The Relationship between Professional Training Experiences and School Psychologists' Work with Parents of Children with ADHD

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The Relationship between Professional Training Experiences and School Psychologists’
Work with Parents of Children with ADHD

by

Rebecca Sarlo

A thesis submitted in partial fulfillment
of the requirements for the degree of
Educational Specialist
Department of Psychological and Social Foundations
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Keywords: parent training, parent education, ADHD, training intensity, attitude

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Dedication

I would like to dedicate this thesis to my husband Adam who has been my biggest cheerleader throughout the arduous task of completing this process. His confidence in me never wavered, and he was always there to provide words of encouragement when I became discouraged. I would also like to thank my mother and father-in-law, Nancy and Allan, who have provided me with support and encouragement whenever they were asked and often even when they were not. I give many heartfelt thanks to my dad, Charles, whose strength and determination has been an inspiration to me and has helped me to refocus and reprioritize whenever I became disheartened. Finally, I would like to dedicate this thesis to my two wonderful children, Madelyn and Ashton, who have brought out the best in me and in life. They are a constant source of joy and energy and inspire me to become my best self.
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The purpose of this study was to examine the relationships between several school psychologist variables and overall engagement in parent training/education activities with the parents of children with ADHD. Specifically, school psychologists were surveyed regarding their general attitude toward parent-focused activities, role profiles, intensity of training, perception of barriers/facilitators, and frequency of engagement in parent training/education activities.

Participants included 163 school-based school psychologists in Florida who were members of FASP. Data were collected through the use of an Internet survey. Hypotheses were analyzed using correlations and a backward multiple regression analysis.

Results indicated that school psychologists in Florida were engaging in parent training/education activities on average approximately 1-2 times per semester. The data suggested that a school psychologist’s intensity of training in formal parent training, parent involvement, and behavior theory/management was most significantly related to his or her engagement in parent training/education activities. Demographic variables including degree level, experience level, recency of training, number of schools served,
primary employment setting, and caseload were not significantly related to engagement. Additionally, a school psychologist’s role profile was not significantly related to engagement in parent training/education activities. Data analysis revealed a moderate, positive, statistically significant correlation between general attitude and extent of engagement in parent training/education activities. Thus, the more positive a school psychologist’s general attitude was regarding parent-focused activities, the more likely he or she was to engage in parent training/education activities with the parents of children with ADHD. Perceived expertise in parent training/education activities was the only potential barrier that resulted in a statistically significant difference between those participants who perceived it as a barrier and those who did not. This indicates that those who perceived their level of training/expertise in parent training/education activities as a barrier to engagement were in fact less likely to engage in parent training/education activities.
Attention Deficit Hyperactivity Disorder

Attention-deficit Hyperactivity Disorder (ADHD) is one of the most often diagnosed childhood mental health disorders. The estimated occurrence rate of this disorder is between 1% and 12% of school-aged children in the United States (Wodrich, 1994). Chronic difficulties in the areas of inattention, impulsively, and hyperactivity are typical characteristics of children with ADHD. The disorder is also associated with deficits in the ability to follow rules and to work independently on one task for an extended period of time (Barkley, 1990; Barkley, 1997a; Barkley, 1998). Children with ADHD experience serious impairments in many domains, including academic achievement, relationships with parents, and relationships with peers. Impairments in these areas often are compounded by a high proportion of children with ADHD who have co-morbid Conduct Disorder or Oppositional Defiant Disorder (i.e., 30-50%) and demonstrate high levels of noncompliant and aggressive behavior. (Wodrich, 1994; Barkley, 1990; Pelham, Greiner, & Gnagy, 1997; Pelham, Wheeler & Chronis, 1998). Because of the chronic nature and prevalence of ADHD, research examining effective treatments should be a priority among mental health professionals.

Parenting Problems

Parents of children with ADHD often express a low level of confidence in their ability to affect their children’s problem behavior (Johnston & Freeman, 1997), and report increased parental stress levels, depression, and marital discord, as well as a
decreased tendency to seek out or implement effective interventions (Anastopoulos et al. 1993). Because of the tendency for ADHD symptomology to affect parent functioning, effective interventions should include a parental training component that teaches parents to better cope with and intervene in their child’s behavior.

Noncompliance

Noncompliance with demands is one of the major behavioral problems often associated with children with ADHD. In fact, noncompliance is so pervasive within this population of children that it accounts for the majority of mental health referrals (Rotto & Kratochwill 1994; Barkley 1997; Richman et al. 1994; Pelham et al. 1997). Noncompliant behavior is also the factor underlying the majority of negative interactions between parents and their children and is associated with high levels of family stress, family conflict, marital discord, and negative parent-child interactions (Patterson, 1992). Many of these negative interactions are initiated by a command given by the parent and then proceed in a relatively common response pattern between parent and child known as the coercive family process (1992). Over time, increased frustration on the part of both the parent and the child in response to these common patterns of interaction may lead to negative feelings toward one another, raised voices, and even aggression. Because particular response patterns to noncompliant behavior often reinforce the noncompliant behavior, underlie negative interactions within the family, and reduce parental functioning, it is necessary to target these response patterns during intervention.

School Adjustment

Behaviors that characterize ADHD have been found to be inconsistent with a child’s successful adaptation and performance in school. Children with ADHD often are
described by their teachers as excessively active, noncompliant, and disruptive. Along with these patterns of behavior, poor social skills development, failure to complete assignments, and frequent co-morbid aggressive behavior result in negative encounters between the child with ADHD and his or her teacher and peers (Barkley, 1998; Weiss & Hechtman, 1993). In response to these interactions, a child with ADHD may develop low self-esteem and depression related to school performance (Weiss & Hechtman, 1993).

Faraone et al. (1993) found children with ADHD to be much more likely than children without ADHD to experience school failure, to require tutoring, to require academic remediation, and to repeat a grade, regardless of their cognitive ability level. Thus, ADHD confers a serious risk for school failure despite individual competencies and abilities.

Common Intervention Methods for ADHD

Pharmacological interventions are by far the most widely employed strategy used to address problem behaviors of children with ADHD. This is conceivably because of the fact that stimulant medication has been shown to have large, beneficial effects on multiple domains of functioning and because it is the easiest and least expensive intervention available. Unfortunately, there is no evidence that stimulants have any real long-term effects on a child’s level of functioning. In fact, longitudinal research that followed subjects receiving stimulants for up to five years failed to provide any evidence that the use of the drugs improved the long-term prognosis for children with ADHD (Weiss & Hechtman, 1993), though caution is needed when interpreting these results due to questionable methodology. Perhaps one reason for the lack of long term gains,
especially in the area of noncompliance, is that pharmacological interventions fail to address problems associated with negative parent-child interactions, which play an integral part in maintaining noncompliant behavior (Patterson, 1997; Barkley, 1990; Barkley, 1997b; Pelham, Wheeler & Chronis, 1998).

*Rationale for Providing Parent Training in the Schools*

According to Florida statutes, educational institutions are responsible for educating the public, professionals, paraprofessionals, and parents concerning the causes of handicapping conditions, and normal and abnormal child development. Specifically, the statutes mandate parent education and counseling as well as parent support and training programs for handicapped and high risk children in order to “strengthen families and to enable families of high-risk children to better meet their needs” (p. 93). Though the statutes make clear which services are to be available to parents, it is not specified who within the educational institution will be responsible for the implementation of such services. One document that does assign responsibility for the involvement of parents in the treatment of their children is the Guidelines For The Provision of School Psychology Services (NASP, 2000), which was adopted on July 15, 2000. According to these guidelines, school psychologists are responsible for the delivery of parent education, training, and involvement programs for all families of children with disabilities or who are at risk for the development of academic and/or behavioral problems.

In general, parent-training interventions attempt to positively affect parent functioning and parent-child interactions, which, in turn, positively affect child behavior. More specifically, parent training programs are most often designed to help parents develop an understanding of the etiological issues and the possible causes of their child’s
behavior, to identify and manage family stress resulting from this behavior, to deal with noncompliance and teach compliance, and to increase the quality of parent-child interactions (Batsche & Knoff, 1994).

According to Teeter (1991), parent education and training programs are essential to the process of promoting successful social and academic outcomes for children with ADHD. School personnel should work closely with parents to keep them abreast to intervention strategies used at school that could be adapted and used at home as well. This continuity of intervention is extremely important. In fact, according to Batsche and Knoff (1994), "the greatest threats to successful intervention are not the differences...in the definition, assessment, or intervention areas, but in the failure of parents, educators, medical and mental health personnel to work together" (p. 90). A failure to provide an integrated intervention package including both home and school will result in poor academic and social progress for the child with ADHD (1994).

Effective parent-focused interventions for children with ADHD should focus on building positive parent-child relationships, teaching effective parenting skills, promoting fair and reasonable expectations, dealing with noncompliance, teaching appropriate social skills, developing effective parent-child communication, and teaching conflict resolution strategies (Teeter, 1991). In addition to these parent training activities, support groups may provide parents with essential outlets for sharing stressful experiences with other parents with similar problems. In addition, such settings may provide the school psychologist with an appropriate setting to teach stress reduction techniques, problem-solving strategies, and behavior management options.
According to Batsche and Knoff (1994), parent training should be considered a critical component of any comprehensive intervention package designed to address the needs of children with ADHD. Because parents are one of the few constant adult figures in their child’s life, they will be able to provide consistent and long-term intervention. Further, parents are their children’s first teachers and thus may be able to begin behavior training early in their child’s developmental process, increasing the likelihood for positive outcomes. Because of the high levels of parental frustration and stress resulting from the behavior of children with ADHD, most parents welcome assistance with the academic and behavioral needs of their children (Batsche & Knoff, 1994).

Parent Training/Education: models and issues

Pelham, Wheeler & Chronis (1998) divided behavioral parent training models into four main types including 1) clinical behavioral interventions, 2) direct contingency management interventions 3) intensive, packaged behavioral treatments, and 4) cognitive-behavioral interventions. These types of behavioral interventions were found to vary in effectiveness. Though all types of parent training programs except cognitive-behavioral interventions have demonstrated moderate to large effect sizes with regard to child and parent functioning, all have been plagued with low attendance and completion rates (Pelham, Wheeler, & Chronis, 1998). Parents, particularly low SES parents, may find it difficult or even impossible to complete programs which hold meetings at inopportune times, are held at inconvenient locations, and or fail to provide transportation and childcare. In addition, more conveniently located community-based programs may not be offered because they are perceived as being too expensive for community agencies to afford. However, school-based, systems-oriented parenting courses have been
found to be both cost-effective for schools and accessible for parents. Such community-based parenting programs have been found to yield greater maintenance of parental problem-solving skills as well as a greater reduction in child problem behaviors than an individual family clinic-based parent training program or a wait-list control group. School-based courses have proved to be more effective than traditional clinic-based parent training models in maximizing cost effectiveness, increasing accessibility and attendance, and producing greater improvements.

*Availability of School-Based Parent Training/education Programs*

Though behavioral parent training and behavioral classroom interventions are the only strategies recognized as meeting criteria for effective interventions set in 1995 by the American Psychological Association Task Force on Promotion and Dissemination of Psychological Procedures (Pelham, Wheeler & Chronis, 1998), interventions involving parents are usually not provided to handicapped children in the schools (Teeter, 1991).

*Overview of the Current Study*

Though the benefits of parent training programs for the families of children with ADHD are well documented, such programs often are not available to parents. Past research does not lend information as to why such programs are not being made available to parents. This research attempted to determine to what degree four variables (i.e., role profile, beliefs, training, and barriers/facilitators) are related to the parent training practices of school psychologists. These variables were selected based on an extensive review of the literature, which revealed variables that have been found to affect other types of service delivery practices. It was hypothesized that these variables (role profile, beliefs, training, and barriers/facilitators) influence not only the number and type of
interventions involving parents, but also the way in which those interventions are implemented. This study attempted to determine the occurrence of parent education and training programs in the schools and examine which of the above-described variables are related to the implementation of parent education and training programs. Specifically, the following research questions were examined:

1. To what extent are school psychologists in Florida currently engaging in parent training/education activities with parents of children with ADHD?
   a. Hypothesis: The current study will find that school psychologists in Florida engage in parent training/education practices less than one time per month.

2. What are the relationships between demographic variables (i.e., sex, degree level, number of schools served, employment setting, years of experience, and caseload) and the extent of engagement in parent training/education activities with parents of children with ADHD by school psychologists in Florida?
   a. Hypothesis: The current study will find no significant difference between male and female psychologists in level of engagement in parent training/education activities with the parents of children with ADHD.
   b. Hypothesis: The current study will find no significant difference between the engagement level of doctoral and nondoctoral level practitioners in parent training/education activities with the parents of children with ADHD.
   c. Hypothesis: The current study will find no differences between beginning level and more experienced psychologists in their level of engagement in
parent training/education activities with the parents of children with ADHD.

d. Hypothesis: The current study will find that elementary-based school psychologists will report more engagement in the training/education of parents of children with ADHD than school psychologists based in secondary schools.

e. Hypothesis: The current study will find significant differences between psychologists who serve different numbers of schools in their level of engagement in parent training/education with the parents of children with ADHD. Specifically, the current study will find that psychologists who serve a greater number of schools engage in parent training/education activities with the parents of children with ADHD at a significantly lower level than psychologists who serve less schools.

f. Hypothesis: The current study will find significant differences between psychologists with smaller and larger caseloads. Specifically, psychologists who report larger caseloads will engage less often in parent training/education activities with the parents of children with ADHD than psychologists who report smaller caseloads.

3. What is the relationship between intensity of training and the extent of engagement in parent training/education activities with parents of children with ADHD by school psychologists in Florida?

a. Hypothesis: School psychologists whose training in working with parents involved both practice and direct supervision will be more likely to
engage in parent training/education activities with the parents of children with ADHD than school psychologists whose training in this area consisted of less intensive training methods.

4. What is the relationship between school psychologists’ beliefs (i.e., general attitude) regarding the importance of parent training/education/involvement activities and the extent of engagement in parent training/education activities with parents of children with ADHD by school psychologists in Florida?
   a. Hypothesis: The more positive a school psychologist’s general attitude regarding parents of children with ADHD and their involvement in the intervention process the more likely he or she will engage in parent training/education activities with the parents of children with ADHD.

5. What is the relationship between school psychologist’s role profile (i.e., percent of time engaging in various activities) and the extent of engagement in parent training/education activities with parents of children with ADHD by school psychologists in Florida?
   a. Hypothesis: The more time a school psychologist spends engaging in assessment the less often he or she will engage in parent training/education activities with parents of children with ADHD.
   b. Hypothesis: The more time a school psychologist spends engaging in consultation the more often he or she will engage in parent training/education activities with parents of children with ADHD.
6. What is the relationship between the perception of common barriers/facilitators and the extent of engagement in parent training/education activities with parents of children with ADHD by school psychologists in Florida?

a. Hypothesis: School psychologists who perceive more barriers to their implementation of parent training/education activities with the parents of children with ADHD will be less likely to engage in such activities.

b. Hypothesis: The majority of school psychologists will report that the number of evaluations and reevaluations for special education is a barrier to their implementation of parent training/education activities with the parents of children with ADHD. Those who indicate this variable as a barrier will be significantly less likely to engage in parent training/education activities with the parents of children with ADHD than school psychologists who do not indicate this variable as a barrier.

c. Hypothesis: The majority of school psychologists will report that the amount of paperwork, including report writing, is a barrier to their engagement in parent training/education activities with the parents of children with ADHD. Those who indicate this variable as a barrier will be significantly less likely to engage in parent training/education activities with the parents of children with ADHD than school psychologists who do not indicate this variable as a barrier.

d. Hypothesis: The majority of school psychologists will report that their direct supervisor is not a barrier to their engagement in parent training/education activities with the parents of children with ADHD.
e. Hypothesis: The majority of school psychologists will report that their level of training and expertise in parent training/education is a barrier to their engagement in parent training/education activities with the parents of children with ADHD. Those who indicate this variable as a barrier will be significantly less likely to engage in parent training/education activities with the parents of children with ADHD than school psychologists who do not indicate this variable as a barrier.

7. Which of the factors or combination of factors above accounts for the most variance in the engagement of school psychologists in parent training/education activities with the parents of children with ADHD?

a. Hypothesis: A school psychologist’s role profile will account for the most variance in the engagement in parent training/education activities with the parents of children with ADHD.

b. Hypothesis: Demographic variables will account for the least variance in the engagement in parent training/education activities with the parents of children with ADHD.
Attention-Deficit Hyperactivity Disorder

Attention-Deficit/Hyperactivity Disorder (ADHD) is one of the most often diagnosed childhood mental health disorders, with an estimated occurrence rate of between 1% and 12% of school-aged children in the United States (Wodrich, 1994). Typically, children with ADHD are characterized as having chronic difficulties in the areas of inattention, impulsivity, and hyperactivity. In addition, research has indicated that the disorder also may be associated with deficits in the ability to follow rules and to work independently on one task for an extended period of time (Barkley, 1990; Barkley, 1997a; Barkley, 1998). Children with ADHD experience serious impairments in many domains, including academic achievement, relationships with parents, and relationships with peers. Impairments in these areas often are compounded by a high level of comorbidity with other disorders such as Conduct Disorder and Oppositional Defiant Disorder. Research has shown a comorbidity rate among these disorders ranging from 30% to 50% (Wodrich, 1994; Barkley, 1990; Pelham et al., 1997; Pelham, Wheeler & Chronis, 1998). Thus, children with ADHD not only show evidence of inattention, impulsivity, and hyperactivity, but many also demonstrate deviant behavior in areas such as noncompliance and aggression.

Unfortunately, as children with ADHD grow up, they often do not grow out of their tendency to display the symptoms of ADHD. This is especially true for children who do not experience effective intervention. Approximately 75% of children diagnosed
with ADHD will continue to have problems in school, at their jobs, with their family, and possibly with the legal system well into adulthood (Barkley, 1997b). As teenagers, children with ADHD are more prone to engage in risk-taking activities such as drug use, and almost 60% of them will fail at least one grade. As adults, as many as 50% of individuals with ADHD will still show evidence of the symptoms for the disorder. Adults with ADHD are more prone than adults without ADHD to engage in anti-social activities, have difficulty getting along with supervisors, and change jobs often (Barkley, 1990; Wodrich, 1994; Pelham, Greiner, & Gnaagy, 1997). Because of the chronic nature and prevalence of ADHD and because of the potential problems for individuals with the disorder and for society at large, research examining effective treatments should be a priority among mental health professionals.

Common Symptoms of ADHD

Common symptoms of ADHD include inattention, impulsivity, hyperactivity, deficient rule-governed behavior, and high variation in task performance. All of these symptoms may or may not be exhibited by each individual child with ADHD. In addition, those symptoms that are exhibited vary in severity from child to child. According to the DSM-IV-TR (American Psychiatric Association, 2002) symptoms associated with the disorder must be present before the age of seven and be sustained for at least a 6-month period. Research has shown that these requirements are seldom a problem for diagnosis, as the average age that symptoms first become evident has been found to be between 3 and 4 years of age. Many parents have reported recalling symptoms of ADHD being displayed by their children during infancy (Wodrich, 1994). Those children with ADHD who are not diagnosed during early childhood are most likely
detected during their first few years of school. During this time, school requirements such as sitting quietly or listening to directions often make the symptoms of the disorder evident to the classroom teacher.

One problem behavior that often becomes very apparent during a child’s early years in school is inattention to task. According to Barkley (1990), inattention is a multiple level construct that may include problems with alertness, arousal, selectivity, sustained attention, and distractibility. In general, inattention refers to errors in selecting which task to attend to or in remaining focused as long as necessary to perform a task (Wodrich, 1994). Teachers and parents may describe problems with inattention by saying that a child “never follows directions, requires constant redirection,” or “moves from one uncompleted task to another.” Though the way in which inattention is exhibited may vary from child to child, the pervasiveness of the problem across situations and its chronic nature are the distinguishing factors between children with ADHD and children without the disorder. Research has shown that children with ADHD display a marked inattention to task and a heightened level of distractibility compared to children without ADHD when engaging in activities that involve low levels of stimulation (Barkley, 1990; Wodrich, 1994). These activities may include listening to a teacher give directions, finishing a homework assignment, or complying with a multi-step command.

Although inattention will surely lead to problems for the child with ADHD, it is not typically the hallmark behavior that is used to diagnose the disorder. Instead, it is evidence of impulsivity within the child’s day-to-day behavior that is used to distinguish a child with ADHD from his or her nondisordered peers (Barkley, 1990). In general terms, impulsivity is defined as a problem an individual may encounter in controlling or
regulating his or her impulses (Wodrich, 1994). In more observable terms, impulsivity has been defined as a pattern of rapid, inaccurate responding to tasks (Brown & Quay, 1977). Examples of impulsivity may include responding to a question before the question has been asked completely, beginning an exercise before the teacher has completed giving instructions, taking chances or risks without fully considering the possible outcomes, and failing to wait for one’s turn while playing a board game with peers.

Impulsivity, perhaps more than any other symptom of ADHD, seems to be strongly linked to social difficulties, including problems getting along with peers, teachers, and parents. Difficulties may result as peers become annoyed with the child with ADHD’s inability to wait his or her turn or his or her inability to follow directions, resulting in a disruption of the entire activity. Peers may choose to not include the child with ADHD in activities as to not have to deal with the child’s impulsive behavior. The child with ADHD’s impulsive behavior and constant need for redirection also may frustrate parents and teachers. As a result, parents and teachers are more prone to respond negatively to the child by using raised voices and threats in an attempt to control the child’s behavior (Johnston & Freeman, 1997; Patterson, 1992; Barkley, 1990). At the same time, parents often express a low level of confidence that they can have any effect on the impulsive tendencies of their child with ADHD (Johnston & Freeman, 1997). This may result in increased parental stress levels, depression, and marital discord, as well as a decreased tendency to seek out or implement effective interventions (Anastopoulos, Shelton, DuPaul, & Guevremont, 1993). Because of the tendency for ADHD symptomology to affect parent functioning, effective interventions should include
a parental training component that teaches parents to better cope with and intervene in their child’s behavior.

The third primary characteristic of ADHD is hyperactivity, typically defined as excessive or inappropriate levels of physical activity. These activities may include excessive movement, sometimes referred to as fidgeting, or excessive verbalizing. Behaviors often are regarded as being without purpose or poorly directed (Barkley, 1990). For instance, a child may repeatedly leave his or her seat to sharpen a pencil which has already been sharpened, make unusual vocal noises during a time when he or she is supposed to be quiet, or play with an object which is not needed for the assigned task. As a result, teachers and parents may describe children with ADHD as “always getting into things,” “climbing the walls,” or “can never sit still.” Indeed, research has shown that children with ADHD are more prone to engage in excessive speech and commentary as well as higher levels of restlessness, over activity, or fidgety behavior than children without the disorder (Teicher, Glod, & Barber, 1996). At the same time, other research has concluded that it is not the level of hyperactivity that distinguishes a child with ADHD from his or her peers but the prevalence of the behavior across settings (Barkley, 1990). For instance, a non-disordered child may exhibit a high level of activity at home, where such behavior is tolerated, while exhibiting lower, more acceptable levels of activity while at school. An adjustment in activity level will probably not be observed in the child with ADHD, who will be more apt to exhibit the high level of activity even when his or her behavior results in punishment.

In addition to the above-mentioned symptoms of ADHD, Barkley (1990) included two other symptoms that deserve mention. First, he noted the distinct level of variability
on tasks displayed by children with ADHD. Children with ADHD tend to have greater variability in performance rates on homework, tests, and activities. Thus, they may be labeled by teachers or parents as being lazy or just plain defiant when they produce poor quality work because of the fact that they had demonstrated competence in the past. For example, a child with ADHD may receive a very high score on a vocabulary test and then later receive almost no credit for using the words incorrectly in a sentence. Because the teacher may perceive that the child is familiar with the word meanings, she or he may determine that the child was simply being lazy when completing the assignment of using the words in sentences.

Another symptom of ADHD outlined by Barkley (1990) is a deficit in rule-governed behavior, which essentially is difficulty in adhering to rules and instructions. Children with ADHD have a tendency toward noncompliance to parental and teacher commands and often fail to sustain a parent or teacher directed behavior when the parent or teacher is no longer present. Further, children with ADHD may have an exaggerated inability to regulate or inhibit behavior based on rules even when a parent or teacher remains present. Difficulty in this area is especially evident in situations where rules are verbally communicated to the child and in cases when the child is expected to read and or understand the rules independently (e.g., rules posted in a classroom, societal norms).

In recent years, Barkley (1997a) has constructed a new theory of ADHD which is centered on a child with ADHD’s inability to practice behavioral inhibition. Behavioral inhibition refers to three processes: (1) inhibiting responses which have previously been reinforced, (2) stopping an ongoing response to allow for enough time to make a conscious decision to respond, and (3) protecting self-directed responses against
interference from competing events (interference control). Because the child with ADHD cannot inhibit previously reinforced responses, he or she continuously acts to maximize immediate reinforcement and is unable to engage in self-regulation, which would allow him or her to maximize later positive outcomes. This is particularly evident when a response is immediately reinforced but leads to punishment later (e.g., eating a whole pizza because it tastes good eventually leads to a stomach ache) and in a child’s refusal to engage in an activity which is immediately aversive but leads to larger reinforcements at a later time (e.g., doing math homework which will eventually lead a good grade in math).

The inability of a child with ADHD to practice behavioral inhibition is related to his or her development of executive functions within the brain, which directly affects his or her ability to self-regulate behaviors. Executive functions include areas of working memory, internalization of speech, self-regulation of affect/motivation/arousal, and reconstitution. Working memory controls such behavior as holding events in mind, manipulating or acting upon events, hindsight, forethought and nonverbal rule-governed behavior. Problems in the area of working memory may contribute to a child’s inability to plan for the future or avoid responses that have previously been punished. For example, a child may become disillusioned with a project that is reinforced only at its completion (e.g., reading a book) instead of at each step of the process (e.g., receiving reinforcement after each completed page). Consequently, he or she may engage in more immediately reinforcing activities (e.g., throwing paper airplanes), even though these activities have been punished in the past. Internalization of speech allows for such behaviors as reflection, description, problem-solving, verbal rule-governed behavior,
reading comprehension, and moral reasoning. Self-regulation of affect, motivation, and arousal are behaviors that allow one to control his or her own emotions, continuation of task, and stimulation level in the event of a goal-directed action. Evidence of a child’s inability to regulate his or her affect may be recognized in his or her tantrum behaviors and or aggressive episodes. Reconstitution includes such activities as the analysis of behavior, verbal and behavioral fluency, and rule creativity. Problems associated with reconstitution may prohibit a child from analyzing and understanding behavior-consequence relationships, especially when consequences do not immediately follow the behavior. In addition, a child with ADHD may not be able to generalize or adjust rules within differing environments. For example, a child may be able to follow the rule to not run in the halls at school but be unable to generalize that rule to other situations in which running may be hazardous to him or her self or others (e.g., the local swimming pool, a parking lot).

A child with ADHD’s inability to perform executive functions adversely affects motor control, motor fluency, and motor syntax. Examples of these effects include a child’s inability to inhibit task-irrelevant responses, execute goal-directed responses, and or execute complex or novel motor sequences. In addition to these characteristics, the child with ADHD may be lacking in his or her sensitivity to response feedback, behavioral flexibility, and/or ability to control behavior with internally represented information (i.e., imagery, rules, and self-motivation) (Barkley, 1998). Thus, developmental problems in the executive system of the brain result in poor self-regulation of one’s own behavior. The inability of a child to self-regulate behavior often leads to difficulty in continuing a behavior when reinforcement is not immediately
available. Thus, children with ADHD function best when behaviors are not in need of self-regulation (such as behaviors which are immediately followed by reinforcement). Unfortunately, parents and teachers may interpret their child’s inability to control behavior with internally represented information such as goals or rules as inattention or outright defiance.

**Major Behavioral Problems Associated with ADHD**

_**Noncompliance.**_ One of the major behavioral problems that is often associated with children with ADHD is the tendency to behave in a noncompliant manner. In fact, noncompliance is so pervasive within this population of children that it accounts for the majority of mental health referrals (Rotto & Kratochwill 1994; Barkley 1997; Richman et al., 1994; Pelham et al., 1997). Barkley (1997b) divided the definition of noncompliance into three major categories, including a child’s failure to 1) begin behaviors within a reasonable amount of time (i.e. 15 seconds) following a command given by an adult, 2) sustain compliance until the requirements specified in the command are fulfilled, and 3) follow previously instructed rules of conduct in a situation. Specific examples for each of the above mentioned categories include defiant behavior or refusal to complete a task; failing to complete routine chores; and yelling, whining or tantruming when given a command. Noncompliant episodes also may include a child providing active verbal or physical resistance to adhering to a command (Barkley, 1997b). Thus, verbally aggressive outbursts, violent tantrums and/or physical aggression against the person giving the command would all be considered examples of noncompliant behavior.

Though some level of noncompliant behavior is considered normal for all children, children with ADHD often exhibit a much higher rate of noncompliance.
Barkley (1997b) outlined three criteria (at least two must be met) to consider when trying to determine if compliance is a significant enough issue for any individual child to justify intervention. First of all, the child’s behavior should be considered developmentally inappropriate or statistically deviant from what is considered normal for his or her peer group. For example, tantruming when given a command would not be considered abnormal for a 3 year old if it happened only sporadically. But, if the behavior occurred several times a day or continued to occur when a child was eight years old, one would probably consider this behavior to be deviant. Specifically, the child’s rate of noncompliant behavior should be rated as falling above at least the 84th percentile, or one standard deviation above the mean for his or her peer group in order to be considered a significant problem (Barkley, 1997b). The second criterion that should be met in order to justify clinical intervention for noncompliance is that the child’s behavior results in impairment in functioning within several domains. These domains include personal hygiene, relationships with parents, relationships with peers, and academic achievement. By examining these areas, one can attempt to determine if there is a discrepancy between a child’s cognitive abilities and his or her adaptive functioning. Specifically, for a child to meet this criterion, he or she should be rated at or below the 10th percentile for his or her same-aged peers. The third criterion to be considered is if the child’s behavior results in a significant level of emotional distress for him or her self, parents, teachers, or peers. Barkley (1997b) pointed out that level of distress for each of these groups could usually be assessed through the use of rating scales, observations, or interviews. He does not, unfortunately, define or describe what a “significant level” of emotional distress would
entail. Thus, this criterion must be based on a more subjective decision as to what level of distress one would consider significant enough to render intervention.

It is important to note that individual children with ADHD may or may not have a significant problem with noncompliance, and, for those who do, the significance of this problem can range from mild to severe. More than likely, a child with ADHD who falls within the severe category (level of noncompliant behavior above 93rd percentile) will qualify for a diagnosis of Oppositional Defiant Disorder in addition to the diagnosis of ADHD (Barkley, 1997b). In addition, the presence of high levels of noncompliant behavior not only indicates the likelihood of comorbidity with other more severe childhood disorders but also is associated with later development of adolescent or adult psychological problems (Webster-Stratton, 1993). As suggested by Barkley (1997), noncompliance is likely to occur across settings and is considered to be a precursor for more extreme or deviant behavior problems for the individual child with ADHD.

For the family of a child with ADHD, a high level of noncompliant behavior is often associated with high levels of family stress, family conflict, marital discord, and negative parent-child interactions. In fact, noncompliant behavior is the factor underlying the majority of negative interactions between parents and their children (Patterson, 1992). Many of these negative interactions are initiated by a command given by the parent and then proceed in a relatively common response pattern between parent and child. This response pattern was first identified by Patterson et. al. (1992) and was referred to as the coercive family process. The coercive family process usually proceeds in the following manner: 1) The parent gives command to engage in a task that is not considered enjoyable by the child (e.g., to clean room), 2) the child fails to comply either
by passive or active resistance to the task, and 3) the parent reissues the command and often threatens negative consequences if the child fails to comply. Typically, this pattern of responding usually repeats several times before the parent gives up and completes the demand his or her self or punishes the child, often severely. Such escalation of events have been known to lead to violent episodes between the parent and his or her child. Even when a child does comply on the first request, parents are not likely to reinforce the compliant behavior, thus failing to increase the likelihood that the child will be comply with demands in the future (Patterson, 1992; Richman et al. 1994; Barkley 1997b). These response patterns pose many problems for the likelihood of increased compliance or positive parent-child interaction. First of all, the child’s noncompliant behavior is being both negatively and positively reinforced by parental reactions. For instance, by refusing to engage in an activity that is considered aversive, the child is allowed to continue to engage in his or her current, more reinforcing activity (positive reinforcement) while effectively postponing or avoiding altogether the more aversive activity (negative reinforcement). Because threats of punishment and actual delivery of punishment are not tightly linked (i.e., threat of punishment does not lead directly to punishment), a threat posed by a parent is not likely to be very effective (Barkley, 1997). Because the noncompliant behavior is being reinforced by parental responses, current rates of noncompliance or even increased rates of noncompliance are likely to be demonstrated by the child. Perhaps even more important, because compliant behavior is not often reinforced by parents and is usually ignored, compliant behaviors will likely extinguish and be replaced with more reinforcing noncompliant behavior. Over time, increased frustration on the part of both the parent and the child in response to these
common patterns of interaction may lead to negative feelings toward one another, raised voices, and even aggression.

Noncompliant behavior can have a detrimental effect on family social ecology and a parents’ ability to adequately manage the family (Richman, Harrison, & Summers, 1995). Child noncompliance and parental inability to manage the family may affect each other in a circular fashion with one increasing the likelihood of the other. For instance, a calm parental demand followed by passive resistance from the child may eventually evolve into a parent yelling commands at his or her child followed by physical resistance from the child. High levels of frustration, which reportedly result from such interactions, further complicate relationships between parent and noncompliant child and may also negatively affect relationships between parent and noncompliant child and other members of the family (Barkley, 1997b; Anastopolous et al., 1993). Because particular response patterns to noncompliant behavior often reinforce the noncompliant behavior, underlie negative interactions within the family and reduce parental functioning, it is necessary to target these response patterns during intervention.

Aggression. Children with ADHD display a greater degree of difficulty with oppositional and conduct problems than children without the disorder, with approximately two-thirds of children with ADHD presenting with co-morbid externalizing problems. In fact, up to 60% of children with ADHD and 65% of adolescents with ADHD meet full diagnostic criteria for Oppositional Defiant Disorder. Further, between 30% and 50% of children with ADHD will eventually meet the criteria for the more serious diagnosis of Conduct Disorder (Barkley, 1990, Biederman, Faraone, & Lapey, 1992).
According to Barkley (1990), research has indicated that aggressive behavior in children with ADHD is closely related to four “marker variables,” including aggressive or permissive child management strategies, parental psychopathology, marital discord, and parental aggressive or antisocial behavior. The presence of these marker variables has been found to be more related to negative outcomes than the presence of aggressive child behaviors.

Reid, Patterson, and Gerald (2002) found that the way in which parents manage a child’s noncompliant behavior is a key factor in whether or not the child will display aggressive behavior. Parents of children who display aggressive and noncompliant behavior are more likely to manage their children’s behavior with either aggressive behavior or submissive behavior. Much like the coercive family pattern that often emerges in response to noncompliant behavior, an almost identical cycle is likely to occur following aggressive episodes. Specifically, a child with ADHD engages in defiant or aggressive behavior in order to escape aversive demands placed on him or her by his or her parent. If the child is allowed to escape from demands following the aggressive behavior, he or she is negatively reinforced and thus is more likely to engage in such behavior in the future. After hundreds of these types of child-parent interactions, aggressive behavior may become a permanent faction of the child’s behavioral repertoire (Barkley, 1990).

Aggressive behavior displayed by children with ADHD is also linked to the presence of parental psychopathology, particularly maternal depression. Depressed mothers have been found to be less tolerant and more critical of their children’s behavior and to have less positive interaction with their children (Barkley, 1990). Additionally, a
depressed mother’s response to her children’s behavior is often indiscriminant and not always contingent on the child’s immediately preceding behavior, which leads to inconsistent management of aggressive behavior (1990). Hops, Sherman, and Biglan (1990), hypothesized that children of depressed women may engage in higher levels of aggressive behavior aimed toward the mother because the aggressive act is often followed by a reduction in the mother’s dysphoric affect. Thus, a child with ADHD is negatively reinforced for his or her aggressive behavior by temporary improvements in his or her mother’s mood and subsequent parent-child interactions.

Maternal depression and marital discord are likely to exist simultaneously within a family (Barkley, Fischer, Edelbrook, & Smallish, 1991). As maternal depression becomes more extreme, marital discord is also likely to worsen and vice versa. Marital discord occurs more often in families with a child with ADHD than in families who do not have a child with ADHD. According to Hops et al. (1990), marital discord may alter parent perceptions and management of a child’s behavior. Management of child behavior often becomes inconsistent and noncontingent of behavior, leading to an increase in the defiant and aggressive behavior of the child. Research has found that when depressed mothers experience negative interactions with other adults in their lives, they are more likely to engage in aversive interactions with their children including unresponsiveness, inattention, intrusiveness, inept discipline, and negative perceptions of their children (Gelfand & Teti, 1990).

In addition to the above-described variables, paternal antisocial behavior and marital aggression, especially when witnessed by the child, have been found to be related to higher rates of child aggression (Hops et. al, 1990).
School failure. Behaviors which characterize ADHD have been found to be inconsistent with a child’s successful adaptation and performance in school. Children with ADHD often are described by their teachers as excessively active, noncompliant, and disruptive. Along with these patterns of behavior, poor social skills development, failure to complete assignments, and frequent co-morbid aggressive behavior result in negative encounters between the child and his or her teacher and peers (Barkley, 1998; Weiss & Hechtman, 1993). In response to these interactions, a child with ADHD may develop low self-esteem and depression related to school performance (Weiss et. al, 1993).

Further indication that children with ADHD experience school problems was found in research completed by Faraone et al. (1993). These researchers compared 140 boys with ADHD to a control group of 120 boys without ADHD and their 303 siblings. The researchers found the group with ADHD to be much more likely than the control group to have experienced school failure. More than half of the group with ADHD had required tutoring, and a third had been placed in special classes or had repeated a grade. The children with ADHD were also much more likely to have a learning disability. Though many of the children with ADHD obtained average or above average scores on the Wechsler Intelligence Scale for Children—Revised (WISC-R), they did poorly in school. Thus, ADHD confers a serious risk for school failure despite individual competencies and abilities.

Developmental Course of ADHD

Though issues with noncompliance, aggression, and school failure are common major issues for individuals with ADHD, symptoms associated with the disorder vary
according to a child’s age and development (Barkley, 1998; Teeter, 1991; Weiss & Hechtman, 1993). An understanding of these developmental changes is essential to the identification and subsequent treatment of children with ADHD. According to Batsche and Knoff (1994), biological maturation as well as the changing demands placed on a child by different settings (e.g., home, school, work) are primarily responsible for the changes in behavior. Changes in the relationships between the child and his or her caregivers (e.g., teacher and parent) may function to both exacerbate and highlight specific problem behaviors. For instance, over time, interactions between a child with ADHD and his or her caregiver tend to become increasingly negative, involving increased noncompliance and defiance by the child and increased stress and frustration on the part of the caregiver (Batsche & Knoff, 1994). These changes are noted whether or not the specified caregiver is a parent or a teacher, indicating that the behaviors of children with ADHD affect adults similarly in both school and home settings (Batsche & Knoff, 1994). Thus, similar skills and interventions are needed in both settings.

In infancy, children with ADHD are most often characterized as having difficult temperaments, feeding problems, and sleep disturbances and as being unresponsive to a caregiver’s attempt to soothe. These symptoms may make bonding between child and parent difficult and may most likely also result in increased stress and frustration for the caregiver (Weiss & Hechtman, 1993). By the time a child becomes a toddler, mothers of children with ADHD are more likely to feel negatively toward their child, interact less frequently and less affectionately (DuPaul, McGoey, Eckert, & VanBrakle, 2001), and be characterized as having higher stress and lower self-esteem than mothers of children without ADHD (Johnston, 1996).
According to Barkley (1998) and DuPaul et al. (2001), parental stress levels reach their peak by the time a child with ADHD reaches preschool (i.e., 3-6 years-old). Interactions between parents and child, particularly those between mother and child, often become increasingly negative at this time. Reports of problems at school and with peers act to further exacerbate a stressful home situation. Because children with ADHD are often excessively active, aggressive, noncompliant, and disruptive in school, and lack the social skills necessary to establish and maintain positive peer and teacher relationships, a child with ADHD may develop low self-esteem and depression related to school performance (Barkley, 1998; Weiss & Hechtman, 1993).

By adolescence, 50% of children diagnosed with ADHD in early or middle childhood will have experienced a significant decline in symptoms associated with the disorder (Wender, 2000). For those who do not experience such a decline, symptoms are often accompanied by co-morbid conduct problems and school failure. After the age of eight, 59% will qualify for a co-morbid diagnosis of Oppositional Defiant Disorder, 43% will qualify for a co-morbid diagnosis of Conduct Disorder, and 10% eventually will become school drop-outs (Barkley et al., 1990). In addition, adolescents with ADHD are more likely to fail a grade, be expelled from school, become involved with the juvenile justice system, and engage in high-risk behaviors such as drug and alcohol abuse (Barkley et al., 1990; Weiss & Hechtman, 1993; Wender, 2000).

Adults with ADHD often continue to experience problems. Barkley (1989) found that 75% of adults with ADHD showed signs of depression, between 23% and 45% had a juvenile record and adult antisocial disorders, and 27% were alcoholics.
Federal legislation. Children with ADHD may be eligible for educational services under the 1990 Individuals with Disabilities Act (IDEA) or - more likely - under Section 504 of the Vocational Rehabilitation Act of 1973. According to the United States Education Department, children with ADHD are eligible for special education services under the category Other Health Impaired if deficits in their ability to pay attention negatively affect academic performance (Davila, Williams, & MacDonald, 1991). Additionally, children with ADHD may qualify for special education services if they meet the criteria for another disability category such as learning disabled or severely emotionally disabled. Despite these provisions, less than 50% of all children diagnosed with ADHD are served in a special education setting because the majority of students with ADHD do not meet the criteria to qualify for services under IDEA. Both IDEA and Section 504 guarantee qualifying students a free and appropriate education, evaluation procedures, and procedural safeguards. Section 504, however, provides rights to students with disabilities that go beyond those outlined in the IDEA legislation, including providing services in a regular education setting to disabled students who may or may not have an Individual Educational Plan (NASDSE, 1991). Students with ADHD who do not qualify for services under IDEA may still be eligible for services under Section 504 (Reid & Katsiyannis, 1995). In fact, according to Reid and Katsiyannis (1995), a child who is referred for eligibility for services under IDEA due to impairment in educational functioning has already qualified for services under Section 504. Under Section 504, an individual qualifies for services if he or she (a) has a physical or mental impairment that substantially limits one or more life activities, (b) has a record or history of such an
impairment, or (c) is regarded as having such an impairment. Though a diagnosis of ADHD does not automatically entitle a student to educational services under Section 504, a child who exhibits symptomology consistent with ADHD or who has been formally diagnosed with ADHD should be evaluated for eligibility under Section 504. Failure to evaluate these students violates Section 504 regulations (Section 104.35a).

Evaluation procedures designed to determine a child’s need for educational services should include, according to Section 504, assessment materials which are valid for the intended use, demonstrate adequate adequacy, are administered by qualified and trained personnel, and which address the area(s) of educational need. In addition, information should be gathered by obtaining a child’s medical and developmental history and performing behavioral observations in the classroom (Reid & Katsiyannis, 1995).

Students who are found eligible for services under Section 504 are guaranteed a free and appropriate education which takes into account “the student’s individual needs and [that are] based on adherence to the regulatory requirements on educational setting, evaluation, placement, and procedural safeguards” (U.S. Department of Education, 1991, p. 118). If a student with ADHD has needs which require adjustments or accommodations to be made within the general education classroom, Section 504 mandates that these adjustments be made. According to Reid and Katsiyannis (1995), adaptations in the general education classroom may include but are not limited to “providing a structured learning environment, repeating and simplifying instructions, supplementing verbal instructions with visual instructions, using behavioral management techniques, adjusting class schedules, modifying test delivery, using tape recorders, or allowing computer-assisted instruction as well as use audiovisual equipment” (p. 48).
Accommodations within the general education classroom are not limited to addressing academic problems but also include addressing behavioral problems. A student who is consistently removed from his or her classroom or from participation in academic instruction because of behavior that results from his or her disability may be being denied equal opportunity to participate in and benefit from the classroom’s educational programs. A situation such as this would violate a student’s right to an appropriate education guaranteed under Section 504. Though Section 504 does not require a formal IEP, it does require written documentation that specifies placement and specific services provided.

According to Florida statutes (Florida Department of Education, 1999), educational institutions are responsible for educating the public, professionals, paraprofessionals, and parents concerning the causes of handicapping conditions, and normal and abnormal child development. Providing information and appropriate casework services regarding available services and programs to families of high-risk and handicapped children is also required. Specifically, the statutes mandate parent education and counseling, as well as, parent support and training programs for handicapped and high risk children in order to “strengthen families and to enable families of high-risk children to better meet their needs” (p. 93). Though the statutes make clear which services are to be available to parents, it is not specified who within the educational institution will be responsible for the implementation of such services.

One document that does assign responsibility for the involvement of parents in the treatment of their child is the Guidelines for the Provision of School Psychology
Services (NASP, 2000), which was adopted on July 15, 2000. The guidelines are as follows:

a. School psychologists design and implement and evaluate programs to promote school-family partnerships for the purpose of enhancing academic, and behavioral goals for students. These might include (but are not limited to) developing parent education programs, establishing drop-in centers for parents, establishing homework hotlines, or providing other support for parents to help them parent successfully and to help them enhance the academic and psychological development of their children.

b. School psychologists help parents feel comfortable participating in school functions or activities. These might include providing support for them when participating on special education and I.E.P. teams, encouraging parental involvement in school-wide committees such as school improvement teams, and facilitating home-school communication when problems arise and includes assisting parents in accessing community-based services for their family.

c. School psychologists educate the school community regarding the influence of family involvement on school achievement and advocate for parent involvement in school governance and policy development whenever feasible.

d. School psychologists help create linkages between schools, families, and community agencies, and help coordinate services when programming for children involves multiple agencies.
e. School psychologists are knowledgeable about local system of care and related community services available to support students and their families.

f. School psychologists work with parent organizations to promote public policy that empowers parents to be cognizant of the local system of services.

g. School psychologists are active participants in public policy by serving on committees, participating in work groups and task forces, and in responding to proposed legislation and rules.

Though the above outlined level of service and support to students and their families would benefit all students, this type of involvement between the school psychologist and parent is particularly important for children with behavioral problems.

*Intervention Design and Implementation*

Unfortunately, interventions involving parents are usually not provided to handicapped children in the schools (Teeter, 1991). However, according to Teeter (1991) such services are essential to the process of promoting successful social and academic outcomes for children with ADHD. In fact, according to Batsche and Knoff (1994), "the greatest threats to successful intervention are not the differences…in the definition, assessment, or intervention areas, but in the failure of parents, educators, medical and mental health personnel to work together" (p. 90).

A child with ADHD's level of development should be considered when developing interventions due to the fact that primary symptoms and environmental demands will most likely change with development (Teeter, 1991). According to Teeter (1991), intervention during a child's infancy or toddler years should focus primarily on building positive parent-child relationships. In order to accomplish this, Teeter (1991)
suggests increasing parental awareness of ADHD and helping parents develop "warm, responsive, flexible, and consistent parental interaction styles" (p. 275). Support groups may provide parents with essential outlets for sharing stressful experiences with other parents with similar problems. In addition, such settings may provide the school psychologist with an appropriate setting to teach stress reduction techniques, problem-solving strategies, and behavior management options.

For elementary aged children, intervention should focus on promoting effective parenting skills including limit-setting, developing and communicating fair and reasonable expectations, dealing with noncompliance, and teaching appropriate social skills (Teeter, 1991). In particular, social skills training, both at home and at school, should focus on teaching skills that will improve peer interactions, self control, and problem-solving skills. In addition to these skills, children with ADHD may require training in organization and study skills (Teeter, 1991). Behavior management and social skills training should be used in conjunction with these interventions in order to reduce problematic classroom behavior and promote consistency across settings. Linking home-based interventions to school based interventions will "minimize the effects of specific deficit areas while building adaptive academic and social behaviors" (Batsche & Knoff, 1994, p. 87). According to Batsche and Knoff (1994), a failure to provide an integrated intervention package including both home and school will result in poor academic and social progress for the child with ADHD.

Adolescents with ADHD may require services that were not deemed as being as important during their elementary years. These services may include providing information and problem-solving skills involving dating, sexual behavior, and drug and
alcohol use. Parent training which focuses on developing effective parent-child communication and conflict resolution strategies may prove to be essential to any intervention package (Teeter, 1991). Interventions focusing on academic competency and responsibility also may continue to be necessary.

According to Batsche and Knoff (1994), a multi-modal intervention package should be implemented jointly and preventatively at home and at school in order to ensure the best outcomes for children with ADHD. This type of multi-modal approach to intervention should include in most cases medication, parent training, behavioral and social skills training in school, and academic strategies (Whalen, 1991). This type of multi-modal approach should be continued until a child’s symptoms no longer significantly interfere with his or her academic, social, or vocational functioning (Batsche & Knoff, 1994).

Pharmacological interventions are by far the most widely employed strategy used to address problem behaviors of children with ADHD. This is conceivably because of the fact that stimulant medication has been shown to have large beneficial effects on multiple domains of functioning and because it is the easiest and least expensive intervention available. Unfortunately, there is no evidence that stimulants have any real long-term effects on a child’s level of functioning. In fact, longitudinal research that followed subjects receiving stimulants for up to five years failed to provide any evidence that the use of the drugs improved the long-term prognosis for children with ADHD (Weiss & Hechtman, 1993), though caution is needed when interpreting these results due to questionable methodology. Further, only between 70% and 80% of children with ADHD have even a short-term response to stimulants (Swanson, McBurnett, Christian &
Others show either an adverse response or no response at all. For children who do respond to stimulants, their behavior may improve in the short-term, though this improvement still leaves them well below their peers in level of functioning (Pelham, Wheeler & Chronis, 1998). Perhaps one reason for the lack of long term gains, especially in the area of noncompliance, is that pharmacological interventions fail to address problems associated with negative parent-child interactions, which play an integral part in maintaining noncompliant behavior (Patterson, 1997; Barkley, 1990; Barkley, 1997b; Pelham, Wheeler & Chronis, 1998). Thus, previously reinforced patterns of behavior are likely to continue despite the introduction of a psychostimulant. When stimulant medication is paired with behavioral interventions and parent training, however, positive effects are enhanced (e.g., improved attention to task, reduction in noncompliant behavior).

According to NASP Practice Guideline 4.7, school psychologists should “assist parents and other caregivers in the development, implementation, and evaluation of behavior change programs in the home in order to facilitate the learning and behavioral growth of their child.” The guidelines also state that school psychologists should “develop and implement effective interventions that are based upon the data collected and related directly to the desired outcomes of those interventions” (1.3). The only strategies recognized as meeting criteria for effective interventions set in 1995 by the American Psychological Association Task Force on Promotion and Dissemination of Psychological Procedures were behavioral parent training and behavioral classroom interventions (Pelham, Wheeler & Chronis, 1998). According to Batsche and Knoff (1994), parent training should be considered a critical component of any comprehensive
intervention package designed to address the needs of children with ADHD. Because parents are one of the few constant adult figures in their child’s life, they will be able to provide consistent and long-term intervention. Further, parents are their children’s first teachers and thus may be able to begin behavior training early in their child’s developmental process, increasing the likelihood for positive outcomes. Because of the high levels of parental frustration and stress resulting from the behavior of children with ADHD, most parents welcome assistance with the academic and behavioral needs of their children (Batsche & Knoff, 1994).

In general, parent-training interventions attempt to positively affect parent functioning and parent-child interactions that, in turn, positively affect child behavior. More specifically, parent training programs are most often designed to help parents develop an understanding of the etiological issues and the possible causes of their child’s behavior, to identify and manage family stress resulting from this behavior, to deal with noncompliance and teach compliance, and to increase the quality of parent-child interactions (Batsche & Knoff, 1994).

Types of Parent Training Models

Pelham, Wheeler and Chronis (1998) divided behavioral parent training models into four main types including 1) clinic-based parent training programs, 2) direct contingency management interventions 3) intensive, packaged behavioral treatments, and 4) cognitive-behavioral interventions. These types of behavioral interventions were found to vary in effectiveness.

Clinic-based parent-training programs. Most parent training interventions have been conducted in a clinic setting and thus are described as clinic-based behavior
therapy. They are among the most widely recognized methods of parent training and include parent-training models designed by Barkley (1990; 1997), Patterson (1992) and Forehand and McMahon (1981). Newby, Fisher, and Roman (1991) summarized these programs and noted that all three models share common characteristics including assigned homework for parents, a series of at least 5 weekly meetings, instruction in appropriate delivery of reinforcement (token economies, contingent attention, and attending to play) and instruction in the delivery of appropriate punishment procedures (time-out, ignoring and response-cost procedures). Differences between the models include differing training formats. For example, Barkley’s model can be used with either single family or group administration, while Patterson’s model is designed to be used with a single family, and Forehand’s model is meant to be applied with a parent-child dyad. The models also differ in the formality of the reinforcement used. For instance, Barkley’s model and Patterson’s model call for a more structured and formal token economy or point system to be used while Forehand’s model relies upon less formal social reinforcement. Additionally, one aspect that is unique to Barkley’s model of parent training is a parent counseling component. Despite these differences, in pre-versus post-treatment ratings of noncompliant behavior all three programs have been found to be effective in improving levels of compliance in children with ADHD (Cunningham, Bremner, & Boyle, 1995; Patterson, 1982; Newby et al., 1991). Further, improvements in behavior have been shown to generalize across settings including improvements both at home and at school (Pelham, Wheeler & Chronis, 1998). In addition to these gains, research by Anastopoulous, Shelton, DuPaul and Guenvremont (1993), which employed Barkley’s model of parent training, concluded that parent
training can have significant effects on several areas of parental psychosocial functioning. These areas included reduced parental stress and improved parental self-esteem and confidence in parenting abilities. Thus, clinic-based parent training models have been shown to be associated with higher levels of both child and parent functioning. It is important to note, however, that though effect sizes have been found to range from moderate to large, they are generally inferior to effect sizes found for psychostimulants alone (Pelham, Wheeler & Chronis, 1998). In addition, clinic-based parent training models are typically plagued with high drop out rates (i.e., 30% to 50%), especially among families whose children demonstrate aggressive behavior and low SES families (1998).

Contingency management parent-training. Parent training models which fall within the direct contingency management type of intervention differ from clinic-based parent training models in several ways. First of all, in addition to techniques used in clinic-based models, direct contingency management approaches tend to include more intensive interventions such as advanced training in command delivery and post-training sessions. More important in distinguishing between clinic-based intervention type and direct contingency management type is the setting in which each type takes place. While clinic-based parent training models usually take place in a clinic or some other neutral meeting place, direct contingency management models are implemented directly in the setting of interest by a paraprofessional, consulting professional, or expert teacher rather than by the parent. In vivo direct instruction in which the parent is allowed to practice learned techniques within natural settings while receiving feedback from the therapist is often an integral part of these models (Richman et al., 1994). Generally, models utilizing
the direct contingency management techniques produce effect sizes that are larger than clinic-based models. These effect sizes, however, are typically smaller than the short-term effects of pharmacological interventions (Pelham, Wheeler & Chronis, 1998). In addition, because direct contingency management models typically work with one family at a time, participation in the programs are expensive and inaccessible to families from low SES backgrounds.

Psychosocial treatment parent training packages. It is perhaps dissatisfaction with treatment outcomes from clinic-based and direct competency management parent training techniques that led to the development of more intensive, psychosocial treatment packages. An example of such a program is The Children’s Summer Treatment Program (STP), developed by Pelham in 1980. Recognizing that the most effective approaches to treating ADHD involve combining medication, behavioral interventions, parent training, and development of peer relationship skills, Pelham et al. (1980) attempted to develop a treatment program which addressed all domains and could be implemented in more natural settings than is possible with clinic-based programs. Standardized components of his program include a systematic reward/response cost program, positive reinforcement, appropriate and standard commands, time out procedures, sports skills training, group problem solving discussions and daily report cards. In addition, extra care is taken to tailor individual children’s programs to their own behavioral and academic difficulties using such techniques as individual behavior contracts, tutoring, and individualized computer-assisted instruction.

Paired with the above-mentioned child-centered intervention is an extensive parent-training component. In order to promote generalization to home settings, parents
receive weekly training on how to implement behavior modification programs at home. Parent training occurs in groups with parent grouping depending on their child’s assigned group during the day. In general, the techniques that parents learn are the same techniques that are used during the day at the STP. Slight modifications are made to the techniques in order to make them more easily implemented. During parent weekly meetings, childcare is provided for the target child and the target child’s siblings. This is done to promote parents’ attendance at the meetings. Parental involvement and attendance in the parent training sessions has been found to be almost 100% (Pelham et al. 1997). It is perhaps because of this component that the STP has been found to produce positive changes in children’s behavior regardless of child or family characteristics that are typically associated with poor outcomes in other parent training models, including child aggression and low socioeconomic status. In addition, the treatment dropout rate for the STP is significantly lower (3% drop out) than outpatient treatment studies, where 20% to 50% drop out (Pelham et al., 1997).

Another program, the Community Parent Education (COPE) program, developed by Cunningham, Bremner, and Boyle (1995) involved a school-based, systems-oriented parenting course. The COPE program was found to be both cost-effective for schools and accessible for parents. Included in the course were several safeguards that protected against common problems in traditional programs. For instance, cost effectiveness for schools was increased by replacing individual family sessions with large group sessions. Consequently, the COPE program was found to be at least 6 times more cost effective than clinic-based programs. In order to improve accessibility and attendance among parents, courses were offered both during the day and in the evening. Parents were given
the option of attending eight basic sessions or continuing on for eight more sessions, which included advanced information. Childcare was provided during all scheduled times. Having their children on-site during training sessions allowed parents to rehearse the application of newly developed skills during brief activities with their children. These skills included prompting and reinforcing their child’s compliant, planning, and self-regulatory efforts. To reduce resistance from parents, a less didactic approach to skill acquisition was used including coping, modeling, and problem-solving techniques. Therapists also employed a systematic approach to address ecological influences that could affect a child’s behavior (i.e., family, peer group, school). Long-term retention of the skills acquired through the COPE program was promoted by supplying parents with information regarding other available community resources, by encouraging parents to find supportive personal contacts, and by providing monthly booster sessions. At a 6-month follow-up, Cunningham, Bremner, and Secord-Gilbert (1997) found that the COPE program yielded greater maintenance of parental problem-solving skills as well as a greater reduction in child problem behaviors than an individual family clinic-based parent training program or a wait-list control group. All in all, this large-group, school-based course proved to be more effective than traditional parent training models in maximizing cost effectiveness, increasing accessibility and attendance, and producing greater improvements.

Availability of Parent Training Interventions

Although research has recognized the importance of family life in children’s academic achievement, psychological services provided by school psychologists and other school professionals have not typically included parents in the behavior change
process. This is possibly because traditional parent training models are not viewed by school officials as being very cost-effective in terms of actual monetary cost of the programs and or time required by the school psychologist for implementation (Kramer, 1990). Even when parent training programs are available, they are often plagued with problems including high dropout rates, incomplete tasks, and resistant parental behavior. These problems are especially evident when parents come from low socioeconomic backgrounds, are single parents, or suffer from depression (Cunningham, Bremner, & Secord-Gilbert, 1993). Thus, it is pertinent to the design of an effective school-based parent-training model that developers consider what is both cost-effective for schools and increases accessibility for parents.

Research indicates that community-based parent training courses reduce the likelihood of high parental dropout rates and resistance to treatment. Cunningham et. al. (1997) found that parents from low-socioeconomic backgrounds, parents who used English as a second language, and or parents of children with severe problems were more likely to enroll in and complete community-based programs which were held in their neighborhood schools than in clinic-based parent training programs. Further, parental depression and family dysfunction were less predictive of poor treatment outcomes for parents who completed community-based parent training courses than for those who were enrolled in clinic-based programs. Thus, it was concluded that community-based parent training courses which are held in neighborhood schools place fewer demands on parents especially in terms of time and travel costs, psychological adjustment, and family functioning.
Though the benefits of parent training programs for the families of children with ADHD are well documented, such programs often are not available to parents. Current research does not lend information as to why such programs are not being made available to parents. This research will attempt to determine to what degree five variables (i.e., demographic, role profile, training, beliefs, and barriers/facilitators) are related to the parent training practices of school psychologists. These variables were selected based on an extensive review of the literature, which revealed variables that have been found to affect other types of service delivery practices.

**Factors Affecting the Availability of Parent Training/Education Programs**

*Role profile.* According to a survey of regular NASP members (Curtis, Hunley, Walker, & Baker, 1999), school psychologists continue to spend the majority of their time conducting psychoeducational evaluations relating to special education. However, school psychologists reported spending time providing both direct (e.g., counseling) and indirect (e.g., consultation and training) services to students despite the disproportionate amount of time spent engaging in special education evaluations. Specifically, 97.4% of school psychologists reported engaging in consultation while 86.4% reported providing counseling services to students and 77.8% presented in-service education programs. No information was gathered regarding the number of students served through case management activities. The following is a description of three major roles (i.e., case management, counselor, consultant), which may be adopted by school psychologists when working with parents.

*Case manager.* One obstacle that is yet to be hurdled is the fact that although school psychologists optimally would play a large role in delivery of parent training
services, they have consistently reported that they have little or no time to engage in parent training interventions. Though this may be true, there are several practices in which school psychologists can engage which may prove beneficial for parents. First of all, school psychologists must be realistic as to the amount of time they have that can be utilized working directly with parents. If a school psychologist finds that he or she has very little time to engage in direct service with parents, at a minimum he or she should work as a case manager or coordinator of services by referring parents to qualified persons for help. The psychologist acting as case manager should monitor the child with ADHD’s progress and act as a liaison to the child’s physician for monitoring and evaluating medication effectiveness (Teeter, 1991). The school psychologist should act as a member of a multidisciplinary team and help make decisions involving placement and intervention as a member of that team. In addition, the school psychologist should coordinate all home-school communication (1991). At the very least, the psychologist should provide parents with high-quality written materials that discuss basic skills and factual information as well as videotaped materials that model important skills. For those parents who require direct instruction, the school psychologist acting as case manager should refer parents to community programs which provide short-term, didactic workshops on parenting children with problem behavior. These workshops are much shorter than the typical parent training models but have been shown to produce promising results (Kramer, 1990; Cunningham, 1997).

Counselor. A school psychologist who is functioning as a counselor provides direct intervention services for children with ADHD. Many of these intervention programs are designed according to a cognitive-behavioral orientation and may include
intervention techniques such as self-instructions, cognitive modeling, self-monitoring, and or self-reinforcement. All of these techniques are taught in an attempt to promote self-control for the child with ADHD since this seems to be an area in which these children have limited skills. Unfortunately, research into the effectiveness of cognitive-behavioral interventions has found limited positive effects (Pelham, Wheeler, & Chronis, 1998). Other interventions may include individual or group therapy which are designed to reduce frustration, increase social skills, increase self-esteem, and develop effective problem-solving skills (Teeter, 1991). Among this group of interventions, only interventions involving social skills training and training in problem-solving techniques have been found to have positive effects on the problem behavior of children with ADHD (Pelham & Hoza, 1996).

Other direct interventions which show little promise for effectively intervening in the problem behavior of children with ADHD are cognitive interventions, traditional one-to-one therapy, diet therapy, biofeedback, and pet and play therapy (Pelham, Wheeler & Chronis, 1998). These conclusions were drawn from a study by Pelham et al. (1998), in which a review of research found no empirical data to support the use of the above-mentioned interventions. Thus, it was concluded that interventions of this nature should not be employed in an attempt to treat children with ADHD, as there is no evidence to suggest that they will have any impact on disruptive behavior.

Consultation Consultation is an indirect service delivery model, which is designed to improve the behavior of a child with ADHD by improving the skills and resources of those people who work directly with the child (e.g., teachers, parents). The school psychologist acting as consultant may find it beneficial to engage in system level
consultation, teacher and support staff consultation, and or consultation with parents in order to best provide for the needs of a child with ADHD.

According to Teeter (1991), system level consultation should begin with a needs assessment in order to determine “(a) the number of children and adolescents with ADHD in the district, (b) the specific types of behavioral/learning problems teachers are having trouble solving, (c) the specific in-service training needs of the staff, and (d) the system-wide impediments to change” (p. 277). The information generated from the needs assessment should be used to generate topics for in-service training as well as to design and implement a district level intervention plan to be implemented consistently across the district’s schools (Teeter, 1991). According to Teeter (1991), such intervention plans may include issues surrounding reducing class size for teachers of children with ADHD, providing a teacher’s aide in the classrooms of children with ADHD, offering incentives for teachers who design and implement innovative intervention programs for children with ADHD, and promoting collaboration between teachers working with children with ADHD by providing additional and common planning times.

The school psychologist who is working directly with teachers and support staff should aim to improve skills and provide resources that will enable the consultee to work more effectively with their students. According to Teeter’s model (1991), teachers and support staff would benefit from behavior management training, scheduled sessions focusing on developing and evaluating classroom management programs, and individual behavior programs. In addition, the school psychologist who is acting as consultant should provide teachers with (a) additional support, either directly or indirectly by
coordinating groups of teachers who work with children with ADHD, (b) information on stress management, and (c) extensive, up-to-date literature on ADHD.

Consultation with parents is similar to consultation with teachers and support staff in that it aims at improving the skills of the parent, allowing the parent to better manage and instruct his or her child’s behavior. According to Teeter (1991), school psychologists should provide five main services during consultation. First, parents should be provided with the most up-to-date information and literature regarding ADHD (i.e., nature, characteristics, and developmental outcomes). Second, parents should be made aware of their rights and the rights of their child. Third, parents should be made aware of effective interventions including but not limited to medication. Fourth, the school psychologist should refer the parent to a physician when warranted. Fifth, the school psychologist should be able to identify and refer to programs within the community that may offer support for the child and the parent.

No matter which role a school psychologist adopts when working with parents, such work demands resources (e.g., time). If, for instance, a school psychologist spends the majority of his or her time conducting assessments of children for special education, he or she may have very little time to devote to the parents of children with ADHD. This research will attempt to determine the relationship between time spent engaging in various professional functions (i.e., psychoeducational assessment, case management, counseling, consultation) and the likelihood that a school psychologist will play a role in the delivery of parent training/education programs.

Demographic variables. Conflicting data has been found regarding the effects of degree level on the perspectives and practices of school psychologists. Carlson and
Sincavage (1987) found that doctoral level school psychologists were more likely to report a family oriented approach to intervention than were nondoctoral level school psychologists. Thirteen years later, Shriver et al. (2000) found doctoral and nondoctoral practitioners to report similar perspectives and practices in family-school partnership activities. Shriver et al. (2000) hypothesized that this finding may indicate that degree level no longer affects the perspectives and practices of school psychologists as it once did.

Shriver et al. (2000) also found that beginning level school psychologists are more likely than more experienced psychologists to report a belief that family involvement could increase the likelihood that a child would have a successful educational experience. However, the authors reported that these differences were not practically significant due to the fact that both groups of psychologists reported high levels of support for family-school partnership activities. Further, years of experience did not relate to actual involvement in partnership activities.

School psychologists who work primarily with elementary school students have been found to be more likely to be involved in family-school partnership activities than psychologists working in secondary schools. Both groups of practitioners reported high levels of support for family-school partnership activities. Thus, these differences could not be accounted for by differences in practitioners’ perspectives regarding parent involvement. These findings are consistent with previous research that has found decreasing levels of parent-involvement activities among teachers with each successive grade level (Pelco & Ries, 1999).
Training. According to Bandura’s social learning theory, most human behavior is learned through observing others (i.e., modeling). In order for modeling of behavior to be effective in teaching or shaping behavior, the observer must pay attention to what the model is doing, remember or retain the information, have the opportunity and ability to reproduce the actions and be motivated to do so (Bandura, 1977).

As school psychology trainers teach school psychology trainees how to work with the parents of children with ADHD, special attention should be paid to pointing out the most important facets of interventions and techniques. This will increase the likelihood that key components will be coded into memory to be used by the school psychology trainee at a later time. In addition, recall of intervention skills learned in graduate training may be aided by subsequent post-graduate education and in-service training. Beyond simply observing others engaging in parent training/education, trainees who have the opportunity to practice skills which have been modeled are more likely to code the behaviors into long-term memory than learners who do not have an opportunity to practice (1977). This is especially true when practice is accompanied by self-correction, immediate feedback, and repeated demonstrations of the skill. New skills are more likely to be implemented in novel settings and situations when a learner has had the opportunity to practice the skills in a variety of environments (1977). Thus, school psychology trainees should have had the opportunity to practice consultation with parents during training within a variety of settings, including a school setting, in order to increase the likelihood that they will engage in consultation in professional practice.

Even after a trainee has observed a model engaging in parent training/education activities, coded the information into memory, and had the opportunity to practice the
behaviors his or herself, he or she may still fail to engage in parent training/education activities independently. This may be due to a lack of motivation to do so. According to Bandura (1977), trainees will be more likely to engage in behaviors that result in immediate positive results, especially when these behaviors are either self-satisfying or extrinsically rewarded. Unfortunately, interventions within educational settings do not always result in immediate positive results. This fact may prove challenging to school psychologists who spend weeks working with parents before positive behavior changes are demonstrated by the child. Thus, it may be of particular importance for school psychologists to receive continuous positive feedback and support from fellow educators and school administrators.

Research by Shriver and Watson (1999) found that often school psychologists do not receive the necessary training in behavioral interventions needed to meet the demands of their expanding roles. In fact, on a list of top five areas needing improved training, interventions in regular education for behavioral/emotional problems were rated second.

Even when psychologists receive training in behavioral interventions, the method of training may vary and directly affect the likelihood that he or she will implement the interventions in practice. Wilson and Reschly (1996) surveyed 1600 school psychology practitioners and 239 school psychology faculty members in order to assess the relationship between the current use of assessment instruments, the practitioner’s self-perceived skill level with the instruments, and the faculty reported level of training on the instruments. Significant correlations were found between the use of assessment instruments and the practitioner’s self-perceived skill level. The practitioners use of assessment instruments and the intensity of training (i.e., supervised practice,
demonstrated, lecture/reading, not covered) were also related. Practitioners who received supervised practice of an assessment tool reported feeling more comfortable with the tool and actually used the tool more often than practitioners who received only demonstration, lecture/reading, or no training at all. Shapiro and Lentz (1985) found similar results in relation to school psychologists use of behavioral interventions. School psychology practitioners were more likely to use an intervention in practice if they received supervised practice during training. For example, when a school psychologist implemented an intervention during training while receiving supervision, the mean probability that he or she would use the procedure in practice was .91, compared to a probability of .61 when he or she was exposed to an intervention through coursework alone and .32 when exposed by the intervention through independent reading. Thus, it would make sense to hypothesize that when a school psychologist’s training in parent-based interventions involves supervised practice, he or she will be more likely to replicate the same interventions in practice than a school psychologist whose training in this area consists of coursework or independent reading.

According to Ysseldyke, Dawson, Lehr, Reschly, Reynolds, and Telzrow (1997), school psychologist should be prepared to promote school-family interactions. Specifically, they should be knowledgeable regarding: “(1) family influence on student cognitive, motivational, and social characteristics that affect classroom performance; (2) family involvement in education; (3) ways to promote partnerships between parents and educators to improve outcomes for students; and (4) cultural issues that impact home-school collaboration” (p. 9). Further, effective school psychologists will have specialized
training that will allow them to provide such services as parent training and program referral (1997).

**Beliefs.** Though ample research exists pertaining to school psychologists’ beliefs regarding the importance of parent involvement for student educational and behavioral success, little research exists addressing to what extent these beliefs are predictive of actual practice. For example, is a school psychologist who reports that involvement of parents in intervention for children with ADHD is vital for successful outcomes for the child more likely to provide educational programs for parents?

One study that examined this issue was completed by Pelco, Jacobson, Ries, and Melka (2000). The researchers surveyed 417 school psychology practitioners regarding their perspectives and practices toward family-school partnership activities. Results of the survey indicated high levels of support for the general concept of family-school partnerships amongst the practitioners. For example, 90% of the respondents strongly agreed with the statement, “Parent involvement can help increase student success in school.” The results also indicated that school psychologists are currently engaging in a range of family-school partnership activities, especially those roles which entail providing resources and education to families. Over 95% of school psychologists reported “consulting with families about specific ways that they can support their child’s learning or behavior at school” (p. 241) and over 80% reported “teaching families about child development, discipline, or parenting” (p. 243) within the last 12 months. However, over 50% of respondents reported that “school psychologists do not have the time to help educators involve families” (p. 241). This finding was consistent with other
research which reported lack of time as a major barrier to involvement in family-school partnership activities (Christenson, 1995).

Pelco et al. (2000) found that school psychologists who were more likely to endorse the item, “Every family has some strengths that could be tapped to increase student success in school” were more likely to have participated in family-school partnership activities than were practitioners who were less likely to endorse the item. Based on this research, it is hypothesized that the current study will find a high correlation between beliefs regarding parent involvement and the practice of involving parents through parental education and training programs.

It is hypothesized that the variables of role profile, training, and beliefs influence not only the number and type of interventions involving parents, but also the way in which those interventions are implemented. This study will attempt to determine the occurrence of parent training/education programs in the schools as well as the actual methods school psychologists use when training parents to use interventions. Next, the study will examine which of the above-described variables (i.e., role profile, training, and beliefs) along with demographic variables and common barriers/facilitators are predictive of the implementation of parent training/education programs.
Chapter III

Method

Purpose

The purpose of this study was (1) to determine what parent training/education activities school psychologists are engaging in with the parents of students with ADHD in the State of Florida, and (2) to determine whether specific variables (i.e., demographic, training, beliefs, role profile, barriers/facilitators) are related to the extent of engagement by school psychologists in Florida in parent training/education activities with the parents of children with ADHD. Specifically, the following seven research questions were posed:

1. To what extent are school psychologists in Florida currently engaging in parent training/education activities with parents of children with ADHD?
2. What are the relationships between demographic variables (i.e., sex, degree level, number of schools served, employment setting, years of experience, time since graduation, and caseload) and the extent of engagement in parent training/education activities with parents of children with ADHD by school psychologists in Florida?
3. What is the relationship between intensity of training and the extent of engagement in parent training/education activities with parents of children with ADHD by school psychologists in Florida?
4. What is the relationship between school psychologists’ beliefs (i.e., general attitude) regarding the importance of parent training/education/involvement
activities and the extent of engagement in parent training/education activities with parents of children with ADHD by school psychologists in Florida?

5. What is the relationship between school psychologists’ role profiles (i.e., percent of time engaging in various activities) and the extent of engagement in Florida in parent training/education activities with parents of children with ADHD by school psychologists in Florida?

6. What is the relationship between the perception of common barriers/facilitators and the extent of engagement in parent training/education activities with parents of children with ADHD by school psychologists in Florida.

7. Which of the factors or combination of factors above accounts for the most variance in the engagement of school psychologists in parent training/education activities with parents of children with ADHD?

Research Design

A correlational research design was used in this study. A correlational research design was most appropriate for this research because the researcher was interested in ascertaining the relationship between variables. Also, because the variables could not be manipulated, conclusions could not be drawn regarding cause and effect relationships.

Participants

Study participants included school psychologists in Florida who were members of the Florida Association of School Psychologists (FASP), were currently practicing in a school setting, and had provided FASP with an e-mail address. At the time of data collection, there were approximately 1100 FASP members. A list of school psychologists and their e-mail addresses was obtained through the FASP organization’s
member directory. All school psychologists who had provided an e-mail address (N=823) were sent a cover letter via e-mail that explained the purpose of the study and the importance of their participation in the survey. Of these potential participants, 672 were deemed eligible to participate in the study, meaning that they were believed to be school-based practitioners. Of these 672 eligible participants 614 were successfully emailed a copy of the cover letter. Fifty-eight emails were returned to the researcher’s email site and were not delivered to the intended inbox. For those participants who received a cover letter, detailed information as to how to access and complete the survey on the web, including a link, was provided. Of the 614 emailed participants, 163 completed the survey. This constituted a response rate of approximately 27%.

Of the 163 respondents, 134 or 82.2% were female while 29 or 17.8% were male. Level of experience varied from 5 years or less to 23 or more years. Roughly fifty percent of the participants had 10 or less years of experience while 13.5% reported 11-16 years of experience. The majority of participants (i.e., 62.2%) reported their highest attained degree to be a specialist degree (Ed.S.), while only .6% of participants reported having a Doctorate of Psychology (Psy.D.) degree. Approximately 33% of the degrees were obtained less than 5 years ago while only 7% reportedly received their degree more than 26 years ago. The percentage of school psychologists serving 1, 2, 3, or 4 schools was fairly evenly distributed. Twenty two percent of participants indicated that they served only 1 school during the 2003-2004 school year while 30.1% served 2 schools, 23.9% served 3 schools, and 24.5% served 4 or more schools. Roughly 25% of participants reported caseloads of less than 60 students while 36.8% reported serving between 61 and 100 students. The largest percentage of respondents (i.e., 38.7%)
reported caseloads of 101 or more. Just over 71% of the participants reported that their
primary employment setting was an elementary school. Fewer respondents reported
their primary employment setting to be middle school or high school (i.e., 15.3% and
14.7% respectively). Table 1 represents complete demographic data.

Table 1

*Descriptive Statistics for Individual Demographic Variables*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Variable Levels</th>
<th>Percentage of Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
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<tr>
<td></td>
<td>Male</td>
<td>17.8%</td>
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<tr>
<td></td>
<td>Female</td>
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<tr>
<td>Experience</td>
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<td></td>
<td>1-5 years</td>
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<td>6-10 years</td>
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<tr>
<td></td>
<td>11-16 years</td>
<td>13.5%</td>
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<tr>
<td></td>
<td>17-22 years</td>
<td>11.7%</td>
</tr>
<tr>
<td></td>
<td>23 or more years</td>
<td>25.5%</td>
</tr>
<tr>
<td>Variable</td>
<td>Variable Levels</td>
<td>Percentage of Sample</td>
</tr>
<tr>
<td>-------------------</td>
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</tr>
<tr>
<td><strong>Degree</strong></td>
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<td><strong>Recency of Training</strong></td>
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<tr>
<td>Less than 5 years ago</td>
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<td>5-15 years ago</td>
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<td>16-25 years ago</td>
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<td>26+ years ago</td>
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<td><strong>Schools Served</strong></td>
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<td>2 schools</td>
<td>30.1%</td>
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<td>3 schools</td>
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<td>4+ schools</td>
<td>24.5%</td>
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Table 1 (continued)

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<tr>
<td>Caseload</td>
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<td></td>
<td>21-40 cases</td>
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<td>41-60</td>
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<td></td>
<td>101+</td>
<td>38.7%</td>
</tr>
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</table>

Employment Setting

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<th>Employment Setting</th>
<th>Percentage of Sample</th>
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</thead>
<tbody>
<tr>
<td>Elementary</td>
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</tr>
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<td>Middle</td>
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<tr>
<td>Alternative</td>
<td>5.5%</td>
</tr>
<tr>
<td>Other</td>
<td>.1%</td>
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</table>

Materials

An 72-item survey was created in order to analyze the proposed research questions. The survey consisted of six sections: demographic information; beliefs, role and function; training; parent training/education activities; and barriers/facilitators.
Demographic information. The demographic information section was modeled after the format used in the 1996 NASP demographic survey (Curtis, Hunley, & Baker, 1996). Demographic information was collected for two reasons: 1) to examine the relationship between various demographic variables and school psychologists’ engagement in family-school partnership activities, and 2) to determine whether or not a representative sample was obtained through the sampling process. Specifically, information regarding a respondent’s sex, degree level, years of experience, number of students served, number of schools, and employment setting was collected.

Training. This section of the survey included items about the participants’ training experiences in family-school partnership activities, behavior management, and ADHD. Respondents were asked to indicate the method of their training for all family-school partnership activities and interventions for ADHD in which they had been trained (e.g., formal parent training programs, the use of a token economy). According to research (Shapiro & Lentz, 1985), training methods vary in intensity, and this difference in intensity affects the likelihood that the trainee will implement the interventions and practices independently in the future. The training methods were arranged from least intense to most intense. Options for responding included lecture/reading, observed demonstration, personally implementing the intervention or practice, and receiving supervision while personally implementing the intervention or practice, and topic not covered in training. Definitions of each training method were provided for clarification.

Role Profile. The third section, Role Profile, was modeled after a survey developed by Curtis, Hunley and Baker (1996) and asked questions regarding the daily activities of school psychologists in Florida. The respondents were asked to indicate the
percent of time spent engaging in assessment, direct intervention, consultation, case management, and professional development. Definitions of each role were provided for clarification.

Beliefs. The fifth section, Beliefs, included questions that were adapted from survey questions developed by Pelco, Jacobson, Ries, and Melka (2000). In particular, the questions were changed to obtain information from school psychologists about their beliefs specific to children with ADHD and their families. The modified questions were designed to determine if a school psychologist’s beliefs regarding the importance and feasibility of parent training/education activities with the parents of children with ADHD are related to his or her engagement in such activities.

Parent training/education activities. The last section, Parent Training/Education Activities, examined the extent to which participants engaged in training or educating parents or training other educators to do so. The items were derived from previous research (Pelco, Jacobson, Ries, & Melka, 2000), the NASP practice guidelines for involving parents in the educational experiences of their children, and a review of practices common to major parent training curricula used to address ADHD symptomatology (i.e., Barkley’s model, Pelham’s STP model, and Patterson’s model). Specifically, Barkley’s, Pelham’s, and Patterson’s parent training curricula were reviewed for this section. Parent training components that were common among the three curricula (e.g., teaching parents to reinforce positive behavior) were included in this section. Major components of any single curriculum were also included even when these components were not present in the other curricula (e.g., Barkley’s parent counseling component). Respondents were asked to indicate how often they typically engage in
each practice (i.e., at least once per day, 1-2 times per week, 1-2 times per month, 1-2 times per grading period, once per year or less).

*Item Development*

The items for this survey were developed following a review of the literature. This review identified specific domains that previously had been found to be related to the practices of school psychologists. Thus, the items were initially content validated by the literature. In addition to this initial validation, item clarity and content were reviewed by 3 university-based trainers of school psychologists who had conducted research in the areas of parent involvement, ADHD, training, and/or supervision and 2 school-based school psychologists who were currently in practice. Each reviewer was provided with a copy of the survey and asked to return the survey to the researcher with his or her comments and changes written directly on the survey. The original survey was modified based on information provided by this content validation. Specifically, one section entitled “Supervision Quality” was eliminated from the survey and three questions were rewritten.

*Survey Method*

This survey was administered via the world-wide-web (web). Schonlau, Fricker, and Elliot (2002) suggested that web surveys may be preferable to mail or telephone surveys when the researcher has access to a list of e-mail addresses for the target population. When respondents are initially contacted by e-mail, web-based surveys can be completed much more quickly and less expensively than other survey methods. Specifically, web-based surveys require virtually no time for coding or data-entry and no mailing costs (2002).
The presentation of the survey on the web was guided by guidelines developed by Schonlau et al. (2002). The guidelines were as follows:

1. List only a few questions per screen.
2. Eliminate unnecessary questions.
3. Use graphics sparingly.
4. Be aware of how respondents may interpret questions in light of accompanying graphics.
5. Do not place questions with the same response options in a table format.
6. Reduce response errors by restricting response choices.
7. Force answers only on rare occasions.
8. Make error/warning messages as specific as possible.
10. Ensure that respondents’ privacy and their perception of privacy are protected.
11. Provide some indication of survey progress such as a graphical progress indicator.
12. Give respondents something in return.
13. If a large number of respondents are contacted via e-mail, stagger the e-mail invitations so that the server will not be unable to handle the onslaught.
14. Enable respondents to report problems.

**Pilot Study**

After the suggested changes from the content validation were made, the modified instrument was piloted. Though pilot studies are conducted for a range of
reasons, the most common two purposes of pilot studies are to check the feasibility of the proposed larger study and to pre-test a particular research instrument (Baker, 1994; Polit, Beck, & Hungler, 2001). The pilot study followed suggested practices which are proposed in Peat, Mellis, Williams, and Xuan (2002). According to Peat et al. (2002) a pilot study can help to improve internal validity of a survey instrument when certain procedures are followed. These procedures include the following:

1. Administer the survey to the pilot participants in the exact method as it would be administered in the main study.
2. Ask the participants for feedback to identify unclear or misleading items
3. Record the time taken to complete the survey and decide if this is reasonable
4. Remove all difficult, unclear, or misleading items
5. Assess whether each question gives an adequate range of responses
6. Establish that the data can be interpreted to answer the proposed questions
7. Check that all questions are answered
8. Revise any questions that are not answered as expected
9. Shorten, revise, and pilot again if possible

The purpose of conducting the pilot study was two-fold. First, the pilot allowed the researcher to collect information on the variance of both binomial and interval items to check the internal consistency of the subdomains, identify unclear or misleading questions, and gather qualitative information regarding the length of the survey and concerns of the participants. This information helped to estimate the reliability of the proposed structure of the Survey of Family School Partnership Practices for Children with ADHD. Second, the pilot study allowed the researcher to pre-test the web-based
survey instrument to make sure that the technology was functioning properly. All of this information was used to identify problem areas and to make necessary changes to the survey and to the computer program used to present the survey and store the data. Additional open-ended questions were added for the pilot study only. These questions asked respondents to provide qualitative information regarding how long the survey took to complete, any problems that they experienced with the survey, and recommended changes to the instrument or presentation of items.

Specifically, the pilot study attempted to answer the following questions:

1. Is the Survey of Family-School Partnership Practices for Children with ADHD a reliable instrument?
2. Are any items irrelevant, unclear, or misleading?
3. Is the internet and database technology functioning properly?

A convenience sample from the Pinellas County School District in Florida was used for the pilot study. Pinellas County is the 23rd largest school district within the United States and serves over 110,000 students. At the time of the study, Pinellas County employed 87 school psychologists.

First, the permission of the head of psychological services in Pinellas County was sought. Once necessary permission was obtained an application was submitted to the University of South Florida’s Institutional Review Board (IRB) to obtain permission to survey the participants. After this permission was granted, an email was sent to Pinellas County school psychologists through their internal e-mail communication system (PLACES). This e-mail consisted of a cover letter that described the purpose of the survey research, emphasized the importance of the participant’s response, gave directions
for access and completion of the survey, and assured confidentiality (See Appendix C). Participants’ names or email addresses were never linked with their responses once the responses were transmitted to the database.

Frequency distributions were analyzed for the demographic variables and the role profile variable. This analysis revealed that all possible item responses were chosen by at least one respondent. Therefore, no item responses were eliminated for the subsequent administration of the survey. See Table 1 for a complete report of frequency distributions for each demographic variable. See Table 2 for role profile frequency distribution.

Internal consistency reliability estimates were conducted for each proposed domain. An analysis of the internal consistency of items was conducted to estimate the reliability of scores (Gall, Borg, & Gall, 1996). Cronbach alpha coefficients were used to determine the extent to which participants consistently answer similar questions. Reliability coefficients range from .00 to 1.0. High correlations between survey items indicate a strong relationship between the items. This analysis provided cursory information about the psychometric properties of the survey in that good reliability estimates indicate a reliable instrument. Moderate to relatively strong internal consistency was revealed within the Beliefs section (i.e, Cronbach’s alpha=.6143), the Training section (i.e., .8394), and the Parent Training/Education Engagement section (i.e., .9312). One section, Barriers, indicated a low level of internal consistency and resulted in an alpha equal to .2939. This result was not completely surprising to the examiner because while the items were designed to measure potential barriers to engagement, the items contained various, potentially unrelated subject matter. For example, both the amount of paperwork required and the school psychologist’s
perception of his or her skill level in the area of parent training/education are potential barriers to engagement but reveal a low correlation to each other (i.e., -.13). Thus, this variable was maintained despite the initial indication of low internal consistency. See Table 3 for a summary of Cronbach’s alpha coefficients.

Item-total correlations were calculated for each item within the barriers section. Table 2 presents the inter-item correlations for each item within the Barriers section. Items which indicated a negative inter-item correlation were eliminated from the instrument. Of the six items within the Barriers section, two items indicated negative inter-item correlations with the other items. Both items asked the participants to indicate whether or not a particular situation or circumstance was a barrier to their implementation of parent training/education activities. One of these items involved the participant’s perception of his or her school-based administrator’s (e.g., principal) response to or level of support of parent training/education activities while the other addressed the participant’s perception of the number of parents eager or willing to participate in parent training/education activities. Both of these described items were eliminated from the instrument. After the elimination of the items, the reliability coefficient rose from alpha= .2939 to alpha= .6302. See Table 3 for a complete list of Cronbach alpha levels for each analyzed variable.
Table 2

*Inter-item correlation values for each item within the Barriers section*

<table>
<thead>
<tr>
<th>Item</th>
<th>Inter-Item Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of evaluations/re-evaluations</td>
<td>.5517</td>
</tr>
<tr>
<td>School-based administrator’s support</td>
<td>-.0772</td>
</tr>
<tr>
<td>Direct supervisory unit’s support</td>
<td>.2345</td>
</tr>
<tr>
<td>Amount of required paperwork</td>
<td>.2947</td>
</tr>
<tr>
<td>Level of training/expertise in parent training</td>
<td>.0829</td>
</tr>
<tr>
<td>Number of parents eager or willing to participate</td>
<td>-.1663</td>
</tr>
</tbody>
</table>

Table 3

*Cronbach’s Alpha for Each Analyzed Variable*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beliefs</td>
<td>.6341</td>
</tr>
<tr>
<td>Training</td>
<td>.8394</td>
</tr>
<tr>
<td>Engagement</td>
<td>.9312</td>
</tr>
<tr>
<td>Barriers (excluding items 70 and 74)</td>
<td>.6302</td>
</tr>
</tbody>
</table>

*Primary Data Collection*

Following the pilot, the first step in the primary data collection procedure was to obtain a list of FASP members and their e-mail addresses. Next, an application was submitted to
the University of South Florida’s Institutional Review Board (IRB) to obtain permission to survey the participants.

A cover letter was e-mailed to participants in groups of approximately 250. The second group of participants was e-mailed two days after the initial group. A third group was emailed two days after the second group and so on until all participants were e-mailed. The cover letter described the purpose of the survey research, emphasized the importance of the participant’s response, provided directions as to how to access and complete the web-based survey, and assured confidentiality of responses (See Appendix C). In addition, the cover letter informed participants that they could enter into a raffle for a $15.00 gift certificate to Amazon.com upon their completion of the survey.

Ten days after the cover letter and survey were e-mailed, a follow-up e-mail was sent to all participants. The e-mail functioned to remind those participants who had yet to complete the survey and to thank those who had already done so. One month after this mailing, four e-mails were chosen at random to receive a gift-certificate. The participants were informed of their prizes via e-mail.

Data Analysis

A response rate analysis was conducted in order to determine if the number of surveys received is adequate for analysis. According to Babbie (1990), a response rate of at least 50% is desirable. A non-respondent bias analysis was conducted in order to determine whether significant differences exist between those who respond to the survey and those who do not respond. Because FASP does not currently gather extensive demographic information on its membership, a traditional bias analysis which directly compares respondents to non-respondents was not possible. Thus, an alternative non-respondent
bias analysis was completed. This analysis involved comparing participants who responded to the initial emailed cover letter (i.e., complete the survey within the first ten days) (N=122) and those who complete the survey after a reminder email was sent (N=41). If these two groups differed significantly in terms of demographic information and level of engagement, then an assumption could be made that the third group (i.e., nonresponders) also differed significantly from those who completed the survey. An effect size of .34 was detected, indicating a moderate difference in engagement level between participants from the first group and participants from the second group. This information suggested that the third group (i.e., nonresponders) also differed in engagement level from both the first and second groups of participants. Thus, the obtained sample may not have been representative of the overall population and may have represented a biased sample. In addition, the first group of respondents had a higher overall engagement level than the second group of respondents. This trend suggests that the third group of nonresponders may engage in even less levels of parent training/education activities. Thus, the effect size of .34 may be an underestimate of the actual difference between respondents and nonrespondents.

Research Question #1: To what extent are school psychologists in Florida currently engaging in parent training/education activities with parents of children with ADHD?

The first research question was answered by examining the information reported in section six of the survey (i.e., Current Practices). Analysis of information reported in this section included the frequency and percentage of school psychologists engaging in parent training/education activities with parents of children with ADHD. For each item
representing a particular activity, frequencies and proportions of psychologists selecting each involvement level (i.e., at least once per day, 1-2 times a week, 1-2 times a month, 1-2 times a semester, once per year or less) were reported.

Parent training/education activities can be grouped based on conceptual similarities. For example, some of the activities involve promoting parent involvement by working with other educators while others focus on directly teaching parenting skills to parents. A common factor analysis was performed on the 36 parent involvement and training activities in order to identify underlying latent variables which helped explain the correlation among the survey items and reduce the items to a set of factors. Because it made sense that the factors derived from the survey are correlated with each other in real life (e.g., instruction in positive parenting approaches is likely to be related to other instructional situations such as instruction in the use of discipline), the researcher used an oblique rotation (Promax) to increase the interpretability of factors. After this rotation, pattern matrixes and structure matrixes were used to interpret the factors. The extent of engagement in the activities encompassed by each factor was analyzed. This was done to determine if school psychologists are engaging in certain classes of activities more often than others.

Research Question #2: What are the relationships between demographic variables and the extent of engagement in parent training/education activities with parents of children with ADHD by school psychologists in Florida?

Each demographic variable (i.e., sex, degree level, years of experience, number of students served, employment setting, and number of schools served) were correlated with
level of engagement in parent training/education activities using the point-biserial correlations for dichotomous variables (e.g., male/female), $\eta^2$ for variables with three or more categories (e.g., degree level) and Pearson Product Moment Correlation Coefficients (e.g., years of experience) for two continuous variables in order to determine if individual demographic variables were related to the activities school psychologists engage in with families of children with ADHD.

Research Question #3: What is the relationship between intensity of training and the extent of engagement in parent training/education activities with parents of children with ADHD by school psychologists in Florida?

This question was analyzed using Pearson product moment correlations. Factor sum estimates for method of training were correlated with engagement factor scores in order to determine the relationship between type of training and level of engagement in each type of parent training/education activity. In addition, participants’ overall intensity of training scores were correlated with overall extent of engagement scores in order to determine the relationship between level of training in parent training/education activities and the overall implementation of such activities.

Research Question #4: What is the relationship between beliefs (i.e., General Attitude) regarding the importance of parent training/education/involvement activities with parents of children with ADHD by school psychologists in Florida?

A Pearson product moment correlation analysis was used to examine this question by correlating participants’ summed General Attitude scores with their overall engagement scores.
Research Question #5: What is the relationship between school psychologists’ role profiles and the extent of engagement in parent training/education activities with parents of children with ADHD by school psychologists in Florida?

This question was addressed by regressing the outcome variable (i.e., level of engagement) onto each role profile. In addition, each engagement factor was regressed onto each role profile in order to determine the relationship between role profile and level of engagement within specific types of parent training/education activities.

Research Question #6: What is the relationship between the perception of common barriers/facilitators and the extent of engagement in parent training/education activities with the parents of children with ADHD by school psychologists in Florida?

Pearson product moment correlations were used to examine this question. Specifically, summed barrier/facilitator scores were correlated with overall engagement scores. In addition, summed barrier/facilitator scores were correlated with each engagement factor score in order to determine the relationship between perceived barriers and engagement with specific types of parent training/education activity.

Research Question #7: Which of the factors or combination of factors above accounts for the most variance in the engagement of school psychologists in parent training/education activities with the parents of children with ADHD?

Question #7 was addressed using a backward method multiple regression analysis. The correlation between the combination of predictor variables (i.e., role profile, beliefs, training, and barriers/facilitators) and the criterion variable (i.e., engagement) was determined. A coefficient of determination ($R^2$) was calculated to determine the amount of variance accounted for by each predictor variable and by the
combination of variables. The statistical significance of $R^2$ and Beta weights for each variable in the multiple regression equation were used to answer this question.
Chapter IV

Results

This chapter describes the findings from the data analysis. Specifically, descriptive statistics are reported regarding school psychologists’ responses involving their training, beliefs, role profile, perceived barriers/facilitators, and parent training/education activities. In addition, results for each of the seven individual research questions are provided.

Descriptive Statistics

Role Profile. School psychologists’ role profiles were assessed by asking each individual to identify the percentage of time that he or she typically engages in assessment, direct interventions, indirect services/consultation, and case management. The percentage of time during the 2003-2004 school year which school psychologists reported engaging in assessment ranged from 0% to 100% with a mean percentage of 51.61% and a modal percentage of 50%. School psychologists reported spending from 0% to 75% of their time engaged in direct intervention. The mean percentage of time spent in direct intervention was 15.6% of time while the modal response was 5% of the time. School psychologists’ responses indicated that they are engaging in indirect services/consultation between 0% and 50% of their time. Mean percentage of time spent engaged in indirect services/consultation was 19.95% with a modal response of 20%. Table 4 includes descriptive information for each type of activity within the role profile variable.
Table 4

Descriptive Statistics for Role Profile Activity Categories

<table>
<thead>
<tr>
<th>Activity Category</th>
<th>M</th>
<th>Mode</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessment</td>
<td>51.61%</td>
<td>50%</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td>Direct Intervention</td>
<td>15.60%</td>
<td>5%</td>
<td>0%</td>
<td>75%</td>
</tr>
<tr>
<td>Consultation</td>
<td>19.95%</td>
<td>20%</td>
<td>0%</td>
<td>50%</td>
</tr>
<tr>
<td>Case Management</td>
<td>6.1%</td>
<td>0%</td>
<td>0%</td>
<td>40%</td>
</tr>
<tr>
<td>Professional Development</td>
<td>6.8%</td>
<td>5%</td>
<td>0%</td>
<td>25%</td>
</tr>
</tbody>
</table>

Beliefs. School psychologists’ beliefs and general attitude regarding parent involvement in intervention and feasibility of parent training/education activities were assessed by asking each school psychologist to indicate their level of agreement with a series of positively stated opinion statements. Table 1 shows the percentages of school psychologists answering Strongly Agree, Agree, Neutral, Disagree, or Strongly Disagree to each individual item within the Beliefs section. It is notable that 100% of school psychologists reported that they agreed or strongly agreed that parental involvement in intervention can help increase a student with ADHD’s success in school. The vast majority of school psychologists also agreed or strongly agreed that teaching parents of a child with ADHD about child development, discipline, or parenting will result in improved child behavior both at home and at school (i.e., 96.3%).
Table 5

*Percentage of School Psychologists Reporting specific levels of Agreement for Individual Items within the Beliefs Section*

<table>
<thead>
<tr>
<th>Item</th>
<th>Level of Agreement</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Strongly Agree</td>
<td>Agree</td>
<td>Neutral</td>
<td>Disagree</td>
<td>Strongly Agree</td>
</tr>
<tr>
<td>1. Parent Inv. can increase success in school.</td>
<td>85.3%</td>
<td>14.7%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>2. Teaching parents will result in improved behavior.</td>
<td>61.3%</td>
<td>35%</td>
<td>3.7%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>3. Parents want to be involved.</td>
<td>4.9%</td>
<td>41.7%</td>
<td>44.8%</td>
<td>8.6%</td>
<td>0%</td>
</tr>
<tr>
<td>4. School psychologists have the time to collaborate with others.</td>
<td>5.5%</td>
<td>37.4%</td>
<td>22.7%</td>
<td>33.1%</td>
<td>1.2%</td>
</tr>
<tr>
<td>5. School psychologists have the time to provide parent training.</td>
<td>4.9%</td>
<td>25.8%</td>
<td>20.2%</td>
<td>46.6%</td>
<td>2.5%</td>
</tr>
<tr>
<td>6. Every family has some strengths.</td>
<td>34.4%</td>
<td>56.4%</td>
<td>6.1%</td>
<td>3.1%</td>
<td>0%</td>
</tr>
</tbody>
</table>

In addition to data about school psychologists’ level of agreement with each belief statement, General Attitude Scores were calculated. Responses of “Strongly Agree” were numerically valued at 5 points while responses of “Agree” and “Neutral” were valued at 4 points and 3 points respectively. Responses of Disagree” were valued at 2 points, and “Strongly Disagree” was worth 1 point. Each school psychologist’s responses were summed, indicating a General Attitude score. The higher a school
psychologist’s General Attitude score, the more positive his or her self-reported attitude toward parent training, education, and involvement activities. School psychologist’s General Attitude scores ranged from 15 to 30 with a maximum possible General Attitude Score of 30. The mean General Attitude score was 23.05, while the modal General Attitude score was 23.

Training. School psychologists’ overall intensity of training in parent training, parent involvement activities, and behavior modification procedures as well as their level of training within each general category were assessed. Data were collected within this section by asking school psychologists to indicate the nature of their training experiences with regard to specific parent training/education activities. Training methods were presented by level of intensity from least intense training methods (i.e., coursework) to most intense training method (i.e., personally implemented with supervision). School psychologists also could indicate that they had not been exposed to the parent training/education activity by selecting the “not covered” option. Different methods of training were assigned numerical value with more intense methods of training (e.g., personally implemented with supervision) being worth more points than less intense training methods (e.g., coursework). Values assigned were as follows: Not Covered = 0, Coursework = 1, Directly Observed = 2, Personally Implemented = 3, and Personally Implemented with Supervision = 4. School psychologists were asked to indicate the most intense training that they received for each item. The numerical value for each training item was summed to form a total Intensity of Training score. Results indicated that the total Intensity of Training scores ranged from 3 to 49 with a maximum possible intensity
of training score of 60. The mean Intensity of Training score was 27.16 with a modal score of 28.

A factor analysis of the training variable was performed in order to ascertain training within general activity categories. A Promax rotation was included in this analysis in order to increase interpretability of the factors. The Promax rotation was included because it was believed that the training factors would be correlated. A post-hoc analysis of the training factors revealed that they were in fact significantly correlated with each other. These correlations ranged from .433 to .556. The factor analysis of the training activities revealed three factors with eigenvalues of 1 or greater. These three factors explained the majority of variance in training (i.e., 58.1%). Scree plot analysis further supported a three factor solution. See Appendix D for detailed information regarding the factor analysis. A qualitative analysis of items within the three factors indicated that the general activity categories represented included formal parent training (factor 1), parent involvement support practices (factor 2), and general behavior change practices (factor 3). The mean Intensity of Training score was 1.26 within the formal parent training factor, 2.02 within the parent involvement practices factor, and 3.5 within the knowledge of behavior change practices factor. The percentage of psychologists indicating each level of training for individual items is shown in Table 6.
### Table 6

*Percentage of School Psychologists reporting Specific Levels of Training for Individual Activities or Interventions*

<table>
<thead>
<tr>
<th>Activity</th>
<th>Not Covered</th>
<th>Coursework Observed</th>
<th>Directly Implemented</th>
<th>Personally Implemented</th>
<th>Personally Implemented w/ Supervision</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Consulting about ways to support learning and behavior.</td>
<td>6.1%</td>
<td>17.8%</td>
<td>12.9%</td>
<td>47.2%</td>
<td>16%</td>
</tr>
<tr>
<td>2. Facilitating conferences.</td>
<td>12.9%</td>
<td>22.7%</td>
<td>17.2%</td>
<td>36.2%</td>
<td>11%</td>
</tr>
<tr>
<td>3. Providing training for teachers.</td>
<td>20.9%</td>
<td>33.7%</td>
<td>11.7%</td>
<td>26.4%</td>
<td>7.4%</td>
</tr>
<tr>
<td>4. Helping schools provide information to parents.</td>
<td>19.0%</td>
<td>24.5%</td>
<td>11.7%</td>
<td>42.3%</td>
<td>2.5%</td>
</tr>
<tr>
<td>5. Coordinating a family resource center.</td>
<td>69.9%</td>
<td>17.2%</td>
<td>6.1%</td>
<td>4.9%</td>
<td>1.8%</td>
</tr>
<tr>
<td>6. Coordinating interventions.</td>
<td>8.6%</td>
<td>27.6%</td>
<td>11%</td>
<td>36.2%</td>
<td>16.6%</td>
</tr>
<tr>
<td>Activity</td>
<td>Intensity of Training</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------------------------------------</td>
<td>-----------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Not Covered</td>
<td>Coursework Observed</td>
<td>Directly Implemented</td>
<td>Personally Implemented</td>
<td>Personally Implemented w/ Supervision</td>
</tr>
<tr>
<td>7. Creating participatory roles for parents.</td>
<td>71.2%</td>
<td>14.7%</td>
<td>9.8%</td>
<td>3.7%</td>
<td>.6%</td>
</tr>
<tr>
<td>8. Organizing a parent volunteer program.</td>
<td>81.0%</td>
<td>13.5%</td>
<td>3.7%</td>
<td>1.2%</td>
<td>.6%</td>
</tr>
<tr>
<td>9. Coordinating a parent support group.</td>
<td>53.4%</td>
<td>26.4%</td>
<td>12.9%</td>
<td>6.7%</td>
<td>.6%</td>
</tr>
<tr>
<td>10. Implementing a formal parenting program.</td>
<td>57.7%</td>
<td>22.1%</td>
<td>9.2%</td>
<td>8.0%</td>
<td>3.1%</td>
</tr>
<tr>
<td>11. Implementing interventions.</td>
<td>4.9%</td>
<td>25.8%</td>
<td>7.4%</td>
<td>41.7%</td>
<td>20.2%</td>
</tr>
<tr>
<td>12. Observing and noting ABC’s of beh.</td>
<td>.6%</td>
<td>14.1%</td>
<td>5.5%</td>
<td>41.1%</td>
<td>38.7%</td>
</tr>
</tbody>
</table>
### Table 6 Continued

<table>
<thead>
<tr>
<th>Activity</th>
<th>Intensity of Training</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not Covered</td>
</tr>
<tr>
<td>13. Using positive</td>
<td>0%</td>
</tr>
<tr>
<td>reinforcement</td>
<td></td>
</tr>
<tr>
<td>14. Using time-out</td>
<td>1.2%</td>
</tr>
<tr>
<td>15. Implementing a token economy</td>
<td>1.8%</td>
</tr>
</tbody>
</table>

Note: N=163

**Barriers/Facilitators.** In addition to gathering information about role profile, beliefs, and training, school psychologists were asked to provide information about the influence of common barriers to intervention implementation. Specifically, school psychologists were asked to indicate whether or not the circumstances outlined in each item were “barriers” or “not barriers” to their implementation of parent training/education activities with the parents of children with ADHD. Overall, 71.2% of school psychologists indicated that the number of evaluations and re-evaluations for special education was a barrier to their implementation of parent education/training activities with the parents of children with ADHD. The amount of paperwork, including report writing, was indicated as a barrier by 77.3% of school psychologists. Finally, 29.4% of school psychologists indicated that level of training/expertise in parent
training/education activities was a barrier to their implementation parent training/education activities. The number of barriers indicated by individual psychologists included the full range of 0 to 4. The mean number of barriers indicated was 1.91 with 2 being the modal number of barriers. Table 7 represents the percent of school psychologists indicating the content of each item as either a “barrier” or “not a barrier” to their engagement in parent training/education activities.

Table 7

Percent of School Psychologists Reporting Items as Barriers

<table>
<thead>
<tr>
<th>Barrier</th>
<th>Percent of School Psychologists</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Barrier</td>
</tr>
<tr>
<td>Amount of required paperwork</td>
<td>77.3%</td>
</tr>
<tr>
<td>Number of evaluations/re-evaluations</td>
<td>71.2%</td>
</tr>
<tr>
<td>Level of training/expertise in parent training</td>
<td>29.4%</td>
</tr>
<tr>
<td>Direct supervisory unit’s support</td>
<td>12.9%</td>
</tr>
</tbody>
</table>

N=163

*Parent training/education activities.* Items within the Parent Training/Education Activities section of the survey instrument were designed to examine the extent to which school psychologists engaged in parent training or education with parents of children with ADHD in order to answer Research Question #1. Specifically, school psychologists were asked to indicate approximately how often they typically engaged in each activity with the parents of children with ADHD. For the purposes of this research, each level of engagement was assigned a numerical value. For example, engaging in an activity “at least once a day” was worth 5 points. Engaging in the activities “1-2 times per week” was
worth 4 points, “1-2 times per month” was worth 3 points, “1-2 times per semester” was worth 2 points, and “once a year or less” was worth 1 point. School psychologists revealed a mean overall rate of engagement in parent training/education activities of 71.58 or an average of 2.1, which indicated engagement to occur on average approximately 1-2 times per semester. Only .6% of school psychologists reported an average engagement level of once a year or less. However, approximately 50% of school psychologists reported an overall engagement level of 1-2 times a semester. Eight percent of school psychologists reported engaging in parent training/education activities 1-2 times per month or more. Only .6% of school psychologists averaged weekly engagement, and none reported averaging daily engagement. The activity in which school psychologists were most frequently engaged was teaching parents to reward positive behavior. This activity occurred on average 1-2 times per month, with 28.2% of school psychologists reporting engaging in this activity 1-2 times per week, and 7.4% reporting daily engagement. The activities that school psychologists engaged in least frequently included developing or coordinating a family resource center, coordinating childcare for the child with ADHD and his or her siblings during parent training sessions, and arranging transportation to school in order for parents to attend parent training sessions. These activities occurred on average once a year or less.

A factor analysis of the engagement variable was performed in order to identify general activity categories. Five factors were identified with eigenvalues of 1 or greater. A scree plot was produced and reviewed. The scree plot further supported the appropriateness of a five factor solution. The five factors accounted for approximately 64.1% of the total variance in engagement. The items within each factor were interpreted
and were determined to represent 5 general categories of parent-focused activities including: 1) Teaching parents behavior management practices, 2) Promoting school-based family resources, 3) Teaching parents the theoretical underlying of behavior management, 4) Promoting effective communication between home and school, and 5) Teaching parents about ADHD. Factor number one, teaching parents behavior management practices, consisted of items which focused on promoting behavior management skills such as teaching parents how to reward appropriate behavior, ignore minor inappropriate behavior, and implement a token economy. On average, school psychologists reported teaching parents behavior management skills between 1-2 times per month and 1-2 times per semester. The behavior management practice that was taught to parents most often was how to reward positive behavior. This practice was taught to parents on average 1-2 times per month. The least engaged in activity was teaching parents positive attending skills to appropriate independent play. This activity was engaged in by school psychologists on average just slightly more frequently than once a year. Factor number 2, promoting school-based family resources, consisted of items which involved coordinating parent support groups and resource centers and promoting parent participation in school activities and decision making. The mean level of engagement in these type of activities was 1.15, which represented a level of engagement in such activities of approximately once a year or less. All activities within this factor reportedly occurred on average once a year or less. Factor number 3 included items that involved teaching parents basic behavior management theory and underlying principles. On average, teaching parents about these issues occurred between once or twice a month and once or twice a semester. The most frequently engaged in activity within this factor
was increasing parental knowledge of behavior management principles as they apply to their child. This practice occurred on average just under once or twice a month (mean=2.8). The least engaged in activity was consulting with families about specific ways that they can support their child’s learning or behavior at school. This practice occurred on average between once a year and once or twice a semester (mean=1.55). Factor number 4 was comprised of items which involved promoting effective communication between home and school, including consulting with teachers about how to involve parents with their child’s education and contacting parents who need follow-up communication. Overall, activities that comprised factor 4 were engaged in by school psychologists on average approximately once or twice a semester (mean=2.09). The most frequently engaged in activity within this factor was facilitating conferences to create more cooperation between parents and educators. This activity occurred between once or twice a semester and once or twice a month (mean=2.47). The activity that was least frequently engaged in within this factor was providing training to teachers regarding ways to involve parents with children’s school work. This occurred on average less than once a semester (mean=1.64). Factor number 5 included items that involved teaching parents about ADHD. This factor included only two items. Overall, school psychologists reported teaching parents about ADHD on average between once or twice a month and once or twice a semester (mean=2.35). Table 8 represents the proportion of psychologists indicating that they are engaging in particular activities at each level of engagement.
Table 8

*Proportion of School Psychologists Reporting Specific Frequencies of Engagement in Activities Outlined by Individual Items*

<table>
<thead>
<tr>
<th>Parent Training /Education Activity</th>
<th>1 time</th>
<th>1-2 times</th>
<th>1-2 times</th>
<th>1-2 times</th>
<th>1-2 times</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Consulting with families about how to support their child’s learning and behavior.</td>
<td>9.8%</td>
<td>44.8%</td>
<td>29.4%</td>
<td>12.9%</td>
<td>3.1%</td>
</tr>
<tr>
<td>2. Teaching families about child development, discipline or parenting.</td>
<td>17.2%</td>
<td>21.5%</td>
<td>35.0%</td>
<td>23.9%</td>
<td>2.5%</td>
</tr>
<tr>
<td>3. Facilitating conferences</td>
<td>33.1%</td>
<td>16.0%</td>
<td>26.4%</td>
<td>19.6%</td>
<td>4.9%</td>
</tr>
<tr>
<td>4. Helping schools communicate with families.</td>
<td>39.9%</td>
<td>26.4%</td>
<td>21.5%</td>
<td>9.2%</td>
<td>3.1%</td>
</tr>
<tr>
<td>5. Providing training to teachers on parent involvement.</td>
<td>62.0%</td>
<td>17.2%</td>
<td>16.0%</td>
<td>4.9%</td>
<td>0.0%</td>
</tr>
</tbody>
</table>
Table 8 \textit{Continued}

<table>
<thead>
<tr>
<th>Parent Training / Education Activity</th>
<th>Proportion of School Psychologists</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 time</td>
</tr>
<tr>
<td>Contacting parents who need follow-up</td>
<td>32.5%</td>
</tr>
<tr>
<td>Helping schools provide information on expectations</td>
<td>43.6%</td>
</tr>
<tr>
<td>Coordinating a family resource center</td>
<td>94.5%</td>
</tr>
<tr>
<td>Planning, coordinating and monitoring interventions</td>
<td>20.2%</td>
</tr>
<tr>
<td>Consulting with schools about forming community linkages</td>
<td>82.2%</td>
</tr>
<tr>
<td>Helping schools create participatory roles for parents</td>
<td>88.3%</td>
</tr>
<tr>
<td>Organizing a parent volunteer program</td>
<td>95.1%</td>
</tr>
<tr>
<td>Parent Training Activity</td>
<td>1 time</td>
</tr>
<tr>
<td>--------------------------</td>
<td>--------</td>
</tr>
<tr>
<td>Proportion of School Psychologists</td>
<td>a year</td>
</tr>
<tr>
<td>13. Coordinating a parent support group.</td>
<td>92.6%</td>
</tr>
<tr>
<td>14. Teaching parents about ADHD.</td>
<td>24.5%</td>
</tr>
<tr>
<td>15. Explaining to parents the association between ADHD and problem behavior.</td>
<td>9.8%</td>
</tr>
<tr>
<td>16. Counseling parents about their emotional reactions.</td>
<td>31.3%</td>
</tr>
<tr>
<td>17. Addressing faulty perceptions.</td>
<td>12.3%</td>
</tr>
<tr>
<td>18. Communicating with parents about expected outcomes of intervention.</td>
<td>9.8%</td>
</tr>
</tbody>
</table>
Table 8 *Continued*

<table>
<thead>
<tr>
<th>Parent Training Activity</th>
<th>Proportion of School Psychologists</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 time</td>
</tr>
<tr>
<td></td>
<td>a year</td>
</tr>
</tbody>
</table>

- 5.5% 25.2% 45.4% 20.2% 3.7%

20. Increasing parental knowledge of behavior management principles.  
- 9.8% 26.4% 37.4% 22.1% 4.3%

21. Encouraging parents to set aside time for interaction with their child.  
- 16.6% 30.7% 35.0% 16.0% 1.8%

22. Teaching parents positive attending skills to app. independent play.  
- 50.3% 24.5% 17.8% 7.4% 7.4%

23. Teaching parents positive attending skills to child’s compliance.  
- 26.4% 31.9% 25.8% 15.3% 0.6%
Table 8 *Continued*

<table>
<thead>
<tr>
<th>Parent Training Activity</th>
<th>1 time</th>
<th>1-2 times</th>
<th>1-2 times</th>
<th>1-2 times</th>
<th>1-2 times</th>
</tr>
</thead>
<tbody>
<tr>
<td>/Education</td>
<td>a year</td>
<td>/semester</td>
<td>/month</td>
<td>/week</td>
<td>/day</td>
</tr>
</tbody>
</table>

| Activity                                                                 | 6.7%   | 20.2%  | 37.4%  | 28.2%  | 7.4%      |
| 24. Teaching parents to reward positive behavior.                                     |
| 25. Teaching parents how to communicate commands.                                        |
| 26. Teaching parents to ignore minor problem behavior.                                   |
| 27. Teaching parents how to avoid adding to their child’s problem behavior.               |
| 28. Helping parents develop a home token economy.                                        |
| 29. Teaching parents how to to use time out.                                             |

94
<table>
<thead>
<tr>
<th>Parent Training /Education Activity</th>
<th>Proportion of School Psychologists</th>
</tr>
</thead>
<tbody>
<tr>
<td>30. Teaching parents how to manage problem behavior in public.</td>
<td>39.9% 34.4% 17.8% 7.4% 0.6%</td>
</tr>
<tr>
<td>31. Discussing with parents their planned responses to problem behavior.</td>
<td>38.7% 33.1% 19.6% 6.7% 1.8%</td>
</tr>
<tr>
<td>32. Coordinating communication between teacher and parent.</td>
<td>19.0% 29.4% 34.4% 15.3% 1.8%</td>
</tr>
<tr>
<td>33. Coordinating child care during parent training sessions.</td>
<td>94.5% 1.8% 1.8% 1.8% 0.0%</td>
</tr>
</tbody>
</table>
Table 8 Continued

<table>
<thead>
<tr>
<th>Parent Training /Education Activity</th>
<th>Proportion of School Psychologists</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 time</td>
</tr>
<tr>
<td></td>
<td>a year</td>
</tr>
<tr>
<td></td>
<td>or less</td>
</tr>
</tbody>
</table>

34. Arranging transportation during parent training sessions  

| N=163 |

Inferential Statistics

Demographic variables and level of parent training/education engagement. The second research question asked, “Are demographic variables related to a school psychologist’s level of engagement in parent training/education activities or the choice of specific types of activities?” In order to address this research question, an ANOVA was performed for each demographic variable (i.e., sex, degree level, years of experience, recency of degree, number of schools served, caseload, and employment setting). Results of these analyses revealed that none of the demographic differences between groups significantly affected level of engagement in parent training/education activities. For example, whether or not a school psychologist was male or female was not related to overall extent of engagement in parent training/education activities (F=.279, p=.598). Differences in extent of engagement in parent training/education activities between
groups of varying experience levels were not found (F= .547, p=.702). There also was no significant difference found between school psychologists with different degree levels (F=.564, p=.640). In addition, no significant differences were found in extent of engagement between school psychologists who served differing numbers of schools (F=.368, p=.777) or caseloads (F=1.079, p=.374). Finally, school psychologists within different primary employment settings were not found to engage in significantly different levels of parent training/education activities. In addition to determining the relationship between individual demographic variables and overall engagement in parent training/education activities, each demographic variable was correlated with each of the five factors within the engagement in parent training/education variable. This analysis was completed in order to determine to what extent demographic variables were related to differing types of parent-involved activities. The analysis produced weak correlations between each demographic variable and each engagement factor ranging from .007 to -.201. Only one correlation was found to be statistically significant at .05 level (r=-.201). This correlation indicated that as school psychologists’ caseloads increased they were less likely to promote school-based family resources at school (e.g., coordinating a parent support groups). Table 4 represents Pearson correlations for each demographic variable and engagement factor.
Table 9

Correlations Between Demographic Variables and Engagement in Parent Training/Education Activities

<table>
<thead>
<tr>
<th>Demographic Variables</th>
<th>Engagement Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Informal training</td>
</tr>
<tr>
<td>Years of Experience</td>
<td>.113</td>
</tr>
<tr>
<td>Number of Schools</td>
<td>-.045</td>
</tr>
<tr>
<td>Caseload</td>
<td>.034</td>
</tr>
<tr>
<td>Recency of Training</td>
<td>.079</td>
</tr>
<tr>
<td>Degree Level</td>
<td>.026</td>
</tr>
</tbody>
</table>

*p<.05.
Intensity of training and level of engagement in parent training/education. The third research question, “Is a school psychologist’s intensity of training in parent training/education activities and behavior management related to his or her overall level of engagement in parent training/education activities or the choice of specific types of activities?, was analyzed using Pearson product moment correlations. Specifically, overall intensity of training scores were correlated with overall level of engagement in order to determine the relationship between intensity of training and engagement in parent training/education activities as a whole. This analysis resulted in a correlation coefficient of $r=0.481$ which was significant at the .01 level. This correlation coefficient indicates a moderate, positive relationship between training and extent of engagement in parent training/education activities. In addition to this analysis, intensity of training scores within each training factor (i.e., formal parent training, parent involvement support practices, and general behavior change practices) were correlated with overall extent of engagement within each parent training/education factor (i.e., teaching parents behavior management skills, promoting school-based parent resources, teaching parents behavior theory and underlying principles, promoting effective communication between home and school, teaching parents about ADHD) in order to determine the relationship between type of training and engagement with specific types of activities. These analyses revealed statistically significant correlations (alpha=.01) between the intensity of training within training factor 1 (i.e., formal parent training) and the extent of engagement in teaching parents behavior management skills ($r=.343$), teaching parents behavior theory and underlying principles ($r=.385$), promoting effective communication between home and school ($r=.448$), and teaching parents about ADHD ($r=.243$). The correlation
between training factor 1 (i.e., formal parent training) and engagement factor 2 (i.e., promoting school-based family resources) was not statistically significant (r=.123). The intensity of school psychologists’ training in parent involvement practices was significantly correlated with engagement in teaching parents behavior management (r=.321), promoting school-based family resources (r=.323), teaching parents the theoretical underlying of behavior management (.358), and promoting effective communication between home and school (r=.365) at a .01 level and teaching parents about ADHD (r=.201) at a .05 level. Finally, the intensity of school psychologists’ training in general behavior change practices (i.e., training factor 3) was significantly related to the extent of engagement in teaching parents behavior management (r=.222), teaching parents behavior theory (.290), and promoting effective communication between home and school (r=.260). Training factor 3 (i.e., general behavior change practices) was not found to be significantly related to the extent of engagement in promoting school-based family resources (r=.063), or teaching parents about ADHD (r=.124). See Appendix D to review the complete correlation matrix.

Beliefs and parent training/education engagement. The fourth research question asked, “How is a school psychologist’s general attitude toward parent training/education/involvement activities related to his or her extent of engagement in parent training/education activities?” This research question was analyzed using a Pearson product moment correlation. Specifically, school psychologists’ General Attitude Scores were correlated with overall extent of engagement in parent training/education activities. This analysis resulted in a correlation of r=.302 which indicates a moderate, positive correlation between general attitude and extent of
engagement in parent training/education activities. This correlation is significant at the .01 level.

**Role profile and parent training/education engagement.** Research question number five asked, “How is a school psychologist’s role profile (i.e., percent of time spent engaging in various activities) related to his or her extent of engagement in parent training/education activities?” This research question was addressed by regressing the outcome variable (i.e., extent of engagement in parent training/education activities) onto each role profile. The percent of time engaging in assessment, consultation, case management, direct intervention, and professional development for each participant was entered into the regression model. This model resulted in an adjusted $R^2$ value of .036, which indicates that role profile explains 3.6% of the variance in overall engagement. In addition to determining the amount of variance in overall engagement explained by role profile, the amount of variance explained within each engagement factor by role profile was calculated. This analysis revealed that role profile accounted for only 1.6% of the variance in engagement factor 1 and 2.6% of the variance in engagement factor 2. Five-percent of the variance in engagement factor 3 and 7.3% of the variance in engagement factor 4 was explained by role profile. Finally, only 3.7% of the variance in engagement factor 5 was explained by role profile.

**Barriers to parent training/education engagement.** The sixth research question, “How are common barriers to intervention implementation related to the extent of engagement in parent training/education activities and to the types of parent training/education activities chosen by school psychologists?,” was analyzed using independent t-tests for equality of means. Results of this analysis indicated that whether
or not a participant perceived the number of evaluations or re-evaluations for special education as a barrier did not significantly affect his or her extent of engagement in parent training/education activities ($t=-.505, p=.614$). Similarly, whether or not a participant indicated his or her direct supervisory unit’s response to or support of parent training/education activities as a barrier did not significantly affect extent of engagement in parent training/education activities ($t=-.815, p=.416$). In addition, participants who indicated that the amount of paperwork, including report writing was a barrier to their engagement in parent training/education activities did not differ significantly from those participants who did not perceive this as a barrier ($t=.585, p=.559$). The only potential barrier that resulted in a statistically significant difference between those participant who perceived it as a barrier and those who did not was level of training/education in parent training/education activities ($t=-3.319, p=.001, M=.29, SD=.457$). This indicated that those who perceived their level of training/expertise in parent training/education activities as a barrier to engagement were in fact less likely to engage in parent training/education activities. In addition to analyzing differences between groups based on individual perceived barriers, the total number of barriers indicated was correlated with the overall extent of engagement in parent training/education activities in order to ascertain the relationship between the number of perceived barriers and extent of engagement. This analysis resulted in a correlation coefficient of -.133 which indicated a weak, negative relationship between total perceived barriers and extent of engagement in parent training/education activities. Thus, as the number of perceived barriers increases, the extent of engagement in parent training/education activities tends to decrease. Finally, the total number of indicated barriers was correlated with the extent of
engagement within each parent training/education factor in order to determine the relationship between number of perceived barriers and engagement in specific types of parent training/education activities. The results of this analysis did not reveal a statistically significant relationship between the total number of barriers and school psychologists’ engagement in teaching parents behavior management practices (r=-.148), promoting school-based family resources (r=-.117), teaching parents behavior theory and underlying principles (r=-.132), promoting effective communication between home and school (r=-.055), or teaching parents about ADHD (r=-.062).

Contribution of predictor variables. The final research question was as follows: “Which of the variables (i.e., role profile, general attitude, intensity of training, perception of barriers) or combination of variables accounts for the most variance in the extent of engagement by school psychologists in parent training/education activities?” This research question was addressed using a backward regression method of analysis. This analysis indicated that the Intensity of Training variable accounted for the most variance in extent of engagement. Specifically, Intensity of Training had an adjusted R² value of .227, indicating that a participant’s intensity of training accounted for 22.7% of the total variance in engagement. The combination of variables which resulted in the most explained variance in engagement was Intensity of Training, General Attitude, percent of time engaging in professional development, percent of time engaging in consultation, percent of time engaging in direct intervention, and percent of time engaging in assessment. This combination of variables resulted in an adjusted R² of .281, signifying that the combination of these variables accounted for 28.1% of the total variance in extent of engagement in parent training/education activities. Further, results
of the analysis found that all of the variables within this combination were significantly related to school psychologist’s engagement in parent training/education activities at a .05 level, with the exception of the percent of time engaging in consultation. See Table 10 for in-depth results of the regression analysis.
Table 10

*Regression of % of Time Spent Doing Assessments, % of Time Spent Doing Direct Intervention, % of Time Spent Doing Consultation, % of Time Doing Professional Development, General Attitude Score, and Intensity of Training Score*

<table>
<thead>
<tr>
<th>Regressor</th>
<th>b</th>
<th>β</th>
<th>Std. Err</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>% assessment</td>
<td>-.421</td>
<td>-.524</td>
<td>.163</td>
<td>-2.589</td>
<td>.011*</td>
</tr>
<tr>
<td>% direct intervention</td>
<td>-.447</td>
<td>-.415</td>
<td>.179</td>
<td>-2.497</td>
<td>.014*</td>
</tr>
<tr>
<td>% consultation</td>
<td>-.330</td>
<td>-.184</td>
<td>.208</td>
<td>-1.586</td>
<td>.115</td>
</tr>
<tr>
<td>% Prof Dev</td>
<td>-.946</td>
<td>-.222</td>
<td>.336</td>
<td>-2.817</td>
<td>.005**</td>
</tr>
<tr>
<td>General Attitude Score</td>
<td>1.471</td>
<td>.192</td>
<td>.540</td>
<td>2.723</td>
<td>.007**</td>
</tr>
<tr>
<td>Intensity of Training</td>
<td>.842</td>
<td>.431</td>
<td>.139</td>
<td>6.056</td>
<td>.001**</td>
</tr>
</tbody>
</table>
Chapter V

Discussion

The purpose of this research was to determine to what degree demographic variables, training, beliefs, role profiles, and perceptions of barriers/facilitators of school psychologists were related to their engagement in parent training/education practices with the parents of children with ADHD. These variables were selected based on an extensive review of the literature, which revealed that these variables were related to other types of service delivery practices. It was hypothesized that the study variables (demographic variables, training, beliefs, role profile, and perception of barriers/facilitators) were related not only to the frequency of engagement in parent training/education activities by school psychologists but also to the types of practices chosen for implementation.

Parent Training/Education Activities

Despite a solid foundation of research clearly documenting the benefits of parent training and education for children with ADHD and their families, the current study revealed that the average frequency of school psychologists’ engagement in parent training/education with the parents of children with ADHD was infrequent (i.e., approximately 1-2 times per semester on average). School psychologists reported most often engaging in activities which involved teaching parents behavior management practices while activities such as developing or coordinating a family resource center and implementing a formal parent training program occurred far less frequently. This difference in the frequency of engagement is not surprising when one considers the
amount of time and resources required to carry out each of these activities. Teaching parents behavior management practices can easily occur during informal, impromptu interactions with parents and require virtually no tangible resources while formal parent training programs require curriculum development or purchase, extensive planning and coordination, and liberal amounts of time for scheduled parent meetings.

Demographic Variables and Level of Parent Training/Education Engagement

A review of current research regarding the relationships between common demographic variables and engagement in various service delivery practices prompted the generation of several hypotheses involving the relationship between demographic variables and engagement in parent training with parents of children with ADHD. Specifically, it was hypothesized that significant differences would not be found between participants of varying degree levels, years of experience, or sex. These hypotheses were supported by the current study. Nonetheless, hypotheses regarding how primary employment setting and number of schools/students served would impact engagement in parent training with parents of children with ADHD were not supported. These findings are discussed in greater detail below.

Primary employment setting. According to previous research, school psychologists who work primarily with elementary school students typically engage in family-school partnership activities more frequently than psychologists working in secondary schools. Thus, it was hypothesized that the current study would find that school psychologists in elementary school settings would report a higher level of engagement in parent training/education activities than those psychologists in secondary or alternative settings. In contrast to the researcher’s hypothesis, school psychologists within different primary
employment settings were not found to engage in significantly different levels of parent training/education activities. These findings are inconsistent with previous research that found decreasing levels of parent-involvement activities among teachers with each successive grade level (Pelco & Ries, 1999). These results could indicate increased participation in parent training/education activities by school psychologists in secondary or alternative settings. This finding also could have occurred as a result of the overall low level of engagement by school psychologists across the board (restriction of range), making it more difficult to distinguish differences between groups.

Number of schools and students served. It was hypothesized that being responsible for larger caseloads or a greater number of schools would lead to less time to work with each individual child or family and thus would result in less engagement in parent training/education activities. Contrary to the researcher’s hypotheses, no significant differences were found in extent of engagement between school psychologists who served differing numbers of schools or students (i.e., caseload). This result was particularly surprising to the researcher as lack of time has continually been cited as barrier to the implementation of various interventions (Christenson, 1995; Pelco, Jacobson, Ries, and Melka, 2000). While these variables, which were thought to be related to available time, were not significantly related to overall engagement in parent training/education activities with the parents of children with ADHD, a significant relationship was found between a school psychologist’s caseload and his or her engagement in specific types of parent training/education activities. Specifically, as school psychologists’ caseloads increased, they were less likely to implement formal parent training programs. Thus, as available time decreases due to increasing caseloads,
school psychologists may choose parent training/education activities which require less time, fewer resources, and less planning than that necessary for formal parent training programs instead of foregoing parent training/education altogether.

Intensity of Training and Level of Engagement in Parent Training/Education

Research has indicated that school psychologists are more likely to engage in a particular activity if they have received supervised practice during training. Thus, it was hypothesized that when a school psychologist’s training in parent-focused interventions and activities involved supervised practice, he or she would be more likely to replicate the same interventions in practice than would a school psychologist whose training in this area consisted of less intensive training methods such as coursework or independent reading. This hypothesis was supported by the current research. When overall intensity of training scores were correlated with overall level of engagement, the analysis resulted in a moderate, positive correlation. School psychologists with more intensive training in parent-focused interventions and practices were more likely to engage in parent training/education activities with the parents of children with ADHD than were their counterparts who received less intensive training.

An analysis of the training data revealed that the participants in this study received the most intensive training in general behavior change practices, less intensive training in parent involvement support practices, and the least intense training in formal parent training. Intensity of training scores within each training factor (i.e., formal parent training, parent involvement support practices, and general behavior change practices) were correlated with overall extent of engagement within each parent training/education factor (i.e., teaching parents behavior management skills, formal parent training, teaching
parents behavior theory and underlying principles, promoting effective communication between home and school, teaching parents about ADHD) in order to determine the relationship between intensity of training within specific areas and engagement in the general activity categories. These analyses revealed that training in formal parent training was most significantly related to the implementation of formal parent training practices. Thus, training programs may wish to provide intensive training to school psychologists regarding the coordination and implementation of formal parent training programs in order to increase the likelihood that these types of programs will be implemented in practice. Intensity of training in parent involvement support practices was most significantly related to engagement in all activity categories with the exception of formal parent training activities. Intensity of training in behavior management practices was least related to engagement in all activity categories. Interestingly, while school psychologists reported receiving the most intensive training in behavior management, this area was the least closely related to engagement in parent training/education activities with the parents of children with ADHD. This could indicate that having knowledge of behavior management practices alone may not guarantee that this knowledge will be passed on to parents of children with ADHD. In contrast, providing school psychologists more intensive training in how to involve and consult with parents may lead to greater dissemination of information and training to parents of children with ADHD.

Beliefs and Parent Training/Education Engagement

In support of previous research, this study found that school psychologists’ general attitudes regarding parent involvement/training/education activities were very
positive in nature. In fact, it is notable that 100% of school psychologists reported that they agreed or strongly agreed that parental involvement in intervention can help increase success in school for students with ADHD. The vast majority of school psychologists also agreed or strongly agreed that teaching parents of a child with ADHD about child development, discipline, or parenting will result in improved child behavior both at home and at school (i.e., 96.3%).

Though ample research existed pertaining to school psychologists’ beliefs regarding the importance of parent involvement for student educational and behavioral success, little research existed addressing to what extent these beliefs are predictive of actual practice. Despite this limited research base, it was hypothesized that the current study would find a significant, positive correlation between beliefs regarding parent involvement and engagement in parent training/education activities with the parents of children with ADHD. This hypothesis was supported by the current research. Specifically, the data analysis revealed a moderate, positive, statistically significant correlation between general attitude and extent of engagement in parent training/education activities. Thus, the more positive a school psychologist’s general attitude was regarding parent-focused activities, the more likely he or she was to engage in parent training/education activities with the parents of children with ADHD. This finding was not surprising to the researcher because it would make sense that school psychologists would be more likely to engage in activities that they deemed as important and effective than in activities that were thought to be of minimal importance or effectiveness. These results also pointed out, however, that believing that parent training is important and effective does not directly translate into high levels of engagement in
parent training/education activities with the parents of children with ADHD. While the majority of school psychologists reported very positive general attitude regarding parent training/education, few frequently engaged in such activities.

Role Profile and Parent Training/Education Engagement

Assessment. Data collection regarding the amount of time school psychologists spend engaging in assessment, consultation, direct services, case management, and professional development revealed that school psychologists continue to spend at least half of their time engaging in assessment activities. School psychologists may continue to spend the majority of their day engaging in assessment because of demands to test students in order to determine eligibility for special education. These demands are placed on school psychologists by school administrators and teachers who continue to view school psychologists primarily as evaluation specialists. In addition, a number of school psychology training programs continue to subscribe to a traditional model of school psychology. As a result, these programs are likely to provide more intensive training in assessment than in more progressive, consultation-based activities such as parent training/education. The combination of pressure to engage in assessment and more intensive training in assessment may lead school psychologists to engage most often in assessment activities. School psychologists may be unlikely to engage in activities which are not directly related to determining eligibility of special education because these practices are not supported by the school-based staff. They may be even less likely to engage in such activities if they do not have adequate training to feel competent and comfortable in their implementation. When school psychologists receive intensive training in parent training/education activities, they may be more likely venture away
from a more traditional assessment-based role and spend time consulting with parents.

Preliminary information regarding this hypothesis was revealed by the current study which found a moderate, negative, statistically significant relationship between intensity of training in parent training/education activities and engagement in assessment, signifying that the more intense a school psychologist’s training in parent training/education the less time he or she will spend engaging in assessment.

An analysis of the correlation between percent of time engaging in assessment and overall engagement in parent training/education activities revealed a weak, negative, though statistically significant, correlation. Thus, as school psychologists spend more time engaging in assessment, they tend to spend less time engaging in parent training/education activities with the parents of children with ADHD. This finding may have resulted because more time engaging in assessment lends less time to engage in other types of activities. On the other hand, it could also be hypothesized that higher levels of engagement in parent training/education activities with parents of children with ADHD by school psychologists may result in improved child behavior and learning outcomes and therefore indicate less need for psychological assessment, leading to less time engaging in assessment overall.

Consultation. The vast majority of school psychologists (i.e., 98.7%) reported engaging in consultation, with an average of 15.6% of their time spent on this activity. It was hypothesized that the larger the proportion of time a school psychologist reported engaging in consultation, the more likely he or she would be to engage in parent training/education activities. This hypothesis was not supported by the current research in that a statistically significant correlation between percent of time doing consultation
and engagement in parent training/education was not found. Since the majority of school psychologists reported engagement in consultation but were not frequently engaging in parent training/education with the parents of children with ADHD, it may be hypothesized that school psychologists are choosing to consult primarily with other educators and not with parents of children with ADHD. When this data is considered along with information that school psychologists do not receive intensive training in parent involvement practices or formal parent training, one may conclude that training in general consultation alone may not be adequate to affect the likelihood that school psychologists will engage in parent training/education activities with the parents of children with ADHD. Training programs may wish to prepare school psychology students regarding consultation with parents specifically, as this may result in more frequent engagement in such practices.

Overall role profile. Overall, a school psychologist’s role profile was not significantly related to extent of engagement in parent training/education activities and explained less than 4% of the total variance in engagement. Role profile was related significantly, however, to engagement in teaching parents basic behavior management practices and formal parent training. Thus, while role profile may not be significantly related to overall engagement in parent training/education activities, there is some indication that role profile may affect the types of parent training/education activities chosen by school psychologists.

Barriers to Parent Training/Education Engagement.
In addition to gathering information about role profile, beliefs, and training, school psychologists were asked to provide information about the influence of common barriers to intervention implementation.

**Number of evaluations and amount of paperwork.** It was hypothesized that the majority of school psychologists would report that the number of evaluations and reevaluations was a barrier to their engagement in parent training/education activities with the parents of children with ADHD. This hypothesis was supported by the current research in that 71.2% of school psychologists indicated that the number of evaluations and re-evaluations for special education was a barrier to their implementation of parent education/training activities with the parents of children with ADHD. Because large numbers of evaluations and reevaluations would leave little time to work with parents of children with ADHD, it was further hypothesized that school psychologists who indicated the number of evaluations and reevaluations as a barrier would also report less frequent engagement in parent training with the parents of children with ADHD. Interestingly, though a large percentage of school psychologists indicated that the number of evaluations and re-evaluations was a barrier to their implementation of parent training/education activities, data analysis revealed no statistically significant relationship between these two variables. Thus, while number of evaluations was perceived as a barrier to parent training/education engagement, it did not seem to significantly affect practice. Similarly, it was hypothesized that a majority of school psychologists would report that the amount of paper work, including report writing, was a barrier to their engagement in parent training/education activities. Because excessive paperwork would negatively impact the amount of time available to train/educate parents,
it was hypothesized that those who indicated the amount of paperwork as a barrier would also report less frequent engagement in parent training/education activities with the parents of children with ADHD. Results indicated that the amount of paperwork, including report writing, in fact, was considered a barrier by the majority of school psychologists. However, whether or not a school psychologist perceived the amount of paperwork as a barrier was not significantly related to practice. It was assumed that both number of evaluations and amount of paperwork would be negatively related to engagement in parent training/education with the parents of children with ADHD as both variables were thought to be related to available time. Surprisingly, these hypotheses were not supported by the current research. At first glance, this could be interpreted to mean that availability of time is not related to work with parents of children with ADHD. A closer look, however, revealed that when participants were asked directly about having enough time to engage in parent training with parents of children with ADHD, nearly two-thirds reported disagreement or strong disagreement that enough time was available. This perception of adequacy of time for parent training/education was significantly related to engagement in parent training/education activities with the parents of children with ADHD. Indicating that the number of evaluations and the amount of paperwork were barriers was indirectly related to engagement because both variables were significantly related to school psychologists’ perception of adequacy of time, which was directly related to engagement in parent training/education activities with the parents of children with ADHD. Specifically, school psychologists who indicated that either the number of evaluations or the amount of paperwork were barriers were significantly less likely to agree that school psychologists have enough time to engage in parent
training/education activities with the parents of children with ADHD. Thus, it could be concluded that perception of adequacy of time, whether it be from large numbers of evaluations, paperwork, or other time-consuming variables, is more important to consider than individual, time-consuming activities. School psychologists’ perception of adequacy of time for parent training/education is likely affected by several variables including but not limited to number of evaluations and amount of paperwork. Thus, training programs may wish to teach school psychology trainees time management, which may positively affect their perception of adequacy of time when in practice and increase the likelihood that they will engage in parent training/education with the parents of children with ADHD.

Intensity of Training. The only potential barrier that was related significantly to engagement in parent training/education activities with the parents of children with ADHD was a school psychologist’s perception of his or her level of training/expertise in parent training/education. Nearly 30% of school psychologists indicated that level of training/expertise in parent training/education activities was a barrier to their implementation of parent training/education activities. Those who perceived their level of training/expertise in parent training/education activities to be a barrier to engagement were in fact less likely to engage in parent training/education activities with the parents of children with ADHD.

Contribution of Predictor Variables to Engagement in Parent Training/Education

It was hypothesized that the variables of role profile, beliefs, training, and perception of barriers/facilitators were significantly related to school psychologists’ engagement in parent training/education activities. Specifically, the final research
question was as follows: “Which of the variables (i.e., role profile, beliefs, training, and perception of barriers) or combination of variables accounts for the most variance in the extent of engagement by school psychologists in parent training/education activities with the parents of children with ADHD?” Data analysis indicated that Intensity of Training accounted for the most variance in engagement, with a participant’s intensity of training accounting for 22.7% of the total variance in engagement. The combination of variables which resulted in the most explained variance in engagement was intensity of training, beliefs, percent of time engaging in professional development, percent of time engaging in consultation, percent of time engaging in direct intervention, and percent of time engaging in assessment. This combination of variables accounted for 28.1% of the total variance in extent of engagement in parent training/education activities. Thus, when considering the variables included in the current research, intensity of training produced the largest effect, while beliefs and role profile variables added only minimally to an understanding of what variables affect school psychologists’ engagement in parent training/education activities.

Limitations

Because a survey is a self-report measure, certain limitations with this type of research method exist. For example, researchers cannot interpret information beyond what is provided by the respondents (Gall, Borg, & Gall, 1996). Thus, researchers are left only to hypothesize why respondents answer questions in specific ways.

Surveys are also subject to low response rates. This study resulted in a response rate of approximately 27%, which is less than ideal. Also, because survey research is dependent on participants completing the survey, obtaining a sample that is not
representative of the population is possible. This possible limitation was examined by comparing the group of school psychologists who responded to the initial email ($n=122$) with the group of school psychologists who responded the reminder email ($n=41$). An effect size of .34 was detected, indicating a moderate difference in engagement level between participants from the first group and participants from the second group. This information suggests that the third group (i.e., nonresponders) may also differ in engagement level from both the first and second groups of participants. Thus, the obtained sample may not be representative of the overall population and may represent a biased sample that overestimates the degree to which school psychologists are engaging in parent training/education with parents of children with ADHD.

Additional limitations of survey research include misinterpretation of items and “faking good.” Because the researcher was unable to clarify respondents’ misinterpretation of items or answer their questions, individual responses may not be valid. The researcher attempted to control for this limitation by making the questions as clear as possible. The clarity of questions was improved through two main processes. First, the content validation process provided feedback to the researcher regarding necessary changes. Secondly, the pilot study assisted in this process as it provided information about the reliability of each item and of the survey instrument overall.

Beyond simple misinterpretation of items, respondents may be subject to “faking good”, meaning that the respondents may try to provide answers that they perceive as the “correct” or socially approved answer instead of answering truthfully. The researcher attempted to address this issue by guaranteeing confidentiality of respondent’s answers.
Hopefully, because answers were in no way connected back to the respondent who gave them, respondents felt comfortable answering truthfully.

An additional set of limitations arise from the use of correlational methods. Because an experimental design was not possible and participants could not be randomly assigned to groups, it was not possible in this study to control for all of the extraneous variables that may account for differences between groups. Thus, it is possible that the study results may have been influenced by uncontrolled variables.

Restriction of range of scores on some variables also constituted a limitation to this study. In particular, school psychologists’ beliefs surrounding parent training/education activities demonstrated less variability than expected. The general attitude of school psychologists clustered near the high end, indicating that most school psychologists hold a positive outlook on parent training/education activities. This restriction of range affected the ability to detect if there was a significant relationship between beliefs and engagement in parent training/education activities.

Future Research

Despite its limitations, this study contributes to the literature by providing descriptive information regarding the services school psychologists are engaging in with families of children with ADHD as well as the variables that are related to this engagement. This study represents an initial attempt to examine the relationships among school psychologist variables that may potentially influence the frequency of engagement in parent training/education activities with the parents of children with ADHD. A precise understanding of factors related to school psychologists’ reported engagement in parent training/education activities remains unclear, indicating a need for further research in this
area. Some general future directions for research have been alluded to throughout this discussion. Additionally, the following specific recommendations are offered:

1. Future research should include a larger sample size. In addition, future research should strive for a sample that is representative of the general population. A survey of National Association of School Psychologists (NASP) may provide a more adequate sample.

2. Future research may wish to distinguish between training obtained during graduate school and that obtained through professional development after graduate school. This may lend information regarding whether or not including intensive training on parent training/education activities within the graduate school curriculum is more or less beneficial than providing training regarding these issues to practitioners.

3. Future researchers may wish to collect information regarding school psychologists’ work with parents of children who experience behavior problems in schools regardless of whether or not the child has been diagnosed with ADHD. Limiting the study to parents of children with ADHD may have contributed to a restricted range of responses regarding engagement level. It also may have resulted in confusion for participants who were not sure whether or not the children whose parents to whom they provided parent training/education services had been diagnosed with ADHD. Also, because of the comorbidity of behavior disorders, a distinction between providing parent training/education to parents of children with ADHD vs. other behavior disorders such as Conduct Disorder (CD) or Oppositional Defiant Disorder (ODD) may not be warranted.
4. It is evident that there are additional variables which were not included in the current study that are related to engagement in parent training/education activities with the parents of children with ADHD, as the study variables accounted for only 28.1% of the variance in engagement. Thus, future researchers may wish to collect information regarding other relevant variables, including school and community climate variables and availability of resources. Specifically, data could be collected regarding teachers’, principals’, and parents’ support of parent training/education activities. Data regarding the availability of resources such as money to purchase or develop a parent training curriculum and a room to hold parent meetings may also lend important information.

Conclusions and Implications of Research

Though the benefits of parent training programs for the families of children with ADHD are well documented, such programs are not often readily available to parents. Previous research did not lend information as to why school psychologists were not frequently engaging in parent training/education activities with the parents of children with ADHD. The purpose of this research was to determine to what degree school psychologist’s demographic variables, training, beliefs, role profile, and perception of barriers/facilitators were related to their engagement in parent training/education practices.

Data analysis revealed several significant findings which suggest important implications for school psychology training programs. The following list of implications for trainers is offered:
1. The current study found that school psychologists as a group do not receive intensive training in parent involvement or formal parent training/education activities. Training programs may wish to evaluate whether or not trainees are being provided with the necessary training in parent involvement and formal parent training to meet the demands of school psychologists’ expanding roles.

2. Once adequate training in parent involvement and education is insured, training programs may wish to turn their attention to the intensity of that training, as the intensity of school psychologists’ training in parent involvement and formal parent training was found to be significantly related to their extent of engagement in such practices. Beyond simply observing others engaging in parent training/education, trainees will benefit from opportunities to practice parent involvement and training/education activities, especially when this practice is accompanied by immediate feedback from a supervisor.

3. The current study indicated that practitioners who perceived their level of training or expertise in parent training/education as inadequate were significantly less likely to engage in such practices. Thus, school psychology training programs may wish to evaluate individual trainees’ perceptions of competence within the area of parent training/education, as this study demonstrated a significant relationship between perception of competence and the implementation of parent training/education activities.
4. Training in general consultation alone may not be adequate to ensure that school psychologists will consult with the parents of children with ADHD. Specific training in consulting with parents, including supervised practice of parent involvement and formal parent training activities, may be necessary to increase the likelihood that school psychologists will provide parent training and education to parents of children with ADHD.

5. Several variables which were thought to be related to available time such as caseload, number of schools served, number of evaluations and amount of paperwork were not found to be significantly related to engagement in parent training/education activities. However, a school psychologist’s perception of whether or not he or she had adequate time to engage in parent training/education with the parents of children with ADHD was significantly related to engagement in parent training/education activities. Thus, it may be more important to address school psychologists’ perceptions of available time rather than trying to lessen time spent doing individual time-consuming activities such as paperwork or special education evaluations. As such, training programs may wish to provide support and training in time management, which may affect school psychologists’ perceptions of adequacy of time for parent training and increase the likelihood that they will engage in parent training/education with the parents of children with ADHD.
References


Appendices
Appendix A: Cover Letter

Project Information & Informed Consent for Participation

The Relationship between Professional Training Experiences and School Psychologist’s Work with Parents of Children with ADHD

Dear Participant:

Hello, my name is Rebecca Sarlo, and I am a doctoral student in the School Psychology Program at the University of South Florida. As part of my thesis research, I am surveying FASP members to gather information about their beliefs, training, role profile, and current parent education/training practices with the parents of children with ADHD.

The purpose of this letter is to invite you to participate in my thesis study by completing the attached survey. You are being invited to participate in this study because you are a practicing school psychologist and a member of the Florida Association of School Psychologists (FASP). Your email address was obtained from the FASP directory of members. You will not directly benefit from participating in this study. However, by taking part in this research study you will contribute to a better understanding of how current practices with the parents of children with ADHD are associated with beliefs, training, and role profile.

Participation in this study will require you to click on the web link provided below and answer the survey questions. The survey will ask you questions about your training, beliefs, role profile, and current practices in the area of parent training/education with the parents of children with ADHD. The survey will take approximately 15 minutes to complete. I recognize that your time is valuable and as a token of my appreciation for completing the survey, you will be given the opportunity to enter into a lottery to win one of four $15 gift certificates to Amazon.com (an online bookstore).

Involvement in this project is VOLUNTARY and I anticipate no risks of harm to you. You have the right to terminate participation at any time without penalty or loss of benefits. All information provided by you will be kept confidential. The risks of your data being intercepted in this study are the same as normally encountered in using the Internet for transfer of electronic communications, such as email.
Appendix A: (Continued)

All participant responses will be kept anonymous; therefore, please do not type your name on any portion of this study. There are no right or wrong answers to the questions and statements; I am only interested in your perceptions and opinions. Any presentation or publication of this research will in no way identify you. All information you provide will be coded, analyzed, and summarized in such a way that you will not be identified (e.g., data will be combined with data from other participants and reported as grouped data). There are certain people who are authorized to inspect the records from this research project, such as, authorized research personnel, employees of the Department of Health and Human Services, and the USF Institutional Review Board and its staff, and any other individuals acting on behalf of USF. No information will be submitted until you click on the final "Submit my responses" button at the end of the survey. You may skip or discontinue answering the questions (i.e., exit this website) at any time without penalty or loss of benefits, as your participation is voluntary. If you answer some of the questions and then decide not to finish the inventory, your answers will not be forwarded to me and will not be used in the final analysis of the data.

If you have any questions, comments, or concerns about this study, please feel free to contact me, Rebecca Sarlo, MA, Principal Investigator at (727) 580-0630 or my major professor Linda Raffaele Mendez, Ph.D. at (813) 974-1255. If you would like a copy of the study’s results, please contact the principal investigator at the above phone number and a copy of the research results will be sent to you. Additionally, if you have any questions regarding your rights as a research participant, please contact the University of South Florida’s Institutional Review Board at (813) 974-5638.

If you agree to participate in the study at this time, then please read the statement below and click on the button, which attests to the fact that you have read, understand, and agree to the above statements and that you voluntarily agree to participate in this study. Please read carefully the following terms of informed consent:

I understand that participation is voluntary and there are no known risks associated with my involvement in this study. I also acknowledge that I can terminate participation at any time during this study without penalty. I recognize that my participation will require completing the self-report instrument about myself. I agree to participate in this study and I understand that my name will not appear in any reports of the work.

PLEASE CLICK ON THE LINK BELOW to participate in this research:


I thank you for your time, help, and support of this study.
Appendix B: Pilot Survey

A Survey of Professional Training Experiences and Practices with the Parents of Children with ADHD

This survey contains 74 questions and should require approximately 15 minutes of your time. Your participation is greatly appreciated!

Use your mouse to click on the box next to the correct answer for each statement.

1. I am
   - [ ] Male
   - [ ] Female

2. The number of years that I have worked as a School Psychologist including the 2003-2004 school year and my internship year is
   - [ ] 1-5 years
   - [ ] 6-10 years
   - [ ] 11-16 years
   - [ ] 17-22 years
   - [ ] 23 or more years

3. The highest degree I have attained in the field of School Psychology is a
   - [ ] Masters degree (MA)
   - [ ] Specialist degree (EdS)
   - [ ] Doctoral degree (PhD, EdD)
   - [ ] Doctorate of Psychology degree (PsyD)

4. I obtained my highest degree in School Psychology
   - [ ] Less than 5 years ago
   - [ ] 5-15 years ago
   - [ ] 16-25 years ago
   - [ ] 26 or more years ago

5. During the 2002-2003 school year, I served
   - [ ] 1 school
   - [ ] 2 schools
   - [ ] 3 schools
   - [ ] 4+ schools
Appendix B: (Continued)

6. The estimated number of students that I served (caseload) during the 2003-2004 school year at all my schools combined was

- 1-20
- 21-40
- 41-60
- 61-80
- 81-100
- 101+

7. My Primary Employment Setting in which I was assigned the most time was a(n).

- Elementary School
- Middle/Junior High School
- High School
- Alternative School Setting
- Other (please specify) ________________________
Appendix B: (Continued)

Role and Function

Please use your keyboard to type in the percentage of time that you typically engaged in the following activities during the 2002-2003 school year. The percentages for all activities combined should equal 100%.

Assessment
Administering norm-referenced measures such as the WISC-III or WJ-III; conducting CBM; writing reports; conducting behavioral observations; etc.

Direct Interventions
Counseling; crisis intervention; etc.

Indirect Services/ Consultation
Consulting with teachers or parents; parent training; etc.

Case Management
Contacting pediatricians and other pertinent community professionals; making referrals to outside agencies; researching community resources, etc.

Professional Development
Attending conferences; reading articles; receiving feedback from colleagues and/or supervisors.

<table>
<thead>
<tr>
<th>Role</th>
<th>Percentage</th>
</tr>
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<tbody>
<tr>
<td>Assessment</td>
<td>________%</td>
</tr>
<tr>
<td>Direct Intervention</td>
<td>________%</td>
</tr>
<tr>
<td>Consultation</td>
<td>________%</td>
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<tr>
<td>Case Management</td>
<td>________%</td>
</tr>
<tr>
<td>Professional Development</td>
<td>________%</td>
</tr>
</tbody>
</table>
Appendix B: (Continued)

Beliefs

Please use your mouse to click on the box next to the statement that most closely reflects your level of agreement with each statement.

13. Parent involvement can help increase success in school for a student with ADHD.

   □ Strongly Agree
   □ Agree
   □ Neutral
   □ Disagree
   □ Strongly Disagree

14. Teaching parents of a child with ADHD about child development, discipline, or parenting will result in improved child behavior both at home and at school.

   □ Strongly Agree
   □ Agree
   □ Neutral
   □ Disagree
   □ Strongly Disagree

15. Parents of children with ADHD want to be involved in their children’s education more than they are currently involved.

   □ Strongly Agree
   □ Agree
   □ Neutral
   □ Disagree
   □ Strongly Disagree

16. School psychologists have the time to collaborate with other educators to increase parent involvement by parents of children with ADHD.

   □ Strongly Agree
   □ Agree
   □ Neutral
   □ Disagree
   □ Strongly Disagree
Appendix B: (Continued)

17. School psychologists have the time to provide parent training to parents of children with ADHD.

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

18. Every family that has a child with ADHD has some strengths that could be tapped to increase student success in school.

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree
Training

The way that we as school psychologists receive training regarding specific activities or practices varies. Training may have occurred during graduate school or during professional development activities following graduate school. This training may have included a low level of intensity such as coursework alone or may have included the most intense level of training which is personally implementing the activity or intervention with supervision. The answer options for the following statements are arranged from less intense training methods to more intense training methods.

For each of the following activities or practices, please indicate the nature of your training experiences by using your mouse to click on the box next to the HIGHEST LEVEL OF TRAINING that you received. For example, if you received both coursework and the opportunity to directly observe the intervention or practice being implemented, click on the box next to “Directly Observed” because this is the more intense training method. (Click on only one box)

Definitions of Training Methods

Not Covered—Have not been exposed to the activity or intervention through coursework or observation.

Coursework (level 1)—Obtained knowledge of activity or intervention through course based readings and lecture

Directly Observed (level 2)—Watched intervention being implemented by teacher, supervisor, or qualified personnel.

Personally Implemented (level 3)—Personally implemented intervention independently without supervision.

Personally Implemented with Supervision (level 4)—Was directly supervised during personal implementation.
19. Consulting with the parents of children with ADHD about ways they can support their child’s learning or behavior at school.

- Not covered
- Coursework
- Directly Observed
- Personally Implemented
- Personally Implemented with Supervision

20. Facilitating conferences to create more cooperation between the parents of children with ADHD and educators.

- Not covered
- Coursework
- Directly Observed
- Personally Implemented
- Personally Implemented with Supervision

21. Providing training for teachers regarding ways to involve the parents of children with ADHD in their children’s school work.

- Not covered
- Coursework
- Directly Observed
- Personally Implemented
- Personally Implemented with Supervision

22. Helping teachers and administrators provide information to the parents of children with ADHD on grade-level academic expectations or homework policies.

- Not covered
- Coursework
- Directly Observed
- Personally Implemented
- Personally Implemented with Supervision

23. Developing or coordinating a family resource center that serves parents of children with ADHD.

- Not covered
- Coursework
- Directly Observed
- Personally Implemented
- Personally Implemented with Supervision
Appendix B: (Continued)
24. Planning, coordinating, and monitoring interventions implemented jointly by the parents of children with ADHD and teachers.

- Not covered
- Coursework
- Directly Observed
- Personally Implemented
- Personally Implemented with Supervision

Appendix B: (Continued)
25. Helping schools create participatory roles for parents of children with ADHD on school advisory committees.

- Not covered
- Coursework
- Directly Observed
- Personally Implemented
- Personally Implemented with Supervision

Appendix B: (Continued)
26. Organizing a parent volunteer program to assist children with ADHD in the classroom

- Not covered
- Coursework
- Directly Observed
- Personally Implemented
- Personally Implemented with Supervision

Appendix B: (Continued)
27. Coordinating a parent support group for the parents of children with ADHD.

- Not covered
- Coursework
- Directly Observed
- Personally Implemented
- Personally Implemented with Supervision

Appendix B: (Continued)
28. Implementing a formal parent-training program that included regular, scheduled meetings and a planned parent training curriculum.

- Not covered
- Coursework
- Directly Observed
- Personally Implemented
- Personally Implemented with Supervision
Appendix B: (Continued)

29. Implementing empirically validated interventions for children with ADHD.

- Not covered
- Coursework
- Directly Observed
- Personally Implemented
- Personally Implemented with Supervision

30. Observing and noting the relationships between antecedents, behavior, and consequences.

- Not covered
- Coursework
- Directly Observed
- Personally Implemented
- Personally Implemented with Supervision

31. Using positive reinforcement (e.g., giving praise, attention, prizes, etc.) to maintain or change behavior.

- Not covered
- Coursework
- Directly Observed
- Personally Implemented
- Personally Implemented with Supervision

32. Using a time-out from positive reinforcement procedure (i.e., removing a child from a desirable activity or environment following their inappropriate or undesirable behavior).

- Not covered
- Coursework
- Directly Observed
- Personally Implemented
- Personally Implemented with Supervision

33. Implementing a token economy (i.e., rewarding a child’s positive, appropriate behavior with tokens such as toy money which can later be exchanged for desired items, activities, or privileges).

- Not covered
- Coursework
- Directly Observed
- Personally Implemented
- Personally Implemented with Supervision
Appendix B: (Continued)

**Current Practices**

Please use your mouse to click on the box next to the statement that most closely approximates how often you typically engage in each activity WITH THE PARENTS OF CHILDREN WITH ADHD

34. Consulting with families about specific ways that they can support their child’s learning or behavior at school.

- At least once a day
- 1-2 times a week
- 1-2 times a month
- 1-2 times a semester
- Once a year or less

35. Teaching families about child development, discipline, or parenting.

- At least once a day
- 1-2 times a week
- 1-2 times a month
- 1-2 times a semester
- Once a year or less

36. Facilitating conferences to create more cooperation between parents and educators.

- At least once a day
- 1-2 times a week
- 1-2 times a month
- 1-2 times a semester
- Once a year or less

37. Helping schools or teachers develop frequent, varied, and understandable methods for communicating with families.

- At least once a day
- 1-2 times a week
- 1-2 times a month
- 1-2 times a semester
- Once a year or less
Appendix B: (Continued)

38. Providing training to teachers regarding ways to involve parents with children’s school work.

☐ At least once a day
☐ 1-2 times a week
☐ 1-2 times a month
☐ 1-2 times a semester
☐ Once a year or less

39. Contacting parents who do not attend scheduled conferences or who need follow-up contacts.

☐ At least once a day
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☐ 1-2 times a month
☐ 1-2 times a semester
☐ Once a year or less

40. Helping schools provide information on grade-level academic expectations or homework policies.

☐ At least once a day
☐ 1-2 times a week
☐ 1-2 times a month
☐ 1-2 times a semester
☐ Once a year or less

41. Developing or coordinating a family resource center.

☐ At least once a day
☐ 1-2 times a week
☐ 1-2 times a month
☐ 1-2 times a semester
☐ Once a year or less

42. Planning, coordinating, and monitoring interventions implemented jointly by parents and teachers.

☐ At least once a day
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☐ Once a year or less
Appendix B: (Continued)

43. Consulting with teachers and administrators about forming business partnerships or community linkages.

- At least once a day
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- 1-2 times a month
- 1-2 times a semester
- Once a year or less

44. Helping schools create participatory roles for parents or advisory committees.

- At least once a day
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- 1-2 times a month
- 1-2 times a semester
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45. Organizing a parent volunteer program to assist teachers, administrators, and children in the classroom.

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47. Coordinating a parent support group for parents of children with ADHD.

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- 1-2 times a month
- 1-2 times a semester
- Once a year or less

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- At least once a day
- 1-2 times a week
- 1-2 times a month
- 1-2 times a semester
- Once a year or less
Appendix B: (Continued)

52. Explaining to parents the connection between ADHD and oppositional defiant behavior, aggressiveness, academic underachievement, and other associated problems.
   - At least once a day
   - 1-2 times a week
   - 1-2 times a month
   - 1-2 times a semester
   - Once a year or less

52. Counseling parents regarding their emotional reactions (e.g., sadness, guilt, anxiety) to their child’s disorder.
   - At least once a day
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   - 1-2 times a month
   - 1-2 times a semester
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52. Addressing any faulty perceptions that parents may have about themselves or their child.
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   - 1-2 times a week
   - 1-2 times a month
   - 1-2 times a semester
   - Once a year or less

51. Communicating with parents regarding the expected outcomes of intervention for their child.
   - At least once a day
   - 1-2 times a week
   - 1-2 times a month
   - 1-2 times a semester
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52. Helping parents understand what factors contribute to the emergence and maintenance of their child’s problem behavior.
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   - 1-2 times a week
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Appendix B: (Continued)

53. Increasing parental knowledge of behavior management principles as they apply to their child.

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57. Teaching parents to reward positive behavior.

- At least once a day
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- Once a year or less
58. Teaching parents effective methods of communicating commands.

- At least once a day
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- 1-2 times a month
- 1-2 times a semester
- Once a year or less

59. Teaching parents to ignore minor behavior problems.

- At least once a day
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- 1-2 times a month
- 1-2 times a semester
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60. Teaching parents how to avoid adding to their child’s escalating problem behavior such as tantrums.

- At least once a day
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- 1-2 times a month
- 1-2 times a semester
- Once a year or less

61. Helping parents develop a system in which their child earns or loses points based on his or her appropriate or inappropriate behavior (a home token economy system).

- At least once a day
- 1-2 times a week
- 1-2 times a month
- 1-2 times a semester
- Once a year or less

63. Teaching parents how to use time-out appropriately.

- At least once a day
- 1-2 times a week
- 1-2 times a month
- 1-2 times a semester
- Once a year or less
Appendix B: (Continued)

64. Teaching parents how to manage their child’s behavior in public places.

- At least once a day
- 1-2 times a week
- 1-2 times a month
- 1-2 times a semester
- Once a year or less

65. Role playing with parents their planned response to their child’s behavior.

- At least once a day
- 1-2 times a week
- 1-2 times a month
- 1-2 times a semester
- Once a year or less

66. Helping to coordinate consistent communication between parent and teacher such as a daily report card.

- At least once a day
- 1-2 times a week
- 1-2 times a month
- 1-2 times a semester
- Once a year or less

67. Coordinating childcare for the child with ADHD and his or her siblings during parent training sessions.

- At least once a day
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- 1-2 times a month
- 1-2 times a semester
- Once a year or less

68. Arranging transportation to school in order for parents to attend parent training sessions.

- At least once a day
- 1-2 times a week
- 1-2 times a month
- 1-2 times a semester
- Once a year or less
Appendix B: (Continued)

**Barriers/Facilitators**

For the following items, please indicate whether or not the circumstances outlined in each item constitute a barrier to your implementation of parent training/education activities. In other words, if the circumstances were changed in a positive direction would you be more likely to engage in such activities.

Please click on “Barrier” for each of the following items which you feel keep you from engaging in parent training/education activities. If the item includes circumstances which do not preclude you from engaging in parent training/education activities please indicate this by clicking on “Not a Barrier.”

69. The number of evaluations/re-evaluations for special education

   Barrier                    Not a Barrier

70. My school-based administrator’s (e.g., principal) response to or level of support of parent training/education activities.

   Barrier                    Not a Barrier

71. My direct supervisory unit’s (e.g., head of psychological services) response to or level of support of parent training/education activities.

   Barrier                    Not a Barrier

72. The Amount of required paperwork, including report writing

   Barrier                    Not a Barrier

73. My level of training/expertise in parent training/education activities

   Barrier                    Not a Barrier

74. The number of parents eager or willing to participate in parent training/education activities

   Barrier                    Not a Barrier
Appendix B: (Continued)

(Optional)

Please use your keyboard to type brief answers to the following questions.

**How long did it take you to complete this survey?**

**Did you experience any problems while completing the survey? Please Describe.**

**Do you have any recommended changes? Please explain.**

Thank you for taking your valuable time to complete this survey.
If you would like to be entered into a drawing to win a $15 gift certificate to Amazon.com (an online bookstore), please enter your email address. Your email address will be sent to a separate database than your survey answers and will in no way be tied to your responses. If you win the gift certificate, you will be contacted via email with instruction as to how to claim your prize. Good Luck!
Appendix C: Survey Instrument

A Survey of Professional Training Experiences and Practices with the Parents of Children with ADHD

This survey contains 73 questions and should require approximately 15 minutes of your time. Your participation is greatly appreciated!

Use your mouse to click on the box next to the correct answer for each statement.

5. I am
   - [ ] Male
   - [ ] Female

5. The number of years that I have worked as a School Psychologist including the 2003-2004 school year and my internship year is
   - [ ] 1-5 years
   - [ ] 6-10 years
   - [ ] 11-16 years
   - [ ] 17-22 years
   - [ ] 23 or more years

3. The highest degree I have attained in the field of School Psychology is a
   - [ ] Masters degree (MA)
   - [ ] Specialist degree (EdS)
   - [ ] Doctoral degree (PhD, EdD)
   - [ ] Doctorate of Psychology degree (PsyD)

5. I obtained my highest degree in School Psychology
   - [ ] Less than 5 years ago
   - [ ] 5-15 years ago
   - [ ] 16-25 years ago
   - [ ] 26 or more years ago
5. During the 2002-2003 school year, I served

- 1 school
- 2 schools
- 3 schools
- 4+ schools

6. The estimated number of students that I served (caseload) during the 2003-2004 school year at all my schools combined was

- 1-20
- 21-40
- 41-60
- 61-80
- 81-100
- 101+

7. My Primary Employment Setting in which I was assigned the most time was a(n).

- Elementary School
- Middle/Junior High School
- High School
- Alternative School Setting
- Other (please specify) ________________________
Appendix C: (Continued)

Role and Function

Please use your keyboard to type in the percentage of time that you typically engaged in the following activities during the 2002-2003 school year. The percentages for all activities combined should equal 100%.

Assessment
Administering norm-referenced measures such as the WISC-III or WJ-III; conducting CBM; writing reports; conducting behavioral observations; etc.

Direct Interventions
Counseling; crisis intervention; etc.

Indirect Services/ Consultation
Consulting with teachers or parents; parent training; etc.

Case Management
Contacting pediatricians and other pertinent community professionals; making referrals to outside agencies; researching community resources, etc.

Professional Development
Attending conferences; reading articles; receiving feedback from colleagues and/or supervisors.

Assessment ________%
Direct Intervention ________%
Consultation ________%
Case Management ________%
Professional Development ________%
Appendix C: (Continued)

Beliefs

Please use your mouse to click on the box next to the statement that most closely reflects your level of agreement with each statement.

13. Parent involvement can help increase success in school for a student with ADHD.
   - Strongly Agree
   - Agree
   - Neutral
   - Disagree
   - Strongly Disagree

14. Teaching parents of a child with ADHD about child development, discipline, or parenting will result in improved child behavior both at home and at school.
   - Strongly Agree
   - Agree
   - Neutral
   - Disagree
   - Strongly Disagree

15. Parents of children with ADHD want to be involved in their children’s education more than they are currently involved.
   - Strongly Agree
   - Agree
   - Neutral
   - Disagree
   - Strongly Disagree

16. School psychologists have the time to collaborate with other educators to increase parent involvement by parents of children with ADHD.
   - Strongly Agree
   - Agree
   - Neutral
   - Disagree
   - Strongly Disagree
Appendix C: (Continued)

18. School psychologists have the time to provide parent training to parents of children with ADHD.

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree

19. Every family that has a child with ADHD has some strengths that could be tapped to increase student success in school.

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree
Appendix C: (Continued)

Training

The way that we as school psychologists receive training regarding specific activities or practices varies. Training may have occurred during graduate school or during professional development activities following graduate school. This training may have included a low level of intensity such as coursework alone or may have included the most intense level of training which is personally implementing the activity or intervention with supervision. The answer options for the following statements are arranged from less intense training methods to more intense training methods.

For each of the following activities or practices, please indicate the nature of your training experiences by using your mouse to click on the box next to the HIGHEST LEVEL OF TRAINING that you received. For example, if you received both coursework and the opportunity to directly observe the intervention or practice being implemented, click on the box next to “Directly Observed” because this is the more intense training method. (Click on only one box)

Definitions of Training Methods

Not Covered—Have not been exposed to the activity or intervention through coursework or observation.

Coursework (level 1)—Obtained knowledge of activity or intervention through course based readings and lecture

Directly Observed (level 2)—Watched intervention being implemented by teacher, supervisor, or qualified personnel.

Personally Implemented (level 3)—Personally implemented intervention independently without supervision.

Personally Implemented with Supervision (level 4)—Was directly supervised during personal implementation.
Appendix C: (Continued)

23. Consulting with the parents of children with ADHD about ways they can support their child’s learning or behavior at school.

- Not covered
- Coursework
- Directly Observed
- Personally Implemented
- Personally Implemented with Supervision

Appendix C: (Continued)

23. Facilitating conferences to create more cooperation between the parents of children with ADHD and educators.

- Not covered
- Coursework
- Directly Observed
- Personally Implemented
- Personally Implemented with Supervision

23. Providing training for teachers regarding ways to involve the parents of children with ADHD in their children’s school work.

- Not covered
- Coursework
- Directly Observed
- Personally Implemented
- Personally Implemented with Supervision

23. Helping teachers and administrators provide information to the parents of children with ADHD on grade-level academic expectations or homework policies.

- Not covered
- Coursework
- Directly Observed
- Personally Implemented
- Personally Implemented with Supervision

23. Developing or coordinating a family resource center that serves parents of children with ADHD.

- Not covered
- Coursework
- Directly Observed
- Personally Implemented
- Personally Implemented with Supervision
Appendix C: (Continued)

24. Planning, coordinating, and monitoring interventions implemented jointly by the parents of children with ADHD and teachers.

- Not covered
- Coursework
- Directly Observed
- Personally Implemented
- Personally Implemented with Supervision

Appendix C: (Continued)

25. Helping schools create participatory roles for parents of children with ADHD on school advisory committees.

- Not covered
- Coursework
- Directly Observed
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26. Organizing a parent volunteer program to assist children with ADHD in the classroom

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- Coursework
- Directly Observed
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27. Coordinating a parent support group for the parents of children with ADHD.

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- Coursework
- Directly Observed
- Personally Implemented
- Personally Implemented with Supervision

28. Implementing a formal parent-training program that included regular, scheduled meetings and a planned parent training curriculum.

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- Coursework
- Directly Observed
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Appendix C: (Continued)

29. Implementing empirically validated interventions for children with ADHD.

- Not covered
- Coursework
- Directly Observed
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- Personally Implemented with Supervision

33. Observing and noting the relationships between antecedents, behavior, and consequences.

- Not covered
- Coursework
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- Personally Implemented
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33. Using positive reinforcement (e.g., giving praise, attention, prizes, etc.) to maintain or change behavior.

- Not covered
- Coursework
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33. Using a time-out from positive reinforcement procedure (i.e., removing a child from a desirable activity or environment following their inappropriate or undesirable behavior).

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- Coursework
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33. Implementing a token economy (i.e., rewarding a child’s positive, appropriate behavior with tokens such as toy money which can later be exchanged for desired items, activities, or privileges).

- Not covered
- Coursework
- Directly Observed
- Personally Implemented
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Appendix C: (Continued)

**Current Practices**

Please use your mouse to click on the box next to the statement that most closely approximates how often you typically engage in each activity WITH THE PARENTS OF CHILDREN WITH ADHD

34. Consulting with families about specific ways that they can support their child’s learning or behavior at school.

- At least once a day
- 1-2 times a week
- 1-2 times a month
- 1-2 times a semester
- Once a year or less

35. Teaching families about child development, discipline, or parenting.

- At least once a day
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Appendix C: (Continued)

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39. Contacting parents who do not attend scheduled conferences or who need follow-up contacts.

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- Once a year or less
Appendix C: (Continued)

**Barriers/Facilitators**

For the following items, please indicate whether or not the circumstances outlined in each item constitute a barrier to your implementation of parent training/education activities. In other words, if the circumstances were changed in a positive direction would you be more likely to engage in such activities.

Please click on “Barrier” for each of the following items which you feel keep you from engaging in parent training/education activities. If the item includes circumstances which do not preclude you from engaging in parent training/education activities please indicate this by clicking on “Not a Barrier.”

69. The number of evaluations/re-evaluations for special education

   Barrier    Not a Barrier

70. My direct supervisory unit’s (e.g., head of psychological services) response to or level of support of parent training/education activities.

   Barrier    Not a Barrier

71. The Amount of required paperwork, including report writing

   Barrier    Not a Barrier

73. My level of training/expertise in parent training/education activities

   Barrier    Not a Barrier

**Thank you for taking your valuable time to complete this survey.**

If you would like to be entered into a drawing to win a $15 gift certificate to Amazon.com (an online bookstore), please enter your email address. Your email address will be sent to a separate database than your survey answers and will in no way be tied to your responses. If you win the gift certificate, you will be contacted via email with instruction as to how to claim your prize. Good Luck!