THE RELATIONSHIP BETWEEN THE SOCIAL SKILLS AND PERCEIVED QUALITY OF LIFE OF BOYS WITH ATTENTION DEFICIT/HYPERACTIVITY DISORDER-PREDOMINANTLY HYPERACTIVE-IMPULSIVE SUBTYPE (ADHD-H)

Thesis submitted to the

Institute for Graduate Studies in the Social Sciences

in partial fulfillment of the requirements for the degree of

Masters of Arts

In

Educational Sciences

by

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Boğaziçi University

2008

The Relationship between Social Skills and Perceived Quality of Life of Boys with Attention Deficit/Hyperactivity Disorder-Predominantly Hyperactive-Impulsive Subtype (ADHD-H)

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July 2008

Thesis Abstract

Ayşe Arslanoğlu “The Relationship between the Social Skills and Perceived Quality of Life of Boys with Attention-Deficit/Hyperactivity Disorder-Predominantly Hyperactive-Impulsive Subtype (ADHD-H)”

The aim of the current study was to investigate the relationship between the social skills and perceived quality of life of boys (n=35) with Attention-Deficit/Hyperactivity Disorder-Predominantly Hyperactive-Impulsive Subtype (ADHD-H) ranging from 8 to 12 years of age.

Social skills were measured by the Social Skill Rating Scale-Teacher and Social Skill Rating Scale-Parent Form; SSRS-T and SSRS-F; respectively (Gresham & Eliot, 1990), perceived quality of life was measured by the Quality of Life Scale for Children with ADHD; AD/HD-QOL (Dolgun, 2003).

The results of the study displayed that social skills of boys with ADHD-H were perceived by their teacher as low (mean=27.4, sd=10.2), especially the cooperation skills (mean=7.71, sd=4.1). On the other hand, parents of these children were perceived their children’s social skills as average (mean=48.3, sd=8.5) on all domains [assertiveness (mean=14.6, sd=2.9), cooperation (mean=9.4, sd=3.4), self-control (mean=10.3, sd=3.1) and responsibility (mean=13.8, sd=2.5)]. Also, these children perceived their social skills as average both at home and at school. Additionally, children with ADHD-H perceived their quality of life at school (mean=56.3, sd=12.8) and at home (mean=64.9, sd=11.8) as average.

The current study highlights the social skills and quality of life of boys with ADHD-H. The findings suggest that children with ADHD-H, especially boys, there were differences among teacher and parent perceptions and teachers perceived more problems in the social skills of children with ADHD-H. Thus, gathering information from multiple informants is very important before doing interventions about social skills of children.

In other words, the current study presents a picture of boys with ADHD-H in terms of social skills and quality of life for professionals who work with these children.

(291 words)

Tez Özeti

Ayşe Arslanoğlu “Dikkat Eksikliği/Hiperaktivite Bozukluğu-Ağırlıklı Hiperaktif-İmpulsif (DEHB-H) olan Erkek Çocukların Sosyal Beceri Gelişimleri ve Algıladıkları Yaşam Kaliteleri Arasındaki İlişki”

Bu çalışmanın amacı; 8-12 yaş grubu erkek çocukların (n=35) sosyal beceri gelişimleri ve algıladıkları yaşam kaliteleri arasındaki ilişkiyi araştırmaktadır.

Sosyal beceri gelişimi Gresham ve Eliot tarafından 1990’da geliştirilen Sosyal Beceri Derecelendirme Sistemi- Öğretmen ve Sosyal Beceri Derecelendirme Sistemi-Ebeveyn Formu (SSDS-Ö/E) ile algılanan yaşam kalitesi Dolgun tarafından 2003 yılında geliştirilen Dikkat Eksikliği/Hiperaktivite Bozukluğu Yaşam Kalitesi Ölçeği (DE/HB-YKÖ) ile ölçülmüştür.

Çalışmadan elde edilen sonuçlarda; DEHB-H’si olan erkek çocukların sosyal beceri gelişimleri öğretmenleri tarafından düşük (Ort.=27.4, SS=10.2) olarak algılanmıştır. Bunun yanı sıra, DEHB-H’si olan erkek çocukların sosyal beceri gelişimleri anne-babaları tarafından orta düzeyde (Ort.=48.3, SS=8.5) algılanmıştır. Ayrıca, çocuklar da sosyal becerilerini anne-babaları gibi orta düzeyde algılamaktadırlar. Buna ek olarak, çocuklar yaşam kalitelerini evde (Ort.=64.9, SS=12.8) ve okulda (Ort.=56.3, SS=2.8) orta düzeyde algılamaktadırlar.

Bu çalışma, DEHB-H tanısı alan erkek çocukların sosyal becerilerine ve yaşam kalitelerine ışık tutmaktadır. Sonuçlar göstermektedir ki öğretmen ve anne-baba algıları arasında fark vardır ve öğretmenler bu çocukların okulda daha fazla sorun yaşadığını düşünmektedir. Bu nedenle, sosyal beceri gelişimine yönelik uygulamalar yapmadan önce farklı kaynaklardan bilgi toplamak önemlidir.

Bir başka değişle, bu çalışma DEHB-H’si olan erkek çocuklarla çalışan profesyonellere, bu çocukların sosyal beceri gelişimleri ve algıladıkları yaşam kalitesine yönelik bir resim sunmaktadır.

(212 kelime)

Acknowledgements

As a result of three years of work, this thesis is accomplished with the support of many people. Now it is time to voice my grateful thanks to all. I want to start by expressing my sincere thanks to my thesis advisor Assist. Prof. Hande Sart; for her valuable guidance, support, motivation and encouragement.

Also, I want to thank my committee members: Assoc. Prof. Fatoş Erkman, for her valuable support and contributions to the thesis and all her surrounding warmth throughout my undergraduate and graduate studies, Prof. Dr. Barış Korkmaz, for his advice and support, Assist. Prof Özlem Ünlihisarcıklı, for her readiness to support. I also want to thank to Ayşesim Diri for her support in the statistical analyses.

I want to thank all the schools and centers from which I collected my data. I want to thank especially Selda Özen and all DODO group for their support, beliefs and trust.

I want to give my special thanks to my family for their support, endless love and trust.

Finally, I want to thank to my husband, my love, without him I would never be as happy and strong as I am.

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CHAPTER 1

INTRODUCTION

Children across a wide range of age, gender, ethnicity and socioeconomic status sometimes may have problems because of their behaviors. These behaviors related problems such as anger, damaging things, impulsivity (Schroeder & Gordon, 2002) which may be the precursors of behavioral disorders later on. Behavior problems of children are divided into 2 general categories: externalizing problems and internalizing problems. Externalizing problems are “outer-directed and involve acting-out, defiant and noncompliant behaviors”. On the other hand, internalizing problems are “more inner-directed and involve withdrawal, depression and anxiety” (Gimpel & Holland, 2003, p.2). There are 3 externalizing disorders: attention-deficit/hyperactivity disorder (ADHD), oppositional defiant disorder (ODD) and conduct disorder (CD) (Gimpel & Holland, 2003). Attention-Deficit/Hyperactivity Disorder (ADHD) is one of the most common behavior disorders of childhood (National Institutes of Health, 2000). It involves a set of behavioral characteristics (such as; restlessness, impulsivity) which are disruptive behaviors that impede a child’s ability to function in his/her environment (classroom, home and other places such as the playground). These behavioral characteristics affect the social development of children with ADHD (Bain, 1991, Parker & Aster, 1987). Disruptive behavior is a “diverse set of behaviors that includes temper tantrums, excessive whining or crying, demanding attention, noncompliance, defiance, aggressive acts against self or others, stealing, lying, destruction of property and delinquency” (Shroder & Gordon, 2002, p.331).

ODD is defined in *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV) as "a recurrent pattern of negativistic, defiant and hostile behavior toward authority figures" (APA, 1994, p.91). ODD is a developmental precursor to Conduct Disorder which is defined as "a repetitive and persistent pattern of behavior in which the basic rights of others or major age-appropriate societal norms or rules are violated" (APA, 1994, p.85).

ADHD is a complex phenomenon which consists of several subtypes [predominantly inattentive subtype, predominantly hyperactive and impulsive subtype, and combined subtype (DSM-IV, APA, 1994)]. Each subtype of ADHD has specific characteristics which may lead to different social challenges such as building up a relationship or maintaining friendship with peers (Boo & Prins, 2007).

During social relations, the child needs some skills which are very significant for the quality of social life (Fussell, Macias & Saylor, 2005). The relationship with friends in social life depends on social rules that expect certain behaviors (e.g., eye contact during the conversation, facial expression, speech speed, voice tone, control) according to the situation (e.g., following play rules and finishing a task) and time (e.g., during play, class hour) (Gresham, 1986). Cooperating easily with others, being friendly and helpful are very beneficial and necessary components for making new friends and maintaining the already formed friendships (Erdley & Asher, 1999).

For some children, even making new friends is not an easy process. Children with ADHD are among these groups of children and they experience significant problems during the process of friendship and social relationships (Zentall, Cassady & Javorsky, 2001). Because of disruptive behaviors, such as impulsivity or overactivity, children with ADHD are not liked much by their peers and they are mostly rejected (Flicek, 1992). It is found that children who are rejected by their

peers show disruptive behaviors more than children who are not rejected, and these children are rejected mainly because of their disruptive behaviors (Erdley & Asher, 1999). It is like a recursive situation. The reasons of this recursive situation are; not finding appropriate solutions to problems with peers (Grenell, Glass & Katz, 1987), inadequate skills (such as; reading social cues), and ability to control their behaviors, which hinder social relations (Hubbard & Newcomb, 1991). The presence of problems in the social skills of children with ADHD restricts the opportunities of their social development as well (Fussell, Macias & Saylor, 2005).

Peer acceptance, friendships and peer networks for adjustment are the critical issues for all children, especially for children or adolescents with ADHD (Bagwell et al., 2001). Matthys, Cuperus and Van Engeland (1999) found that children with ADHD had difficulties in understanding and analyzing cues of social interactions and social problems and had difficulties in generalizing their knowledge about cues on this social process (Matthys, Cuperus & Van Engeland, 1999 cited in Boo & Prins, 2007). Interestingly, they can find some solutions to problems in social situations but as opposed to their peers, the solutions they find not appropriate solutions to solve their problems (Zentall, Cassady & Javorsky, 2001). Grenell, Glass and Katz (1987) conducted a study about children with ADHD and their peers. According to the study, they investigated the peer interactions of 30 children [n (total)=30 boys, n (ADHD)=15 and n (control)=15] ranging from 7 to 11 years of age and they used Conners Abbreviated Questionnaire (Goyette, Conners & Ulrich, 1976), Social Knowledge Interview (SKI, Geraci & Asher, 1980), and Peer Interaction Measures (Grenell, Glass & Katz, 1987). They found that children with ADHD are less friendly, less affective, less relationship enhancing, and show less impulse control. In addition, they cheat more and use non-communicative speech during free play times.

Because of these reasons, children with ADHD are defined as less desirable partners during free play or work by their peers. On the other hand, when the games become more structured, they are equally performed as children with ADHD and their peers did (Grenell, Glass & Katz, 1987).

Problems surrounding the social relations of children with ADHD affect both themselves and their peers. The perceived quality of life (QoL) of children with ADHD signals significant problems in terms of their social well-being (Escobar et al., 2005). Their perception of their QoL [e.g. self, relationship, environment (such as; home and school)] and general QoL are low, especially from the self (sense of who they are) and relationship (peer and family relations) perspectives which are related to relationship with peers and others (e.g., parents) (Toposki et al., 2004). Hence, it is highly plausible that there may be a relationship between the social skills and perceived quality of life of children with ADHD.

Current Study

The characteristics of children with ADHD-predominantly hyperactive-impulsive type (ADHD-H) and the relationship between the perceptions of teachers, parents and children with ADHD-H in terms of social skills are the main aims of the current study.

Every child is unique in his/her needs, difficulties (social, emotional, cognitive and health related) and perceptions. Children with ADHD need more help with their social relations than their normally developing peers do. It is very important to understand their needs, difficulties and perceptions while working with these children (Carlson, Mann & Alexander, 2000).

The purpose of the study was to investigate the characteristics (social skills and quality of life) of children with ADHD-predominantly hyperactive-impulsive subtype and the relationship between the social skills (perceived by teacher, parent and self) and quality of life (perceived by self at school and home) of children with ADHD –H between ages of 8 and 12, in İstanbul. The significance of this study is to find some practical information for the practitioners about the characteristics of children with ADHD, especially the hyperactive-impulsive subtype, and to study the social skills of these children, how they perceive and are perceived by others. Understanding the perception about the quality of life of children with ADHD is useful for developing educational interventions. During the process of intervention, working on problems with social skills, peer relations and perceived quality of life, and developing the required skills for these problems are very important

Research Questions

1. What are the characteristics of children with Attention- Deficit/Hyperactivity Disorder-Predominantly Hyperactive-Impulsive Subtype (ADHD-H) from the focus of
    a) Their social skills from the perspectives of teachers and parents
    b) Their perceived quality of life from the perspective of children
2. What is the relationship between the perceptions of teachers and parents of children with Attention-Deficit/Hyperactivity Disorder-Predominantly Hyperactive-Impulsive Subtype (ADHD-H) in terms of their social skills measured by the Social Skills Rating System-Elementary Teacher Form and Social Skills Rating System-Parent Form (SSRS-ETF and SSRS-PF; respectively)?

3. What is the relationship between the perceptions of children with Attention-Deficit/Hyperactivity Disorder- Predominantly Hyperactive-Impulsive Subtype (ADHD-H) measured by Quality of Life Scale for Children with AD/HD (AD/HD-QoL) and the perceptions of their teachers in terms of their social skills measured by the Social Skills Rating System-Elementary Teacher Form (SSRS-ETF)?
4. What is the relationship between the perceptions of children with Attention-Deficit/Hyperactivity Disorder- Predominantly Hyperactive-Impulsive Subtype (ADHD-H) measured by Quality of Life Scale for Children with AD/HD (AD/HD-QoL) and the perceptions of their parents in terms of their social skills measured by the Social Skills Rating System-Parent Form (SSRS-ETF)?

CHAPTER 2

REVIEW OF LITERATURE

Attention-Deficit/Hyperactivity Disorder (ADHD)

Attention-Deficit/Hyperactivity Disorder (ADHD) is one of the most common behavioral disorders of childhood (National Institutes of Health, 2000). Barkley and Murphy (1998) define ADHD as a "specific developmental disorder seen in children that comprises deficits in behavioral inhibition, sustained attention and resistance activity level to the demands of a situation" (Barkley & Murphy, 1998, p.1) and as "developmental disorder of self-control" (Barkley, 2000, p. 19). Cognitive control (attention, focusing on a task), affect regulations (anger management) and their mutual influence on one another in behavioral regulation and development are the components of ADHD which is characterized by ineffective, disorganized behavior (Nigg & Casey, 2005). Children who have impulsive behavior problems are mostly viewed as having ADHD. These children mostly have attention and impulse control problems. The inattentive symptoms of ADHD are related to cognitive control, whereas the impulsive symptoms of ADHD are related to affective responding and poor cognitive control. These symptoms may cause problems when children need to change their behaviors according to the needs of situations (Nigg & Casey, 2005).

There are some diagnostic criteria for ADHD (see Table 1). According to these criteria, symptoms of ADHD interfere with functioning in at least two of three contexts: at home, in school and/or in school contexts.

Table 1.Diagnostic Criteria for ADHD

A.Either 1 or 2

1) Six (or more) of the following symptoms of **inattention** have persisted for at least 6 months to a degree that is maladaptive and inconsistent with developmental level:

Inattenion

a) Often fails to give close attention to details or makes careless mistakes in schoolwork, work, or other activities
b) Often has difficulty sustaining attention in tasks or play activities
c) Often does not seem to listen when spoken to directly
d) Often does not follow through on instructions and fails to finish schoolwork, chores, or duties in the workplace (not due to oppositional behavior or failure to understand instructions)
e) Often has difficulty organizing tasks and activities
f) Often avoids, dislikes, or is reluctant to engage in tasks that require sustained mental effort (such as schoolwork or homework)
g) Often loses things necessary for tasks or activities (e.g. toys, school assignments, pencils, books, or tools)
h) Is often easily distracted by extraneous stimuli
i) Is often forgetful in daily activities

2) Six (or more) of the following symptoms of **hyperactivity-impulsivity** have persisted for at least 6 months to a degree that is maladaptive and inconsistent with developmental level:

Hyperactivity

a) Often fidgets with hands or feet or squirms in seat
b) Often leaves seat in classroom or in other situations in which remaining seated is expected
c) Often runs about or climbs excessively in situations in which it is inappropriate (in adolescents or adults, may be limited to subjective feelings of restlessness)
d) Often has difficulty playing or engaging in leisure activities quietly
e) Is often "on the go" or often acts as "driven by a motor"
f) Often talks excessively

Impulsivity

g) Often blurts out answers before questions have been completed
h) Often has difficulty awaiting turn
i) Often interrupts or intrudes on others (e.g. butts into conversations of games)

B. Some hyperactive-impulsive or inattentive symptoms that caused impairment were present before 7 years of age.

C. Some impairment from the symptoms is present in 2 or more settings (e.g. mood disorder, anxiety disorder, dissociative disorder, or personality disorder).

Code based on type:

314.01 Attention-Deficit/Hyperactivity Disorder, Combined Type: if both criteria A1 and A2 are met for the past 6 months

314.00 Attention-Deficit/Hyperactivity Disorder, Predominantly Inattentive Type: if criterion A1 is met but criterion A2 is not met for the past 6 months

314.01 Attention-Deficit/Hyperactivity Disorder, Predominantly Hyperactive, Impulsive Type: if criterion A2 is met but criterion A1 is not met for the past 6 months

314.9 Attention-Deficit/Hyperactivity Disorder Not Otherwise Specified

Diagnostic and Statistical Manual of Mental Disorders, 4th. Ed. (DSM-IV). Coppyright 1994. American Psychiatric Assosiation.

This disorder is described with 3 subtypes: predominantly inattentive type, predominantly hyperactive and impulsive type, and combined type (DSM-IV; APA, 1994). Comorbidity of this disorder, which is the condition whenever two different disease processes are present in an individual (Pliszka & Swenson, 1999), such as Learning Difficulty, Conduct Disorder, Oppositional Defiant Disorder, is extremely common (Weiss & Weiss, 1996) Approximately half of the clinical referred children with ADHD have problems associated with aggression (Barkley, 1998). Medication is mostly used to improve low academic productivity, task related motivation and problematic interactions with adults and peers as well as behavioral therapies (Abikoff & Klein, 1992).

Children with ADHD have important features that affect their everyday life (see table 2). They generally act without thinking and control, and they may even be distracted by any kind of noise in the classroom (Barkley & Murphy, 1998). They exhibit excessive movement to finish a task, and also experience difficulty in concentrating on a specified task (Barkley & Murphy, 1998). These children may pass from one activity to another but without finishing one totally. They also have problems with their daily routines, such as difficulty in remembering important things, managing and organizing themselves (see for a review, Barkley & Murphy, 1998). Another common problem of these children is "self-regulation", such as "following rules and instructions, formulating and adhering to their own plans" (Barkley & Murphy, 1998, p.3). Because of these features, they become unpopular and experience problems with individuals around them (Lewis, 1996). Impulsiveness is defined by some researchers to be the primary problem of children with ADHD (Rubia & Smith, 2001) and it has been suggested as the main symptom responsible for the negative outcomes for children with ADHD (Barkley, 1997).

Table 2.Characteristics of ADHD

Infants and Toddlers (0-24 months)	Preschoolers (3-5 years)	Early school age (age 6-8 years)	Middle school age (9-12 years)	Adolescence (13-18 years)
Difficult temperament *Overactivity *Intensity of emotions *Negative mood *Poor Physiological Regulation	Behavior problems *Overactivity *Impulsivity *Noncompliance *Aggression Accidental poisoning Accidental injury Delayed toilet training Preschool/day care Problems *Lack of persistence *Oppositional behavior * Problems with group Activities *Appears immature	Behavior problems *Restless *Noncompliant *Conduct problems Attentional problems *Short attention span *Off task *Poor listening *Doesn't follow directions Peer problems Requires close supervision	School problems *Underachievement (18-53%) *High error rates *Fails to complete assignments *Learning disabilities: reading and language-based (25 %) *Disruptive behaviors *Poor social skills *Poor self-control *Poor athletic skills *Peer problems Home problems *Irresponsible *Forgetful *Stealing, lying, property destruction	Attention problems *Poor school performance *Failure to remember assignments *Failure to complete assignment *Underachievement Conduct problems with aggression *Rebelliousness *Defiance of authority *Violation of family rules *Immature and/or irresponsible behavior *Car accidents *Drug use *Delinquency Low self-esteem Depression Poor social relations

Attention-Deficit Hyperactivity Disorder: A Handbook for Diagnosis and Treatment (3rd Ed.). Copyright 2006. Barkley, R. A.

According to Barkley (2006), it was rated that3 % to 5 % of children were diagnosed with ADHD. Among these children, approximately 3:1 in boys more than girls as the gender ratio in community samples (Barkley, 2006). Girls and boys with ADHD are quite similar in their presenting symptoms, but girls are considerably less likely to manifest aggressive behavior (Barkley, 2006). Children with ADHD are referred for clinical interventions from schools mostly between the ages of 6 and 9 (Lewis, 1996). Although ADHD cannot be reliably diagnosed during preschool years (Blum, Mercugliano & Power, 1999), impulse control problems, short attention span and hyperactive behaviors are evaluated as cues to further problems through elementary school and even into the adolescence (Spira & Fischel, 2005). Fifty to eighty percent of school aged children, who have been diagnosed clinically, hold the ADHD diagnoses in adolescence and 10 % to 65 % of these may continue even into adulthood (Barkley & Murphy, 1998). A study on preschool children was conducted by DeWolfe, Byrne and Bawden (2000). In their study, they investigated the differences between preschool children with and without ADHD [n (ADHD, mean age 4.8) =25 and n (control, mean age 4.9) =25] and used parent ratings of behavioral and psychosocial correlates in their study [Family Assessment Measure: general scale (FAM-III: GS; Skinner et al., 1995), CBCL (Achenbach, 1991), SSRS-P (Gresham & Eliot, 1990), CPRS (Conners, 1990)]. As a result, they found that preschool children with ADHD were seen as more aggressive, non-compliant, demanding and less adaptive and less socially skilled than their normally developing peers and they were unaware of or insensitive about their actions and the impacts of their actions on others. Although parental ratings are very important for the clinicians to differentiate the children with or without ADHD, there are differences between parents' and children's self-ratings. Preschool children with ADHD rated themselves

as competent and socially accepted compared to their normally developing peers (DeWolfe, Byrne & Bawden, 2000). According to S. Campbell's study; with maturation, children with ADHD rate themselves lower at the ratings of competence and social acceptance (Campbell, 1994 cited in DeWolfe, Byrne & Bawden, 2000).

Gol and Jarus (2005) stated that children with ADHD have difficulties in functioning in social interaction and everyday tasks. They conducted a study with 51 children [n (ADHD) =27 and n (without ADHD) =24] and used the Assessment of Motor and Process Skills (AMPS, Fisher, 1997). As a result, they found that during intervention phase and they develop their skills of social interaction (Gol & Jarus, 2005).

Subtypes of ADHD

ADHD is a neuro-developmental disorder. According to DSM-IV, there are three subtypes for ADHD: predominantly inattentive subtype, predominantly hyperactive, impulsive subtype, and combined subtype; primarily problem with poor attention, primarily problem with hyperactive-impulsive behavior and problem with both sets of problems, respectively. The diagnosis of children with ADHD is given according to the stated criteria of DSM-IV which persist for at least 6 months to a degree that is maladaptive with the developmental level of individuals (DSM-IV; APA, 1994).

According to DSM-IV (APA, 1994), children with predominantly inattentive subtype of ADHD experience problems in academic and social situations. They fail to give adequate attention to details or make careless mistakes. It is hard for them to stay on a task until it is finished. They often look as if their mind is elsewhere and

they are not listening. They cannot easily switch from one task to another and have difficulty in organization (DSM-IV, APA, 1994). In addition, they may easily forget their daily activities. In social situations, symptoms of inattention affect their conversations, their ability to follow other people's speech, details or rules of a game or an activity (DSM-IV; APA 1994).

Children with ADHD may differ from one another in the symptoms they exhibit (McMahon, 1994). According to subtypes, children with ADHD may experience different problems. Banks (2004) investigates the social knowledge and performance of children with ADHD especially focusing on impulsivity, aggression, anxiety and academic achievement. The study was conducted with 80 children between the ages of 11 and 14 [n(predominantly inattentive)=38 n(combined type)=42] and the parent form of Social Skills Rating System (SSRS; Gresham & Elliot, 1990), Self-Control Rating Scale (SCRS; Kendall & Wilcox, 1979), Child Behavior Checklist (CBCL; Achenbach, 1991) and Wide Range Achievement-3 instruments were used (Banks, 2004). According to the results of this study, children with predominantly inattentive subtype of ADHD have more knowledge about social situations and knowledge on how to control themselves than the children with combined subtype of ADHD. Both groups of children have different abilities in social situations, children with the inattentive subtype are more cooperative; children with the combined subtype are more assertive (Banks, 2004).

Short, Fairchild, Finding and Manos (2007) stated that children with inattentive subtype of ADHD have more academic problems whereas those with hyperactive subtype have more behavior problems. They have worked with 318 children with ADHD ranging in age from 4 to 18 years [n (inattentive subtype) =151 and n (hyperactive/combined subtypes) = 167] and used the parent and teacher forms

of The Abbreviated Symptoms Questionnaire (ASQ; Conners, 1969), Social Medical Questionnaire (SMQ; Mannos, 2004). As a result, they found that behavior problems were different depending on the age of the child diagnosed with ADHD. Children in the youngest group (age range 4-6.9) had more problems with hyperactivity than the older two groups (age range 7-9.9; 10-15) and surprisingly, the older group of children was more likely to have inattention and externalizing problems than younger children (Short, Fairchild, Finding & Manos, 2007). It is because children with ADHD begin to engage in more conduct and oppositional defiant behaviors as they grow up (Willoughby, 2003 cited in Short, Fairchild, Finding & Manos, 2007).

Children diagnosed with predominantly hyperactive-impulsive subtype of ADHD experience problems in controlling their behaviors, like sitting still in their places, show excessive running or climbing when it is not appropriate and playing or doing a work quietly (see Table 3). They may not be patient, experience difficulty in delaying responses, and in waiting their turn (DSM-IV; APA, 1994).

Table 3.The Characteristics of ADHD with Predominantly Hyperactive-Impulsive Subype

Hyperactivity, always on the go, impulsive
Primary deficit in responding
Often insufficiently self-conscious
Social problems because too assertive and impulsive: butt in, take things belonging to others, fail to wait their turn, and act without first considering the feelings of others
Tend to be extraverted
Externalizing behaviors, such as conduct disorder, aggressivity, disruptive behavior, and even oppositional defiant disorder are far more commonly comorbid
Respond positively to methylphenidate in moderate to high doses

Attention-deficit disorder (attention-deficit/hyperactivity disorder without hyperactivity). Copyright 2005. Diamond, A.

A study was done by Manning and Miller (2001) with 71 children with ADHD [n=71, n (predominantly Hyperactive-Impulsive subtype) =28, n (predominantly Inattentive subtype) =12 and n (controls) =31] between the ages of 6

and 12 and the teacher and parents forms of the Behavior Assessment System for Children (BASC; Reynolds & Kamphaus, 2002) were used. As a result, it was seen that, attention and behavior control problems lead to academic and also social problems because of disruptive behaviors, but on the other hand, when the school environment is more structured, aggressive or disruptive behaviors of children with ADHD start to decline (Manning & Miller, 2001).

Hurtig, Ebeling, Taanila, Miettunen, Smalley, McGough, Loo, Jarvelin and Moilanen (2007) conducted a study about ADHD symptoms and DSM-IV subtypes in childhood and adolescence. In this study, they used the DSM-IV (APA, 1994) and The Strengths and Weaknesses of ADHD-Symptoms and Normal Behaviors (SWAN; Swanson et al., 2005) rating scale for ADHD symptoms in 457 adolescents between the ages of 16 and 18, and found that the most common subtypes of ADHD are the combined subtype in childhood and the inattentive subtype in adolescence (Hurtig et al., 2007). Moreover, the results show that children and adolescents with the combined subtype are distracted easily, have low sustained attention, make more careless mistakes and are reported as not listening well (Hurtig et al., 2007).

Most of studies (typically, including mostly boys; 90% to 100%) have identified the target group of children with predominantly hyperactivity subtype during the early school-age years (i.e., ages 6 to 12) and followed the children for some period of time like the study of McMahon (1994). Prospective studies established that hyperactivity is a chronic disorder which is continued over into adolescence (McMahon, 1994). Klein (1990) stated that children who were diagnosed with hyperactivity only at home had a much lower occurrence of hyperactivity at later years than children who had diagnosed with hyperactivity only at school or at both home and school (Klein, 1990 cited in McMahon, 1994).

Owens and Hoza (2003) examined the self-perception of children with ADHD. They conducted their study with 180 children [n (predominantly inattentive subtype) = 38, n (predominantly hyperactive-impulsive subtype) = 59 and n (control) = 83] between the ages of 9 and 12 and used the Disruptive Behavior Rating Scale (DBD; Pelham, Gnagy, Greenslade & Milich, 1992). As a result, they found that children with ADHD differ according to their self-perception from normally developed peers and also that there are differences between subtype characteristics. Children with ADHD-predominantly hyperactive/impulsive subtype reported themselves not different than their normally developed peers in terms of self-competence. In contrast, children with ADHD-predominantly inattentive subtype reported lower self perception than the children with ADHD-predominantly hyperactive/impulsive subtype group. It was also found that the perception of children with ADHD-predominantly hyperactive/impulsive subtype affected by positive illusory judgments about themselves and there was a positive relationship between them. So, children with ADHD-predominantly hyperactive/impulsive subtype overestimate their self-competence (Owens & Hoza, 2003).

Children who are in the same class with children with ADHD predominantly hyperactive/impulsive subtype define their hyperactive peers like "They can't sit still; they don't pay attention to the teacher; they mess around and get into trouble; they try to get others into trouble; they are rude; they get mad when they don't get their way; and they say they can beat everybody up" (Henker & Whalen, 1989, p. 216). As a result, peers of children with ADHD perceive them as having problems during friendship. Additionally, they perceive them to be significantly more aggressive, disruptive, intrusive, noisy and socially rejected in their social

relations than their peers, especially if they are male and aggressive (DuPaul et al., 2001).

Barkley, DuPaul and McMurray (1990) conducted a study on children with ADHD [n (predominantly hyperactive-impulsive subtype; ADHD-H) =42, n (predominantly inattentive subtype; ADHD-I) =48 and n (children normally developing peers; control) =35] between the ages of 6 and 11. They used the Child Behavior Checklist (CBCL, Achenbach & Edelbrock, 1983), parent self-report measures [such as; Life Stress Scale from Parent Stress Index (Burke & Abidin, 1983)], teacher ratings [such as; CBCL (Achenbach & Edelbrock, 1986), ADHD Rating Scale (DuPaul, 1989)] for child behavior, psychological tests [such as; WISC-R (Wechsler, 1974)] and behavioral observations. According to the results of their study, children with ADHD face the risk of a greater variety of behavioral, social and emotional problems than their normally developing peers. Significant inattention problems in both subtypes are associated with greater problems with behavioral, academic and social adjustment. However, the presence of hyperactivity is associated with less self-control, greater impulsivity and more internalizing and externalizing problems than children with inattentive subtype (Barkley, DuPaul & McMurray, 1990). Moreover, the presence of hyperactivity is also associated with a serious risk of aggressive or oppositional behavior and antisocial conduct. The presence of over-activity in children increases their risk of antisocial problems (Barkley, DuPaul & McMurray, 1990). Children with ADHD-predominantly hyperactive-impulsive subtype experience more problems with tasks and make a lot of impulsive errors. Although children with ADHD-predominantly inattentive subtype have more problems with components of attention (e.g. alertness, focusing), children with ADHD-predominantly hyperactive-impulsive subtype have more problems in the

sustained attention and disinhibition components of attention (Barkley, DuPaul & McMurray, 1990). Children with hyperactivity showed more aggression; impulsivity and over-activity both at home and school and they showed more conduct problems both at home and school as rated by parents and teachers (Barkley, DuPaul & McMurray, 1990).

Social Skills of Children with ADHD

In social life, helping one another, paying attention and following the rules of activities are very important. These are the fundamental components of maintaining interactions with others (Mrug, Hoza, Pelham, Gnagy & Greiner, 2007) and are characteristics that children develop in different ages (Lewis, 2002) (see Table 4). This is particularly difficult for children with ADHD (Mrug, Hoza, Pelham, Gnagy & Greiner, 2007).

Table 4.Social Development of Children by Age

Ages	*Imitates adults
4-5	*Leadership is beginning to show and tends to be bossy
	*Learning to understand fairness
Ages	*Are concerned about group
6-8	acceptance
	*Likes to assert himself. Starts to be first, best, biggest and to win
	*Can begin to give of self. Starts to demonstrate generosity and kindness
	*Protective attitude toward younger children
Ages	*They want to join, to become affiliated
9-12	with the beliefs and values of the important adults in their lives
	*Can begin to sacrifice self-interest for others
	*Can learn not to compare himself with others

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Peer relations are complex and successful peer relations are important for the socialization process of children (Landau, Milich & Diener, 1998). Children who do not manage to establish relations with their peers may experience problems throughout their lives. Children with ADHD have problems with their peers continuously (Landau, Milich & Diener, 1998).

Oord, Van der Meulen, Prins, Oosterlaan, Buitelaar and Emmlkamp (2005) compared the social skills of children with and without ADHD. In their study, they investigated the social skills of 362 elementary school children between the ages of 8 and 12. They used the Social Skills Rating Scale (SSRS, Gresham & Elliot, 1990). As a result, children with ADHD showed deficits in social skills compared to normally developing children. They used all three versions of SSRS; teacher, parent and child versions. Because low agreement rates were found among the three forms, especially in an ADHD sample, it is important to access information from multiple informants about social skills because social skills of children with ADHD differ according to situations (Oord et al., 2005)

It is observed that even normally developing children with poor communication skills may experience difficulties in their social relationships and these social difficulties are the possible reasons of peer rejection and making wrong judgments (Webster-Stratten, 1999). Children with ADHD, similar to normally developing children with poor communicative skills, experience difficulties in their social relationships both with their peers and with the other people in their lives as well. It is especially hard for children with ADHD to establish a friendship (Webster-Stratten, 1999). Demaray and Elliot (2001) conducted a study with 94 male students (elementary school) and 29 teachers (elementary school) and used the student and teacher versions of SSRS, Conner's Teacher Rating Scale, Student Social Support

Scale (SSSS; Nolten, 1994), Student Self-Concept Scale (SSCS; Gresham, Elliot and Evans-Fernandez, 1993) and Social Support Questionnaires for Teachers (SSQT; Demaray, 1995). As a result, they found that children with ADHD have poorer peer relationships according to teachers. Moreover, children with ADHD perceive less social support from their peers (Demaray and Elliot, 2001).

Children with ADHD also experience communication problems in social situations. Physical and verbal aggression, disruptive behaviors, not attending to their teachers are the problematic behaviors of children with ADHD, especially boys (Johnston, Pelham & Murphy, 1985).They mostly make aggressive attempts to solve interpersonal problems and also have problems in controlling their temper when they are frustrated (Guevrement, 1990 cited in DuPaul & Stoner, 2003). Stormant (2001) also states that children with ADHD have problems in maintaining friendships with their classmates and the social difficulties that children with ADHD face stem mostly from their attention and impulse control problems (Sormant, 2001 cited in DuPaul & Stoner, 2003). The core deficit of children with ADHD is joining their friends' games and activities in an appropriate way (Guevrement, 1990). Initiating conversations and entering ongoing social interactions are among the primary aspects of social skills (Webster-Stratten, 1999).

Barkley (2000) mentioned that "at the heart of all these social problems is the child's underdeveloped sense of time and the future and children with ADHD tend to live in the moment." (Barkley, 2000, p: 200). According to Barkley, it is important to make sure that children with ADHD see that their social relationships are perceived differently by themselves. They perceive their behaviors as not different from their peers. So, they may have problems in realizing their own mistakes (Kaider, Wienner& Tannock, 2003). Moreover, according to Kaider, Wienner and Tannock

(2003), children with ADHD think that they cannot control their own behaviors. In addition, they do not realize that they are punished because of their uncontrolled behaviors. However, due to their inaccurate self-evaluation, they may see themselves as different from their peers in their social circle as well (Kaider, Wienner & Tannock, 2003). Jensen and Rosen (2004) found that children with ADHD display exaggerated reactions to the negative events that they experience, like performing poorly on an exam, or when a best friend goes away or when they cannot join a trip they want to attend, however, they react less to punishments for their improper behaviors in comparison to their peers do (Jensen & Rosen, 2004).

Children with ADHD display attention span and impulse control difficulties in their performance in class (Wheeler & Carlson, 1994 cited in Boo & Prins, 2007). They may successfully find solutions for social problems but fail when they try to apply them (Whalen & Henker, 1985 cited in Boo & Prins, 2007). So, they need reinforcements to support and strengthen their use of appropriate social skills (Barkley, 1997).

King (1981) compared children who are diagnosed with predominantly hyperactive-impulsive subtype and their peers who are active but not diagnosed as hyperactive-impulsive subtype in terms of peer perception and its importance in social development. Results indicated that children with predominantly hyperactive-impulsive subtype were significantly different from their normally developed but active peers according to sociometric measures which they perceived themselves more negatively (King, 1981). In addition, children with ADHD-predominantly hyperactive-impulsive subtype had poorer academic progress than their peers although there were no notable differences in their cognitive functioning. They achieved lower than their peers but both groups had difficulty attending to verbal

instructions. Active but normally developed children had more reciprocal friends than children with predominantly hyperactive-impulsive subtype (King, 1981). Moreover, the results suggest that there was more of problem with the ability to show some social skills in different environments more than problems in communication skills (King, 1981).

Hartup (1983) mentioned that peer relations play a predominant role in the development of interpersonal skills, the establishment of social controls and social values (Hartup, 1983 cited in Hubbard & Newcomb, 1991). Lack of socialization skills affects children with ADHD in the friendship process and they can face some risks during interactions with peers because of quality of social interactions (Hubbard & Newcomb, 1991). Studies show that the children with ADHD were rejected by their peers during the first 6 minutes of the interaction (Buhrmeister, 1989 cited in Hubbard & Newcomb, 1991) because of impulsivity and inattentiveness which cause critical problems in sociometric status about social adjustment (Pope, Bierman & Mumma, 1989).

Hubbard and Newcomb (1991) conducted a study about children with and without ADHD. In their study, they investigated the play durations and verbal behaviors of 32 children [n (boys with ADHD) =8 and n (normally developing boys) =24) between the ages of 7 and12. They used Conners' Behavior Checklist and play observations. As a result, they found that children with ADHD lack the ability to establish associative play and although they have short play duration, their attention increases with structure. In addition, they have low affective expression, poor goal orientation, get poor benefits from socialization opportunities, exhibit less cooperation during play and school-tasks and show more aggressive attempts to problems during social interactions (Hubbard & Newcomb, 1991). Moreover, it was

seen that children with ADHD had lower levels of facilitating activities, conversation during activities and they also experienced problems about self-control during these activities (Hubbard & Newcomb, 1991).

Sayal and Taylor (2005) compared to parent-ratings on hyperactivity-related symptoms and success in school with the teacher ratings on impairment in school. 2,992 parents of children with ADHD who were between the ages of 5 to 11, participated in the study. The relationship between parent and teacher ratings was found to be weak. This may be due to children's different behaviors in different settings and/or due to the differences between the perceptions of raters. In addition, the results show that parent ratings of their children's behavior at school were more highly correlated with their own ratings about home behavior than with teacher ratings about school behavior (Sayal & Taylor, 2005).

Children with ADHD are rejected by their peers and they prefer to be friend with children who are like themselves and their peers become more similar to each other with time. If children with ADHD make friends with other children with ADHD, their behavior problems increase (Hoza et al., 2005). It is very important for all children to have positive social relations with their peers and it is very hard to achieve when the child is labeled with ADHD (Hoza, 2007). Problems with peers continue during adolescence even if the diagnostic criteria for ADHD are no longer valid. This shows that, peer acceptance, friendships and peer networks for adjustment are the critical issues for all children, especially for children or adolescents with ADHD (Bagwell et al., 2001).

Quality of Life of Children with ADHD

Quality of life (QoL) is very crucial for the healthy development of children. Children, who are treated negatively, may experience problems with their sense of self (Toposki et al., 2004).

QoL is defined as "individuals' perceptions of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns" (The WHOQOL Group, 1998, p. 551). QoL consists of a wide range of both physical and psychological aspects which are related with the person's ability to function and to be satisfied with his/her functioning (Walker & Rosser, 1998 cited in Harding, 2001). It is a subjective concept because of its nature; the individual's perception of self (Harding, 2001) and his/her experiences in life (Toposki et al., 2004). QoL is not only related to the individual's psychological system but also to the social system which he/she has relationships with other individuals (Bonomi, Patrick, Bushnell & Martin, 2000).

Understanding the effects of ADHD on the quality of life of the child is very important. ADHD is associated with broad impairment in many Health Related Quality of Life (HRQOL) parameters, including academic performance, behavior at school, peer relations and family function (Escobar et al., 2005). Children with ADHD experience problems with recognition, assessment and management. Problems with these abilities may affect the quality of life of those children negatively (Escobar et al., 2005). When the symptoms are severe, like in the combined subtype, children have worse psychological HRQOL (Klassen, Miller & Fine, 2004). It is hard to be in consensus about the appropriate level of QoL because of children's developing and changing nature (Toposki et al., 2004). On the other

hand, a study which was conducted with adolescents with ADHD showed that perceived low scores on QoL were related with the diagnosis of ADHD (Edwards, Patrick & Toposki, 2003).

Perceptions of families about their children with ADHD are also very important. However, there are some discrepancies in how families perceive their children and how children with ADHD perceive themselves. On the other hand, there could be a problem with the perception of their self as well (Klassen, Miller & Fine, 2006). For instance, the perception of self-esteem of children with ADHD hyperactive-impulsive and combined subtypes is higher than their parent; even though parents think that their children's self-esteem is low according to their age and their peers (Klassen, Miller & Fine, 2006).

Landgraf, Rich and Rappaport (2002) studied the effects of ADHD on the everyday well-being of children and their families. Eighty-one children with predominantly inattentive and combined subtypes of ADHD participated in the study and the ADHD Impact Module (AIM; Landgraf, Rich & Rappaport, 2002) was administered. They found that although ADHD is a common pediatric condition with a significant effect on the quality of life of the affected children and their parents, there are significant differences between the children with ADHD inattentive and combined subtypes on QoL. QoL of children with ADHD combined subtype is reported to be lower than the QoL of children with ADHD-predominantly inattentive subtype.

A study which was conducted by Gerdes and her colleagues (2007) showed that raising a child with ADHD is not a problem for his/her parents. However, mothers of children with ADHD perceive themselves as more power assertion (e.g., engaging in more yelling and spanking) and fathers of children with ADHD perceive

themselves to be less warm than parents of normally developing children. On the other hand, children with ADHD rated both their parents as more power assertive than their peers did. Moreover, children with ADHD rated the quality of their relationship with their parents more positively than their parent's perspective; however there was no significant difference between the perception of normally developing children and their parents (Gerdes et al., 2007).

A study was conducted by Rents et al. (2005) about the health-related quality of life (HRQL) of children with ADHD. In their study, they worked with 921 parents and their children and used the Child-Health Questionnaire- Parent version (CHO-PF50, Landgraf, 1999). Results show that the sample got lower scores than normally developed peers on all psychosocial domains such as self-esteem and behavior. In addition, it was seen that ADHD affects HRQL psychologically rather than physically. Moreover, parents of children with ADHD report significantly lower scores on the psychosocial domain and on the well-being of children compared to the normally developing group (Rentz et al., 2005).

To conclude, all the studies stated above about children with ADHD show that these children have social and emotional problems, in most areas of their lives. Having positive relations with peers is important for the social development of all children regardless of any kind of diagnosis. Children with ADHD have serious problems with their social skills, peer relations; with establishing and maintaining friendships, dealing with problems, controlling their emotional outbursts, aggressive behaviors, and their perception of their relations and themselves. When children are labeled as ADHD or they rejected are once, it is hard to alter it. These problems and difficulties affect them throughout their lives. The aim should be to make a positive

impact on their social life and their behavior problems. For the counseling interventions with children with ADHD, it is important to include parents and teachers in the study to extend this impact to home and school setting. Moreover, their needs, difficulties and perceptions may change according to the predominantly hyperactive-impulsive subtypes of ADHD as well. As a result, it becomes significant giving a highlight introduction about these children. The purpose of this study is to help professionals who work with children with ADHD, especially the predominantly hyperactivity-impulsive subtype.

CHAPTER 3

METHODOLOGY

Methodology is presented in five sections: (1) participants, (2) instruments, (3) design, (4) procedures and (5) data analysis.

Participants

Target population of the current study was children with ADHD between ages of 8-12. The participants were chosen among the age range of 8 as a below level. Sampling was done according to convenience sampling which means participants were chosen according to being in the setting at the time of the research (Whitley, 2001).

Data were collected from 45 elementary school children. Eighty-six percent of them were boys and 15.6 % of them had comorbidity. The schools were public and private schools which were bound to Province of İstanbul Governer's Office of the Director of National Education (Milli Eğitim Bakanlığı). The selection was also dependent on the willingness of the parents of children with ADHD to cooperate. For this purpose, parents signed a consent form, then the data were collected (Appendix C).

For the purpose of homogeneity, the effects of gender [n (girls) =6] and children with comorbidity [n (learning difficulty, tics and obsession) =7] were taken into consideration and excluded from the sample. Girls and boys with ADHD are quite similar in their presenting symptoms, but girls may show less aggressive behaviors (Barkley, 2006). Comorbidity increases the problems of children (Pliszka, Carlson & Swenson, 1999). Therefore, the sample of the current study included 35

elementary school boys between the ages of 8 and 12 who have been diagnosed with Attention Deficit/Hyperactive Disorder Predominantly Hyperactive-Impulsive Subtype (ADHD-H) by child psychiatrists in hospitals.

Instruments

Four instruments were used for the purpose of data collection. The selected instruments were the Demographic Characteristics Form, Social Skills Rating System-Elementary Teachers Form (SSRS-ETF), Social Skills Rating System-Parent Form (SSRS-PF) and Quality of Life Scale for Children with ADHD (AD/HD-QOL).

Demographic Characteristics Form

Demographic characteristics consisted of information about children such as name, gender, age, medicine use of, having special education, success at school, number of friends, other psychological difficulties and physical difficulties (Appendix D).

Social Skills Rating System-Elementary Teachers and Parent Form (SSRS-ETF and SSRS-PF)

The Social Skills Rating System (Gresham & Eliot, 1990) is a behavioral questionnaire with forms for preschool, elementary, and high school students. It is one of the most commonly employed instruments to assess social skills in children. The three domains assessed by SSRS are social skills, problem behavior, and academic competence. Each domain has a standard score, a percentile rank and a behavioral level description (Fewer, Average or More). The Social Skills scale

includes five domains represented by acronym CARES: Cooperation, Assertation, Responsibility, Empathy, and Self-Control. Cooperation includes behaviors such as helping others, sharing and obeying rules The Assertation subscale includes initiating behaviors such as asking others for information, introducing oneself and responding to others. Responsibility represents the ability to communicate with adults and regard for property and work. The responsibility subscale only includes behaviors that emerge in conflict situations and in non-conflict situations that require taking turns and compromising. Each item on this scale is rated for frequency (Never, Sometimes or Very Often) and importance (Not important, important or critical). The Problem Behavior domain includes the scales of Externalizing Problems, Internalizing Problems and Hyperactivity. These are only included in the parent and teacher forms and are rated for perceived frequency. Externalizing problems include inappropriate behaviors such as verbal or physiological aggression, poor control of temper, and arguing. The Internalizing Problems subscale includes behaviors indicating anxiety, sadness, loneliness, and poor self-esteem. The hyperactivity subscale includes behaviors such as excessive movement, fidgeting and impulsiveness. Hyperactivity is only measured with the elementary form. The Academic Competence domain includes a small number of items measuring reading and math performance, motivation, parental support and general cognitive functioning. This scale is only included in the Teacher forms at the Elementary and Secondary levels. This domain yields the levels Below, Average or Above (Gresham & Eliot, 1990 cited in Rudolph, 2005).

The internal consistency for all forms of the SSRS ranged from .83 to .94 for the Social Skills subscales, .73 to .88 for Problem Behaviors and .93 for Academic Scale (no subscales). Test-retest correlations were .87 for Social Skills, .65 for

Problem Behaviors. For the content validity of SSRS, experienced researchers nominated a pool of items and then rated the importance of each social skill on the SSRS. Criterian-related validity was examined compared with Social Behavior Assessment (SBA, Stephens and Arnold, 1985); moderate to high correlations (-.68 to -.55), Child Behavior Checklist (CBCL, Achenbach, 1987); moderate to high correlations (.59 to .75), Harter Teacher Rating Scale (TRS, Van den Bergh, Beatrijs, Marcoen & Alfons, 1999); moderate to high correlations (.44 to .70) (Gresham & Eliot, 1990 cited in Rudolph, 2005).

Because of the age range (8-12), the elementary form was used for this study. Although there are different forms for students, teachers and parents only the teacher and parent forms were used in this study because the teacher's form language equivalence, reliability and validity studies were conducted and the Turkish form for parents was available but the reliability and validity studies had not been done yet.

Turkish version of SSRS-Teacher form was prepared by Serdal Seven in 2006 (Appendix F). Data was collected from 38 pre-school classes of 18 different elementary schools with a total of 200 children (120; 6 years old and 80; 7 years old) and their teachers in Muş. Split-half reliability was .89 and the factor analysis for all 3 factors was like .47 to .72, .53 to.81, and .52 to.78. The combination of factors has been found to correlate with the full test. The teachers' form was given to 60 teachers who have had a relationship with the child for at least 2 months (Seven, 2006). The parent version of SSRS was only translated into Turkish, but the reliability and validity studies were not completed (Appendix E). For the current study, the internal consistency of the scale and split half reliability of the scale was calculated and it was found that the Cronbach's alpha of the scale is .80 and split half reliability is .76. The factor analysis checked whether each item correlated with

the total. Item total correlation changed between .63 to .89. The Turkish form consists of Cooperation subscales (Teacher Form Question numbers: 8, 9, 15, 16, 20, 21, 27, 28 and 29; Parent Form Question numbers: 1, 2, 7, 15, 16, 19, 21, 28, 33 and 35), Assertation subscales (Teacher Form Question numbers: 2, 3, 6, 7, 10, 14, 17, 19, 22, 23, 24 and 30; Parent Form Question Numbers: 4, 5, 8, 10, 12, 13, 20, 24, 30 and 37), Responsibility subscale (Parent Form Question numbers: 11, 18, 22, 23, 27, 29, 31, 32, 36 and 38), Self-control subscales (Teacher Form Question Numbers: 1, 4, 5, 11, 12, 13, 18, 25 and 26; Parent Form Question Numbers: 3, 6, 9, 14, 17, 22, 25, 26, 32 and 34).

Quality of Life Scale for Children with ADHD (AD/HD-QOL)

This scale, developed by Dolgun in 2003, measures the perceived quality of life of children with ADHD between the ages of 8-12 (Appendix G). It consists of 30 items, 3 dimensions (Cognitive, Social and Emotional) and includes two areas such as school and home. The “Cognitive Dimension” is related to attention deficit and learning problems (Question Numbers: 1, 3, 6, 7, 8, 10, 11, 13, 16 and 17), the “Social Dimension” is related to peer relations and attending to plays (Question Numbers: 2, 4, 5, 9, 12, 14, 15, 18, 19 and 20) and the “Emotional Dimension” is related to getting angry easily, loneliness and sadness (Question Numbers: 21, 22, 23, 24, 25, 26, 27, 28, 29 and 30) (all the items are reverse items except 20 and 24). The scale has two parts. The first part aims to determine the life quality of the children at school and home. The second part aims to determine the life quality of the children in terms of their relationship with family, peers, teacher and perceived self.

For the validity of the scale, the opinion of a specialist was taken. Test-retest reliability at school is r= .98; at home is r=.90; value of the Cronbach alfa for reliability at school is .80; at home it is .76. The reliability of the item total score at school is between r=.27-.81; at home it is between .87-.89; Cronbach alfa at school is between .52-.87; at home it is between .45-.60. The reliability of the item total score at school is between r= .36-.87; at home it is r=.29-.64. Thus, the validity and reliability of the scale is high (Dolgun, 2003).

Design

The current study was an example of descriptive research. The study was correlational. No variables were manipulated; the existing relationship between variables; social skills and perceived quality of life were studied.

Procedure

Firstly, an official consent was requested from the Ethical Committee of Social Sciences of Boğaziçi University (Appendix B) to implement the current study. Then, an official permission from Province of İstanbul Governer's Office of the Director of National Education (Appendix A), and consents from the school principals were obtained. With the collaboration of the guidance and psychological counseling office, the instruments were given to the students who had been diagnosed with ADHD, their teachers (SSRS-ETF) and their parents (SSRS-PF). They were informed about the study after permission was taken from the parents (Appendix C). The counseling office helped the administration process by providing a quiet room to administer the instrument (QoL-AD/HD) with the children. After students completed the instrument, a sticker was given as a reward and teacher and parent

forms were sent with the children in an envelope. After the teacher and parent forms were returned to the counseling office, they were taken by the researcher.

Data Analysis

All the statistical analyses were done by using the Statistical Package for the Social Sciences 16 (SPSS 16). Frequencies and percentages of the demographic variables of the sample were displayed.

Three research questions (2, 3. and 4.) were analyzed through the Pearson Product Moment Correlation to see the existing relationship between variables. The significance level was set at $p<.05$ unless otherwise indicated.

CHAPTER 4

RESULTS

Overview: Organization of Results

Results are presented in three sections: (1) demographic characteristics of the sample, (2) characteristics of children Attention Deficit/Hyperactivity Disorder Predominantly Hyperactive-Impulsive Subtype (ADHD-H) and descriptive analyses of associated instruments (3) relationship between social skills and perceived quality of life of children with ADHD-H.

Presentation of Results

Demographic Characteristics of the Sample

Characteristics of the sample were presented according to age, gender, grade, use of medicine, special education, comorbidity, maternal education and paternal education, birth order and number of siblings. Table 5 presents detailed information about the demographic characteristics of the children with ADHD-H.

Table 5.Demographic Characteristics of the Sample

Characteristics	n (35)	%
AGE		
8	8	22.9
9	14	40
10	6	17.1
11	6	17.1
12	1	2.9
GRADE LEVEL		
2	6	17.1
3	10	28.6
4	12	34.3
5	1	2.9
6	6	17.1
TYPE OF SCHOOL		
Public	27	77.1
Private	8	22.9
MEDICINE		
Yes	24	68.6
No	11	31.4
SPECIAL EDUCATION		
Yes	9	25.7
No	26	74.3
MATERNAL EDUCATION		
Not literate	2	5.7
Literate-Primary School	10	28.6
High School	11	31.4
Business School	3	8.6
College	9	25.2
PATERNAL EDUCATION		
Literal-Primary School	10	28.6
High School	9	25.7
College	16	45.7
BIRTH ORDER		
1	21	60
2	11	31.4
3	3	8.6
NUMBER OF SIBLINGS		
0	15	42.9
1	16	45.7
2	4	11.4

The participants were 45 elementary school students between the ages of 8 to 12 who were at the age levels of instruments. Sample of the current study consisted of 35 boys after excluding criteria implemented (girls and comorbidity). For the purpose of homogeneity, all girls and children with comorbidity were excluded from the collected sample [n (excluded) =10]. The entire sample consisted of boys through second and sixth grades. The number of children according to age and grade are not equal.

Eight years of education is obligatory in Turkish schools; primary school first phase (first 5 years) and second phase (6 through 8). Most of the data was collected from public schools (77.1%), the rest was collected from private schools. Sixty eight point six percent of the children were on medication. Those having special education support made up 25.7%. There were differences between mothers' and fathers' educational level. There were mothers who were not literate. Sixty percent of the children were the first children of their families. Eighty eight point six percent of the children had no sibling or just one.

Characteristics of Boys with ADHD-H and Descriptive Analyses of Study Instruments

Social skills of boys with ADHD-H were perceived by their teacher (measured by SSTS-ETF) as low (mean=27.4, one standard deviation below from the average mean= 38.4, sd=10.2), especially the cooperation skills (mean=7.71, one sd. low from the average mean= 12.2 sd=4.1). On the other hand, the parents (measured by SSRS-PF) of these children perceived their children's social skills as average on all domains.

Figure 1 and 2 presents the distribution o scores of SSRS-Elementary Teacher Form and SSRS-Parent Form respectively.

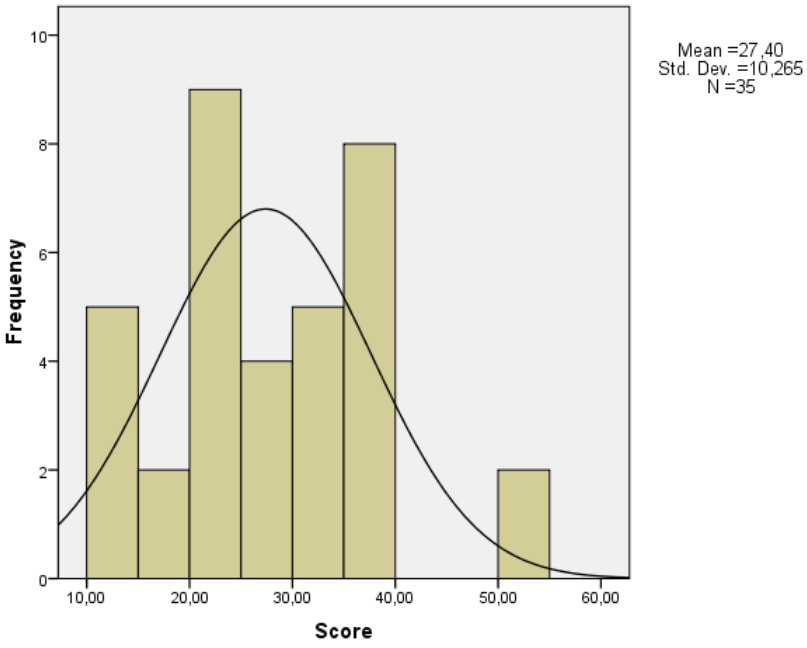

Figure 1.Distribution of scores of SSRS-Teacher Form

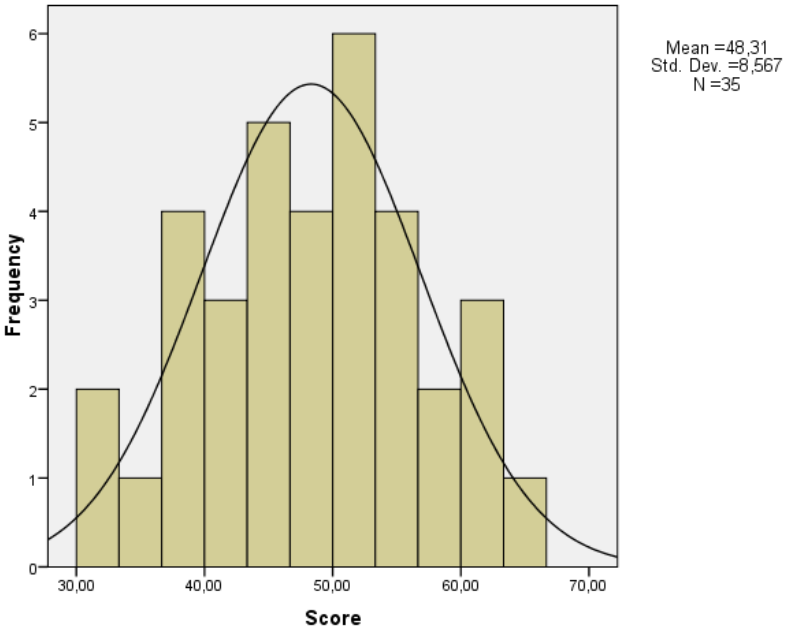

Figure 2.Distribution of scores of SSRS-Parent Form

Teachers mostly mentioned that children with ADHD-H had problems with controlling their impulses though their peers could deal with them while working on a task [n (frequency teachers) =21]. They also had difficulty using time effectively while waiting for help [n (frequency teachers) =18], spending their free-time with useful activities [n (frequency teachers) =17], and responding appropriately to the teasing behaviors of their peers [n (frequency teachers) =15] in school. In addition, parents mostly mentioned that their children had problems with respond positively to criticism [n (frequency parent) =17], using time effectively while waiting for help with their homework or other responsibilities [n (frequency parent) =15], keeping their room clean and tidy [n (frequency parent) =15], helping with home duties without being asked [n (frequency parent) =12] and completing home duties in an appropriate time span [n (frequency parent) =12] at home. These areas were related with cooperation and self-control skills.

Moreover, 20 % of parents mentioned that their children have 2-3 friends, 14.3% mentioned that their children have 4-5 friends and 62.9 % of the parents mentioned that their children have 6 or more friends. More than half of the mothers saw their children as good (others; bad and average) at school (54.3%) and there were few mothers who saw their children as bad at school (8.6%).

Children with ADHD-H perceived their quality of life (measured by QoL-AD/HD) at school and home as average (mean=58.8 and 64.9 respectively). However, the perceived quality of life at home was higher than the quality of life at school. In addition, they also perceived themselves as having problems at school because of ADHD (28.6%) more than at home (11.4%).

Figure 3 and 4 presents the distribution of scores of QoL-AD/HD-School Form and QoL-AD/HD Home Form respectively.

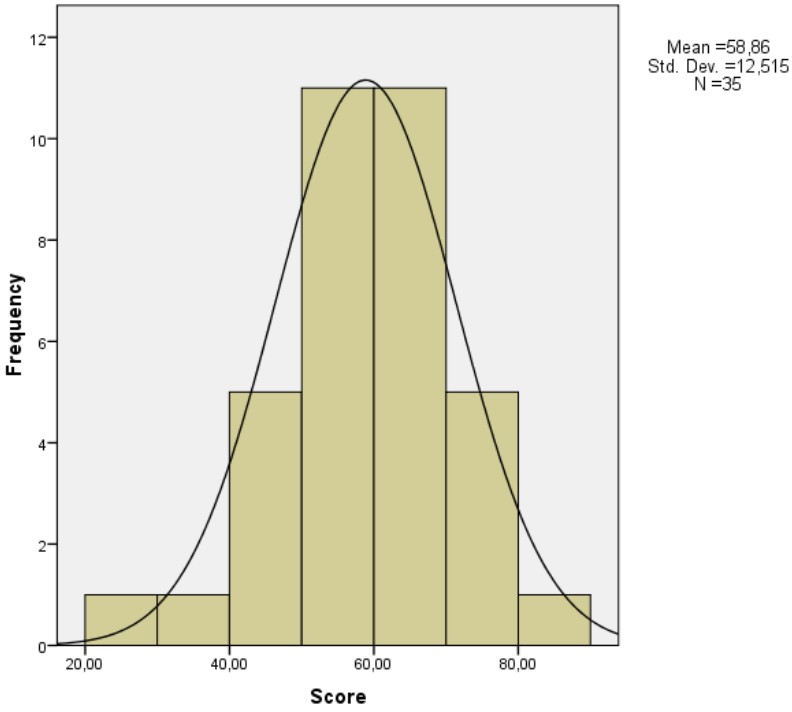

Figure 3.Distribution of scores of QoL-School Form

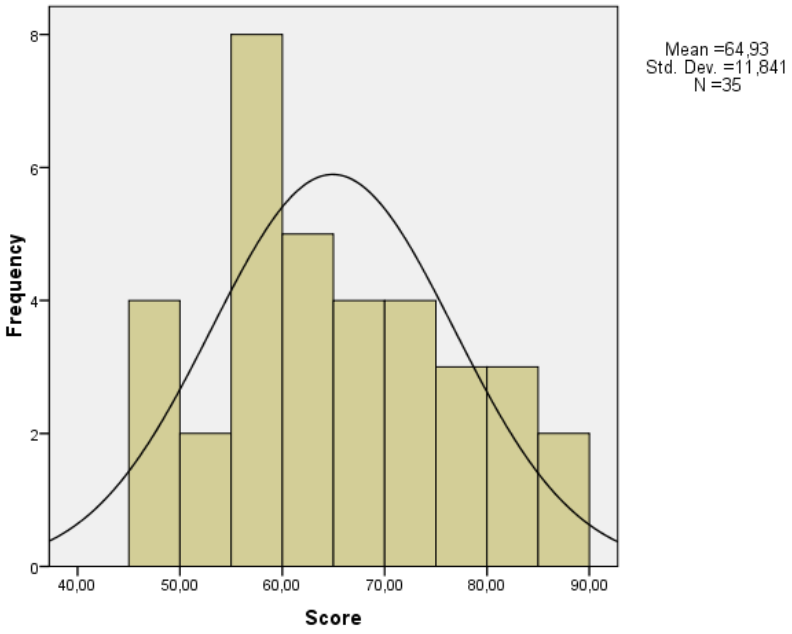

Figure 4.Distribution of scores of QoL-Home Form

Table 6 shows the percentiles of perception of children with ADHD according to perceived QoL, family support, friend support, teacher support and places (school, home and school/home) in which ADHD is a problem for them. Most of the participants in the study perceived their QoL as good (74.3%) and few of the participants perceived their QoL as bad (2.9%).

Sixty-eight percent of the sample perceived family support as always and 5.7% as rarely-never. Also, they perceived friend support mostly as sometimes (40%). In addition, teacher support was perceived by 57.1 % as always and by 40 % as sometimes and often.

Thirty four point three percent perceived places in which ADHD was a problem as nowhere, 28 % as school, 11.4 % as home, 14.3 % as school and home together and 11.4 % as everywhere.

Table 6.Characteristics of ADHD-H according to Quality of Life Scale for Children with AD/HD (AD/HD-QoL)

Characteristics	N	%
LEVEL OF OUALITY OF LIFE		
Bad	1	2.9
Average	8	22.9
Good	26	74.3
FAMILY SUPPORT		
Rarely-never	2	5.7
Sometimes	2	5.7
Often	7	20
Always	24	68.6
FRIEND SUPPORT		
Rarely-never	4	11.4
Sometimes	14	40
Often	10	28.6
Always	7	20
TEACHER SUPPORT		
Rarely-never	1	2.9
Sometimes	7	20
Often	7	20
Always	20	57.1
PLACE PROBLEM WITH ADHD		
Nowhere	12	34.3
School	10	28.
Home	4	11.4
School/Home	5	14.3
Everywhere	4	11.4

Table 7 presents the mean scores and standard deviation of participants from the measures SSRS-T (Social Skills Rating System-Teacher Form), SSRS-P (Social Skills Rating System-Parent Form) and QoL-ADHD (Perceived Quality of Life of Children with ADHD) and their subscales. According to the results, the total mean score of SSRS-T was 27.4 (lower score for the sign of low social skills). Also the minimum score of SSRS-T was 10 whereas maximum was 51.

The total mean score of SSRS-P was 48.3. The minimum score of SSRS-P was 31, whereas the maximum was 64.

The total mean score of QoL-School was 58.8 (average score for the sign of average perceived quality of life in school) and QoL-Home was 64.9.

Table 7.Means, Standard Deviations and Minimum/Maximum Scores for the Instruments

Measure	Min	Max	Mean	(SD)
SSRS-TF-Tot.	10	51	27.4	(10.2)
SSRS-T-Assert.	5	21	11.5	(4.3)
SSRS-T-Coop.	1	16	8.1	(4.1)
SSRS-T-Self-con.	1	15	7.7	(3.5)
SSRS-PF-Tot.	31	64	48.3	(8.5)
SSRS-P-Assert.	7	19	14.6	(2.9)
SSRS-P-Coop.	3	16	9.4	(3.4)
SSRS-P-Self-con.	4	18	10.3	(3.1)
SSRS-P-Coop.	7	18	13.8	(2.5)
QoL-SCH-Tot.	25.8	84.1	56.3	(12.8)
QoL-SCH-Cog.	10	80	45.7	(16.6)
QoL-SCH-Soc.	15	85	59	(16.3)
QoL-SCH-Emo.	22.5	90	64.1	(16.6)
QoL-HOM-Tot	45	89	64.9	(11.8)
QoL-HOM-Cog	17.5	85	55.3	(17.8)
QoL-HOM-Soc	35	92.5	67	(15.1)
QoL-HOM-Emo	37.5	95	64.2	(15.6)

SSRS-TF-Tot (Total SSRS-Teacher Form score) SSRS-PF-Tot (Total SSRS-Parent Form score) QoL-SCH-Tot (Total QoL-School score) QoL-HOM-Tot (Totl QoL- Home S) Assertiveness, Cooperation, Self-control (3 domains of SSRS-Teacher form) Cognitive, Social, Emotional (3 domains of QoL Scale)

The Relationship between the Perceptions of Teachers, Parents and Children in terms of the Social Skills of Children with ADHD-H

The results reveal the relationship between the perceptions of teachers, parents and children in terms of the social skills of children with ADHD-H.

Table 8 presents the correlations between social skill scores (measured by SSRS-T and SSRS-P) According to the results, there is a positive but not significant correlation between SSRS-T total score and SSRS-P total score.

Table 8.Correlation between SSRS-Teacher and Parent and QoL-School and Home Total Scores

Measure	1	2
1. SSRS-Teacher-Total	____	ns
2. SSRS-Parent-Total		____

Table 9 presents correlations the between SSRS-Teacher Form subscale scores (assertation, cooperation and self-control) and SSRS-Parent Form subscale scores (assertation, cooperation, self-control and responsibility). According to the results, there is a negative significant correlation between SSRS-Self-control subscale score and SSRS-P Assertiveness subscale score($r=-.37$, $p<.01$). Most of the subscales are correlated positively but are not significant.

There are negative and not significant correlations between the SSRS-Teacher total score and SSRS-Self-control subscale score and the SSRS-P total score and SSRS-T-Self-control subscale score.

There are significant positive correlations among the SSRS-Teacher Total score and subscale scores ($r=.89$; .91 and .75, $p<.05$, .01 and .01 respectively).

There are significant positive correlations among the SSRS-Parent Total and subscale scores (r=.69; .72; .68; .75; p<.01 respectively).

Table 9.Correlation between SSRS-T and SSRS-P subscales

Measure	1	2	3	4	5	6	7	8	9
1. SSRS-Teacher Total	____	ns	.86*	.91**	.75**	ns	ns	ns	ns
2. SSRS-Parent Total		___	ns	ns	ns	.69**	.72**	.68**	.75**
3. Assertation (SSRS-T)			___	.72**	.40*	ns	ns	ns	ns
4. Cooperation (SSRS-T)				___	.56**	ns	ns	ns	ns
5. Self-control (SSRS-T)					___	ns	-.37**	ns	ns
6. Assertation (SSRS-P)						___	.45**	ns	.37*
7. Cooperation (SSRS-P)							___	ns	ns
8. Self-control (SSRS-P)								___	.60**
9. Responsibility (SSRS-P)									___

SSRS-T: Social Skill Rating System Teacher Form SSRS-P: Social Skill Rating System Parent Form
**p< 0.01
**p< 0.05

Table 10 presents the correlations of SSRS-T and QoL-School scores. According to the results, there is a positive significant correlation between SSRS-T total score and QoL-School-Social subscale score(r=.35, p<.05).

There is a positive significant correlation between the SSRS-T-Assertiveness subscale score and QoL-School-Social subscale score(r=. 35, p<.05).

Also, there is a significant positive correlation between the SSRS-T-Self-control subscale score and QoL-School-Social subscale score (r=.39, p<.05).

There are significant positive correlations among the QoL-School Total score and subscale scores (r=.83; .85; .69; p<.01 respectively).

Table 10.Correlation matrix between subtests of SSRS-Teacher and QoL-School Form

Measure	1	2	3	4	5	6	7	8
1. SSRS-Teacher Total	____	ns	.86*	.91**	.75**	ns	.35*	ns
2. QoL-School Total		___	ns	ns	ns	.83**	.85**	.69**
3. Assertieness (SSRS-T)			____	.72**	.40*	ns	.35*	ns
4. Cooperation (SSRS-T)				____	.56**	ns	ns	ns
5. Self-control (SSRS-T)					____	ns	.39*	ns
6. School-Cognitive (QoL)						____	.64**	.33**
7. School-Social (QoL)							____	.35*
8. School-Emotional (QoL)								____

SSRS-T: Social Skill Rating System Teacher Form QoL-School: Quality of Life Scale –School
**p< 0.01 *p< 0.05

Table 11 presents the correlations between SSRS-P and QoL-Home scales. According to the results, there is a negative but not significant correlation between the SSRS-P scale scores and QoL-Home scale scores. However, there is a positive but not significant correlation between the SSRS-P scale and subscale scores and QoL-Home-Emotional subscale scores.

There are significant positive correlations among the QoL-Home Total score and subscale scores (r=.71; .82; .77; p<.01 respectively)

Table 11.Correlation between subtests of SSRS-Parent and subtests QoL-Home Form

Measure	1	2	3	4	5	6	7	8	9
1. SSRS-Parent Total	___	ns	.69**	.72**	.68**	.75**	ns	ns	ns
2. QoL-Home Total		___	ns	ns	ns	ns	.71**	.82**	.77**
3. Assertation (SSRS-P)			___	.45**	ns	.37*	ns	ns	ns
4. Cooperation (SSRS-P)				___	ns	ns	ns	ns	ns
5. Self-control (SSRS-P)					___	.60**	ns	ns	ns
6. Responsibility (SSRS-P)						___	ns	ns	ns
7. Home-Cognitive (QoL)							___	.37*	ns
8. Home-Social (QoL)								___	.58**
9. Home-Emotional (QoL)									___

SSRS-T: Social Skill Rating System Teacher Form QoL-School: Quality of Life ScaleSchool
**p< 0.01 **p< 0.05

Table 12 presents the correlation matrix of the SSRS-Teacher Form, SSRS-Parent Form, QoL-School, and QoL-Home scale scores, and shows all the correlations among all the instruments and their subscales.

Table 12.Correlation Matrix between Subtests of SSRS and QoL-ADHD

Measure	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. SSRS-Teacher Total	____	ns	ns	ns	.86*	.91**	.75**	ns	ns	ns	ns	ns	.35*	ns	ns	ns	ns
2. SSRS-Parent Total		___	ns	ns	ns	ns	ns	.69**	.72**	.68**	.75**	ns	ns	ns	ns	ns	ns
3. QoL-School Total			___	.64**	ns	ns	ns	ns	ns	ns	ns	.83**	.85**	.69**	.45**	.44**	.57**
4. QoL-Home Total				____	ns	ns	ns	ns	ns	ns	ns	.49**	.43**	.62**	.71**	.82**	.77**
5. Assertation (SSRS-T)					____	.72**	.40*	ns	ns	ns	ns	ns	.35*	ns	ns	ns	ns
6. Cooperation (SSRS-T)						____	.56**	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
7. Self-control (SSRS-T)							____	ns	-.37*	ns	ns	ns	.39*	ns	ns	ns	ns
8. Assertation (SSRS-P)								____	.45**	ns	.37*	ns	ns	ns	ns	ns	ns
9. Cooperation (SSRS-P)									____	ns	ns	ns	ns	ns	ns	ns	ns
10. Self-control (SSRS-P)										____	.60**	ns	ns	ns	ns	ns	ns
11. Responsibility (SSRS-P)											____	ns	ns	ns	ns	ns	ns
12. School-Cognitive (QoL)												____	.64**	.33*	.57**	ns	ns
13. School-Social (QoL)													____	.35*	ns	.42*	.37*
14. School-Emotional (QoL)														____	ns	.44*	.69**
15. Home-Cognitive (QoL)															____	.37*	ns
16. Home-Social (QoL)																____	.58**
17. Home-Emotional (QoL)																	___

SSRS: Social Skill Rating System QoL: Quality of Life Scale-ADHD
**p< 0.01
**p< 0.5

CHAPTER 5

DISCUSSION

Organization of Discussion

The discussion is presented under five main headings: (1) the purpose of the study, (2) review of the findings, (3) implications of the study, (4) limitations of the study and (5) directions for future research. Review of the findings is composed of the discussion of the four research questions.

Purpose of the Study

The purpose of the current study was to find the characteristics (e.g. social skills, quality of life, medicine use of, special education) of ADHD-H and the relationship between the social skills and perceived quality of life of children (aged 8-12) with ADHD-H according to reports taken from their teachers' and parents' and the boys themselves.

Review of the Findings

Question One-Characteristics of boys with ADHD-H

The first question investigates the characteristics of boys with ADHD-H, focusing on their social skills as perceived by their teachers and parents and their quality of life from their own perspectives.

The study was done with boys because of the gender ratio of ADHD which is 3:1; the number of boys with ADHD is reported to be higher than the number of girls with ADHD (Barkley & Murphy, 1998). In the current study, 86.7 % of the sample

consisted of boys, which was similar with the gender ratio of ADHD. ADHD occurs in boys approximately five or nine times more often than girls in clinical samples (Barkley, 2006). The collected data were consisting of 45 children with ADHD-H. For the purpose of homogeneity of the sample, the effects of girls and children who have comorbidity were thought and excluded. Comorbidity (such as learning difficulty, conduct disorder) is a very important factor which increases the problems of children (Pliszka, Carlson & Swenson, 1999). As a result, only boys with ADHD-PHI who had no other diagnoses participated in the current study.

Gathering information from multiple informants allows the researcher to gain more information. Because low agreement rates were found among the three forms; SSRS-Teacher, SSRS-Parent and SSRS-Child, especially in an ADHD sample, it is important to access information from multiple informants about social skills because the social skills of children with ADHD differ at school and at home (Oord et al., 2005). They have more problems at school than at home (Barkley, 2000). Because of the importance of collecting information from different informants, in the current study, SSRS-Teacher and SSRS-Parent Forms were used to investigate the social skills of children with ADHD-H. To have some information about the children's perception, QoL-ADHD scale school and home social and emotional domains were used for understanding the perspective of children about their social skills. According to the results of the current study, social skills of boys with ADHD-H were perceived by their teacher as low (mean=27.4), especially the cooperation skills (mean=7.71). On the other hand, parents of these children perceived their children's social skills as average on all domains. This means there are differences between teacher and parent perceptions and teachers perceive more problems in the social skills of children with ADHD-H. According to Sayal and Taylor's (2005) study, the

relationship between parent and teacher ratings was weak. This may be due to children's different behaviors in different settings and/or because there are differences between rater's perceptions (Sayal & Taylor, 2005). In addition, children perceived their social skills as average both at home and at school in the current study. Boys with ADHD tend to give optimistic self-reports such as overestimating their competence in terms of their social skills and relations with friends (Tureau, 2004).

On the other hand, in the current study, teachers and parents of children with ADHD-H were similar in the ratings of problematic areas such as cooperation and self-control skills. Teachers mostly mentioned that, children with ADHD-H had problems mostly with controlling their impulses while their peers could deal with them while working on a task, with using time effectively while waiting for help, spending their free-time with useful activities and responding appropriately to the teasing behaviors of their peers at school. In addition, parents mentioned that their children had problems mostly with responding positively to criticism, using time effectively while waiting for help with their home-works or other responsibilities, keeping their room clean and tidy, helping with home duties without being asked and completing home duties within an appropriate time span at home.

In the current study, more than half of the parents perceived that their children had no friend problems and that their children had more than 5 friends. As opposed to the teachers, parents did not perceive that their children with ADHD-H experienced problems with their social skills. This may be due to the fact that, families accept to participate in this study willingly. The families in the current study were cooperative so they had a more positive view about their children and their problems. Children' perception may also be influenced by their parents. Higher

levels of parental acceptance and empathy predict higher level of child self-esteem, social skills and compliance (Warnen, 2003).

To investigate the quality of life of children with ADHD-H at school and at home, only the QoL-AD/HD scale was used. According to the results, children with ADHD-H perceived their quality of life at school and at home as average, but the perceived quality of life at home was higher than the quality of life in school. In addition, they also perceived themselves as having problems because of ADHD at school (28.6%) more than at home (11.4%). This means that children with ADHD have problems in terms of quality of life at school and at home but they experience more problems at school. All the relevant literature stated that, children with ADHD have more problems at school more than at home (e.g. Dolgun, 2003, Barkley, 2000). It is very positive that children perceive do not have a negative perception of their quality of life. This may give them hope and enable them to have a positive outlook on life even though they have serious problems like ADHD-H.

In addition, children with ADHD-H perceived parent and teacher support more than friend support. This result is similar with the study of Demarey and Elliot (2001) in that, children with ADHD perceived less social support from their peers.

Question Two-- Relationship between perceptions of teachers and parents of boys with ADHD-H in terms of social skills

The second question investigates the relationship between the perception of teachers and parents of children with ADHD-H in terms of social skills according to SSSRS-ETF and SSRS-PF. In terms of findings, there is a positive but not significant relationship between the perceptions of teachers and parents. Children with ADHD-

H are not perceived similarly by their teachers and their parents. It is very important for all children to have positive social relations with their peers and this is very hard to achieve when the child is labeled with ADHD (Hoza, 2007). Children in the sample were between the ages of 8-12. So, it is very significant to intervene as early as possible, because problems with peers continue on during adolescence even if the diagnostic criteria for ADHD are no longer valid. This shows that peer acceptance, friendships and peer network for adjustments are the critical issues for all children especially, for children or adolescents with ADHD (Bagwell et al., 2001).

In terms of findings, there is a significant negative correlation ($r=-.37$, $p<.01$) between the self-control of children at school and cooperation at home. There is a difference between the self-control and cooperation of children with ADHD-H at school and at home. Because children with ADHD experience problems with impulse control (Grenell, Glass & Katz) and have more problems at school than at home (Barkley, 2000), they may be more cooperative at home and have more problems with self-control at school. This finding is similar with the sample of the study in which children perceive themselves experiencing more problems at school than at home (Dolgun, 2003). Children with ADHD experience significant problems during the process of friendship and social relationships (Zentall, Cassady & Javorsky, 2001). Because of disruptive behaviors, children with ADHD are not liked much by their peers and they are mostly rejected (Flicek, 1992). On the other hand, according to A. Akalın (2005), children with ADHD are perceived as more problematic at home by parents than at school by their teachers.

Question Three-Relationship between perceptions of teacher and boys with ADHD-H in terms of social skills

The third question investigates the relationship between the perception of teachers and children with ADHD-H in terms of social skills according to scores on SSRS-PF and QoL-AD/HD. In terms of findings, there is a positive but not significant relationship between the perceptions of teacher and the perceptions of children in terms of social skills. However, there is a significant relationship between perceptions of teachers in terms of assertiveness and self-control and the perceptions of children with ADHD-H in terms of social skills (peer relations) ($r = .35$ $p < .05$ and $r = .39$, $p < .05$). The perceptions of teachers and children were similar. This shows that when the children are more assertive and exhibit self-control at school, their peer relations improves. In the light of previous researches, children with ADHD often revert to use aggressive attempts to solve interpersonal problems and also have problems in controlling their temper (Guevrement, 1990 cited in DuPaul & Stoner, 2003, Mrug et al., 2007).

Question Four-Relationship perceptions of parents and boys in terms of social skills.

The fourth question investigates the relationship between the perception of parents and perception of children in terms of social skills according to SSRS-PF and QoL-Home. In terms of results, there is a negative but not statistically significant relation between the perception of parents and perception of children. Parent's perceptions about assertiveness, cooperation and self-control were negative but not statistically significant correlation with children's perception of social skills (peer relations). In addition, the perception of parents' about cooperation and self-control

was positive but not significantly related with emotional control (anger, loneliness and sadness). Perceptions of families are very important, but in some aspects, there are some discrepancies between how families perceive their children and how children with ADHD perceive themselves. On the other hand, there could be a problem with their perception of themselves as well (Klassen, Miller & Fine, 2006). For instance, the perception of self-esteem of children with ADHD predominantly hyperactive- impulsive and combined subtype is higher than their parents; because parents think that their children's self-esteem is low according to their chronological age and compared to their peers (Klassen, Miller & Fine, 2006). Children with ADHD rated the quality of their relationship with their parents more positively than their parent's perspective; however there was no significant difference between the perception of normally developing children and their parents (Gerdes et al., 2007).

Implications of the Study

The results of the current study show that boys with ADHD-H experience difficulties in terms of social skills at school and at home according to the perceptions of the teachers, parents and children with ADHD-H. There is a significant relationship between the perceptions of teachers and the perceptions of children with ADHD-H in terms of social skills, and there are differences between the perception of teachers and perception of parents. In addition, there are differences between the perception of parents and perception of children with ADHD-H in terms of social skills.

The sample of the study consisted of boys with ADHD-H. There are limited studies on the social skills of children with ADHD and especially ADHD-H.

Therefore, the current study presents the picture of children with ADHD-H. The literature supports that children with ADHD experience more difficulty in social skills and peer relations than normally developing peers (Zenthall, Cassady & Javorsky, 2001). It is very significant to apply interventions as early as possible. The presence of social skill problems in children with ADHD restricts their social development (Fussell, Macias & Saylor, 2005). As the problems with peers continue during adolescence, even if the diagnostic criteria for ADHD no longer apply. This shows that, peer acceptance, friendships and peer network for adjustments are the critical issues for all children, especially for children or adolescents with ADHD (Bagwell et al., 2001). To solve social problems, reinforcements are very important for children with ADHD to support and strengthen their use of appropriate social skills (Barkley, 1997). Moreover, peer support is an effective way to solve the social problems of children with ADHD with their peers (Plumer & Stoner, 2005). The role of parents is very significant to help the children establish friendship. During this process, children need encouragement from their parents. In addition, it is very important that parents help their children with the specific skills that are necessary interactions with their peers. Parents' efforts to arrange meetings for their children to play with other children have a crucial effect on the development of children's friendships. Parental help is more important for the children with ADHD who have problems with their peers (Hoza et al., 2003). Moreover, less disruptive behaviors in the classroom may also improve the children's friendships with the help of parental guidance to promote friendships (Hoza et al., 2003). It is very obvious that the parent-child relationship is very important for children, especially for children with ADHD. Akalın (2005) stated that parents pay more attention to the children who have ADHD. On the other hand, parents perceive their children with ADHD as more

problematic than their teachers do (Soyhan, 1991). Soyhan (1991) mentioned that the reason may be low SES levels of the families. In the current study, SES was not investigated.

Another importance of the study is the quality of life of children with ADHD-H. There are also limited studies on the quality of life of children with ADHD, especially ADHD-H. Therefore, the current study presents the picture of children with ADHD-H. The literature supports that children with disabilities like ADHD perceive their quality of life as low (e.g. Edwards, Patricks & Toposki, 2003).

Limitations of the Study and Directions for Future Research

First of all, the sample size of the study was small and the convenient sampling method was used to obtain the sample group of the current study. So, the result may not be generalized to all children in İstanbul. Further research is recommended to cover more children.

Secondly, the parent scale about social skills has not been through reliability and validity studies. Cronbach's alpha was calculated for internal consistency, split-half reliability was calculated and factor analysis was done but the validity of a scale is more important than reliability. In addition, the scales for the social skills of children were just from the perspectives of teachers and parents. Adding the child form of the scale may help to give more information about the perception of children in terms of social skills. Further research is recommended to cover the reliability and validity studies of the parent and child form for social skills.

Thirdly, the quality of life of children was investigated only with the child form. Further research is recommended to use the scales of quality of life from the perspectives of parents and teachers.

Fourth, the sample of the current study consisted of only boys with ADHD-H. Further research is recommended to cover ADHD-predominantly inattentive subtype and ADHD-combined subtype to find the different characteristics among children who have different subtypes of ADHD in Turkey.

Fifth, the sample of the current study consisted of only boys. Further research is recommended to include girls also. According to Ohan and Johnston (2007), girls with ADHD have less prosocial behaviors; they have more awkward social interaction, more overt aggression, give more aggressive messages and have lower planning and organizational skills than their normally developed peers. Moreover, they have fewer friends because of lack of appropriate social skills (Ohan & Johnston, 2007). So, there is a need for studies on girls to plan the counseling and educational interventions.

Sixth, in the current study, SES is not a factor which is controlled. Further research is recommended to include the information of SES levels of the families as SES may affect the perspectives of parents. In addition, level of education may be an important factor on the perspectives of parents about their children.

Lastly, in the current study, the effects of medicine and special education were not analyzed. Further research is recommended to analyze the group according to the use of medicine and special education to see the effects of medicine and education on the social skills and perceived quality of life of children with ADHD.

Summary

The purpose of the current study was to find the characteristics of ADHD-PHI and the relationship between the social skills and perceived quality of life of children with ADHD-H according to teachers', parents' and children's perceptions. According to the study findings, there is a significant relationship between the perception of teachers and perception of children and significant differences in the perception of parents and children with ADHD-H in terms of social skills.

Assertiveness and self-control, which are two of the three subscales of SSRS in terms of peer relations, that when the children are more assertive and self-controled in school, their peer relations improve. The most problematic area of social skills was cooperation. Teachers of children with ADHD perceived that these children had more problems in cooperating with peers and others.

In addition, self-control, which is one of the four subscales of social skills on the parent form, showed significant differences from the perceptions of children in terms of peer relations. This shows that when the children are more self-controlled at home, their peer relations are effected negatively.

Some perceptions of the teachers and parents of children with ADHD-H were similar. When the children become better at school with their peers, they also become better at home. In addition, the results show that children with ADHD experience more problems in terms of social skills at school than at home. On the other hand, parents and children had different perceptions in terms of social skills. Children with ADHD-H perceive themselves to be experiencing more difficulties in terms of peer relations than their parents perceive them to be.

Children with ADHD-H perceived their quality of life as not high at school and home, but better at home than in school.

APPENDICES

APPENDIX A

Boğaziçi Üniversitesi
İnsan Araştırmaları Etik Kurulu

13 Mayıs 2008

Sn. Ayşe Arslanoğlu
Boğaziçi Üniversitesi
Eğitim Bilimleri Bölümü
Bebek - İstanbul

Sn. Arslanoğlu,

"Dikkat Eksikliği/Hiperaktivite Bozukluğu Tanısı Almış 8-11 Yaş Arası Çocukların Sosyal Beceri Gelişimleri ve Algıladıkları Yaşam Kaliteleri Arasındaki İlişki" başlıklı projeniz ile ilgili olarak Boğaziçi Üniversitesi İnsan Araştırmaları Etik Kurulu'na yapmış olduğunuz başvuru (Protokol no: 2008/18) kurulumuzun 13 Mayıs 2008 tarih ve 2008/02 sayılı toplantısında değerlendirilerek uygun bulunmuştur. Bilgilerinize sunarız.

Doç. Dr. Ali İ. Tekcan
Başkan

APPENDIX B

T.C.
İSTANBUL VALİLİĞİ
İl Milli Eğitim Müdürlüğü

Sayı : B.08.4.MEM.4.34.00.18.580/ 1525/39533 14/04/2008
Konu : Uygulama(**Ayşe ARSLANOĞLU**)

VALİLİK MAKAMINA

İlgi: a)Boğaziçi Üniversitesi'nin 02/04/2008 tarih 08-94 sayılı yazısı.
b)Milli Eğitim Bakanlığına Bağlı Okul ve Kurumlarda Yapılacak Araştırma ve Araştırma Desteğine Yönelik İzin ve Uygulama Yönergesi.
c)Milli Eğitim Bakanlığı Eğitimi Araştırma Geliştirme Dairesi Başkanlığı'nın 11/04/2007 tarih ve 1950 sayılı emri.
d)Milli Eğitim Müdürlüğü Anket Komisyonu'nun 10/04/2008 tarihli tutanağı.

Boğaziçi Üniversitesi Sosyal Bilimler Enstitüsü Eğitim Bilimleri Bölümü Rehberlik ve Psikolojik Danışmanlık Yüksek Lisans Programı öğrencisi **Ayşe ARSLANOĞLU'nun** İlimizde ekte adları verilen okullarda uygulanmak üzere **"Dikkat Eksikliği ve Hiperaktivite Bozukluğu Tanısı Almış 8-11 Yaş Arası Çocukların Sosyal Becerileri Gelişimleri ve Algıladıkları Yaşam Kaliteleri Arasındaki İlişki"** konulu uygulama çalışmalarını yapma istekleri hakkındaki İlgi (a) yazı ve ekleri Müdürlüğümüzce incelenmiştir.

Boğaziçi Üniversitesi Sosyal Bilimler Enstitüsü Eğitim Bilimleri Bölümü Rehberlik ve Psikolojik Danışmanlık Yüksek Lisans Programı öğrencisi **Ayşe ARSLANOĞLU'nun** İlimizde ekte adları verilen okullarda uygulanmak üzere **"Dikkat Eksikliği ve Hiperaktivite Bozukluğu Tanısı Almış 8-11 Yaş Arası Çocukların Sosyal Becerileri Gelişimleri ve Algıladıkları Yaşam Kaliteleri Arasındaki İlişki"** konulu uygulama çalışmalarını yapması, bilimsel amaç dışında kullanılmaması koşuluyla, okul idarelerinin denetim, gözetim ve sorumluluğunda, İlgi (c) Bakanlık Emri esasları dahilinde uygulanması, sonuçtan Müdürlüğümüze rapor halinde (CD formatında) bilgi verilmesi kaydıyla Müdürlüğümüzce uygun görülmektedir.

Makamınızca da uygun görüldüğü takdirde olurlarınıza arz ederim.

Sadettin PIRCİOĞLU
Milli Eğitim Müdürü V.

EKLER :
Ek-1. İlgi (a) yazı ve ekleri

OLUR
14./04/2008

Hikmet DİNÇ
Vali a.
Vali Yardımcısı

NOT *:Verilecek cevapta tarih, kayıt numarası, dosya numarası yazılması rica olunur.*
Adres *:İstanbul Milli Eğitim Müdürlüğü A.Blok Ankara cad. No:2 Cağaloğlu 526 13 82*
E-Mail: *kultur34@meb.gov.tr Web: http//İstanbul.meb.gov.tr/bolumler/kultur*

4440632

APPENDIX C

Bilgilendirilmiş Olur Formu

Bu araştırma, Boğaziçi Üniversitesi Yüksek Lisans öğrencisi Ayşe Arslanoğlu ve Boğaziçi Üniversitesi Eğitim Fakültesi öğretim üyesi Yrd. Doç. Dr. Z. Hande Sart'ın danışmanlığında yürütülen, Yüksek Lisans tez çalışmasıdır.

Çalışmanın ana amacı; Dikkat Eksikliği ve Hiperaktivite Bozukluğu (DEHB) tanısı almış olan çocukların sosyal beceri gelişimlerine ve algıladıkları yaşam kaliteleri arasındaki ilişkiye bakmaktır. 8–12 yaş grubu için yapılacak bu çalışmanın, DEHB tanısı almış çocuklarla bu alanlardaki sorunlarına yönelik çalışırken kullanılacak önemli bilgiler sağlaması hedeflenmektedir. Bu çalışma için doldurmanızı istediğimiz bir demografik bilgi formu, çocuğunuzun araştırmacı ile birlikte doldurmasını istediğimiz bir ölçek; Dikkat Eksikliği/Hiperaktivite Bozukluğu Yaşam Kalitesi Ölçeği (DE/HB-YKÖ) ve çocuğunuzun öğretmeninin ve sizin doldurmasını istediğimiz ölçekler; Sosyal Beceri Derecelendirme Sistemi-Öğretmen ve Ebeveyn Formu ve DEHB Değerlendirme Aracı-IV: Okul ve Ev Formu vardır. Yaklaşık 15–20 dakikada tamamlanabilecek bu form ve anketlere kimlik bilgisi yazılmayacağından, kimliğiniz gizli kalacaktır.

Bu çalışmaya dolduracağınız anketlerle katkı sağlamak istiyorsanız, aşağıda bulunan "Bu formu okudum ve araştırmaya katılmayı kabul ediyorum" yazısının altını imzalayın. Dilerseniz bu formun bir kopyasını saklayabilirsiniz. Ayırdığınız zaman ve katkınız için teşekkür ederiz.

BU FORMU OKUDUM VE ARAŞTIRMAYA KATILMAYI KABUL EDİYORUM.

Katılımcının adı: İmzası: Tarih:

BU FORMUN BİR KOPYASINI ALDIM.

Araştırmacının adı: Ayşe Arslanoğlu

İmzası: Tel: 0532 661 59 05 Adresi: Boğaziçi Ün. Eğitim Bilimleri B.

APPENDIX D

ÇOCUK VE AİLE DEĞERLENDİRME FORMU(*)

* Tarih: ……..

* Formu dolduran kişi:

a) Anne b) Baba c) Diğer (belirtiniz):……..

* Çocuğunuzun Adı-Soyadı: ……

* Çocuğunuzun Cinsiyeti: a) K b) E

* Çocuğunuzun Doğum Tarihi (gün/ay/yıl): ……

* Çocuğunuz ilaç kullanıyor mu? a) Evet b) Hayır

Cevabınız "Evet" ise,

Kullandığı ilaçlar hangileri? ……..

*Çocuğunuz özel eğitim desteği alıyor mu? a) Evet b) Hayır

Cevabınız "Evet ise,

Nereden ve haftada kaç saat?……..

*Çocuğunuzun okul başarısı nasıl? a) İyi b) Orta c) Kötü

* Çocuğunuzun kaç arkadaşı var? (Kardeşleri dışında) ……

* Çocuğunuzun Dikkat Eksikliği Hiperaktivite Bozukluğu dışında herhangi bir psikolojik problemi var mı?(öğrenme güçlüğü, anksiyete bozukluğu, depresyon, vb.)

a) Evet b) Hayır

Cevabınız "Evet" ise,

Diğer sorunu nedir? .....

* Çocuğunuzun belirtmek istediğiniz herhangi bir hastalığı var mı?

a) Evet b) Hayır

Cevabınız "Evet" ise,

Diğer hastalığı nedir? ……

*Bu form hazırlanırken Gülümser Dolgun'un hazırlamış olduğu formdan yararlanılmıştır.

APPENDIX E

SOSYAL BECERİ DEĞERLENDİRME SİSTEMİ(*)

SBDS ÖĞRETMEN FORMU **Sınıf: Anasınıfı- 6**

Ölçek Tanıtımı:

***** Bu ölçek, 6–12 yaş arası çocukların sosyal beceri düzeylerini belirlemek için geliştirilmiştir.

Bu ölçekte sosyal beceriler ve problem davranışları davranış seviyeleri (Düşük, ortalama, üstün) şeklinde ifade edilir.

Açıklamalar:

* Bu anket, bir öğrencinin belirli sosyal becerileri hangi sıklıkla sergilediğini ve bu becerilerin *kendi* sınıfınızdaki başarı için ne derece önemli olduğunu ölçmek için hazırlanmıştır. Önce, kendiniz ve öğrenciniz hakkındaki bilgileri tamamlayınız.

Öğrenci bilgileri:

Tarih **:** ----------
Öğrencinin adı soyadı **:** ----------
Cinsiyet **:** □Kız │□ Erkek
Okul **:**----------
Şehir/ Semt **:**----------
Sınıf **:** ----------
Doğum tarihi **:** ----------
Gün Ay Yıl

Öğretmen Bilgileri

Öğretmenin adı **:** ----------
Cinsiyet **:** □Kadın │□ Erkek
Göreviniz nedir? **:** □ Daimi □ Geçici Diğer (belirtin) ----------

- Bütün maddeleri okuyup öğrencinizin son iki ya da üç ay içindeki davranışlarını düşününüz. Açıklanan davranışı öğrencinin hangi sıklıkta yaptığına karar veriniz.

Eğer öğrenci bu davranışı **hiçbir zaman yapmıyorsa** 0'ı işaretleyin.
Eğer öğrenci bu davranışı **bazen yapıyorsa** 1'i işaretleyin.
Eğer öğrenci bu davranışı **çok sık yapıyorsa** 2'yi işaretleyin.

- 1–30 arası maddeler için aynı zamanda bu davranışların her birinin *kendi* sınıfınız içindeki başarı için ne derece önemli olduğunu derecelendirmeniz istenmektedir.

Eğer bu davranışın sınıfınızdaki başarı üzerinde **etkisi yoksa** 0'ı işaretleyin.
Eğer bu davranış sınıfınız içindeki başarı için **önemliyse** 1'i işaretleyin.
Eğer bu davranış sınıfınız içindeki başarı için **çok önemliyse** 2'yi işaretleyin.

- Lütfen hiçbir maddeyi atlamayın. Bazı durumlarda öğrencinin belli bir davranışta bulunduğunu gözlemlememiş olabilirsiniz. Öğrencinin davranış sergileyebileceğini düşündüğünüz olası düzeyi tahmin edin.

---

*Orjinal Form : Frank M. Gresham ve Stephan N. Eliot (1990)
Türkçe'ye çeviren ve uyarlayan : Serdal Seven (2006)
Ölçeğin sadece ilk sayfası verilmiştir.

APPENDIX F

SOSYAL BECERİ ÖLÇEĞİ (EBEVEYN FORMU)(*)

Sınıf: Anasınıfı- 6.sınıf

Ölçek Tanıtımı:

Bu ölçek, 6–12 yaş arası çocukların sosyal beceri düzeylerini belirlemek için geliştirilmiştir. Bu ölçekte sosyal beceriler ve problem davranışları davranış seviyeleri (Düşük, ortalama, üstün) şeklinde ifade edilir.

Açıklamalar:

Bu anket, bir çocuğun belirli sosyal becerileri hangi sıklıkla sergilediğini ve bu becerilerin çocuğun gelişimi için ne derece önemli olduğunu ölçmek için hazırlanmıştır. Önce, kendiniz ve çocuğunuz hakkındaki bilgileri tamamlayınız.

Öğrenci bilgileri:

Adı ---------- ---------- **Tarih** ----------

Okul---------- **Şehir**----------

Sınıf ---------- **Doğum tarihi** ---------- **Cinsiyet:** □Kız │□ Erkek

Gün Ay Yıl

Ebeveyn Bilgileri

Adı ---------- ---------- **Cinsiyet:** ☐Kadın │☐ Erkek

Adres: ---------- **şehir**----------

Bu çocukla akrabalığınız?

☐ Anne ☐ Baba ☐ koruyucu veli ☐ Diğer(belirtin)----------

Genel Bilgiler

1. Çocuk evde kaç erkek ve kız kardeşe sahiptir?

□ Yok □ 1

□ 2 □ 3 ve fazlası (belirtin)----------

2. Kaçıncı Çocuk:

a. İlk çocuk □ b. Ortanca ya da ortancalardan biri □ c. Son çocuk □

3. Yaşadığı Ailenin Tipi:

a. çekirdek Aile □ b. Geniş aile □

4. Annenin öğrenim durumu:		**5. Babanın öğrenim durumu:**	
a. Okur-yazar değil	□	a. Okur-yazar değil	□
b. Okur yazar-ilköğretim	□	b. Okur yazar-ilköğretim	□
c. Lise	□	c. Lise	□
d. Yüksekokul	□	d. Yüksekokul	□
e. Üniversite	□	e. Üniversite	□

6.Yaşadığı yerleşim birimi: kırsal □ kent □

- Daha sonra sayfa 2-4'deki her maddeyi okuyun (Madde 1-55) ve çocuğunuzun son zamanlardaki davranışlarını düşünün. Açıklanan davranışı öğrencinin hangi sıklıkta yaptığına karar verin.

  Eğer çocuk bu davranışı **hiçbir zaman** yapmıyorsa 0'ı işaretleyin.
  Eğer çocuk bu davranışı **bazen** yapıyorsa 1'i işaretleyin.
  Eğer çocuk bu davranışı **çok sık** yapıyorsa 2'yi işaretleyin.

*Orjinal Form : Frank M. Gresham ve Stephan N. Eliot (1990)
Türkçe'ye çeviren ve uyarlayan : Serdal Seven (2006)
Ölçeğin sadece ilk sayfası verilmiştir.

APPENDIX G

DİKKAT EKSİKLİĞİ/HİPERAKTİVİTE BOZUKLUĞU YAŞAM KALİTESİ ÖLÇEĞİ (DE/HB-YKÖ)(*)

(Çocuk Formu, görüşmeci tarafından doldurulacaktır.)

Adın soyadın: **Tarih:**

Yaşın: **Tel. no:**

Sınıfın:

Bu ankette senin sağlığın, iyilik durumun, duyguların ve kişiler arası ilişkilerin ile ilgili sorular vardır. Bazı soruları birbirine benzer gibi düşünebilirsin, fakat her soru farklıdır. Soruların kesin doğru veya yanlış cevabı yoktur. Tüm sorular için, senin durumunu en iyi ifade eden seçeneği söylemeni istiyorum.

* Geliştiren: Gülümser Dolgun (2003)
Ölçeğin sadece ilk sayfası verilmiştir.

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