Social skills and children with attention deficit hyperactivity disorder and/or learning disabilities realities and direction for treatment. In A. H. Fine & R. A. Kotkin (Eds.), *Therapist's guide to learning and attention disorders* (pp. 295-334). San Diego: Academic Press.
- Flicek, M. (1992). Social status of boys with both academic problems and attention-deficit hyperactivity disorder. *Journal of Abnormal Child Psychology*, 20(4), 353-366.
- Fox, C. L., & Boulton, M. J. (2006). Friendship as a moderator of the relationship between social skills problems and peer victimisation. *Aggressive Behavior*, 32(2), 110-121.
- Furman, W., & Masters, J. C. (1980). Affective consequences of social reinforcement, punishment, and neutral behavior. *Developmental Psychology*, 16, 100-104.
- Gottman, J., Gonso, J., & Rasmussen, B. (1975). Social interaction, social competence, and friendship in children. *Child Development*, 46(3), 709-718.
- Gottman, J., Gonso, J., & Schuler, (1976). P. Teaching social skills to isolated children. *Journal of Abnormal Child Psychology*, 4(2), 179-197.
- Green, K. D., Forehand, R. L., Beck, S. J., & Vosk, B. (1980). An assessment of the relationship among measures of children's social competence and children's academic achievement. *Child Development*, 51(4), 1149-1156.

- Greene, R. W., Biederman, J., Faraone, S. V., Quéllette, C. A., Penn, C., & Griffin, S. (1996). Toward a new psychometric definition of social disability in children with attention-deficit hyperactivity disorder. *Journal of the American Academy of Child and Adolescent Psychiatry*, 35(5), 571-578.
- Grenell, M. M., Glass, C. R., & Katz, K. S. (1987). Hyperactive children and peer interaction: Knowledge and performance of social skills. *Journal of Abnormal Child Psychology*, 15, 1-13.
- Gresham, F. M., & Nagle, R. J. (1980). Social skills training with children: Responsiveness to modeling and coaching as a function of peer orientation. *Journal of Consulting and Clinical Psychology*, 48, 718-729.
- Grossman, K., Grossman, K. E., Spangler, G., Suess, G., & Unzner, L. (1985). Maternal sensitivity and newborns' orientation responses as related to quality of attachment in northern Germany. *Monographs of the Society for Research in Child Development*, 50(1), 233-256.
- Guevremont, D. C., & Dumas, M. C. (1994). Peer relationship problems and disruptive behavior disorders. *Journal of Emotional and Behavioral Disorders*, 2(3), 164-172.
- Guevremont, D. C., & Foster, S. (1993). Impact of problem-solving on aggressive boys: Skill acquisition, behavior change, and generalization. *Journal of Abnormal Child Psychology*, 21, 13-27.
- Hamlett, K. W., Pellegrinni, D. S., & Conners, C. K. (1987). An investigation of executive processes in the problem-solving of attention deficit disorder-hyperactive children. *Journal of Pediatric Psychology*, 12, 227-240.

- Hartup, W. W. (1983). Peer relations. In E. M. Hetherington (Ed.), *Handbook of child psychology. Vol. 4: Socialization, personality, and social development* (4th ed., pp. 103-196). New York: Wiley.
- Hartup, W. W. (1985). Relationships and their significance in cognitive development. In R. A. Hinde, A. Perret-Clermont, & J. Stevenson-Hinde (Eds.), *Social relationships and cognitive development* (pp. 66-82). Oxford, UK: Clarendon Press.
- Hartup, W. W. (1989). Social relationships and their developmental significance. *American Psychologist*, 44(2), 120-126.
- Hubbard, J. A., & Cole, J. D. (1994). Emotional correlates of social competence in children's peer relationships. *Merrill-Palmer Quarterly*, 40, 1-20.
- Kellner, R., Houghton, S., & Douglas, G. (2003). Peer-related personal experiences of children with attention-deficit/hyperactivity disorder with and without comorbid learning disabilities. *International Journal of Disability, Development and Education*, 50(2), 119-136.
- Kmett, C. M. (1999). *Assessment of children's social skills through self-report*. Unpublished master's thesis, University of Dayton, Dayton, Ohio.
- Kolko, D. J., & Kazdin, E. (1993). Emotional/behavioral problems in clinic and nonclinic children: Correspondence among child, parent and teacher reports. *Journal of Child Psychology and Psychiatry*, 34(6), 991-1006.
- Kovacs, M. (1981). Rating scales to assess depression in school-aged children. *Acta Paedopsychiatrica: International Journal of Child & Adolescent Psychiatry*, 46(5-6), 305-315.

- Ladd, G. W. (1981). A social learning method for enhancing children's social interaction and peer acceptance. *Child Development*, 52, 171-178.
- Ladd, G. W. (2005). *Children's peer relations and social competence: A century of progress*. New Haven, CT: Yale University Press.
- Ladd, G. W., & Asher, S. R. (1985). Social skill training and children's peer relations. In L. L'Abate and M. Milan (Eds.), *Handbook of social skills training and research* (pp. 291-244). New York: John Wiley and Sons.
- Ladd, G. W., & Kochenderfer-Ladd, B. (2002). Identifying victims of peer aggression from early to middle childhood: Analysis of cross-informant data for concordance, estimation of relational adjustment, prevalence of victimization, and characteristics of identified victims. *Psychological Assessment*, 14(1), 74-96.
- Ladd, G. W., & Mize, J. (1983). A cognitive-social learning model of social-skill training. *Psychological Review*, 90, 127-157.
- LaGreca, A. M., & Santogrossi, A. (1980). Social skills training with elementary school students: A behavioral group approach. *Journal of Consulting and Clinical Psychology*, 48(2), 220-227.
- Lamb, M. E., & Roopnarine, J. L. (1979). Peer influences on sex-role development in preschoolers. *Child Development*, 50, 1219-1222.
- Landau, S., & Milich, R. (1990). Assessment of children's social status and peer relations. In A. M. LaGreca (Ed.), *Through the eyes of a child: Obtaining self-reports from children and adolescents*, (pp. 259-291). Needham Heights, MA: Allyn & Bacon.

- Landau, S., & Moore, L. A. (1991). Social skills deficits in children with attention-deficit hyperactivity disorder. *School Psychology Review*, 20(2), 235-251.
- Lane, K. L. (1999). Young students at risk for antisocial behavior: The utility of academic and social skills interventions. *Journal of Emotional and Behavioral Disorders*, 7(4), 211-223.
- Loeber, R. (1985). Patterns of development of antisocial child behavior. *Annals of Child Development*, 2, 77-116.
- Loney, J. P., & Milich, R. (1982). Hyperactivity, inattention and aggression in clinical practice. In M. Wolraich & D. K. Routh (Eds.), *Advances in behavioral pediatrics*, 2, (pp. 113-147). Greenwich, CT: JAI Press.
- Maccoby, E. E., & Martin, J. A. (1983). Socialization in the context of the family: Parent child interaction. In C. M. Hetherington (Ed.), *Handbook of child psychology. Vol. 4: Socialization, personality, and social development* (4th ed., pp. 1-101). New York: Wiley.
- Martlew, M., & Hodson, J. (1991). Children with mild learning difficulties in an integrated and in a special school: Comparisons of behaviour, teasing and teachers' attitudes. *British Journal of Educational Psychology*, 61(3), 355-369.
- Mash, E. J., & Johnston, C. (1982). A comparison of mother-child interactions of younger and older hyperactive and normal children. *Child Development*, 53(5), 1371-1381.

- Mash, E. J., & Johnston, C. (1983). Sibling interactions of hyperactive and normal children and their relationship to reports of maternal stress and self-esteem. *Journal of Clinical Child Psychology*, 12(1), 91-99.
- Mathur, S. R., & Rutherford, B. (1996). Is social skills training effective for students with emotional or behavioral disorders? Research issues and needs. *Behavioral Disorders*, 22(1), 21-28.
- McFall, R. M. (1982). A review and reformulation of the concept of social skills. *Behavioral Assessment*, 4, 1-33.
- Merrell, K. (1993). Social skills and peer relations. In H. B. Vance (Ed.), *Best practices in assessment for school and clinical settings* (pp. 307-340). Brandon, VT: Clinical Psychology Publishing Co., Inc.
- Milich, R., & Dodge, K. A. (1984). Social information processing in child psychiatric populations. *Journal of Abnormal Child Psychology*, 12, 417-490.
- Milich, R., & Landau, S. (1982). Socialization and peer relations in hyperactive children. In K. D. Gadow & I. Bialer (Eds.), *Advances in learning and behavior disabilities* (Vol. 1, pp. 283-339). Greenwich, CT: JAI.
- Motti, F. (1986). *Relationships of preschool teachers with children of varying developmental histories*. Unpublished doctoral dissertation, University of Minnesota, Minneapolis, Minnesota.
- Nixon, E. (2001). The social competence of children with Attention Deficit Hyperactivity Disorder: A review of the literature. *Child Psychology and Psychiatry Review*, 6(4), 172-180.

- Oden, S., & Asher, R. (1977). Coaching children in social skills for friendship making. *Child Development*, 48(2), 495-506.
- O'Moore, A., & Hillery, B. (1989). Bullying in Dublin schools. *Irish Journal of Psychology*, 10(3), 426-441.
- Pancake, V. R. (1985, April). *Continuity between mother-infant attachment and ongoing dyadic peer relationships in preschool*. Paper presented at the Biennial meeting of the Society for Research in Child Development, Toronto, Ontario.
- Parker, J. G., & Asher, S. R. (1987). Peer relations and later personal adjustment: Are low-accepted children at risk? *Psychological Bulletin*, 102, 357-389.
- Pelham, W. E., & Bender, E. (1982). Peer relationships in hyperactive children: Description and treatment. *Advances in Learning & Behavioral Disabilities*, 1, 365-436.
- Piaget, J. (1959). *The language and thought of the child* (3rd Ed.). London: Routledge and Kegan Paul.
- Pope, A. W., Bierman, K. L., & Mumma, G. H. (1991). Aggression, hyperactivity, and inattention-immaturity: Behavior dimensions associated with peer rejection in elementary school boys. *Developmental Psychology*, 27, 663-671.
- Putallaz, M., & Heflin, H. (1990). Parent child interaction. In S. P. Asher & J. D. Coie (Eds.), *Peer rejection in childhood* (pp. 189-216). New York: Cambridge University Press.

- Ray, C. E., & Elliot, S. N. (2006). Social adjustment and academic achievement: A predictive model for students with diverse academic and behavior competencies. *School Psychology Review*, 35(3), 493-501.
- Reynolds, W. M. (1994). Assessment of depression in children and adolescents by self-report questionnaires. In W. Reynolds & H. Johnston (Eds.), *Handbook of depression in children and adolescents* (pp. 209-234). New York: Plenum Press.
- Roff, M., Sells, B., & Golden, M. (1972). *Social adjustment and personality development in children*. Minneapolis: University of Minnesota Press.
- Ross, D. M., & Ross, S. A. (1982). *Hyperactivity: Current issues, research, and theory* (2nd ed.). New York: John Wiley & Sons.
- Rubin, K. H., Booth, C., Rose-Krasnor, L., & Mills, S. L. (1995). Social relationships and social skills: A conceptual and empirical analysis. In S. Shulman (Ed.), *Close relationships and socioemotional development, Vol. 7* (pp. 63-94). New Jersey: Ablex Publishing Corporation.
- Rubin, K. H., Fein, G., & Vandenberg, B. (1983). Play. In E. M. Hetherington (Ed.), *Handbook of child psychology: Socialization, personality, and social development*. New York: Wiley.
- Rubin, K. H., Hymel, S., & Mills, R. S. (1989). Sociability and social withdrawal in childhood: Stability and outcomes. *Journal of Personality*, 57(2), 237-255.

- Salmon, G., James, A., Cassidy, E. L., & Javaloyes, M. A. (2000). Bullying a review: Presentations to an adolescent psychiatric service and within a school for emotionally and behaviourally disturbed children. *Clinical Child Psychology and Psychiatry*, 5(4), 563-579.
- Selman, R. L. (1985). The use of interpersonal negotiation strategies and communicative competences: A clinical-developmental exploration in a pair of troubled early adolescents. In R. A. Hinde, A. Perret-Clermont, & J. Stevenson-Hinde (Eds.), *Social relationships and cognitive development* (pp. 208-232). Oxford, England: Clarendon.
- Semrud-Clikeman, M., & Schafer, V. (2000). Social and emotional competence in children with ADHD and/or learning disabilities. *Journal of Psychotherapy in Independent Practice*, 1(4), 3-19.
- Shea, B., & Wiener, J. (2003). Social exile: The cycle of peer victimization for boys with ADHD. *Canadian Journal of School Psychology*, 18(1-2), 55-90.
- Silvera, D. H., Martinussen, M., & Dahl, T. I. (2001). The Tromsø Social Intelligence Scale, a self-report measure of social intelligence. *Scandinavian Journal of Psychology*, 42(4), 313-319.
- Solomon, R. G., & Wahler, R. (1973). Peer reinforcement control of classroom problem behavior. *Journal of Applied Behavior Analysis*, 6, 49-56.
- Sørli, M., Hagen, K. A., & Ogden, T. (2008). Social competence and antisocial behavior: Continuity and distinctiveness across early adolescence. *Journal of Research on Adolescence*, 18(1), 121-144.

- Spieker, S. J., & Booth, C. L. (1988). Maternal antecedents of attachment quality. In J. Belsky & T. Nezworski (Eds.), *Clinical implications of attachment* (pp. 95-135). Hillsdale, NJ: Erlbaum.
- Sroufe, L. A. (1983). Infant-caregiver attachment and patterns of adaptation in preschool: The roots of competence and maladaptation. In M. Perlmutter (Ed.), *The Minnesota symposia on child psychology* (Vol. 16, pp. 41-83). Hillsdale, NJ: Laurence Erlbaum Associates.
- Stormont, M. (2001). Social outcomes of children with AD/HD: Contributing factors and implications for practice. *Psychology in the Schools*, 38(6), 521-531.
- Tallmadge, J., & Barkley, A. (1983). The interactions of hyperactive and normal boys with their fathers and mothers. *Journal of Abnormal Child Psychology*, 11(4), 565-579.
- Thomas, A. & Chess, S. (1977). *Temperament and development*. New York: Brunner/Mazel.
- Troy, M., & Sroufe, A. (1987). Victimization among preschoolers: Role of attachment relationship history. *Journal of the American Academy of Child & Adolescent Psychiatry*, 26(2), 166-172.
- Waddell, K. J. (1984). The self-concept and social adaptation of hyperactive children in adolescence. *Journal of Clinical Child Psychology*, 13(1), 50-55.
- Walker, H. M., & Hops, H. (1976). Increasing academic achievement by reinforcing direct academic performance and/or facilitating nonacademic responses. *Journal of Educational Psychology*, 68, 218-225.

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- Wallandar, J. L., & Hubert, N. C. (1987). Peer social dysfunction in children with developmental disabilities: Empirical basis and a conceptual model. *Clinical Psychology Review, 7*, 205-227.
- Whalen, C. K., Collins, B. E., Henker, B., Alkus, S. R., Adams, D., & Stapp, J. (1978). Behavior observations of hyperactive children and methylphenidate (Ritalin) effects in systematically structured classroom environments: Now you see them, now you don't. *Journal of Pediatric Psychology, 3*, 177-187.
- Whalen, C. K., & Henker, B. (1985). The social worlds of hyperactive (ADHD) children. *Clinical Psychology Review, 5*, 447-478.
- Whalen, C. K., Henker, B., Collins, B. E., McAuliffe, S., & Vaux, A. (1979). Peer interactions in structured communication task: Comparisons of normal and hyperactive boys and of methylphenidate (Ritalin) and placebo effects. *Child Development, 50*, 388-401.
- Whalen, C. K., Henker, B., & Dotemoto, S. (1980). Methylphenidate and hyperactivity: Effects on teacher behaviors. *Science, 208*(4449), 1280-1282.
- Whalen, C. K., Henker, B., & Dotemoto, S. (1981). Teacher responses to methylphenidate (Ritalin) versus placebo status of hyperactive boys in the classroom. *Child Development, 52*, 1005-1014.
- Wheeler, J., & Carlson, C. L. (1994). The social functioning of children with ADD with hyperactivity and ADD without hyperactivity: A comparison of their peer relations and social deficits. *Journal of Emotional and Behavioral Disorders, 2*(1), 2-12.
- Youniss, J. (1980). *Parents and peers in social development: A Piaget-Sullivan perspective*. Chicago: University of Chicago Press.