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Concerns And Perceptions Of Parents Of Children And Adolescents With Attention-Deficit-Hyperactivity Disorder

Stephen Gerard Viola
Indiana State University

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VITA

Stephen Gerard Viola
1900 River Road F-8
Marysville, Michigan 48040

PERSONAL

Born in St. Louis, Missouri on February 8, 1966.

EDUCATION

Doctoral Candidate in School Psychology at Indiana State University, Terre Haute, Indiana, with an expected completion date of May, 1997.

Master of Education (School Psychology), Indiana State University, Terre Haute, Indiana, 1989.

Bachelor of Science (Art Therapy), University of Evansville, Evansville, Indiana, 1988.

PROFESSIONAL EXPERIENCES

Limited Licensed Psychologist and School Psychologist in private practice in Michigan, 1994-present.

Limited Licensed Psychologist and School Psychologist at Professional Counseling Center in Port Huron, Michigan, 1992-1994.

Pre-Doctoral Intern at Hawthorn Center in Northville, Michigan, 1991-1992.

Program Coordinator-Indiana Preschool Workshop Series at the Blumberg Center for Interdisciplinary Studies in Special Education in Terre Haute, Indiana, 1989-1991.

CONCERNS AND PERCEPTIONS OF PARENTS OF CHILDREN AND ADOLESCENTS WITH ATTENTION-DEFICIT-HYPERACTIVITY DISORDER

A Dissertation

Presented to

The School of Graduate Studies

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by

Stephen Gerard Viola

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APPROVAL SHEET

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5/6/97
Date

Kenneth P. Wells
Chairperson

Committee Member

Committee Member

Committee Member

Committee Member

5/6/97
Date

For the School of Graduate Studies

ABSTRACT

The study investigated the concerns and perceptions of parents of children and adolescents with Attention-Deficit-Hyperactivity-Disorder (ADHD). Parental concerns regarding behaviors, skill deficits, and settings were identified as well as the helpfulness of interventions and professionals.

The Parent Perception Opinionnaire for Parents of Children and Adolescents with ADHD was constructed. Data were collected from 112 members of a parent support group. The data were summarized according to ages 8 and less (primary), ages 9 through 11 (intermediate) and ages 12 through 17 (secondary).

The highest ranked concerns of parents were symptoms of inattention, distractibility and hyperactivity. Regarding skills deficits, highest concerns were with listening skills and developing social skills with peers. Emotional concerns were consistently identified to be of low concern to the parents. In regard to settings, parents were first concerned with behaviors in school, then community and home.

Medication, parent support groups, and special education were consistently rated as the most helpful interventions for all three age groups. Behavioral techniques were rated more helpful than cognitive or insight-oriented techniques. Parents also perceived a strong need for school-based interventions to be developed at all age groups, especially the secondary level. The

parents indicated that clinical psychologists who utilized behavioral techniques were the most helpful professionals.

The results of this study indicated that if interventions are to be developed that are responsive to the concerns and perceptions of parents, then interventions should include a medical and behaviorally oriented component. The focus should be on developing interventions to manage inattention and impulsivity, improve listening skills, improve social skills with peers, and be generalizable to the school setting.

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Chapter 1

INTRODUCTION

Attention-deficit-hyperactivity-disorder (ADHD) is a behavioral disorder affecting children, adolescents, and adults. Barkley (1990) estimates among three to ten percent of the school age population, or roughly five million children, show behavioral characteristics of this disorder. ADHD is a commonly diagnosed condition of childhood (Epstein, Shaywitz, Swaywitz, & Woolston, 1991) and accounts for approximately one-half of the referrals to child mental health clinics (Lerner & Lerner, 1991). According to the Drug Enforcement Agency, the production of Ritalin or methylphenidate hydrocholoride, the common medication used to treat ADHD, has increased 450% from 1992 to 1996.

A critical dimension of serving children and adolescents with Attention-Deficit-Hyperactivity-Disorder is collaborative dialogue between professionals and parents (Solomon, 1991; DuPaul & Stoner, 1994). Parents supply unique and valuable information concerning their child or adolescent (Bristol, & Galligher, 1982). Through dialogue, a parent-professional partnership can emerge. This partnership may allow for interventions to be more

meaningful (Hale, 1997). Friere (1989) stated that one must remember that many interventions "have failed because their authors designed them according to their own personal views of reality, never once taking into account (except as the mere objects of their action) the men-in-a-situation to whom their program was ostensibly directed." Interventions should reflect a synthesis of the ideas, attitudes, and beliefs of all concerned.

Although helping professionals do not spend much of their time focusing on parents and family systems (Martens & Witt, 1988), professional service delivery has been increasingly conceptualized as systemic (Gough, 1991; Richters, Arnold, Jensen, Abikoff, 1995). A family-focused approach should allow for the attitudes, desires, and concerns of those involved to be recognized and considered when developing intervention strategies (Hale, 1997). The practice of addressing only child needs has been the focus of criticism in the literature by Bristol & Galligher (1982), Dunst (1985), Wahler (1980), and Simpson (1996). For school-aged children (Reynolds, Gutkin, Elliot, & Witt, 1984; and Barkley, 1995), and children of preschool age (Paget, & Nagle, 1986; Thurman, & Widerstron, 1989), a systemic approach has been proposed as an effective framework for special service delivery. No matter the approach applied to specific situations, the operative issue is that professionals need to develop intervention programs that are responsive to parent and family concerns (Dawson,

1996). The practitioner who remains attentive to the myriad of factors which influence children, parents, and families will provide the most effective interventions (Reynolds, Gutkin, Elliot, & Witt, 1984).

Barriers often exist between parent and professional communication. These barriers are often rooted in the attitudes of both parents and professionals. According to Murray (1988) professionals who have worked with children with special needs and their parents are aware of the anger and mistrust which is often directed towards them. This anger and mistrust has given parent groups a negative reputation among professionals. National organizations are encouraging their members to understand and to develop better parent/professional partnerships (Epstein, 1991). The National Association of School Psychologists (1994) created a joint statement with The American Psychological Association and Children with Attention Deficit Disorder (ChADD) indicating the need for improved parent and professional partnerships. While parents' anger can hinder partnership development, Vincent (1983) reports that professionals also hold some negative assumptions about parents. Vincent reports that seventy percent of clinical professionals believe that parents are not invested in helping their child. Knowing what parents want from professionals and their opinions of the services they receive should assist professionals to develop meaningful interventions.

The barriers to collaborative communication and partnership development need to be reduced or eliminated (Hale, 1997). Parents should be given an opportunity to participate actively in the planning process; to perceive and accept the intervention goals to be their goals; to feel that they share responsibility for planning and conducting interventions; and to experience success towards the jointly established goals (Huntinger, 1981; Knowles, 1978). At times, parents and professionals feel that it is impossible to remove the barriers to collaboration and view each other as valuable resources (Epstein, 1991). Epstein (1991) states that parents and professionals often embrace the concept of partnership, but few have translated their beliefs into plans and actions. The concerns of parents should be determined and the powerful potential of this information should be maximized (Ramey, Bechman-Bell, & Gowen, 1980). This information may be used as a component in designing appropriate interventions.

Statement of the Problem

While many child clinicians endorse a "family systems" view, these views are generally grounded in theories that are rarely subjected to scientific analysis or incorporated into practice (Idol, L., Paolucci-Whitcomb, P. & Nevin A. 1986). Clinicians and researchers serving children with behavior difficulties have ignored the need to assess parent perceptions. While clinicians advocate the importance of parent involvement in treatment for children and adolescents

with behavioral problems (Gordon, 1970; Patterson, 1976; DuPaul & Stoner, 1994), including children experiencing ADHD (Barkley, 1995), there is limited evidence that clinicians have actually assessed and utilized parental perceptions before designing programs (Barkley, 1990).

There has been much debate in recent literature regarding if ADHD actually exists (see Valentine, 1995; DePaul, 1995). The current conceptualization of ADHD is within the framework of the medical model. Unfortunately, available medical tests do not aid in the diagnosing of ADHD. ADHD is a disorder of unknown cause. Despite extensive effort, researchers have been unable to demonstrate consistent neurobiologic difference between ADHD children and nondisabled children. Valentine (1995) challenges that the diagnosis of ADHD "is nothing more than asking teachers and parents for their opinions". Unfortunately, research has focused almost exclusively on identifying frequently occurring behaviors and the response of interventions in addressing these frequently occurring behaviors. Research and "diagnostic criteria" have not focused on the concerns and perceptions associated with these frequently occurring behaviors.

Parents have been asked to identify problematic areas for their children and adolescents with ADHD in studies by Barkley, Fischer, Edelbrock, & Smallish (1990) Campbell (1990) and Hoy, Weiss, Minde, & Cohen (1978). Campbell examined behavior of preschool children and identified

excessive motor activity as the most frequent behavior problem. Hoy, Weiss, Minde, and Cohen interviewed parents of hyperactive adolescents and reported that the problematic areas in addition to hyperactivity and inattentiveness included problems with cognitive, emotional, and social functioning. Barkley, Fisher, Edelbrock, and Smallish (1990) also reported that parents identified problems with social and emotional functioning. In these studies, however, parents were not asked about their concerns in relation to these behavioral problems. For example, in the study by Barkley et al. (1990), 82.1% of parents of ADHD children reported that their child displayed a problem with being "easily distractible" (compared to 15.2% for nondisabled). This item was the most frequently identified problem area. Does this indicate that distractibility is the behavior problem that concerns parents the most? Could it be possible that parents are more concerned about behaviors that occur less frequently but are more detrimental in their opinion (e.g. "argues with adults," 72.4%; "loses things needed for tasks" 62.6% or "is angry and resentful" (50.4%)?

Research suggests that the behavior difficulties of children with ADHD change as they mature (Weiss, 1983; Campbell, 1990; Earls, & Kindlon, 1984; Fischer, Rolf, Hasazi, & Cummings, 1984; DuPaul & Stoner, 1994; Thorley, 1984, Barkley, 1990). Barkley (1995) suggested that intervention programs should focus on different problem

areas as a child with ADHD grows older. A survey of parental concerns and perceptions should take into consideration that perceived needs may differ at different ages of the children and that interventions may need to be modified.

Purpose of the Study

Three questions were addressed as related to directing attention to more useful and appropriate interventions.

1. What are the concerns parents identify for their ADHD children and adolescents?

2. What are the perceptions of parents regarding ADHD interventions?

3. What are the perceptions parents have regarding the helpfulness of professionals in addressing the needs of their ADHD child or adolescent?

Delimitations

The selection of items for inclusion in this study, albeit theory and research driven, excluded other items. Selection was based on the "behavioral symptoms" and "problem areas" identified in research by Barkley (1990) and Stewart and associates (1970) to occur significantly more often in children and adolescents with ADHD. Other potential items such as "difficulty playing quietly," "spiteful," "aggressive," and "delinquent behaviors" were not included since they did not occur significantly more often when compared to the normal population. However,

these behaviors may be areas of concerns for parents of ADHD children and adolescents.

Selection of items regarding interventions and professionals were based on those frequently identified by board members of the Wayne and Oakland Counties Chapter of ChADD. Items do not include less frequently utilized interventions (i.e. biofeedback and diet therapy) or professionals (i.e. neurologists, nutritionists, and vision therapists).

Definition of Terms

To facilitate a better understanding of the terms used in this study, definitions are provided:

Attention-deficit-hyperactivity-disorder (ADHD): is a behavioral disorder characterized by symptoms of inattention, impulsivity, and hyperactivity. It is assumed that the diagnosis was made by a professional using DSM-III-R or DSM-IV criteria.

Opinion: based on parent reporting of a child's or adolescent's behavior reported through responses to the Parent Perception Opinionnaire for Parents of Children and Adolescents with ADHD (see Appendix A).

Parent: primary caregiver.

Rationale

According to Barkley (1990), parent involvement is valuable in the management of children with ADHD. Parent involvement can be utilized in different ways through parent

education, training, counseling, support groups, and consultation. Parent involvement in problem identification and decision making regarding an ADHD child is important in establishing appropriate interventions. Clinical practice, theory, and research suggest the importance of systematically assessing parental concerns and perceptions regarding the needs of children and adolescents with ADHD.

Clinical Support for Assessment of Parental Perceptions

Researchers and clinicians have been unable to design a specific intervention that effectively addresses the special needs of children and adolescents with ADHD. The use of stimulant medication therapy is a commonly employed treatment strategy and has been demonstrated to be effective in bringing about improvement in attention span, impulse control, and physical restlessness in a large percentage of children with ADHD (Taylor, 1986 and DuPaul, 1990). Since parents spend more time with their children when medication is not being used (evenings, weekends, "drug free holidays"), they become valuable informants regarding behavior difficulties that clinicians may not have observed.

A matter of clinical importance is that children and adolescents with ADHD may place a severe strain on family functioning. Traditional parenting techniques, which work for normal siblings, frequently are ineffective when applied to children and adolescents with ADHD and the normal parenting process is disrupted (Barkley, 1990). The

perceptions of parents may reflect the needs of the child or adolescent as well as parent needs and those of family members.

An issue that must also be addressed from a clinical perspective is the belief that the behavior difficulties of children with ADHD change as they get older. This change may necessitate altering clinical management techniques. Assessment of common parent perceptions must examine needs during different age spans.

Theoretical Support For Assessment Of Parental Perceptions

Since the 1970's there has been a shift away from the child-focused approach to a family-focused approach when establishing intervention plans. During the course of development, families of children with ADHD are confronted with a substantially larger number of behavioral, developmental, and educational problems than those of normal children (Barkley, Fischer, Edelbrock, & Smallish, 1990). The time, logistic demands, and energy required to cope with these difficulties place a stress on all aspects of family functioning (Emery, 1982; Epstein, Bishop, & Levin, 1978). The family-focused approach is designed to develop the problem-solving skills, collaborative approaches to management, and supportive communication which allows parents and families to cope effectively with the stress imposed by the child or adolescent with ADHD (Simpson, 1996).

Theoretical support for involving parents in problem

identification can be found in the literature on consultation, when parents are viewed as consultees. According to Caplan (1970), if the consultation process is to be effective, the professional must not have a predetermined body of information that is intended to be imparted to a consultee. The consultant must first acknowledge what the consultee desires and the consultees must view themselves as active participants who educate the consultant regarding their difficulties. Failure to involve the consultee in problem identification may result in the consultee's failure to "own" resulting treatment plans and thus decrease the probability that agreed-on interventions will be carried out as they were intended (Reinking, Livesay, Kohl, 1978).

Brown, Pryzwansky, & Schulte (1991), Graden (1989), Idol, Paolucci-Whitcomb, & Nevin (1986), Curtis, & Meyer (1988) and Gordeon & Asher (1994) describe models of collaborative consultation which emphasize the importance of collaborative problem solving and a collegial relationship between the consultant and consultee. Within a collaborative model, the consultant and consultee assume joint responsibility for all aspects of the consultation process. Consultants and consultee agree upon the objectives for consultation, define the problem together, jointly develop the intervention plan, and share responsibility for implementation and evaluation of the outcome of their plan (Pryzwansky, 1974). The relationships

for those involved is non-hierarchical and can be viewed as an influencing relationship. The consultant does not operate from a position of authority, diagnosing the problem and then either carrying out the remediation directly or prescribing the program to be implemented by others. The consultant and consultee must contribute to the development of problem solving strategies. It is essential that the consultee(s) is actively involved in the consultation process by helping to assess and diagnosis the problem, as well as contributing to the intervention plans (Curtis & Meyer; 1988). A consultant focuses assessment on the attitudes, feelings, and skills of the consultee, because they are seen as important factors in problem resolution within a collaborative model (Brown, Pryzwansky, Schulte, 1991; Caplan, 1970).

Brown, Pryzwansky, and Schulte (1991) point out that the practice of consultation with parents has received relatively little attention in the consultation literature. This is probably due to the fact that the original conceptualization of consultation was a process that occurred between professionals. The boundaries of parental consultation must be delineated by differentiating it from other parent-oriented processes aimed at teaching parents specific parenting skills (i.e. parent education, parent training). Parent education/training is an indirect approach aimed at teaching parents specific parenting skills. Parent training programs, typically conducted in a

group setting, follow a set syllabus determined by the instructor, and follow a specific timetable. Parent consultation is a non-hierarchical process that directly involves parents in decision making, and follows a flexible format and timetable. Thus, parents express their attitudes regarding the needs of their child and how those most important needs can be addressed.

A final area to be addressed from a theoretical perspective is the acknowledgement that the needs of the child and parent(s) change as the child matures. Since parenting is viewed as a developmental process (Friedman & Friedman, 1977), parenting a child or adolescent with ADHD is also a developmental process. Parents living with a young child with ADHD will have opinions and concerns from a different perspective than the parents of an adolescent with ADHD who (along with other family members) have been coping for many years.

Empirical Support for Assessing Parental Perceptions

Empirical support for the assessment of parental perceptions can be determined by examining studies on parent involvement, consultation, and developmental course of ADHD. Parents can serve as effective agents of behavior change in children and adolescents who display behavior difficulties. Barkley's (1990) review of the literature supports the potential benefits of working with parents. Within the child clinical research literature are direct and indirect

sources of empirical evidence regarding the effectiveness of incorporating parents into the treatment programs of children and adolescents with ADHD (Barkley, 1990).

Interventions that encourage parent involvement within the ADHD population have not been researched extensively (Barkley, 1990). Barkley's (1990) review of the literature identified no more than 10 studies that examined parent involvement strategies for parents of children or adolescents with ADHD. These studies were supportive of parent education, parent training, and parent counseling although specific generalizations cannot be easily made due to methodological differences and differences in definitions of parent involvement.

Until more studies are completed, it may be useful to consider a related area of research that has indirect bearing on this situation, the studies that have employed parent involvement approaches with noncompliant, oppositional defiant, and conduct-disorder children (Forehand & McMahon, 1981; McMahon & Wells, 1989). In a series of related investigations, Forehand and his associates (1981) repeatedly demonstrated that behavioral parent training programs were highly effective in bringing about significant improvements not only in targeted noncompliant and defiant behaviors (McMahon & Forehand, 1984), but also in non-targeted behaviors, such as aggression (Wells, Forehand, & Griest, 1980). Such treatment gains generalized from the clinic setting to the

natural home environment (Webster-Stratton, 1984), and typically remained stable over time, often being maintained up to 4 years following termination of treatment (Forehand, Wells, & Griest, 1980). It can be concluded that parent involvement appears to have an impact on the behavior of children with behavioral difficulties. The key is to make parent involvement more meaningful. Unfortunately, to date, there has been no research designed to determine which behavior difficulties parents feel should take first priority when being addressed. Thus, the current parent interventions which appear to be effective in changing some behaviors may or may not be targeting the behaviors that parents view to be most troubling or addressing those needs through strategies parents feel most comfortable utilizing.

There is a body of empirical support for the effectiveness of consultative methods. Extensive reviews of the research literature have been conducted by Medway (1979), Manning & Shores (1975), Fullan, Miles, & Taylor (1980), and Brown, Pryzwansky, Schulte (1991) regarding the efficacy of consultation. Research shows that problem identification is the primary determinant of consultation outcomes (Bergan, & Tombari 1976). Thus, when consultant and consultee can agree on the identified problems (needs), problem solutions are most likely to result. The literature that has been produced to date on parental consultation supports the need for proper problem identification (Cobb & Medway 1978; Perkins & Wicas 1971).

There is empirical evidence indicating that the needs and problems of children with ADHD change over time; for example, during the preschool years (ages 2-5), ADHD children display overactivity, high intensity, inattention, negative mood, and low adaptability (Prior, Leonard, & Wood, 1983; Campbell, 1990; Earls & Jung, 1987; Fagot, 1984; Fischer, Rolf, Hasazi, & Cummings, 1984; Garrison, Earls, & Kindlon, 1984). Upon entering school, children with ADHD display additional difficulties in academic achievement delays, greater use of special educational services, higher levels of social rejections, and lower self esteem (Barkley, DuPaul, & McMurry 1990; Barkley, Fischer, et al., 1990).

Follow-up studies have dispelled the notion that the disorder is typically outgrown by the adolescent years. Despite a decline in their levels of hyperactivity and an improvement in attention span and impulse control, 70 to 80% of children with ADHD are likely to continue to display some symptoms into adolescence to an extent inappropriate for their age group (Brown & Borden, 1986; Thorley, 1984; Weiss & Hechtman, 1986). Studies of disruptive behavior disorders in adolescents conducted by Barkley, Fischer, Edelbrock, & Smallish, (1990) indicate that of hyperactive adolescents, up to 72% exhibit oppositional defiant behaviors and up to 50% exhibit conduct disorder behaviors. The researchers found continued rates of higher academic performance problems in the hyperactive adolescents compared to the control group.

In sum, there are three areas that provide support to the longitudinal assessment of parent concerns and perceptions regarding the needs of their child or adolescent with ADHD. First, there is evidence supporting the belief that parent involvement is crucial in bringing about behavior changes in children with behavioral problems. Secondly, the limited research in parental collaboration and the more extensive research in professional collaborative consultation supports the importance of assessing consultee's (parent's) perceptions regarding needs and intervention strategies. Finally, there is evidence suggesting that needs of children and adolescents with ADHD may be different during different age spans.

Chapter 2

RELATED RESEARCH

This chapter presents a review of the literature concerning aspects of attention deficit hyperactivity disorder including assessment techniques, parent and professional perceptions of behavioral problems and helpfulness of interventions, and parent perceptions regarding the helpfulness of professionals.

A historical review of the condition known in the 1990's as attention deficit hyperactivity disorder gives insight into how the disorder has been perceived over time. In the early 1900's at least five papers were written suggesting what is today identified as ADHD. These papers were clearly medical in nature and often described the residual cognitive and behavioral effects of various central nervous system (CNS) injuries to children, such as trauma and infection. Credit is typically awarded to George Still as being the first to focus serious medical attention on the behavioral condition in children that most closely approximates what is currently known as ADHD.

In Still's series of lectures to the Royal College of Physicians (Still, 1902), he described 20 children in his

clinical practice who were often aggressive, defiant, and resistant to discipline; were excessively emotional, and showed little "inhibitory volition." "Lawlessness," spitefulness, and cruelty, were also associated with this disorder. Most of the children were also described to be impaired in attention and were quite overactive. Still believed that these children displayed a major "deficit in moral control" in their behavior, and that this was relatively chronic in most cases. Still was the first to note that the symptoms of the disorder were defined as unnatural relative to the behavior of normal children at a given age, suggesting that age-referenced criteria were important in the diagnosis. According to Still a greater proportion of males than females presented these characteristics (3:1) and they appeared to arise in most cases before 8 years of age. A few had associated tic disorders, or "microkinesia;" this was perhaps the first time that tic disorders and ADHD were noted to be comorbid conditions. Current research recognizes that as many as 70% of children with tic disorders and Tourette's syndrome have associated ADHD (Barkley, 1988). Although a chaotic family life was reported for many children, many others came from households with seemingly adequate upbringing. In fact, Still believed that cases where poor child rearing was clearly involved should be exempt from this category, and that it should be reserved for children who displayed a morbid failure of moral control despite adequate parenting.

He proposed a biological predisposition to this behavioral condition, suggesting that it was probably hereditary in some children and the result of pre- or postnatal injury in others.

The association of a brain disease with behavioral pathology apparently led early investigators to study other potential causes of brain injury in children and their behavioral manifestations. Birth trauma (Shirley, 1939), infections such as measles (Meyer & Beyers, 1952), lead toxicities (Byers & Lords, 1943); epilepsy (Levin, 1938), and head injury (Blau, 1936; Werner & Strauss, 1941) were studied in children and were found to be associated with numerous cognitive and behavioral impairments, including the triad of ADHD symptoms of inattention, hyperactivity, and impulsivity. Other terms introduced during this era for children displaying these behavioral characteristics were "organic driveness" (Kahn & Cohen, 1934) and "restlessness syndrome" (Childers, 1935; Levin, 1938).

In the 1950's, a number of investigations into the neurological mechanisms underlying these behavioral symptoms were undertaken, the most noted by Laufer & Denhoff (1957). These writers referred to ADHD children as having "hyperkinetic impulse disorder" and reasoned that the CNS deficit occurred in the thalamic area. Poor filtering of stimulation was thought to occur, allowing an excess of stimulation to reach the brain. The study was never replicated. Others at the time also conjectured that an

imbalance between cortical and subcortical areas existed, such that there was diminished control of subcortical areas responsible for sensory filtering, which permitted excess stimulation to reach the cortex (Knobel, Wolman, & Mason, 1959). By the end of this era it seemed well accepted that hyperactivity was a brain damage syndrome, even where evidence of damage was lacking, and the disorder was referred to as minimal brain damage (MBD). The concept of minimal brain damage eventually declined as it became recognized as vague, over inclusive, of little or no prescriptive value, and without much neurological evidence (Kirk, 1963). The term MBD was eventually replaced by more specific labels applying to somewhat more circumscribed cognitive, learning, and behavioral disorders, such as "dyslexia," "language disorders," "learning disabilities," and "hyperactivity." These labels were based on the observable and verifiable deficits of the children they described, rather than on some underlying unobservable etiological mechanism in the brain.

The prevailing view during the 1960's (see Ross & Ross, 1976) was that it remained a brain dysfunction syndrome, although of a milder magnitude than was previously believed. The disorder was no longer ascribed to brain damage, but a focus on brain mechanisms prevailed. The disorder was also viewed as having a relatively homogeneous set of symptoms, predominant among which was excessive activity level or hyperactivity. Its prognosis was now felt to be relatively

benign, and it was thought to be often outgrown by puberty.

Research in the 1970's on the disorder took a leap forward, with over 2,000 published studies existing by the end of the decade (Weiss & Hechtman, 1979). Numerous clinical and scientific textbooks (Cantwell, 1975; Safer & Allen, 1976; Wender, 1971) appeared along with reviews of the literature published by Doretha and Sheila Ross (1976). Special journal issues were devoted to the topic (Journal of Abnormal Psychology, 4, 1976; Journal of Pediatric Psychology, 3, 1978). Clearly, hyperactivity had become a subject of serious professional and scientific, as well as popular, attention. By the end of the 1970's the defining features of the hyperactive or hyperkinetic child syndrome had been broadened to include what were previously felt to be only associated characteristics, including impulsivity, short attention span, low frustration tolerance, distractibility, and aggression (Marwit & Stenner, 1972; Safer & Allen, 1976).

The increase in research on hyperactivity characteristic of the 1970's continued unabated into the 1980's, making hyperactivity the most well-studied childhood psychiatric disorder in existence (Barkley, 1990). This decade became notable for its emphasis on attempts to develop more specific diagnostic criteria; the differential conceptualization and diagnosis of hyperactivity from other psychiatric disorders; and, later in the decade, critical reviews on the notion that deficits in sustained attention

and impulsivity were the core behavioral deficits of ADHD. Marking the beginning of this decade was the publication of the DSM-III by the American Psychiatric Association (1980), and its reconceptualization of the disorder from the DSM-II category Hyperkinetic Reaction of Children to ADD. Attention and impulse control were now formally recognized as of greater significance in the diagnosis than hyperactivity. The shift to attention deficits rather than hyperactivity as the major difficulty of these children was useful because of the growing evidence that hyperactivity was not specific to this particular condition, but could be noted in other psychiatric disorders (anxiety, mania, autism, etc.) (Rutter, 1989). Even more controversial was the creation of subtypes of Attention Deficit Disorder, based on the presence or absence of hyperactivity. Little, if any, empirical research existed at the time these subtypes were formulated. Their creation initiated numerous research studies by the end of the decade into the validity and utility of this subtyping approach, along with a search for other useful ways of subtyping ADD (i.e. pervasiveness across situations, presence of aggression, stimulant drug response, etc.). Children with ADD but without hyperactivity were characterized as more daydreamy, hypoactive, and lethargic. Unfortunately, this research came too late to be considered in the subsequent revisions found in DSM-III-R in 1987. ADD without hyperactivity was no longer recognized as a subtype of ADD, but was relegated to

a minimally defined category called "Undifferentiated ADD".

In the 1990's, research states that professionals do not perceive the concerns of ADHD children and adolescents to be only the core symptoms of inattention, distractibility, and hyperactivity (Barkley, 1990). Children with ADHD have been shown to have a higher likelihood of having other medical, developmental, behavioral, emotional, social, and academic difficulties (DuPaul & Stoner, 1994). Students with attention disorders are reported to have significantly more school difficulties and are referred more often for special education evaluations (Guare & Dawson, 1995). In regard to emotional and behavioral functioning, research clearly shows significant rates of comorbidity with other disorders, including oppositional disorders (60%), conduct disorders (45%), anti-social delinquency (25%), depression (0-33%), and anxiety (0-33%) (Barkley, 1990). Significantly higher levels of depression and low self-esteem were found when ADHD adolescents when compared to non-disabled peers (Weiss & Hechtman, 1993). Higher rates of difficulties with interpersonal skills were found in studies by Goldstein et.al. (1980), Weiss & Hechtman (1993), and DuPaul (1995)

Assessment Techniques for ADHD: The Need for Parent Participation

Since there are no medical or psychological tests that can determine the presence or absence of ADHD, assessment relies on interviews, observations, and rating scales. The

first attempt to develop assessment for ADHD began in the early 1960's with the widespread adoption of parent and teacher rating scales. C. Keith Conners (1969) was the first to develop rating scales for the assessment of symptoms of hyperactivity which were designed to be used during trials of stimulant medication. Their use moved the practice of diagnosis and assessment of treatment effects from one of clinical impression alone to one in which at least some more objective measure of behavioral deviance was employed. These scales were later criticized for their confounding of hyperactivity with aggression. This called into question whether the finding of research that relied on these scales were the results of oppositional, defiant, and hostile (aggressive) features of the population or of their hyperactivity (Ullmann, Sleator, & Sprauge, 1985). Nevertheless, the widespread adoption of the Conners rating scales in this era marks a historical turning point toward the use of assessment methods that can be empirically tested and that can assist in determining developmental deviance.

The 1980's witnessed advances in the tools of assessment. The Child Behavior Checklist (CBCL; Achenbach & Edelbrock, 1983,1986) emerged as a more reliable, more rigorously developed, and better normed alternative to the Conners rating scales. It was widely adopted in research on child psychopathology, not just ADHD. Other rating scales more specific to ADHD were developed, such as the ADD-H Comprehensive Teacher Rating Scale (ACTeRS; Ullmann,

Sleator, & Spauge, 1984), the Home and School Situations Questionnaires (DuPaul, 1990), the Child Attention Profile (Barkley, 1988), and the ADHD Rating Scale (DuPaul, 1990).

An attempt to develop a test to identify ADHD was introduced by Michael Gordon (1983) who developed and commercially marketed a small, portable, computerized device that administered two tests believed to be sensitive to the deficits in ADHD. One was a continuous-performance test (CPT) measuring vigilance and impulsivity, and the other was a direct reinforcement of low rates (DRL) test assessing impulse control. This became the first commercially available objective assessment device for evaluating ADHD children. Although the DRL test showed some promise in early research (Gordon, 1979), it was subsequently shown to be insensitive to stimulant medication effects (Barkley, Fischer, Newby, & Breen, 1988) and was eventually de-emphasized as useful in diagnosis of ADHD. The CPT, by contrast, showed satisfactory discrimination of ADHD from normal groups and was sensitive to medication effects (Barkley, et al., 1988; Barkley, DuPaul, & McMurray, 1990). Although cautionary statement were made that more research evidence was needed to evaluate the utility of the instrument (Milich, Pelham, & Swanson, 1985) and that its false-negative rate (misses of legitimate ADHD children) might be greater than that desired in a diagnosis tool (Barkley et al., 1988), the device had found a wide clinical following by decade's end (Barkley, 1990).

Greater emphasis was also being given to developing direct behavioral observation measures of ADHD symptoms. These proved to be more objective and useful adjuncts to the heavy reliance on parent and teacher rating scales in the diagnostic process (Barkley, 1990). O'Leary (1984) developed classroom observation techniques with some promise for discriminating ADHD from normal children (Gittelman, 1988). Roberts (1979), drawing upon the earlier work of Routh and Schroeder (1976), refined a laboratory playroom observation procedure that was found to discriminate ADHD children not only from normal children, but also from aggressive or mixed aggressive-ADHD children.

In the 1990's, it is widely accepted that no single test, rating scale, or observation is sufficient to diagnose ADHD. The assessment and treatment of ADHD is a multi-method, multi-informant process (DuPaul & Stoner, 1994; Barkley, 1990). There is evidence to suggest that children labeled ADHD do not show symptoms of the disorder in several different contexts. First, up to 80% of them do not appear to be ADHD within the physician's office (Sleator & Ullmann, 1981). They also seem to behave normally in other unfamiliar settings where there is a one-on-one interaction with an adult (and this is especially true when the adult happens to be their father) (Barkley, 1990). Second, ADHD children appear to be indistinguishable form so-called normals when they are in classrooms or other learning environments where children can choose their own learning

activities and pace themselves through those experiences (Jacob, O'Leary, & Rosenblad, 1978). Third, ADHD children seem to perform quite normally when they are "paid" to do specific activities designed to assess attention (McGuinness, 1985). Finally, and perhaps most significant, children labeled ADHD behave and attend quite normally when they are involved in activities that "interest" them, that are "novel" in some way, or that involve high levels of "stimulation" (Zentall & Zentall, 1983; Barkley, 1995). Thus, the critical issue is that assessment must include a variety of techniques in a variety of settings, including the acquisition of information from parents.

Parent Perception of the Behavioral Problems of ADHD

Parents of children with ADHD will often describe primary concerns in terms such as "Doesn't seem to listen," "Fails to finish assigned tasks," "Daydreams," "Often loses things," "Can't concentrate," "Easily distracted," "Can't work independently of supervision," "Requires more redirection," "Shifts from one uncompleted activity to another," and "Confused or seems to be in a fog" (Barkley, DuPaul, & McMurray, 1990). For the preschool age "hyperactive" child, Schleifer, Weiss, Cohen, Elman, Cvejic, & Kruger (1975) reported that the major presenting complaint from parents was their child's "chronic, sustained overactivity." Barkley (1990) reports that parents of ADHD children will often describe the problems in such terms as

"Always up and on the go," "Acts as if driven by a motor," "Climbs excessively," "Can't sit still," "Talks excessively," "Often hums or makes odd noises," and "Squirmy." Stewart and his associates (Stewart, Pitts, Craig, & Dieruf, 1966; Stewart, Thach, & Freidin, 1970) found similar results when they completed studies using standardized interview techniques to obtain detailed information from mothers of 37 "hyperactive" elementary school children, ages 5 to 11 in order to identify problem areas.

Conflicts over daily routines and difficulties with aggression or behavioral immaturity in peer interaction are also often identified by parents of children with ADHD (Barkley, 1990). Brown and Pacini (1989) found that parents of ADHD boys viewed their boys as having delays in interpersonal relationships including less expressiveness and autonomy. Ackerman, Elardo, Dykman (1979) determined that parents of children with ADHD were more concerned about their child's interpersonal skills than academic achievement. Similarly, Hartsough and Lamber (1985) used standardized interviews and determined that parent's were more concerned with the conduct problems of their children than their children's academic difficulties.

Regarding parent's perceptions of the needs of their adolescent with ADHD, Mendelson, Johnson, and Stewart (1971) interviewed mothers of hyperactive adolescents ages 12-16 who had been diagnosed 2 to 5 years earlier. These mothers

reported less concerns with their adolescent's overactive, distractable, and impulsive behaviors than when their adolescents were in elementary school. The parents reported their current concerns were with disobedience and rebellious behaviors at home and at school along with continued serious academic difficulties. Weiss (1983) in a long-term outcome study, found similar results. In this study, parents reported less concerns with overactivity but continued concerns with distractibility, immaturity, poor school performance, and social maladjustment. Results also indicated that parents of adolescents with ADHD showed an increased concern with depressive symptomology in their children. Weiss and Hechtman (1986) suggested that while present, the primary ADHD symptoms are not the major concerns of parents of adolescents with ADHD. Instead, poor school work, social difficulties with peers, problems related to authority (especially at school), and low self-esteem were primary concerns at this developmental stage. Barkley (1990) also suggests that social conflict within the family is also often listed as an area of concern by parents of adolescents.

Parent Perceptions of Interventions for ADHD

Parents play an important role in evaluating the effectiveness of treatment options. To date, only one study has examined how parents of children with ADHD view different treatment options. Wolraich, Milich, Stumbo, and Schultz (1995) interviewed parent's of children with ADHD

and found that parents reported infrequent use or effectiveness of nonpharmacologic forms of therapy, such as behavior modification. In a related study, Spizer, Webster-Stratton, and Hollinsword (1991) used interviewing techniques to study parents' perceptions of interventions with child conduct problems and found that parents indicated that parent training programs were the most effective in meeting the needs of their child.

Professional's Perceptions of Interventions for ADHD

The development of intervention strategies to specifically treat ADHD began in the 1970's. At the time, there was the rapidly increasing use of stimulant medication with school-age hyperactive children. There was increase in research on the effects of stimulants on hyperactive children. Extensive studies were conducted by C. Keith Conners and Leon Eisenberg, as well as Robert Sprague, Virginia Douglas, and John Werry. Over 120 studies published from 1970-1976 (Barkley, 1977) created a trend that continued well into the next decade, making the stimulant medication treatment approach the most well studied therapy in child psychiatry (Ross & Ross, 1976).

Almost simultaneously, there came another growing belief that hyperactivity was due to environmental causes and that treatment should focus on environmental changes. A popular view was that an allergic or toxic reaction to food additives, such as dyes, preservatives, and alicylates

caused hyperactive behaviors (Feingold, 1975). It was claimed by Fiengold that over half of all hyperactive children had developed their difficulties because of their diet. The most effective treatment was said to be buying or making food for these children that did not contain the offending substances. So widespread became this view that legislation was introduced (1979), although not passed, in California requiring that all school cafeteria foods be prepared in such a way that these substances were absent from the diet. A sizeable number of research investigations were undertaken (see Conners, 1980, for a review), with the more rigorous finding little if any effect of these substances on children's behavior.

The emphasis on environmental causes, however, spread to other possible sources than diet. Block (1977) advanced the notion that technological development and more rapid cultural change were resulting in an increasing societal "tempo" causing increasing excitation or environmental stimulation. This was interacting with a predisposition of some children toward hyperactivity, making it manifest. Ross and Ross (1982) provided a critique of this theory and concluded that there was insufficient evidence in support of it. Instead, Ross and Ross proposed that cultural effects on hyperactivity had more to do with whether important institutions of enculturation are consistent or inconsistent in the demands made and standards set for child behavior and development. These cultural views will both determine the

threshold for deviance that will be tolerated in children. According to Ross and Ross (1982), consistent cultures will have fewer children diagnosed with hyperactivity because they minimize individual differences among children and provide clear and consistent expectations and consequences for behavior that conforms to the expected norms. Inconsistent cultures will have more children diagnosed as hyperactive because they maximize or stress individual differences and provide ambiguous expectations and consequences to children regarding appropriate conduct. This intriguing hypothesis remains unstudied at this time.

A different environmental view was advanced that poor child rearing leads to hyperactivity. Both psychoanalysts (Bettelheim, 1973) and behaviorists (Willis & Lovaas, 1977) promulgated this view; the former claimed that mothers intolerant of negative or hyperactive temperament in the infants react with excessively negative parental responses, giving rise to clinical levels of hyperactivity. Some support could be derived from prospective studies that found negative mother-child interactions in the preschool years to be associated with the continuation of hyperactivity into the late childhood (Campbell, 1987) and adolescent (Barkley, Fisher, et al. 1990). However, such correlational data do not prove that poor child rearing or negative parent-child interactions cause hyperactivity--only that they are often associated with its presence.

The growing emphasis in the 1970's on educational

intervention for behavior and learning disorder children was accompanied by a plethora of research on the use of behavior modification techniques in the management of disruptive classroom behavior, particularly as alternative to stimulant medication (O'Leary, Pelham, Rosenbaum, & Price, 1976). Although these studies demonstrated considerable efficacy of these techniques in the management of inattentive and hyperactive behavior, they were not found to achieve the same degree of behavioral improvement as the stimulants (Gittelman-Klein, Abikoff, Katz, Gloisten, & Kates, 1976). Nevertheless, there was a growing consensus that the stimulant drugs should not be used as a sole intervention, but should be combined with other interventions. Comparisons of single versus combined treatments were more common during the 1980's (Barkley, 1989), as was the use of more sophisticated experimental designs (Hinshaw, Henker, & Whalen, 1984).

The 1980's saw an emergence of a new approach to the treatment of ADHD; cognitive-behavior modification (Camp, 1980; Meichenbaum, 1988). Founded on the work of Russian neuropsychologists (Luria, 1966), North American cognitive-developmental psychologists (Flavell, 1970), and early cognitive-behavioral theorists (Meichenbaum, 1977), these approaches stressed the need to develop self-directed speech in impulsive children in order to guide their attention to immediate problems situations, to generate solutions to these problems, and to guide their behavior as the solutions

were performed. Self-evaluation, correction, and consequation at task completion were also viewed as important (Douglas, 1980). It was not until the later part of the decade that these initial claims of success with nonclinical populations of impulsive children were more fully tested in clinical populations of ADHD children. The results were only mildly supportive (Gittelman & Abikoff, 1989). Generally, they indicated some degree of improvement in impulsiveness on cognitive laboratory tasks, but this was insufficient to be detected by teachers or parents in school and home behaviors. However, many in the field continued to see some promise in these techniques (Barkley, 1989; Meichenbaum, 1988), particularly when implemented in natural environments by important caregivers (parents and teachers). Barkley (1990) postulates that cognitive-behavioral techniques many continue to play a useful role in the management of ADHD children, provided that they are taught to parents and teachers for use in the myriad day-to-day exchanges with the children, and combined with reinforcement methods.

Parent training programs also became popular in the 1980's. Barkley (1981) developed a specific set of steps for training parents of ADHD children in child behavior management skills. The components included counseling parents to conceptualize ADHD as a developmentally handicapping condition; implementing more powerful home token economies to reinforce behavior; using shaping

techniques to develop nondisruptive, independent play; and training parents in cognitive-behavioral skills to teach their children during daily management encounters, particularly those involving disruptive behavior in public places (Anastopoulos & Barkley, 1988).

Because of the demonstrated impact of parental and family dysfunction on the severity of child ADHD symptoms and the responsiveness of the parents to treatment for the children, clinicians began to pay closer attention to intervening in family systems rather than just in child management skills. Noteworthy among these attempts were programs by Charles Cunningham at McMaster University Medical Center. Authur Robin at Wayne State University and the Children's Hospital of Michigan, and Sharon Foster at West Virginia University also emphasized the need for work not only on family systems but also on problem solving and communication skills in working with parent-adolescent conflicts so common in families with ADHD teenagers.

A similar increase in more sophisticated approaches occurred in this era in relation to the classroom management of ADHD children (Pelham et al., 1980). These developments were based on earlier promising studies in the 1970's with contingency management methods in hyperactive children. Although these methods did not produce the degree of behavioral change seen with the stimulant medications (Gittelman-Klein, Abikoff, Pollack, Klein, & Katz, 1976), they were viewed as acceptable interventions that can be a

useful alternative for some students with ADHD.

The development of social skills training also became popular during this era. Stephen Hinshaw and his colleagues (Hinshaw et al., 1984) developed a program for training ADHD children in anger control techniques. The program demonstrated some initial short-term effectiveness in assisting these children to deal with the common deficits in social skills and emotional control.

Medication treatments for ADHD expanded in the 1980's to include the use of the tricyclic antidepressants, particularly for those ADHD children with characteristics that would contraindicate using a stimulant medication, such as a tic disorders, Tourette's syndrome, or anxiety and depression (Pliszka, 1987). The work of Joseph Biederman and his colleagues (Biederman, Baldessarini, Wright, Knee, Harmatz, & Goldblatt, 1989) on the safety and efficacy of the tricyclic medications encouraged the rapid adoption of these drugs by many practitioners, particularly at a time when the stimulants, such as Ritalin, were receiving such negative publicity in the popular media (Barkely, 1990).

In the 1990's the current prevailing view suggests that although behavioral interventions are widely prescribed for children with ADHD, the most common treatment remains stimulant medication (DuPaul & Barkley, 1990). When medication is compared to behavioral programs and parent training, "medication wins hands down" (Barkley, 1995). Some studies have suggested that medication alone is as

effective as medication in combination with other treatments (Barkley, 1995). However, additional research suggests that while short-term effects of medication are positive, long-term outcomes reveal discouraging results on social, vocational, and academic measures (Carlson & Bunner, 1993). The combination of medication and behavior modification strategies over the long-term is viewed as the optimal way to work with the many youngsters who have ADHD (Barkley, 1990, and Pelham, et al., 1993).

Regarding other interventions, there continues to be support for behavioral techniques such as rewards programs (McGuinnes, 1985) and contracting techniques (Hallowell & Ratey, 1994). Meichenbaum (1988) and Kendall and Wilcox (1980) continue to report cognitive-behavioral strategies to be highly successful with ADHD children. Goldstein and associates (1995) along with Walker and associates (1988) advocate for the direct instruction of social skills for ADHD children and adolescents. Hebdakk (1988) suggests that ADHD children need direct instruction on strategies to promote reflective problem solving. Barkley (1990 & 1995) advocates for parent training programs.

Parent Perception of Professionals

To date, there has been no study designed to examine how parents of children and adolescents with ADHD view the helpfulness of different professionals. Reviews of

literature for other behavioral and affective disorders also find no studies which assess parent perceptions of professionals.

Chapter 3

METHODOLOGY

Parental perceptions of the needs of children and adolescents with attention-deficit-hyperactivity disorder were identified to investigate selected aspects between concerns, interventions, and professionals. The focus of the data analysis was to identify parent concerns and their perceptions regarding the helpfulness of interventions and professionals with the purpose of directing attention to more useful and appropriate interventions.

Participants

Data was collected from 112 members who attended a meeting of the Wayne and Oakland Counties (Michigan) Chapter of ChADD (Children with Attention Deficit Disorder), a parent support group that serves the city of Detroit as well as the metropolitan suburbs. The membership of the organization includes over 450 parents.

Opinionnaire Description

A Parent Perception Opinionnaire was constructed to collect information regarding concerns and perceptions of parents of children and adolescents with ADHD (see Appendix

A) regarding (a) the needs of their children or adolescents with ADHD, (b) the helpfulness of remediations, and (c) the helpfulness of professionals.

Section 1 (items 1-7) of the opinionnaire provided for the collection of information pertaining to parent concerns regarding behavioral symptoms of Attention-Deficit-Hyperactivity-Disorder and Oppositional Defiant Disorder identified by Barkley and his associates (1990) to occur significantly more often in ADHD children than nondisabled children. Items 8-15 of Section 1 addressed the level of parental concern in problem areas of skill deficits and situational influences.

Section 2 (items 1-7) provided for the collection of perceptions regarding interventions used with ADHD children and adolescents. Parents identified interventions used and provided their perceptions of the helpfulness of the interventions. Items 8-11 of Section 2 asked parents to identify theoretical orientations used and their perceptions of the helpfulness of these orientations.

Section 3 (items 1-9) of the survey provided for the collection of information pertaining to parents' perceived helpfulness of the professionals who have worked with their children or adolescents with ADHD.

Field Testing

The preliminary Parent Perception Opinionnaire was field tested with 20 members of the Blue Water (Port Huron/St. Clair County Michigan) Chapter of ChADD (see

Appendix B for a sample of the opinionnaire). The opinionnaire was completed at two consecutive monthly meetings. Comparisions were made between the completed first and second opinionnaires for each participant. Twenty-five opinionnaires were completed at the first monthly meeting and twenty from the same individuals were in attendance at the next monthly meeting providing twenty sets of completed opinionnaires.

Test-retest, Kuder-Richardson formula 21 reliabilities were calculated on the dichotomous (yes/no) questions on Section 2. Reliability coefficients ranged from .98 to .99. Kuder-Richardson formula 21 reliabilities were also conducted on checked items on Section 3 (items 1-9) with reliability coefficients ranging from .98 to .99. Of the twenty parents surveyed, nineteen had identical checked responses on their pre and post opinionnaires.

Item format on Section 1 was changed. The preliminary Parent Perception Opinionnaire asked parents to rank behaviors, skills, and settings based on their current level of concern. The data generated was found not to be easily applied to data analysis so the format was changed from asking parents to rank items to asking parents to rate items on a three point scale. Similarly, item format on Section 3 was changed from a ranking format to a rating format. The last three questions on Section 3 were eliminated since they could not be applied easily to data analysis.

Procedure

Parents completed the revised opinionnaires at the beginning of a monthly ChADD meeting. One hundred and twenty-one members attended this meeting. The purpose of the study was explained to the parents in order to encourage participation. Directions for completing the opinionnaire were clearly identified on the instrument. One hundred and sixteen opinionnaires were collect. Four opinionnaires were not utilized since the parents indicated that their child had not been professionally diagnosed as having ADHD.

Data Analysis

Table 1 describes demographic information regarding the age and genders for the ADHD children and adolescents.

Table 1. Gender and Age of Respondent's Children

	Male	Female	Total
Primary Group (ages 8 and less)	29	8	37
Intermediate Group (ages 9-11)	34	9	44*
Secondary Group (ages 12-17)	20	10	31*

* two surveys did not include the gender of the child

Number and percent of responses were utilized to summarize and report data. Data was summarized according to ages 8 and less (primary), ages 9 through 11 (intermediate) and ages 12 through 17 (secondary). The primary and intermediate groups had ratios of more than three boys to one girl. The secondary group had a ratio of two boys to

one girl. The results were organized based on the three sections of the opinionnaire. Qualitative information from the open-ended comment section of the opinionnaire were provided.

Limitations

The most significant limitation was the fact that the sample consisted of only parents who were attending a parent support group meeting. As a result, the conclusions drawn from this study may not be generalized to all parents of children or adolescents with ADHD. Parents in this group may have a need for a support group due to dissatisfaction with current interventions. These parents may also be "more involved" than the typical parent. Furthermore, the results may be only representative of "local norms" and may be influenced by locally available interventions and perceptions of local professionals.

A second limitation was the fact that no effort was made to verify that the children and adolescents were actually diagnosed with ADHD. Furthermore, there was no assurance that the diagnosis had been made based on DSM-III-R criteria.

A third weakness was in the development of a new instrument. Even though a field testing was completed, parents in the study group suggested a few additional items that they felt should have been included on the opinionnaire (including diet therapy and biofeedback training).

Chapter 4

RESULTS AND DISCUSSION

Results

The focus of the data analysis was designed to idenify parental concerns, perceptions of interventions, and perceptions of professionals. In addition, age categories were developed to determine if differences existed between the primary, intermediate, and secondary groups. The purpose for identifying this information was to direct attention to developing more useful and appropriate interventions.

The results were summarized into sections following the format of the opinionnaire. Results from Section 1 of the opinionnaire were summarized by behaviors, skills, and settings to follow the same format as the opinionnaire. Information from Section 2 of the opinionnaire was summarized as parent perceptions regarding the helpfulness of interventions. Information from Section 3 of the opinionnaire was summarized as parent perceptions regarding the helpfulness of professionals.

Data were collected from 112 members of ChADD of Wayne and Oakland Counties (Michigan) at a monthly meeting. The

information obtained was tabulated according to primary (ages 8 and less, N=37, mean=6.8), intermediate (ages 9 through 11, N=44, mean=9.6) and secondary (ages 12 through 17, N=31, mean=13.4).

Parental Concern Level Regarding Behaviors

The first subsection of Section 1 of the opinionnaire examined parent concern regarding seven behavioral symptoms of ADHD. Symptoms of inattention included "pay attention", "follow directions", and "finish things". Symptoms of impulsivity included "think before speaks" and "wait turn". Hyperactive symptoms included "control fidgety behavior" and "remain seated". Parents rated behaviors based on their "current level of concern" on a three point scale where 1=Low and 3=High. Table 2 presents a summary of frequencies for high ratings regarding behavioral concerns for the total group.

Parents identified "pay attention" as the highest concern as evidenced by 65 of 111 parents (58.6%) rating the behavior as a high concern. The results indicated that highest levels of concern focused on behaviors of inattention (pay attention 58.6%, follow directions 55.4%, finish things 49.5%), then impulsivity (think before speaks 41.4%, wait turn 22.7%), and finally hyperactivity (control fidgety behavior 18.9%, remain seated 14.5%). Over 50% of respondents rated inattentive behaviors as a high concern compared to less than 10% of respondents rating inattention behaviors as a low concern (see Appendix D, Table 14 for a

complete listing of frequencies).

Table 2. Parental Rating of High Concern Behaviors for the Total Group (N=112)

	N	%	Total N
Pay Attention	65	58.6	111
Follow Directions	62	55.4	112
Finish Things	55	49.5	111
Think Before Speaks	46	41.4	111
Wait Turn	25	22.7	110
Control Fidgety Behavior	21	18.9	111
Remain Seated	16	14.5	111

A breakdown by primary, intermediate, and secondary age groups can be seen in Table 3.

In the three age groups, the behaviors associated with inattention were identified as highest concern. Parents of both secondary and intermediate children did not rate concerns with hyperactivity (control fidgety behaviors, remain seated) to be high. Approximately ten percent of these parents identified hyperactivity symptoms to be a high concern. Parents of primary aged children identifed more concern with hyperactive behaviors. "Control fidgety behaviors" was rated as a high concern by 35.1% of primary parents. Furthermore, 24.3% of primary parents rated "remain seated" as a high area of concern. Finally, respondents in the secondary and intermediate groups used the extreme scores of 1 and 3 more frequently than respondents in the primary group (see Appendix D, Table 15 for a complete listing of frequencies). This may indicate

that parents within the secondary and intermediate groups had stronger opinions, both positive and negative.

Table 3. Parental Rating of High Concern Behaviors by Primary, Intermediate, and Secondary Groups

	N	%	Total N
Primary Group (ages 8 and under)			
Follow Directions	22	59.5	37
Pay Attention	21	56.8	37
Finish Things	15	40.5	37
Think Before Speaks	13	35.1	37
Control Fidgety Behavior	13	35.1	37
Wait Turn	10	27.8	36
Remain Seated	9	24.3	37
Intermediate Group (ages 9-11)			
Pay Attention	25	56.8	44
Finish Things	24	54.5	44
Think Before Speaks	21	48.8	43
Follow Directions	21	47.7	44
Wait Turn	9	20.5	44
Control Fidgety Behaviors	5	11.4	44
Remain Seated	4	9.1	44
Secondary Group (ages 12-17)			
Pay Attention	19	63.3	30
Follow Directions	19	63.3	30
Finish Things	16	53.3	30
Think Before Speaks	12	38.7	31
Wait Turn	6	20.0	30
Remain Seated	3	10.3	29
Control Fidgety Behaviors	3	10.0	30

In regard to the purpose of this study (to direct attention to more useful and appropriate interventions), the results of this subsection indicated that parents want interventions to address concerns of inattention, then impulsivity, and finally hyperactivity. Interventions for

primary children will need to address concerns regarding hyperactivity more than interventions for intermediate and secondary children.

Parental Concern Level Regarding Skills

In another subsection of Section 1 of the opinionnaire, parents rated concerns regarding skills on the three point scale with 1=Low and 3=High. The frequencies for parental responses for high concern are presented in Table 4.

Table 4. Parental Rating of High Concern Skills for the Total Group (N=112)

	N	%	Total N
Develop Listening Skills	62	55.9	111
Develop Social Skills With Peers	53	47.3	112
Develop Organizational & Problem Solving Skills	48	42.9	112
Develop Skills at Expressing Feelings	42	37.5	112
Develop Social Skills With Adults	26	23.2	112

"Listening skills" was identified as a high area of concern by 62 of 111 respondents (55.9%). This was followed by developing social skills with peers (47.3% of respondents rated as high) and developing organizational and problem solving skills (42.9% of respondents rating as high). Developing social skills with adults was found to be the area of least concern with only 23.2% of respondents rating it as a high concern and 27.7% of respondents rating it as a low concern (see Appendix D, Table 16 for a complete listing

of frequencies). Parents were more concerned with their child developing social skills with peers than with adults. Parents also rated less concern with their child's ability to express feelings with only 37.5% of parents identifying this as a high area of concern. A breakdown by primary, intermediate, and secondary age groups is presented in Table 5.

Listening skills was identifed by parents as a high level of concern for the three age groups: primary 66.7% (N=24), intermediate 50.0% (N=22) and secondary 51.6% (N=16). Development of organizational and problems solving skills was a higher concern for the secondary group (54.8%) than the primary (35.1%) and intermediate (41.0%) groups. Development of social skills with adults was consistently, across groups, the area of least concern (ratings of low were: primary 16.2%, intermediate 34.1%, and secondary 32.3%) (see Appendix D, Table 17 for a complete listing of frequencies. Concern with the development of social skills with peers was consistently rated as a higher concern than development of social skills with adults. Expression of feelings was an area of more concern for the primary (43.2% rating as high) and the secondary (42.0% rating as high) groups than for the intermediate group (29.5% rating as high).

In regard to the purpose of directing attention to more useful and approprite interventions, the results of this subsection indicate that interventions at all age levels

should focus on listing skills. At the secondary level, additional focus should be given to developing

Table 5. Parental Rating of High Concern Skills Deficits by Primary, Intermediate, and Secondary Groups

	N	%	Total N
Primary Group (ages 8 and under)			
Develop Listening Skills	24	66.7	36
Develop Social Skills With Peers	18	48.6	37
Develop Skills at Expressing Feelings	16	43.2	37
Develop Organizational & Problem Solving Skills	13	35.1	37
Develop Social Skills With Adults	9	24.3	37
Intermediate Group (ages 9-11)			
Develop Listening Skills	22	50.0	44
Develop Social Skills With Peers	19	43.2	44
Develop Organizational & Problem Solving Skills	18	41.0	44
Develop Skills at Expressing Feelings	13	29.5	44
Develop Social Skills With Adults	8	18.2	44
Secondary Group (ages 12-17)			
Develop Organizational & Problem Solving Skills	17	54.8	31
Develop Listening Skills	16	51.6	31
Develop Social Skills With Peers	16	51.6	31
Develop Skills at Expressing Feelings	13	42.0	31
Develop Social Skills With Adults	9	29.0	31

organizational skills. In regard to social skills,

interventions at all levels should focus more on social skills with peers than social skills with adults. Finally, parents indicated that addresssing affective concerns is needed for interventions at the primary and secondary levels more than at the intermediate level.

Parental Concern Level Regarding Settings

In the final subsection of Section 1 of the opinionnaire, parents rated concerns regarding different settings including home, school, and community. Table 6 provides the results for the total group.

Table 6. Parental Rating of High Concern Settings for the Total Group (N=112)

	N	%	Total N
Controls Behavior at School	46	41.8	110
Controls Behavior When In the Community	43	39.1	110
Controls Behavior at Home	40	36.0	111

Parents identified highest concern with school, then community, and finally home. A further breakdown by primary, intermediate, and secondary age groupings is presented in Table 7.

The order school, community, and home was found to be consistent across the age groupings. Concerns with school was slightly higher at the secondary level.

Table 7. Parental Rating of High Concern Settings by Primary, Intermediate, and Secondary Groups

	N	%	Total N
Primary Group (ages 8 and under)			
Controls Behavior at School	15	41.7	36
Controls Behavior When In the Community	15	41.7	36
Controls Behavior at Home	14	37.8	37
Intermediate Group (ages 9-11)			
Controls Behavior at School	17	39.5	43
Controls Behavior When In the Community	16	37.2	43
Controls Behavior At Home	15	34.9	43
Secondary Group (ages 12-17)			
Controls Behavior at School	14	45.1	31
Controls Behavior When In the Community	12	38.7	31
Controls Behavior At Home	11	35.5	31

Parental Perceptions of Helpfulness Regarding Interventions

In Section 2 of the opinionnaire, parents identified which of eleven interventions they had utilized and their perceptions regarding the helpfulness of the interventions. In regard to frequently utilized interventions by the total group, current medication was the most frequently identified intervention with 80% of the 112 respondents indicating that their children were currently taking medication. This was followed by parent support groups (60%), individual

psychotherapy (50%), behavioral programs (47%), and parent training (46%). The least frequently identified interventions were group psychotherapy (15%) and social skills training (12%).

Table 8. Frequencies and Percentanges for Interventions Utilized by the Total Group (N=112)

	N	%
Current Medication	90	80
Parent Support Groups	67	60
Individual Psychotherapy	56	50
Parent Training	52	46
Behavior Programs	50	47
Special Education	42	38
Family Psychotherapy	31	28
Cognitive Behavior Modification	23	21
Group Psychotherapy	17	15
Social Skills Training	13	12
Past Medication	12	11

The data summarized in Table 9 reflect perceptions regarding the helpfulness of interventions for the total group. Parents were requested to rate interventions based on their perception of helpfulness on a three point scale where 1=Low and 3=High.

Medications, special education, and parent support groups were rated most helpful by the total group. Parents rated behavioral techniques (including behavioral programs, parent training, and social skills training) as less helpful than medication, parents support groups, and special education, but more helpful than cognitive techniques. Cognitive techniques (individual psychotherapy, family

psychotherapy and cognitive-behavior modification) were rated as least helpful (see Appendix D, Table 21 for a complete listing of frequencies).

Table 9. Parental Perception of High Helpfulness of Interventions for the Total Group (N=112)

	N	%	Total N
Current Medications	39	43.3	90
Special Education	17	40.5	42
Parent Support Groups	26	83.9	67
Behavioral Programs	12	24.0	50
Parent Training	11	21.1	52
Social Skills Training	2	15.4	13
Group Psychotherapy	2	11.8	17
Family Psychotherapy	3	9.7	31
Cognitive-Behavior Modification	2	8.6	23
Past Medication	1	8.3	12

Perceptions regarding helpfulness of interventions were found to be similar across the three age categories as displayed in Table 10.

Medication consistently received the greatest percentage of high responses across groups followed by parent support groups and special education. The percentage of high ratings for medication increased as age increased suggesting a more favorable evaluation of the helpfulness of medical intervention as the children get older. Only 2 respondents out of 55 whose children were receiving individual psychotherapy rated it as highly helpful. Similarly, only 2 out of 17 respondents whose children were in group treatment rated it as highly helpful.

Table 10. Parental Perception of High Helpfulness of Interventions for the Primary, Intermediate, and Secondary Groups

	N	%	Total N
Primary Group (ages 8 and under)			
Parent Support Groups	9	41.0	22
Special Education	4	40.0	10
Past Medication	1	33.3	3
Current Medications	10	32.2	31
Parent Training	4	21.1	19
Behavioral Programs	3	16.7	18
Individual Psychotherapy	1	5.6	17
Social Skills Training	0	0.0	8
Group Psychotherapy	0	0.0	6
Family Psychotherapy	0	0.0	8
Cognitive-Behavior Modification	0	0.0	9
Intermediate Group (ages 9-11)			
Current Medications	16	44.4	36
Parent Support Groups	10	40.0	25
Special Education	7	38.9	18
Behavioral Programs	6	28.6	21
Parent Training	4	20.0	20
Cognitive-Behavior Modification	2	20.0	10
Group Psychotherapy	1	20.0	5
Family Psychotherapy	2	15.4	13
Social Skills Training	1	14.2	7
Individual Psychotherapy	0	0.0	20
Past Medication	0	0.0	5
Secondary Group (ages 12-17)			
Current Medications	13	56.5	23
Special Education	6	42.9	14
Parent Support Groups	7	35.0	20
Behavioral Programs	3	27.3	11
Social Skills Training	1	25.0	4
Parent Training	3	23.1	13
Group Psychotherapy	1	16.7	6
Family Psychotherapy	1	10.0	10
Individual Psychotherapy	1	5.6	18
Cognitive-Behavior Modification	0	0.0	4
Past Medication	0	0.0	4

Parental Perceptions of Helpfulness Regarding Professionals

On Section 3 of the opinionnaire, parents identified which professionals they had utilized and their perceptions regarding the helpfulness of these professionals. Table 11 provides a listing of the frequencies and percentages of the professionals utilized.

Table 11. Frequencies and Percentages for Professionals Utilized by the Total Group (N=112)

	N	%
Physician	94	84
Regular Educators	88	79
Clinical Psychologists	59	53
Special Educators	48	43
Psychiatrists	47	42
School Psychologists	45	40
School Administrators	38	34
Parents	38	34
Social Workers	33	29

For the total group, physicians were the most frequently utilized professionals with 84% of respondents indicating that they had utilized a physician regarding their child's ADHD. This was followed by regular educators with 79% of respondents indicating that they had utilized regular educators in addressing the needs of their ADHD child. Fifty-three percent of respondents had used the services of clinical psychologists, fourty-three percent had used special educators, fourty-two percent had used psychiatrists, and fourty percent had used school psychologists. Less than 40% of respondents had utilized

the services of school administrators (34%), parents (34%), and social workers (29%).

Table 12 summarizes the total parental responses regarding high helpfulness of professionals.

Table 12. Parental Perceptions of High Helpfulness of Professionals for the Total Group (N=112)

	N	%	Total N
Clinical Psychologist	31	52.3	59
Special Educator	23	47.9	48
Parents	17	44.7	38
Psychiatrist	12	25.5	47
Social Worker	8	24.2	33
Regular Educator	26	29.5	88
School Psychologist	9	20.0	45
Physician	16	17.0	94
School Administrator	4	10.5	38

For the total group, clinical psychologists, special educators, and parents were rated as most helpful. Regular educators and psychiatrists were the next grouping of professionals when rated as highly helpful. Social workers were only rated by 24% of total respondents as highly helpful, school psychologists 20%, physicians 17%, and school administrators only 10%. A further breakdown by age categories can be seen in Table 13.

Results across the three age categories identify clinical psychologists to consistently receive the greatest percentage of high ratings. For all groups, over 50% of respondents who had used the services of clinical psychologists rated them to be highly helpful. Medical

Table 13. Parental Perception of High Helpfulness of Professionals for the Primary, Intermediate, and Secondary Groups

	N	%	Total N
Primary Group (ages 8 and under)			
Special Educator	7	63.6	11
Parents	7	53.8	13
Clinical Psychologist	11	50.0	22
Regular Educator	13	46.4	28
Psychiatrist	6	33.3	18
Social Worker	3	30.0	10
Physician	8	25.0	32
School Psychologist	3	23.1	13
School Administrator	0	0.0	6
Intermediate Group (ages 9-11)			
Clinical Psychologist	11	57.9	19
Special Educator	10	47.6	21
Parents	6	37.5	16
Regular Educator	12	32.4	35
School Psychologist	4	21.0	19
School Administrator	3	18.8	16
Psychiatrist	3	16.7	18
Social Worker	2	14.3	14
Physician	3	8.1	37
Secondary Group (ages 12-17)			
Clinical Psychologist	9	50.0	18
Parents	4	44.4	9
Special Educator	6	37.5	16
Social Worker	3	33.3	9
Psychiatrist	3	27.3	11
Physician	5	20.0	25
School Psychologist	2	15.4	13
School Administrator	1	14.3	7
Regular Educator	1	4.0	25

professionals (physicians and psychiatrists) were rated as moderately helpful (ratings of 2) for all groups (see Appendix D, Table 25 for a complete listing of all

frequencies). Forty-eight parents indicated that they had used other parents as resources. None of these parents rated the helpfulness of the other parents to be low. The helpfulness of regular and special educators had the most decline over time with 46.4% or primary parents rating regular educators as highly helpful to only 4.0% of secondary parents. Perceptions regarding the helpfulness of special educators also declined over time, although not as sharply (primary 67% as high, intermediate 48%, secondary 38%). Also, over 50% of secondary parents who had utilized school administrators rated their helpfulness as low compared to 0% for the primary group (see Appendix D, Table 25 for a complete listing of all frequencies).

Discussion

In the current study, parents consistently rated principal concerns to be symptoms of inattention (follow directions, pay attention, finish things), then distractibility (think before speaks, wait turn), and finally hyperactivity (control fidgety behavior, remain seated). Parental concerns with hyperactivity declined as the child became older. One possible explanation could be that medical interventions become more effective for controlling hyperactivity over time as suggested in research by DuPaul (1990) and Ritchters, Arnold, Jensen, & Abikoff (1995). Furthermore, research conducted by Weiss (1979) suggests that biological changes that occur during

adolescence may help to reduce hyperactive behaviors. An additional explanation may be that as children become older, they are exposed to school and community settings which require higher degrees of sustained attention (DuPaul, 1995). A final explanation could be drawn from the research suggesting that as ADHD children become older, their behaviors take on more characteristics of oppositional-defiant disorder and conduct disorder (Barkley, 1995), which may overshadow their hyperactivity.

With respect to parent perceptions of specific skills deficits, parents were consistently concerned with their child or adolescent developing good listening skills. Interventions, if they are to be responsive to perceived needs, must improve listening skills. Furthermore, parents perceived a greater need for their child or adolescent to develop social skills with peers than with adults at all three age levels. This supports recent trends in education to provide programming in areas such as peer social skills training (Gordon & Asher, 1994). A variety of programs have been developed to teach social skills training including Skillstreaming (Goldstien et al., 1980; and McGinnis, et al., 1984), Adolescent Curriculum For Communication And Effective Social Skills (Walker, et al., 1988), Coaching (Hallowell & Matey, 1994) and Invivo Performance Feedback (Sheriden, Dee, Morgan, McCormick & Walker, 1996). Research also suggests that peer problems of children with ADHD are due to the presence of externalizing behaviors, not the

absence of prosocial behaviors (Erhardt & Hinshaw, 1994). Furthermore, social rejection of ADHD children occurs after very brief encounters with peers such as during lunch time or at the end of the school day when unstructured play is more likely to occur. Sorensen and Commodore (1995) further suggest that social skills training should occur in natural settings such as school.

When analyzing parent perceptions in regard to specific settings, parents were more concerned about their child's behavior in school than in other settings. Parents perceive a need for interventions to involve a school component or be generalizable to the school setting. This is supported by research from DuPaul and Stoner (1994). There has been a growing number of statewide programs designed to develop school based programs for ADHD students. This study clearly indicates that parents perceive a need for school-based interventions. Furthermore, according to parents, school based programs should focus on teaching listening skills and social skills with peers.

Regarding interventions, parents identified medications, support groups, and special education as most helpful. They also indicated that they perceive behavioral techniques (behavior programs, parent training, and social skills training) to be more helpful than cognitive techniques (individual psychotherapy, group psychotherapy, family psychotherapy, and cognitive-behavior modification). This has implication for when interventions are being

developed, suggesting that parents want behavioral and educational strategies along with a support network. This is further supported by research in clinical settings (Barkley, 1990) giving support to behaviorally oriented treatment and parent support groups. In the current study parents indicated low levels of perceived helpfulness for cognitive-behavior modification even though these techniques have support in research (Meichenbaum, 1988; Kendall & Wilcox, 1980).

Parents from all three age groupings were consistent in their perceptions of different professionals. Clinical psychologists, special educators, and other parents were rated as the most helpful professionals. Thus, treatment programs should draw on the expertise of psychologists, special educators, and parents. Parents indicated concern regarding the helpfulness of regular educators, especially at the secondary level. This may be due to difficulties with implementing effective programs in regular education settings and the trend that by secondary school, many children with ADHD have been exposed to high amounts of school failure (Guare & Davison, 1995). Furthermore, the curriculum at the secondary level requires students to utilize more self-monitoring behaviors and organizational skills (DuPaul et al., 1994). The classroom environment at the elementary level provides more teacher control and may be more modifiable than at the secondary school level. When examining differences between the sections of the

opinionnaire, it was noted that medication was consistently rated to be the most helpful intervention, but psychiatrists' helpfulness was perceived to be only moderate and physicians' helpfulness was perceived to be low. Parents do not find medical professionals to be helpful outside of prescribing needed medications. The participating parents in this study also indicate a need for more than only medical intervention when treating ADHD. This perception is also reported in other research. Although short-term effects of stimulant medication are generally positive, long-term outcomes reveal discouraging results on social, vocational, and academic measures (Charles & Schain, 1981). Furthermore, DuPaul (1995) concluded "without question, the combination of medication and behavior modification strategies over the long-term is viewed as the optimal way to work with many youngsters who have this disorder (ADHD)."

This study indicates that medical professionals need to assure that parents are linked with other non-medical resources. Educators need to examine more closely how they are perceived by parents and how they can develop more effective parent-teacher partnerships. Also, educators must find ways to implement helpful interventions in regular education settings. Finally, school psychologists must re-examine their roles. With parents' overall perception of psychologists to be high, and parents' high perception of the need for school-based interventions, school

psychologists would be in a position to be helpful in addressing the needs of students with ADHD. Unfortunately, this does not appear to be the case as only 20% of respondents who had utilized school psychologists rated them as highly helpful. As one parent reported "the school psychologist only tested...we never saw him again". The National Association of School Psychologists has been advocating for an expanded role for school psychologists (see NASP position statement "Advocacy for Effective School Psychological Services for All Children," published in Communique (1993).

It was suggested in the introduction section that parents may perceive more concerns with less occurring behaviors (affective and social) than with the more frequently occurring core behaviors of inattention, impulsivity, and hyperactivity. This study finds that perceived concerns follow closely with the most frequently occurring behaviors. When comparing the results of this study with the behaviors Barkley and his associates (1990) reported to be the most frequently occurring behaviors, a correspondance exists with the most frequently occurring behaviors being perceived as the areas of most concern.

Finally, limited research in the area of ADHD suggests that as a child becomes older, concerns change from primary symptoms of ADHD to more affective (Guare & Dawson, 1995; and Weiss & Hechtman, 1993) and social skills concerns (Cunningham & Siegel, 1987; and DuPaul & Eckert, 1994).

This study identified that parents do not perceive this to be the case. This study indentified that while parents' perceptions regarding concerns over hyperactivity do decrease over time, the symptoms of inattention and distractibility are still rated as higher concerns than affective or social skills concerns. However, some children and adolescents with ADHD (Barkley, 1990 sites 30%) will develop affective concerns. The results of this study suggest that parents perceive that the behaviors of inattention and impulsiveness should be addressed first, possibly under the assumption that once these behaviors are brought under control, affective concerns may decrease. One parent made the following remark in the narrative section of the opinionnaire "I think that once we get his attention problems under control, he will do better, have more positive experiences, and feel better about himself."

Chapter 5

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

While professionals who work with children endorse a "family systems" approach, many clinicians and program designers serving children with behavior difficulties have ignored the need to assess parent perceptions. Professionals advocate the importance of parent involvement in the treatment of children and adolescents with behavioral problems, including ADHD. However, there is limited evidence that professionals have actually assessed and utilized parental attitudes before designing programs and interventions. Parents do provide unique and valuable input.

Within the literature, there is clinical, theoretical, and empirical support for assessing parental concerns and perceptions. Clinical support includes the simple fact that researchers and clinicians have been unable to design a specific intervention (or combination of interventions) that effectively addresses all the special needs of children and adolescents with ADHD. Theoretical support includes the growing shift since the 1970's away from only child-focused approaches to more family-focused approaches when

conceptualizing interventions. The literature on consultation also provides theoretical support for assessing parental perceptions, when one views parents as consultees. Finally, there is empirical support for "parent involvement" as outlined in Barkley's (1990) review of the literature. When parents are involved in treatment programs, outcomes are significantly more successful.

The Parent Perception Opinionnaire for Parents of Children and Adolescents with ADHD was used in this study to survey parent perceptions for the purpose of directing attention to more useful and appropriate interventions. The study addressed three questions:

1. What are the concerns parents have for their child or adolescent with ADHD?

2. What are perceptions of parents concerning ADHD interventions?

3. What are the perceptions parents have regarding the helpfulness of professionals in addressing the needs of their ADHD child or adolescent?

Summary

The results identified that the primary concerns of parents focused on inattention, then distractibility and hyperactivity. These concerns were consistent across the three age groups although parents of younger children reported a higher level of concern with hyperactivity than did parents of adolescents.

Parent perceptions of skill deficits were also consist

across the three age groups. Highest concern was with listening skills. With respect to social skills, parents were more concerned with interpersonal skills with peers than with adults. Affective concerns were consistently reported to be one of the lower concerns.

In regard to concerns within specific settings, parents were first concerned with behaviors in school, then community and home. Parents were more concerned with school behaviors at the primary and secondary level than at the intermediate level.

Medication, parent support groups, and special education were consistently rated as the most helpful interventions by all three age groups. Behavioral techniques were rated higher in helpfulness than cognitive or insight-oriented techniques. Parents perceived that interventions needed to be more family focused approach in the adolescent years (ie. family psychotherapy). Parents also perceived a strong need for school-based interventions to be developed at all levels, especially the secondary level.

In regard to perceptions of professionals, parents indicated that clinical psychologists utilizing behavioral principals were most helpful. Medical professionals were not perceived as being helpful outside of prescribing medications. The perception of their helpfulness declines as the child becomes older. Special educators were perceived across all ages as highly helpful. Parents rated

regular educators to be more helpful at the primary grades.

The results of this study also challenge how ADHD is diagnosed. The diagnosis of ADHD is linked with perceptions (Valentine, 1995). If this is the case, do the symptoms in the current Diagnosic and Statistical Manual of Mental Disorders-Fourth Edition (American Psychiatric Association, 1994) reflect the perceptions gathered in this study. The manual lists nine symptoms of inattention. The majority of the symptoms do focus on sustained attention and listening skills which parents perceive as high areas of concern. However, three of the symptoms are directly related to organizational skills which were only identified as a moderate concern of parents. Furthermore, of the entire listing of eighteen symptoms, only one has a link with a deficit in social skills (which had the second highest rating for skills deficits). The implied challenge is simple. If "diagnostic criteria" are to be established for "disorders", should not the identified symptoms reflect perceived concerns? If a set of behaviors are occuring, but are not perceived to be a concern, should the behaviors be considered a symptom of a disorder?

Conclusions

Three conclusions have been derived from this study.

1. Parents of primary, intermediate, and secondary aged children rated concerns similarly. Parents' highest concerns were associated with inattention followed by

impulsivity, and finally hyperactivity. Concern regarding hyperactivity is the only concern that declines as the child grows older. Parents want interventions to address concerns of inattention and impulsivity.

2. Parents are consistent in their perceptions regarding interventions. Parents indicate that interventions should be medical and behavioral in orientation and include the teaching of listening skills and social skills with peers. Furthermore, parents perceive a need for interventions to be applicable and generalizable to the school setting.

3. Clinical psychologists who utilize behavioral principals were identified as the most helpful professionals. Parent perception of the medical community role appears to be defined as only a source of medication. Parents (at least the parents in this study) want more than only medical interventions.

Recommendations

Recommendations derived from the results of the study can be addressed with respect to interventions and further research.

The results of this study indicate that if interventions are to be developed that are responsive to the perceived needs of parents, then interventions should include a medical and behaviorally oriented component. The focus should be on developing interventions to manage inattention and impulsivity, improve listening skills and

social skills with peers, and be generalizable to the school setting.

1. Interventions must be generalizable to the school setting. School-based intervention programs utilizing behavioral principals are a logical framework for addressing parent concerns. The idea of school-based programs for ADHD children and adolescents has been gaining support by such organizations as ChADD (see NASP, 1995), National Institute of Mental Health (1995), National Association of School Psychologists (1995), and American Psychological Association (see NASP, 1995). With the enactment of Section 504 of the American's with Disabilities Act of 1973, school districts must provide for the needs of ADHD students.

2. Parents want more than only medical interventions. The medical community needs to establish and develop increased networks with other professionals (especially clinical psychologists and special educators) to develop more comprehensive treatment programs.

3. School psychologists need to further expand their role and function. School psychologists, with their training and experience in both education and psychological principals, can be a valuable resource in developing school-based interventions.

4. Additional research, using expanded populations (ie. parents not in a support group and parents in multi-locations), is needed to provide additional information regarding larger populations. Further research should also

examine comparisions between parents of ADHD children and parents of nondisabled children. Comparisions also need to be examined between mother and father perceptions, parent education level, length of time the child has been diagnosed as ADHD, and number of interventions utilized.

5. Another recommendation for further consideration would be to utilize the Parent Perceptions Opinionnaire for Parents of Children and Adolescents with ADHD in clinical practice as a component of an indepth assessment. Used in connection with other sources of information, the identification of parent concerns and perceptions provides an additional means for gaining important information. Practioners and researchers must begin to realize the powerfulness of identifying parent concerns and perceptions. This opinionnaire provides important information that can be applied to the development of appropriate treatment interventions. This practice would also provide an opportunity for parents to feel engaged in the treatment plan. Comments on the narrative section of the opinionnaire encourage the use of such a technique for engaging parents. One parent commented "Thank you, this was the first time a professional asked me my opinion." Additionally, there was much discussion after the opinionnaires were collected regarding common concerns and perceptions. Modification to the opinionnaire may include the addition of diet therapy and biofeedback training to Section 2 and the addition of school counselor to Section 3.

6. Research is also needed on teacher perceptions and self-perceptions of the ADHD population. Development of appropriate teacher and self-report opinionnaires (or interview procedures) should be investigated in order to identify additional concerns and perceptions of the ADHD population.

7. Finally, the results of this study challenges professionals to examine how ADHD is diagnosed. Currently utilized rating scales such as the Conners Rating Scales, Child Behavior Checklists, and Attention Deficit Disorder Evaluation Scales ask parents to identify the frequency of targeted behaviors. While this provides important information that can be used as a baseline to measure response to treatment, the scales provide no information regarding perceptions or concerns associated with these behaviors. As previosly stated, if a set of behaviors are occurring, but are not perceived to be a concern, should the behaviors be considered a symptoms of a disorder? Parallel scales need to be developed for the existing scales. Current scales use descriptors such as "never," "sometimes," "often," and "frequently." By using the same items but changing the descriptors to terms such as "no concern," "little concern," "mild concern," and "high concern," the researcher and practionner are provided with an additional fund of valuable information. This study challenges researchers and practionners to examine not only behaviors, but also concerns and perceptions. The professional who

remain attentive to these factors, will have the most to provide for ADHD children and their families.

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APPENDIXES

APPENDIX A

Parent Percpetion Opinionnaire for Parents of Children and Adolescents with ADHD

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Parent Perception Opinionnaire
for Parents of Children and Adolescents with ADHD

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As a parent of a child or an adolescent with Attention-Deficit-Hyperactivity-Disorder, you are asked to report your opinions regarding: (a) the concerns you have for your child or adolescent, (b) intervention strategies used, and (c) individuals who assist or have assisted you or your child or adolescent.

Age of child or adolescent: _____
(please complete a separate form on each child/adolescent if more than one in a family)

Gender: Male Female

Has your child or adolescent been diagnosed by a professional

YES NO

	Please Check By Whom	Approximately When
_____	Physician	_____
_____	Psychiatrist	_____
_____	Psychologist	_____
_____	Social Worker	_____
_____	Other	_____
	please specify: _____	

IF AFTER COMPLETING this survey you would like to share any additional information, please feel free to use the space below.

_____

_____

_____

_____

_____

_____

_____

_____

Survey # _____

**********SECTION 1**********

This section is specifically designed to assess your opinions regarding the current concerns (what should be addressed) of your child or adolescent (even if currently receiving services).

DIRECTIONS: Please rate the items in each section based on your current level of concern.

	******Level of Concern******		
	Low		High
BEHAVIORS			
control fidgety behaviors.....	1	2	3
remain seated.....	1	2	3
wait turn.....	1	2	3
think before speaks.....	1	2	3
follow directions.....	1	2	3
pay attention.....	1	2	3
finish things.....	1	2	3
SKILLS			
develop listening skills.....	1	2	3
develop organizational and problem solving skills.....	1	2	3
develop skills at expressing feelings.....	1	2	3
develop social skills with adults.	1	2	3
develop social skills with peers..	1	2	3
SETTINGS			
control behaviors at home.....	1	2	3
control behaviors at school.....	1	2	3
control behavior when in the community.....	1	2	3

**********SECTION 2**********

This section is specifically designed to assess your opinions regarding different interventions.

DIRECTIONS:

1. Please check those interventions that have been used with your child or adolescent either in the past or present
2. Please indicate if the interventions are currently being used by circling "yes" or "no"
3. Please state approximately how long the strategies have been used. (Please state in half years, ie. 1/2, 1, 1 1/2, 2,..)
4. For each intervention checked in step 1, please rate the helpfulness of each intervention on the three point scale.

		*****Level of Helpfulness*****		
		Low		High
____1.	Current medication for ADHD how long_____ name of current medications:_____	1	2	3
____2.	Past medication for ADHD how long_____ name of past medications: _____	1	2	3
____3.	Parent Training in Child Management currently (Y) (N) how long:_____	1	2	3
____4.	Special Education Services currently (Y) (N) how long:_____ please specify by checking _____Learning Disabled _____Emotionally Impaired _____Section 504 Programming _____Other _____	1	2	3
____5.	Individual Psychotherapy currently (Y) (N) how long:_____	1	2	3
____6.	Group Psychotherapy currently (Y) (N) how long:_____	1	2	3

(section 2 continued on next page)

		*****Level of Helpfulness*****		
		Low		High
____7.	Family Therapy currently (Y) (N) how long:_____	1	2	3
____8.	Social Skills Training Program (learning to interact with others) currently (Y) (N) how long:_____	1	2	3
____9.	Behavioral Program (e.g. contracting, reward programs) currently (Y) (N) how long:_____	1	2	3
___10.	Cognitive-Behavior Modification Program (learning problem solving skills, Stop & Think) currently (Y) (N) how long:_____	1	2	3
___11.	Parent Support Associations currently (Y) (N) how long:_____	1	2	3

**********SECTION 3**********
This section is specifically designed to identify individuals who have worked with you or your child or adolescent with ADHD.

DIRECTIONS:
1. Please check those individuals that have assisted you or your child or adolescent either in the past or present.
2. Please indicate if the individual is currently being utilized by circling "yes" or "no"
3. Please state appropximately how long the strategies have been used (Please state in half years, ie. 1/2, 1, 1 1/2, 2,...)
4. For each individual checked in step 1, rate their helpfulness on the three point scale (Helpfullness should be based on your understanding of the role of each individual, not necessarily the personality of the individual.

		*****Level of Helpfulness*****		
		Low		High
_____1.	Physician(s) currently (Y) (N) how long_____	1	2	3
_____2.	Psychiatrist(s) currently (Y) (N) how long_____	1	2	3
_____3.	School Psychologist(s) currently (Y) (N) how long_____	1	2	3
_____4.	Clinical Psychologist(s) currently (Y) (N) how long_____	1	2	3
_____5.	Regular Educator(s) currently (Y) (N) how long_____	1	2	3
_____6.	Special Educator(s) currently (Y) (N) how long_____	1	2	3
_____7.	School Administrator(s) currently (Y) (N) how long_____	1	2	3
_____8.	Parents of Children with ADHD currently (Y) (N) how long_____	1	2	3
_____9.	Social Workers currently (Y) (N) how long_____	1	2	3

APPENDIX B

Parent Perception Opinionnaire for Parents of Children and Adolescents with ADHD

(opinionnaire used in field testing)

****

Parent Perception Opinionnaire
for Parents of Children and Adolescents with ADHD

****

As a parent of a child or an adolescent with Attention-Deficit-Hyperactivity-Disorder, you are asked to report your opinions regarding: (a) the needs of your child or adolescent, (b) intervention strategies used, and (c) individuals who assist or have assisted you or your child or adolescent.

Age of child or adolescent: _____
(please complete a separate form on each child/adolescent if more than one in a family)

Gender: Male Female

Has your child or adolescent been diagnosed by a professional (e.g. pediatrician, psychiatrist, psychologist, etc.) as having ADHD?

YES NO

If after completing this survey you would like to share any additional information, please feel free to use the space below.

_____

_____

_____

_____

_____

_____

_____

_____

_____

Survey # _____

**********SECTION 1**********

This section is designed to assess your opinions regarding the current needs (even if currently receiving services) of your child or adolescent.

DIRECTIONS: Please rank the items in each section based on: your current concerns ((#1 being the area of highest concern).

BEHAVIORS (please rank each item listed from 1-7; #1 being of highest concern)

control fidgety behaviors....._____

remain seated....._____

wait turn....._____

think before speaks....._____

follow directions....._____

pay attention....._____

finish things....._____

SKILLS (please rank each item listed from 1-5; #1 being of highest concern)

develop listening skills....._____

develop organizational and problem solving skills....._____

develop skills at expressing feelings....._____

develop social skills with adults._____

develop social skills with peers.._____

SETTINGS (please rank each item listed from 1-3; #1 being the highest concern)

control behaviors at home....._____

control behaviors at school....._____

control behavior when in the community....._____

**********SECTION 2**********

This section is specifically designed to assess your opinions regarding different interventions.

DIRECTIONS:

1. Please check those interventions that have been used with your child or adolescent.
2. Please indicate if the interventions are currently being used by circling "yes" or "no"
3. Please state approximately how long the strategies have been used. (Please state in half years, ie. 1/2, 1, 1 1/2, 2,..)
4. Please rate the helpfulness of each intervention on the three point scale.

		**********Helpfulness**********		
		Helpful	Somewhat Helpful	Not Helpful
____1.	Medication currently (Y) (N) how long	1	2	3
____2.	Parent Training in Child Management currently (Y) (N) how long:_____	1	2	3
____3.	Special Education Services currently (Y) (N) how long:_____ please specify by checking _____Learning Disabled _____Emotionally Impaired _____Section 504 Programming _____Other _____	1	2	3
____4.	Individual Psychotherapy currently (Y) (N) how long:_____	1	2	3
____5.	Group Psychotherapy currently (Y) (N) how long:_____	1	2	3
____6.	Family Therapy currently (Y) (N) how long:_____	1	2	3

(section 2 continued on next page)

		********Helpfulness********		
		Helpful	Somewhat Helpful	Not Helpful
____7.	Social Skills Training Program (learning to interact with others) currently (Y) (N) how long:_____	1	2	3
____8.	Behavioral Program (e.g. contracting, reward programs) currently (Y) (N) how long:_____	1	2	3
____9.	Cognitive-Behavior Modification Program (learning problem solving skills, Stop & Think) currently (Y) (N) how long:_____	1	2	3
____10.	Parent Support Associations currently (Y) (N) how long:_____	1	2	3

**********SECTION 3**********

This section is designed to identify individuals who have worked with you or your child or adolescent with ADHD.

DIRECTIONS: Please check those individuals that have assisted or are currently assisting you or your child or adolescent.

Assisted in the Past	Currently Assisting		Approximately How Long (in 1/2 years)
_____	_____	Pediatrician(s)	_____
_____	_____	Psychiatrist(s)	_____
_____	_____	School Psychologist(s)	_____
_____	_____	Clinical Psychologist(s)	_____
_____	_____	Regular Educator(s)	_____
_____	_____	Special Educator(s)	_____
_____	_____	School Administrator(s)	_____
_____	_____	Parents of Children With ADHD	_____
_____	_____	Social Workers	_____

DIRECTIONS: Please complete the following questions using the list of individuals above. List in rank order with #1 being the highest. Please list three individuals for each question.

1. Which individuals are most effective in accurately determining if a child has a significant attention deficit?

   1._____ 2._____ 3._____

2. Which individuals understand that children and adolescents with ADHD have special needs?

   1._____ 2._____ 3._____

3. Which individuals have been most beneficial to your child or adolescent?

   1._____ 2._____ 3._____

APPENDIX C

Responses Obtained on Narrative Section of Opinionnaire

Age 3

The psychiatrist provides medication only. School social worker has been the primary source of constructive ideas to help the child and family.

Age 5

My son saw a social worker for 7 months, 1 hour per week. After 2 months, he was put on meds by pediatrician who verified social worker testing for ADD. Medication has helped him to focus, but behavior is still unbearable often times. Presently, seeking a second opinion thru a neuro-developmental pediatrician/child psychologist. We hope to get at the root of his anger problem. Not convinced he is ADHD.

Pediatrician diagnosed in 2 to 5 minutes that he does have ADHD. We're getting a second opinion. I wish I could come to this meeting to figure out yes for sure or no for sure if he has ADHD. The doctor had stated in in 2 minutes of diagnoses that he was and that he would be a high school drop out, no doubt about it if he is not on medication.

Age 6

At age 3 he was seen by a clinical psychologist for behavior problems related to chronic bowel problems, only diagnosed with ADD May 9, 1992.

I also worked with a speech therapist at Beaumont Hospital who developed excellent strategies for my child.

Many regular educators are totally uninformed or misinformed about the behavior and special needs of ADHD children. Also, preschool caregivers should be provided information and training to better aide them in identifying ADD/ADHD at an early age so proper intervention can be sought by the parents.

Age 7

My child does real well on medication--there is a difference of night and day when he is on or off his medication.

In my experience, we've not been given enough help and advice but just started with a new person. Also got two opposite opinions, very confusing to hear two views from professionals that are opposite, ADD from one and emotional problems from another.

Diagnosed by a neurologist

None of the professionals we have used has helped with this problem, let alone diagnosis the problem. We have wasted time and money on the so called pro (note: opinionnaire was not used in the data analysis since child had not been diagnosed ADHD).

Thank you, this was the first time a professional asked my opinion.

Age 8

There is such a diverse and sometimes controversial difference with each segment of the professions that deal with ADHD, it is hard to form an opinion on them as a whole. You have doctors who disagree on the use of medication, one pediatrician will work with it, another won't even consider it. Some teachers will have an understanding of ADHD and others will deny the existence insisting it is an excuse for bad behavior.

Unless the "professionals" are well educated and up-to-date on ADHD, they are at best useless, and at worst harmful. Parents helping parents is critical! (his group therapy experience) was actually a negative; we've pulled him as of this week. The "group" was actually damaging. I want this (social skills training program) but can't seem to find a program, in school or our HMO. (Parent support associations) have saved my sanity. (Have used) several (pediatricians), mainly because of moves, but twice because the M.D. didn't know what they were taking about!

More classroom teachers need to be inserviced on ADHD and given support (regular by special education) on dealing with these children. A lack of knowledge and understanding is the biggest problem these children face in the general education classroom.

I have found it very difficult getting help from the school because of their lack of knowledge of ADHD-Pontiac Schools.

More professionals should be concerned and offer socialization skills training to parents in conjunction with medication therapy for the ADD and ADHD child.

I believe that if it wasn't for my own intervention and persistence to find someone to diagnose my child with ADHD, the school would have never discovered the root of the problem.

Age 9

I have been doing battle with the medical community for the past nine years. My son has varied problems-allergies, irritable bowel syndrome, depression, ADHD, etc. Because he performs extremely well in school, professionals discounted the problems of social interaction with peers and adults, intense anger, irritability, etc. Our home life is often a "living hell". Otherwise, we have a functional, loving marriage and family. We'd love to know what's happening to our son's body. We need concrete answers. Thank you!

The more that professionals know, the more help they will be. Thank you for helping to educate professionals about the needs of ADHD kids!!

I think that once we get his attention problems under control, he will do better, have more positive experiences, and feel better about himself.

To say that professionals have actually engaged me in assessing my child's needs and designing interventions is putting the cart before the horse. I have always found myself in the leadership role. Especially with school personnel. I have had to right their impulse to form quick assessments and utilize a limited, sometimes dated set of alternatives or ideas. But that is why groups like ChADD were formed.

My child was an "A" student who was having trouble to a divorce and the lack of maternal nurturing from birth. After re-entering his life to any normal extent, his mother had him evaluated by a child psychiatrist and place on Ritalin. His clinical psychologist had said that he was possibly ADHD and was trying to use behavioral techniques and to try and draw him out of his shell, a very withdrawn child who did not want to deal with the "real" world. His mother never involved him in any kind of group therapy an dropped his psychologist 7 months after starting him on Ritalin. He has had no treatment for ADHD by any specialist except for receiving prescriptions for the past 11 months.

The special needs of gifted ADHD students whose output may fall WNL but are functioning far below capacity must be addressed. Seems only anecdotal data is available, research needed please! Beaumont Center for Human Growth and Development (encourage active parent participation in assessing and designing interventions).

I've been trying to get additional support for my son for the past year. The school administrators have been very uncooperative. The classroom teacher gives a little additional support mainly because I am very involved.

My child is a resident at Hawthorn Center. I don't know what many of the interventions are that are being used due to poor communication from Hawthorn.

You feel alone until you meet another parent with an ADD child and find out there are others out there going thru the same exact frustrations. What a relief to be able to share and identify with another parent. Important to be in close communication with your child's teacher to access/evaluate progress, problems, and common concerns. His tutor identified the problems after 1 session where as his original teacher had no help for us expect to suggest tutoring.

I would like more information about successful adults with ADHD.

The last section was the most difficult to answer. I was hesitating between who has the most effect and who has been the most effective: they aren't always the same-unfortunately.

My child is extremely ADHD controlled with Ritalin, has I.Q. 135 and school had never heard of ADHD, luckily after 3 years of fighting, the state's parent advocacy group came to my aide. My child could not hold a pencil at age 8 and now one year later, he's at the top of the class. Too many educators are totally ignorant of ADHD and it results in abuse of ADHD children-its such a shame! My family finally found parents' advocacy programs who helped us get help. My son is also learning disabled, lack of short-term memory, his advocate is Children's Hospital in Detroit. Thank God they helped me and my son.

Age 10

Most teachers (special) and regular and school administrators don't seem to understand ADHD at all. They have listened to me, but they simply don't have the training. They have my child a great deal of his life, and they are in the position to have great influence on him and his learning.

I would like to see "all" of our regular educators informed regarding ADHD. It appears that many really don't know how to handle these children in the classroom.

Child has seizures and neurologist diagnosed ADD. He just began after months getting extra help in academics at school and will get POHI help next Fall. Need greater understanding of ADD special needs by regular classroom teachers and we (parents) need better strategies for dealing with and helping to grow.

I have asked a pediatrician for help and he ignored my questions.

Our son was just diagnosed ADD in March of this year. He seems to have outgrown the hyperactivity he exhibited as a baby/toddler/young school age. He could sit still in third grade (last year). He still has a lot of frustration, anger (temper outbursts), when at home. In school he takes Ritalin and it has helped a lot. He is emotionally immature compared to others his age.

Age 11

Can't answer all these questions (section 3) as this is all new to me.

My child is most difficult to manage at home because he is usually not taking medicine then. Per psychiatrists orders-she only uses it for school-Ritalin. I really need help with "home" management.

My child was diagnosed less than 2 months ago, and we have just moved here. We have attempted nothing other than modifying the amount of homework given and increasing the amount of help we as parents give with homework.

Age 12

I believe educators and school administrators need to be better informed of this problem. These professionals who aren't aware of the ADD condition are not prepared to (??) a child with this problem and assume the child is a bad child.

Grandparents are guardians since he was 5 years old. Father died 2 years ago of acute alcoholism. Mother remarried, sees him 1 day a week.

I got no support from my child's school. His teacher and the S.A.F.E. teacher both were adamant he did not have ADD. The LD specialist from a different school was the only one that admitted the possibility existed, and she had never met my son. I arranged for assessment of my son at Children's Institute of Detroit and the S.A.F.E. teacher informed me she attached a note to the school record when she sent them to C.I.D. that she did not feel he had any such disorder. She also informed me they would confirm my suspicions because that's what they were in the business for. Also, that they would just put him on drugs, because that is all that the medication really is.

Age 13

I had to educate (regular educators). We learned together (special educators).

I am a 55 year old male with a 30 year old son and a 13 year old daughter, we are all ADD.

We found the psychiatrist to be most beneficial, however, we could no longer afford him. He was $95.00 for 45 minute meeting.

In dealing with the school, I frequently feel like I'm intruding into their busy schedules and that my son's education is not as important to them as it should be. I often get the impression their main concern is that things run smoothly and the individual student is not important.

When it seems you are making progress in helping your child some set-backs occur. Where everyone isn't working together and you feel like your taking two steps forward and one back. The schools are very slow in helping and adopting changes.

Age 14

Taylor School District, West Junior High does not know how to deal with these children and they are the special education teachers.

My daughter was almost 14 years old before she was diagnosed. She is not hyperactive. She is very quiet. It is was not for her special education teacher, because she is also L.D., she would be still very confused and lost. The medication helps her focus on what is at hand. I also know now what I am dealing with. He father also is ADD.

There does not appear to be a clear understanding of the diverse and numerous day to day problems that children with ADD faces and this is true of school. The world in general as well as the educators and professionals. More education and clarification of the symptomatology seems to be crucial.

Age 16

We have suspected for some time that our 7 year old may have this disorder. Through educating myself, I have learned adults and adolescents also can have it. We believe my husband may have it, and my 16 year old has had problems which may point to ADD without hyperactivity. We cannot find affordable diagnosis. (note: opinionnaire was not used in the data analysis since child was not diagnosed as ADHD).

The school psychologist only tested, we never saw him again.

APPENDIX D

Supplemental Tables

Table 14. Reported Parental Level of Concern for Behaviors for the Total Group (N=112)

	Low (1)				High (3)		Total
	N	%	N	%	N	%	N
Control Fidgety Beh.	26	23.4	64	57.7	21	18.9	111
Remain Seated	27	24.5	67	61.0	16	14.5	110
Wait Turn	25	22.7	60	54.5	25	22.7	110
Think Before Speaks	11	9.9	54	48.6	46	41.4	111
Follow Directions	7	6.2	43	38.4	62	55.4	112
Pay Attention	4	3.6	42	37.8	65	58.6	111
Finish Things	6	5.4	50	45.0	55	49.5	111

Table 15. Reported Parent Level of Concern Regarding Behaviors by Primary, Intermediate, and Secondary Groups

	Perception of Problem Behaviors						
	Low (1)		(2)		High (3)		Total
	N	%	N	%	N	%	N
Primary Group (ages 8 and under)							
Control Fidgety Beh.	5	13.5	19	51.3	13	35.1	37
Remain Seated	6	16.2	22	59.4	9	24.3	37
Wait Turn	6	16.6	20	55.1	10	27.8	36
Think Before Speaks	4	10.8	20	54.1	13	35.1	37
Follow Directions	1	2.7	14	37.8	22	59.5	37
Pay Attention	1	2.7	15	40.5	21	56.8	37
Finish Things	2	5.4	20	54.1	15	40.5	37
Intermediate Group (ages 9-11)							
Control Fidgety Beh.	13	29.5	26	59.1	5	11.4	44
Remain Seated	9	20.5	31	70.5	4	9.1	44
Wait Turn	11	25.0	24	54.5	9	20.5	44
Think Before Speaks	6	14.0	16	37.2	21	48.8	43
Follow Directions	4	9.1	19	43.2	21	47.7	44
Pay Attention	3	6.8	16	36.4	25	56.8	44
Finish Things	4	9.1	16	36.4	24	54.5	44
Secondary Group (ages 12-17)							
Control Fidgety Beh.	8	26.7	19	63.3	3	10.0	30
Remain Seated	12	41.4	14	48.3	3	10.3	29
Wait Turn	8	26.7	16	53.3	6	20.0	30
Think Before Speaks	1	3.2	18	58.1	12	38.7	31
Follow Directions	2	6.5	10	32.3	19	61.3	30
Pay Attention	0	0.0	11	36.7	19	63.3	30
Finish Things	0	0.0	14	46.7	16	53.3	30

Table 16. Reported Parental Level of Concern Regarding Skills for the Total Group (N=112)

	Low (1)		(2)		High (3)		Total
	N	%	N	%	N	%	N
Develop Listening Skills	5	4.5	44	39.6	62	55.9	111
Develop Organizational & Problem Solving Skills	10	8.9	54	48.2	48	42.9	112
Develop Skills at Expressing Feelings	13	11.6	57	50.9	42	37.5	112
Develop Social Skills With Adults	31	27.7	55	49.1	26	23.2	112
Develop Social Skills With Peers	13	11.6	46	41.1	53	47.3	112

Table 17. Reported Level of Parental Concerns Regarding Skills Deficits by Primary, Intermediate, and Secondary Groups

	Perception of Skills Deficits						
	Low (1)		(2)		High (3)		Total
	N	%	N	%	N	%	N
Primary Group (ages 8 and under)							
Develop Listening Skills	1	2.8	11	30.1	24	66.7	36
Develop Organizational & Problem Solving Skills	2	5.4	22	59.4	13	35.1	37
Develop Skills at Expressing Feelings	3	8.1	18	48.6	16	43.2	37
Develop Social Skills With Adults	6	16.2	22	59.4	9	24.3	37
Develop Social Skills With Peers	3	8.1	16	43.2	18	48.6	37
Intermediate Group (ages 9-11)							
Develop Listening Skills	4	9.1	18	41.0	22	50.0	44
Develop Organizational & Problem Solving Skills	6	13.6	20	45.5	18	41.0	44
Develop Skills at Expressing Feelings	3	13.6	25	56.8	13	29.5	44
Develop Social Skills With Adults	15	34.1	21	47.7	8	18.2	44
Develop Social Skills With Peers	7	16.0	18	41.0	19	43.2	44
Secondary Group (ages 12-17)							
Develop Listening Skills	0	0.0	15	48.4	16	51.6	31
Develop Organizational & Problem Solving Skills	2	6.5	12	38.7	17	54.8	31
Develop Skills at Expressing Feelings	4	13.0	14	45.1	13	42.0	31
Develop Social Skills With Adults	10	32.3	12	38.7	9	29.0	31
Develop Social Skills With Peers	3	9.7	12	38.7	16	51.6	31

Table 18. Reported Parental Level of Concern Regarding Settings for the Total Group (N=112)

	Low (1) N	%	(2) N	%	High (3) N	%	Total N
Controls Behavior at Home	10	9.0	61	55.0	40	36.0	111
Controls Behavior at School	9	8.2	55	50.0	46	41.8	110
Controls Behavior When In the Community	16	14.5	51	46.4	43	39.1	110

Table 19. Parental Concern Level Regarding Settings by Primary, Intermediate, and Secondary Groups

	Perception of Specific Setting Concerns						
	Low (1) N	%	(2) N	%	High (3) N	%	Total N
Primary Group (ages 8 and under)							
Controls Behavior at Home	4	10.8	19	51.3	14	37.8	37
Controls Behavior at School	1	2.8	20	55.6	15	41.7	36
Controls Behavior When In the Community	3	8.3	18	50.0	15	41.7	36
Intermediate Group (ages 9-11)							
Controls Behavior at Home	5	11.6	23	53.5	15	34.9	43
Controls Behavior at School	6	14.0	20	46.5	17	39.5	43
Controls Behavior When In the Community	8	18.6	19	44.2	16	37.2	43
Secondary Group (ages 12-17)							
Controls Behavior at Home	1	3.2	19	61.3	11	35.5	31
Controls Behavior at School	2	6.5	15	48.4	14	45.1	31
Controls Behavior When In the Community	5	16.1	14	45.1	12	38.7	31

Table 20. Frequencies and Percentanges for Interventions Utilized by the Total Group (N=112)

	N	%
Current Medication	90	80
Parent Support Groups	67	60
Individual Psychotherapy	56	50
Parent Training	52	46
Behavior Programs	50	47
Special Education	42	38
Family Psychotherapy	31	28
Cognitive Behavior Modification	23	21
Group Psychotherapy	17	15
Social Skills Training	13	12
Past Medication	12	13

Table 21. Reported Parental Perception of Helpfulness Regarding Interventions for the Total Group (N=112)

	Perception of Helpfulness						
	Low (1)		(2)		High (3)		Total
	N	%	N	%	N	%	N
Current Medications	8	8.9	43	47.8	39	43.3	90
Past Medication	5	41.7	6	50.0	1	8.3	12
Parent Training	7	13.5	33	63.5	11	21.1	52
Special Education	8	19.0	17	40.5	17	40.5	42
Individual Psychother.	17	30.4	37	66.1	2	3.6	56
Group Psychotherapy	5	29.4	10	58.9	2	11.8	17
Family Psychotherapy	11	35.5	17	54.8	3	9.7	31
Social Skills Training	2	15.4	9	69.2	2	15.4	13
Behavioral Programs	7	14.0	31	62.0	12	24.0	50
Cognitive-Beh. Modif.	4	17.4	17	73.9	2	8.6	23
Parent Support Groups	4	6.0	37	55.2	26	38.9	67

Table 22. Reported Parental Perception of Helpfulness Regarding Interventions for the Primary, Intermediate, and Secondary Groups

	Perception of Interventions						
	Low (1)		(2)		High (3)		Total
	N	%	N	%	N	%	N
Primary Group (ages 8 and under)							
Current Medications	3	9.7	18	58.0	10	32.2	31
Past Medication	1	33.3	1	33.3	1	33.3	3
Parent Training	4	21.1	11	57.9	4	21.1	19
Special Education	2	20.0	4	40.0	4	40.0	10
Individual Psychother.	6	33.3	11	61.1	1	5.6	17
Group Psychotherapy	1	16.7	5	83.3	0	0.0	6
Family Psychotherapy	3	37.5	5	62.5	0	0.0	8
Social Skills Training	0	0.0	2	100.0	0	0.0	2
Behavioral Programs	3	26.7	12	66.7	3	16.7	18
Cognitive-Beh. Modif.	2	22.2	7	77.8	0	0.0	9
Parent Support Groups	2	9.1	11	50.0	9	41.0	22
Intermediate Group (ages 9-11)							
Current Medications	5	13.9	15	41.7	16	44.4	36
Past Medication	2	40.0	3	60.0	0	0.0	5
Parent Training	1	5.0	15	75.0	4	20.0	20
Special Education	3	16.7	8	44.4	7	38.9	18
Individual Psychother.	6	30.0	14	70.0	0	0.0	20
Group Psychotherapy	2	40.0	2	40.0	1	20.0	5
Family Psychotherapy	7	53.8	4	30.8	2	15.4	13
Social Skills Training	2	28.6	4	57.1	1	14.2	7
Behavioral Programs	2	9.5	13	61.9	6	28.6	21
Cognitive-Beh. Modif.	2	20.0	6	60.0	2	20.0	10
Parent Support Groups	0	0.0	15	60.0	10	40.0	25
Secondary Group (ages 12-17)							
Current Medications	0	0.0	10	43.5	13	56.5	23
Past Medication	2	50.0	2	50.0	0	0.0	4
Parent Training	2	15.4	8	61.5	3	23.1	13
Special Education	3	21.4	5	35.7	6	42.9	14
Individual Psychother.	5	27.8	12	66.7	1	5.6	18
Group Psychotherapy	2	33.3	3	50.0	1	16.7	6
Family Psychotherapy	1	10.0	8	80.0	1	10.0	10
Social Skills Training	0	0.0	3	75.0	1	25.0	4
Behavioral Programs	2	18.2	6	54.5	3	27.3	11
Cognitive-Beh. Modif.	0	0.0	4	100.0	0	0.0	4
Parent Support Groups	2	10.0	11	55.0	7	35.0	20

Table 23. Frequencies and Percentages for Professionals Utilized by the Total Group (N=112)

	N	%
Physician	94	84
Regular Educators	88	79
Clinical Psychologists	59	53
Special Educators	48	43
Psychiatrists	47	42
School Psychologists	45	40
School Administrators	38	34
Parents	38	34
Social Workers	33	29

Table 24. Reported Parental Perceptions Regarding Helpfulness of Professionals for the Total Group (N=112)

	Perception of Helpfulness						
	Low (1)		(2)		High (3)		Total
	N	%	N	%	N	%	N
Physician	12	12.8	66	70.2	16	17.0	94
Psychiatrist	2	4.3	33	70.2	12	25.5	47
School Psychologist	6	13.3	30	66.7	9	20.0	45
Clinical Psychologist	4	6.3	24	40.1	31	52.5	59
Regular Educator	12	12.6	50	57.8	26	29.5	88
Special Educator	5	10.4	20	41.7	23	47.9	48
School Administrator	7	18.4	27	71.1	4	10.5	38
Parents	0	0.0	21	55.3	17	44.7	38
Social Worker	5	15.2	20	60.6	8	24.2	33