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School Psychologists Engagement in Parent Training/Education Activities with the Parents of Children with Chronic Behavior Problems

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School Psychologists Engagement in Parent Training/Education Activities with the Parents of Children with Chronic Behavior Problems

by

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School Psychologists' Engagement in Parent Training/Education with Parents of Children with Chronic Behavior Problems

Rebecca Sarlo

ABSTRACT

The purposes of this research were to determine the rate at which school psychologists engage in parent training/education with the parents of children with chronic behavior problems and to determine the relationships between school psychologists' demographic variables, professional practice, training, and perception of barriers and their engagement in such activities. These variables have been found to be related to types of service delivery practices and were hypothesized to also be related to the rate and type of engagement in parent training/education activities by school psychologists.

Five hundred school psychologists were randomly sampled from the membership of the National Association of School Psychologists and mailed a survey. One-hundred-fifteen (23%) of the targeted school psychologists returned a usable survey. Five school psychologists indicated that they engaged in parent training/education at least weekly and volunteered to engage in a phone interview with the researcher. The phone interview was conducted in order to gather more specific information regarding facilitators of the school psychologists' engagement in parent training/education with the parents of children with chronic behavior problems.

Data were analyzed using descriptive, correlational, linear, and qualitative methods. Results indicated that school psychologists' rate of engagement in parent training interventions with the parents of children with chronic behavior problems occurred on average less than once per semester. The data also suggested that intensity of training and perception of barriers were most strongly related to school psychologists' engagement in parent training/education activities. Other variables including school psychologists' perception of available time, problem solving skills, and ability to communicate with school-based administrators also were indicated as impactful on school psychologists' engagement in parent training/education activities. These findings have important implications for school psychology training programs. Specifically, school psychology training programs may wish to examine the intensity of training provided to trainees in not only parent training/education but also in time management, problem solving, and consultation.

Chapter I

Introduction

Childhood chronic behavior problems represent a major social problem for American society. Ramifications of chronic behavior problems are far reaching, resulting in severe negative effects for families, schools, and the community at large. Childhood chronic behavior problems negatively affect family functioning and are strongly associated with high levels of family stress, family conflict, marital discord, and negative parent-child interactions. Child chronic behavior problems and parental inability to manage the family may affect each other in a circular fashion with one increasing the likelihood of the other. Parents of children with chronic behavior problems often express a low level of confidence in their ability to change their children's problem behavior (Alizadeh, Applequist, & Coolidge, 2007) and report increased parental stress levels (Aikens, Coleman, & Barbarin, 2008; O'Leary & Vidair, 2005; Patterson, DeGarmo, & Forgatch, 2004), depression (Aikens et al., 2008), and marital discord (Aikens et al., 2008; O'Leary & Vidair, 2005) as well as a decreased tendency to seek out or implement effective interventions (DeMore, Adams, Wilson, & Hogan 2005; Patterson, DeGarmo et al., 2004; Nock & Photos, 2006). High levels of stress and decreased ability to deal effectively with their children's negative behavior may result in less warmth within the parent-child relationship and inconsistent and or harsh discipline practices (Chang, Schwartz, Dodge, & McBride, 2003; Dodge & Petit, 2003; Patterson, DeGarmo et al.,

2004). This lack of warmth when paired with inconsistent and harsh discipline within the first five years of life has an important and enduring effect on children's development, negatively affecting children's ability to regulate their emotions, increasing the likelihood of future chronic behavior problems (Chang et al., 2003). On the other hand, parents' positive attention, emotional investment, and consistent behavior management are predictive of healthy childhood and adolescent social and emotional development (Dishion & Bullock, 2002).

Chronic behavior problems also negatively impact the classroom learning community. Children who exhibit behavior problems consistently interfere with their own learning and the learning of others as well as their teacher's ability to provide instruction and manage the classroom environment. The loss of instructional time due to chronic behavior problems is significant. Seventeen-percent of teachers reported consistently losing four or more hours of instructional time per week dealing with children with chronic behavior problems while 19% reported losing 2 to 3 hours of instructional time per week (Hart, 1995). The percentages were even more striking among teachers who taught in urban schools, with 21% reporting losing 4 or more hours per week. No doubt, the loss of instructional and learning time has a negative effect on academic achievement and classroom climate as well as the emotional well-being of teachers and students alike.

Chronic behavior problems result in exorbitant monetary costs every year for the community at large in terms of health, mental health, juvenile justice, and school expenses. By the end of high school, yearly costs per child with conduct problems exceed yearly costs for children without conduct problems by more than $11,000

(Foster, Jones, & The Conduct Problems Prevention Research Group, 2005). Due to the chronic nature of conduct problems, many youth with conduct problems become adults who continue to accrue high public expenditures in terms of criminal justice and welfare costs.

Intervention for Chronic Behavior Problems

Parent training is a critical component of any comprehensive intervention package designed to address the needs of children with chronic behavior problems. Because parents are one of the few constant adult figures in a child's life, they can 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 their children's behavior problems, most parents welcome assistance with the academic and behavioral needs of their children (Redmond, Spoth, & Trudeau, 2002).

The Provision of School Psychology Services (NASP, 2000), which was adopted on July 15, 2000, urges school psychologists to become 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, these parent-focused interventions should center 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; Teeter, 1998). In addition to these parent training activities,

support groups may provide parents with essential outlets for sharing stressful experiences with other parents with similar experiences. Further, such settings may provide the school psychologist with an appropriate setting to teach stress reduction techniques, problem-solving strategies, and behavior management options.

Availability of School-Based Parent Training/Education Programs

Although behavioral parent training is one of only two intervention strategies recognized by the American Psychological Association Task Force on Promotion and Dissemination of Psychological Procedures (Chambless, Sanderson, Shoham, & Bennett et. al, 1997) as meeting criteria for effective interventions for the treatment of childhood behavior problems (Pelham, Wheeler & Chronis, 1998), such interventions typically are not provided in the schools (Teeter, 1991; Teeter, 1998). Despite the importance and effectiveness of parent training, school psychologists report spending only 1% of their time providing these services (Bramlett, Murphy, Johnson, Wallinford, & Hall, 2002).

Purpose of the Current Study

Existing literature lends only limited information as to which variables are related to school psychologists' engagement in parent-focused interventions. The purposes of the current research were to determine the rate at which school psychologists engage in parent training/education with the parents of children with chronic behavior problems and to determine the relationships between school psychologists' demographic variables, professional practice, training, and perception of barriers and their engagement. These variables were selected based on an extensive review of the literature that indicated each to be related to the implementation of other types of service delivery practices. It was hypothesized that these variables influence not only the frequency with which school

psychologists offer education/training opportunities but also the type of interventions provided. Specifically, the following research questions were examined:

1. How often are school psychologists currently engaging in parent training/education activities with parents of children with chronic behavior problems?

Hypothesis: School psychologists will report engagement levels of between once per week and once per month.

2. What are the relationships between demographic variables (i.e., sex, degree level, years of experience, recency of training, number of students served, number of schools served, and employment setting) and the rate of engagement in parent training/education activities with parents of children with chronic behavior problems?

Hypothesis: Sex, degree level, and years of experience will not be found to be significantly related to school psychologists' engagement in parent training/education.

Hypothesis: Number of students served and the number of schools served will be found to be significantly negatively related to school psychologists' engagement in parent training/education.

Hypothesis: School psychologists serving elementary schools will report higher rates of engagement in parent training/education than school psychologists serving secondary schools.

3. What is the relationship between intensity of training and the rate of engagement in parent training/education activities with parents of children with chronic behavior problems?

Hypothesis: The intensity of school psychologists' training in formal parent training strategies, behavioral interventions, and collaborating with parents will be found to be significantly positively related to their engagement in parent training/education interventions with the parents of students with chronic behavior problems.

4. What is the relationship between a school psychologists' professional practices (i.e., percent of time spent engaging in assessment, direct intervention, consultation, case management, professional development or other activities) and their rate of engagement in parent training/education activities with parents of children with chronic behavior problems?

Hypothesis: The percent of time school psychologists report engaging in assessment will be found to be significantly negatively related to their engagement in parent training/education interventions with the parents of children with chronic behavior problems.

Hypothesis: The percent of time school psychologists report engaging in case management will be found to be significantly negatively related to their engagement in parent training/education interventions with the parents of children with chronic behavior problems.

Hypothesis: The percent of time school psychologists report engaging in consultation will be found to be significantly positively related to their engagement in parent

training/education interventions with the parents of children with chronic behavior problems.

Hypothesis: The percent of time school psychologists report engaging in direct intervention will be found to be significantly negatively related to their engagement in parent training/education interventions with the parents of children with chronic behavior problems.

5. What is the relationship between the perception of barriers and school psychologists' rate of engagement in parent training/education activities with parents of children with chronic behavior problems?

Hypothesis: School psychologists who perceive more barriers will report less frequent engagement in parent training/education interventions with the parents of children with chronic behavior problems.

6. Which of the variables or combination of variables above accounts for the most variance in the rate of engagement of school psychologists in parent training/education activities with parents of children with chronic behavior problems?

Hypothesis: Training variables and perception of barriers variables will account for the most variance in rate of engagement of school psychologists in parent training/education activities with parents of children with chronic behavior problems.

Contribution of the Current Study to the Literature

This study contributes to the literature by providing descriptive information regarding school psychologists' engagement in parent training/education activities with families of children with chronic behavior problems. The research also lends information regarding

variables that are related to this engagement. An understanding of variables that predict school psychologists' engagement in parent training/education activities provides useful information for both pre-service training programs and in-service professional development.

Chapter II

Literature Review

This chapter will provide a review of the literature related to childhood chronic behavior problems. Specifically, the chapter will review the impact of childhood chronic behavior problems on families, schools, and the community. A review of variables related to the development of chronic behavior problems in childhood will be provided in order to highlight the complex epidemiology of such problems. Intervention approaches, both common and uncommon, will be reviewed in terms of application and effectiveness. The implementation and effectiveness of parent training/education interventions in particular will be examined, and specific parent training programs will be outlined. Finally, variables which have been found to impact school psychologists' professional practice will be reviewed with the anticipation that these variables may also be related to school psychologists' engagement in parent training/education with the parents of children with chronic behavior problems.

Chronic Behavior Problems and Disruptive Behavior Disorders

Chronic behavior problems represent a major social problem for American society. Ramifications of behavior problems are far reaching, presenting severe negative effects on families, schools, and the community at large. Chronic behavior problems account for the majority of outpatient mental health referrals (Loeber, Burke, Lahey, Winters, & Zera, 2000) and a large proportion of school-based referrals to school psychologists (Bramlett, Murphy, Johnson, Wallinsford, & Hall, 2002), as well as the

largest proportion of placements in full-time special education classes (Anderson, Kutash, & Duchnowski, 2001; Landrum, Katsiyannis, & Archwamety, 2004). Further, chronic behavior problems in childhood are strongly correlated with continued violent and aggressive behavior during adolescence and adulthood (Broidy et al., 2003).

Effects on the family. Youth who demonstrate chronic behavior problems tend to be excessively noncompliant and aggressive toward others. Chronic behavior problems are often associated with high levels of family stress, family conflict, marital discord, and negative parent-child interactions (Aikens, Coleman, & Barbarin, 2008; O'Leary & Vidair, 2005; Chang, Schwartz, Dodge, & McBride, 2003; Patterson, 1992). Not surprisingly, chronic behavior problems often have a detrimental effect on the family social ecology and a parent's ability to adequately manage the family (Reid, Patterson, & Gerald, 2002; Richman, Harrison, & Summers, 1995; Snyder, Cramer, Afrank, & Patterson, 2005). Child behavior problems (e.g., 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 child and also may negatively affect relationships between the parent and other members of the family (e.g., spouse) (Barkley, 1997b; Chang, Schwartz, Dodge, & McBride, 2003; Patterson, DeGarmo, & Forgatch, 2004). Because particular response patterns to negative behavioral incidences often reinforce the behavior, underlie negative

interactions within the family, and reduce parental functioning, it is necessary to target these response patterns during intervention.

Effects in the classroom. The effects of chronic behavior problems on the classroom learning community also are extremely negative. Children who exhibit chronic behavior problems consistently interfere with their own learning and the learning of others as well as their teacher's ability to provide instruction and effectively manage the classroom environment. Seventeen-percent of teachers report consistently losing 4 or more hours of instructional time a week dealing with student behavior problems while 19% reported losing 2 to 3 hours of instructional time per week (Hart et al., 1995). Loss of instructional time due to chronic behavior problems is even more likely within the urban classroom with 21% of teachers teaching in urban schools reporting losing 4 or more hours of instructional time per week. No doubt, the loss of instructional and learning time has a negative impact on academic achievement and classroom climate and significantly interferes with the emotional well-being of teachers and students alike. Interestingly, of the 43% of teachers who reported having children with discipline problems in their classroom, more than half reported that classroom disruptions were caused by the same 1 to 3 students (Hart et. al., 1995). While these students' behavior negatively effects the learning environment for others, the impact on their own school experience is profound, as they are the most likely to be excluded from school and classroom activities, isolated from their peers, suspended from school (Morrison, Anthony, Storino, & Dillon, 2001), and experience school failure (Barkley, 1998; French & Conrad, 2001).

Effects on the community. Beyond the price paid in the classroom, huge monetary costs are assessed by the community every year in terms of health, mental health, juvenile justice, and school expenses. By the end of high school, yearly costs exceed $14,000 per child for children with conduct problems compared to $2300 for children without conduct problems (Foster, Damon, & Jones, 2005). Inpatient and outpatient mental health costs accounted for nearly 70% of the variance between children with conduct problems and other groups, as chronic behavior problems are amongst the most common reasons for children to be referred for mental health services (Shanley, Reid, & Evans, 2008).

Differences in school expenditures also accounted for a significant proportion of variance between children with conduct problems and those without conduct problems (Foster, Jones, & The Conduct Problems Prevention Research Group, 2005). These differences resulted largely from the higher costs of special education and retentions associated with children with conduct problems. Finally, 20% of the total expenditures for children with conduct problems occurred within the juvenile justice system and far exceeded the cost of juvenile justice involvement for children without conduct problems. When summed across the seven years of which the participants were followed, expenditures for children with conduct problems totaled nearly $70,000 more than expenditures for children without conduct problems. It is important to note that these figures held true even when common risk factors associated with chronic behavior problems, such as low socio-economic status (SES) were controlled. No doubt without intervention, given the chronic nature of conduct problems, many children with conduct problems become adults who continue to accrue high public expenditures in terms of

criminal justice and welfare costs (Moffit, Caspi, Harrington, & Milne, 2002; Soderstrom, Sjodon, & Carlstedt, 2004).

Disruptive Behavior Disorders

Because of the far reaching nature of chronic behavior problems, children who demonstrate such behavior have demanded the attention of professionals from various social institutions including those within the mental health, education, and juvenile justice fields. Children and adolescents who demonstrate chronic behavior problems have been categorized as Oppositional Defiant, Conduct Disordered, Emotionally or Behaviorally Disturbed/Disordered, and Juvenile Delinquents depending on the social institution or discipline. There clearly is a high level of overlap between these categories. For instance, given the very definition of Conduct Disorder, it is likely that a child who meets criteria for this disorder may also be involved with the juvenile justice system (i.e., juvenile delinquent) and require additional support to be successful at school (i.e., through services provided to students with emotional or behavioral disorders in a special education setting). For the purposes of this research, Disruptive Behavior Disorders will be defined as in the Diagnostic and Statistical Manual, Forth Edition, Text Revision, DSM-IV-TR (American Psychiatric Association, 2000). This classification system includes three primary diagnoses under Disruptive Behavior Disorders: Oppositional Defiant Disorder, Conduct Disorder, and Attention-Deficit/Hyperactivity Disorder.

Oppositional Defiant Disorder. Oppositional Defiant Disorder (ODD) is characterized by consistent displays of defiant, disobedient, and hostile behavior toward authority figures. This persistent negative pattern of behavior may include losing one's temper, arguing with adults, actively defying or refusing to comply with adult requests or

rules, deliberately annoying others, blaming others for mistakes or misbehavior, and being irritable, easily annoyed by others, angry, resentful, spiteful, or vindictive. In order to meet the criteria for an ODD diagnosis, the negative behavior must have been present within the 12 months prior to the diagnosis, must have lasted for at least 6 months, and must cause clinically significant impairments in social, academic, or occupational functioning. In addition, behaviors must not occur completely during the course of a Psychotic or Mood Disorder and may not meet the criteria for Conduct Disorder (American Psychiatric Association, 2000).

Documented rates of ODD range from 2% to 16% depending on the sampled population and the method by which data were gathered (Egger & Angold, 2006; Rowe, Maugham, Costello, & Angold, 2005). ODD is more prevalent in males than females during childhood while prevalence rates appear more similar as boys and girls enter adolescence (Alvarez & Ollendick, 2003). ODD is expressed very similarly in boys and girls with boys being slightly more likely to display confrontational and aggressive behavior than girls (Alvarez & Ollendick, 2003; Maughan, Rowe, Messer, Goodman, & Meltzer, 2004). In addition, boys tend to display more persistent symptoms than girls and have a greater likelihood of being diagnosed later with the more serious Conduct Disorder than their female counterparts.

The etiology of ODD remains largely unknown. Common known risk factors include a difficult temperament, high motor activity, low self-esteem or an overly inflated self-esteem, mood lability, and low frustration tolerance (DSM-IV-TR). In addition, parents of children diagnosed with ODD often report a parental history of alcohol and

drug use conflicts with their own peers, teachers, and parents; and harsh, inconsistent, or neglectful parenting practices (DSM-IV-TR).

Conduct Disorder. Conduct Disorder (CD) is defined as "a repetitive and persistent pattern of behavior in which the basic rights of others or major age-appropriate societal norms or rules are violated" (DSM-IV-TR). This pattern of behavior may include aggression to people or animals in which the individual with CD often bullies or intimidates others or initiates physical altercations. In addition, an individual may fit this diagnostic criteria if he or she has been known to use a weapon to harm others, be physically cruel to people or animals, steal from someone while confronting them, or force someone into a sexual activity. Other criteria for the diagnosis of CD involve deliberately destroying others' property and stealing or conning others in order to obtain property. The final criterion involves serious violation of rules. Specifically, individuals with CD may often stay out at night without parental approval beginning before the age of 13, may run away from home overnight on more than two occasions or at least once for a lengthy period, or may be truant from school often beginning before the age of 13. The presence of these criteria must create a clinically significant impairment in social, academic, or occupational functioning in order for a diagnosis of CD to be applied.

Two sub-types of Conduct Disorder exist depending on the age of onset of the disorder. If age of onset is determined to have occurred prior to the age of 10, then the individual with CD is diagnosed with Childhood-Onset Type CD. Individuals with Childhood-Onset CD are predominately male. Individuals within this subtype typically display clinically significant levels of physical aggression toward others as well as

problems relating to peers. Many of these individuals have comorbid ADHD and several will have been diagnosed with ODD prior to meeting the full criteria for CD.

Individuals with Childhood-Onset Type CD are more likely to develop adult Antisocial Personality Disorder than those individuals whose onset of CD occurred after the age of 10 (Moffit, Caspi, Harrington, & Milne, 2002). Individuals who do not display criteria of CD prior to the age of 10 but meet criteria for diagnosis after the age of 10 are diagnosed with Adolescent-Onset Type CD. Individuals within this subtype are less likely to engage in serious aggressive behavior. They also tend to have more typical peer relations, displaying conduct problems along with their chosen peer group. Individuals within this subtype are less likely to display persistent behavioral problems and are less likely to meet criteria for Antisocial Personality Disorder in adulthood than individuals with Childhood-Onset CD. While the majority of individuals diagnosed with Childhood-Onset CD are male, the number of males and females diagnosed with Adolescent-Onset CD is almost equal (Goldstein, Grant, Ruan, Smith, & Saha, 2006; Zoccolillo, 1993).

Overall, the prevalence rates of individuals with CD vary widely depending on the population sampled. For example, some studies report a prevalence rate of 1% while others report prevalence rates as high as 10% within the general population. Nonetheless, CD remains a high prevalence disorder, as it is one of the most frequently diagnosed disorders in childhood (US Department of Health and Human Services, 1999). DSM-IV states that a diagnosis of CD should be made only when the symptoms are caused by an internal psychological dysfunction and are not a reaction to a negative environment. For example, an abused child may run away from home, steal food to eat, and engage in violent behavior in order to protect him or herself on the streets. The child's behavior

may constitute an adaptive reaction to a negative social context and not indicate internal psychological dysfunction. Thus, several factors should be considered before making a diagnosis of CD including socio-economic status (SES), rural versus urban settings, ethnicity and culture, cognitive development, and expectation for behavior. A failure to consider the effects of such variables on a child's or adolescent's behavior may result in a false positive diagnosis of CD. Wakefield, Pottick, and Kirk (2002) suggest incorporating a negative environment exclusion clause directly into the DSM criteria for CD. Such an exclusion would require clinicians to judge whether or not the child's behavior is the result of an internal psychological dysfunction or the result of a normal response to a negative social environment before formally diagnosing CD.

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 2% and 18% of school-aged children in the United States (Rowland, Lesesne, & Abramowitz, 2002). Typically, children with ADHD are characterized as having chronic difficulties in the areas of inattention, impulsively, 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 co-morbidity 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% (Barkley,

1990; Hurtig et al., 2007; Jensen, 2001; 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. 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 (Barkley, 1990; Hurtig et al., 2007). Further, between 30% and 50% of children with ADHD will eventually meet the criteria for the more serious diagnosis of Conduct Disorder (Barkley, 1990; Hurtig et al., 2007).

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; Barkley, Fischer, Smallish, & Fletcher, 2002). 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 (Morrison, Anthony, Storino, & Dillon, 2001). As adults, as many as 50% of individuals with ADHD will still show evidence of the symptoms of the disorder. Adults with ADHD are more prone than adults without ADHD to engage in antisocial activities, have difficulty getting along with supervisors, and change jobs often (Barkley, 1990; Fischer, Barkley, Smallish, & Fletcher, 2005; Pelham, Greiner, & Gnagy, 1997).

Development and Prognosis for Children with Chronic Behavior Problems

Although issues with noncompliance, aggression, and school failure are common major issues for individuals with chronic behavior problems, symptoms associated with such problems vary according to a child's age and development (Barkley, 1998; Broidy et al., 2003; Cote et al., 2001; Patterson, Shaw, Snyder, & Yoerger, 2005; Teeter, 1991). An understanding of these developmental changes is essential to the identification and subsequent treatment of children who demonstrate chronic behavior problems (Teeter, 1998).

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 who display chronic behavior problems 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 (Morgan, Robinson, & Aldridge, 2002). These changes are noted whether the specified caregiver is a parent or a teacher, indicating that the behaviors these children display affect adults similarly in school and home settings (Green, Beszterczey, Katzenstein, Park, & Goring, 2002). Thus, similar skills and interventions are needed in both settings.

In infancy, risk factors for the development of chronic behavior problems include having a difficult temperament, feeding problems, 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 (Gross, Sambrook, Fogg, 1999; Morgan, Robinson, &

Aldridge, 2002). By the time a child becomes a toddler, mothers of children who demonstrate frequent conduct problems 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 frequent behavior problems (Johnston, 1996; Tamanik, Harris, & Hawkins, 2004).

Interactions between parents and children with frequent conduct problems, particularly those between mother and child, often become increasingly negative during the preschool years (Barkley, 1998; DuPaul et al., 2001; Gross, Sambrook, & Fogg, 1999). Reports of problems at school and with peers act to further exacerbate a stressful home situation. Children who are at risk for the development of chronic behavior problems 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. As a result, they may develop low self-esteem and depression related to school performance during this time (Barkley, 1998; Roeser, Eccles & Sameroff 2000). Though only a small minority of children initially display severe conduct problems during their preschool years (i.e., 3-11%), the prognosis for this group of children is particularly grave. Early childhood conduct problems are one of the best predictors of adolescent and adult criminal behavior, including violent offending (Herrenkohl, Guo, Kosterman, Hawkins, Catalano, & Smith, 2001; Nagin & Tremblay, 2001). Boys who display chronic physical aggression, conduct problems, and oppositional behavior in early childhood (i.e., prior to age 6) are significantly more likely to engage in both violent and nonviolent offending during adolescence (Nagin &

Tremblay, 2001). For girls, however, the relationship between early aggressive behavior, conduct problems, and oppositional behavior and later violent and nonviolent offending is less clear (Broidy et al., 2003). Not surprisingly, adolescents who display chronic behavior problems 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; Foster, Jones, & The Conduct Problems Prevention Research Group, 2005; Morrison, Anthony, Storino, & Dillon, 2001; Wender, 2000;).

Risk Factors for the Development of Chronic Behavior Problems

Chronic behavior problems are believed to result from a variety of variables including genetic, neurobiological, family, and community factors (Granic & Patterson, 2006; Reid, Patterson, & Snyder, 2002). Researchers have worked to understand how overlying risk factors (e.g., difficult temperament and socioeconomic disadvantage) relate to life experiences (e.g., harsh parenting and peer rejection) and lead to negative emotional reactions and negatively biased cognitive interpretations, ultimately resulting in chronic behavior problems (Dodge & Pettit, 2003; Granic & Patterson, 2006). As one might expect, neurobiological factors often overlap with and are exacerbated by environmental causes of chronic behavior problems. For example, a parent may display less warmth and patience with a child who has a difficult temperament than he or she would with a child who was more easy-going and adaptable. In response, the child may become increasingly difficult and hard to manage. Over time, the reciprocal influence of the parent's and child's behavior lead to ingrained patterns of interactions which act to promote the development of chronic behavior problems (Dodge & Pettit, 2003).

Genetic, hormonal, and autonomic nervous system factors. A growing body of research has revealed a moderate degree of heritability for aggression, delinquency, and chronic behavior problems from childhood to adulthood (Eley, Lichtenstein, & Moffit, 2003; Johnson, McGue, & Iacono, 2005; Taylor, Iacono, & McGue, 2000). Researchers using data from the Minnesota Twin Family Study to examine the relationship between disruptive behavior and genetic factors observed that about 75% of the variance in behavior variables was accounted for by genetics (Johnson et al., 2005). Other researchers have revealed genetic influences on a variety of individual differences which are thought to be related to the development of conduct problems such as impulsivity, attention deficits, and temperament (Silberg, Miguel, Murrelle, & Prom et al., & Eaves, 2005; The ADHD Molecular Genetics Network, 2002). Thus, certain children may be born at-risk to develop chronic behavior problems because they are genetically predisposed toward impulsivity, inattention, and difficult temperaments.

In addition to genetic predispositions, children who are exposed to toxic prenatal environments are at greater risk for the development of conduct problems than children whose prenatal environment was healthy. Specifically, research has revealed that fetuses who are exposed to opiates (Accornero, Anthony, Morrow, Xue, & Bandstra, 2006 Watson & Westby, 2003), methadone (Accornero, Anthony, Morrow, Xue, & Bandstra, 2006; Watson & Westby, 2003), alcohol (Watson & Westby, 2003), marijuana (Goldschmidt, Day, & Richardson, 2000; Watson & Westby, 2003), and cigarette by-products (Day, Richardson, Goldschmidt, & Cornelius, 2000) during pregnancy are more likely to develop conduct problems in childhood than those who are not exposed to such toxins. In addition to these toxins, prenatal and postnatal exposure to lead has also been

linked to chronic behavior problems in adolescence, a fact which is particularly troubling for children from low SES families who are at a greater risk for lead poisoning (Kroger, Schettler, & Weiss, 2005).

Temperamental factors. Aspects of a child's temperament also are related to the occurrence of chronic behavior problems. Specifically, a child who has a difficult temperament (i.e., irritable, easily frustrated, hard to soothe) is more likely to be identified by both teachers and parents as demonstrating higher levels of externalizing behavior problems than peers who are identified as having an easy temperament (Keily, Bates, Dodge, & Pettit, 2001). A difficult temperament at 6-months of age has been found to be predictive of externalizing behavior problems at 5 years of age (Anderson, 1999), 7 years of age (Benzies, Harrison, & Magill-Evans, 2004), and even through late adolescence (Leve, Hyoun, & Pears, 2005).

Sleep disorders. Research has revealed a strong relationship between sleep disorders and child and adolescent chronic behavior problems. Children who sleep less than 8 hours per day are more likely to experience externalizing and internalizing behavior problems than children who sleep 9.6 hours or more per day, particularly in terms of aggressive and delinquent behaviors, attention problems, social problems, and somatic problems (Aronen, Paavonen, Fjallberg, Soininen, & Torronen, 2000). This is especially noteworthy when one considers that an estimated 20-25 percent of the pediatric population in the United States have some type of sleep disorder some time within their childhood or adolescence, totaling more than 14 million youth (Meltzer & Mindell, 2006; Owens, Spirito, McGuinn, & Nobile, 2000). Not only are youth with sleep problems more likely to have poorer impulse control, sustained attention, behavior

regulation, emotion regulation and academic performance, these problems are often severe enough to result in a psychiatric diagnosis (e.g., ADHD, depression, ODD, CD, Bipolar Disorder), a medical diagnosis (e.g., failure-to-thrive, mild mental-retardation) and or placement in a special education program. Middle school students with a sleep disorder demonstrate nearly three times as many behavior and attention problems as students without sleep disorders (Owens, Mehlenbeck, Lee, & King, 2008; Selman & Rappley, 2005). They are also more irritable, oppositional-defiant, and hyperactive than youth without sleep disorders. In fact, a growing body of research indicates that a sleep disorder may cause the ADHD symptoms (i.e., hyperactivity, impulsivity, inattention) of between 25 and 64 percent of children who are diagnosed with ADHD (Chervin et al., 2002; Cortese, Konofal, & Lecendreux, 2005). When these sleep disorders are corrected, symptoms that are characteristic of ADHD, CD, and ODD often decline and may disappear all together (Sadeh, Gruber, & Ravin, 2003). A study of 25 children diagnosed with both a psychiatric disorder of ADHD, CD, or ODD and with Obstructive Sleep Apnea Syndrome (OSAS) resulting in sleep disruption and sleep deprivation revealed that the children who had surgery to correct the structural abnormalities that caused the OSAS no longer demonstrated clinically significant behavior problems while the children who continued to experience OSAS showed no improvement in behavior (Sadeh, Gruber, & Ravin, 2003).

Social-cognitive factors. Children who display chronic behavior problems frequently demonstrate deficits and distortions at various stages of the information processing model. Specifically, these children tend to underutilize pertinent social cues, generate fewer assertive solutions, assume hostile intent from peers, and choose

aggressive rather than prosocial responses to problems. As a child repeatedly engages in these behaviors, the cognitive structures which support these responses are strengthened. Strengthening of these cognitive structures increases the likelihood that the child will engage in the maladaptive behaviors in the future and may result in virtually automatic maladaptive behavioral responses (Dodge, 1986; Wilkowski & Robinson, 2008).

Children's cognitive and emotional processes, including knowledge acquisition and social information processing patterns, mediate the relationship between life experiences and conduct problems. Specifically, temperament factors and contextual variables paired with life experiences lead children to develop idiosyncratic social knowledge and beliefs. When presented with a social situation such as a peer interaction, children use their social knowledge to guide the processing of social information. This social information processing pattern leads directly to specific prosocial or chronic behavior problems and mediates the effect of early life experiences on later conduct problems (Dodge & Pettit, 2003).

Information processing patterns are developed in early childhood and are strongly related to early life experiences. For example, children who have been physically abused often demonstrate a bias toward the attribution of hostile intent (Brown & Kolko, 1999; Dodge et al., 1995). In addition, physically abused children frequently fail to encode relevant social cues, report that they would engage in aggressive behavior, and indicate that aggression is an acceptable response within aversive social situations (Dodge, Bates, & Petit, 1990). Peer relations during early childhood also have an influence on information processing patterns. Children who experience peer rejection during the early school years tend to demonstrate selective attention of hostile cues and hostile attribution

biases (deCastro, Veerman, Koops, Bosch, Monshouwer, 2002; Dodge et al., 1990; Vito, Asher, & DeRosier, 2004). These cognitive processing patterns mediate the relationship between peer rejection and the development of chronic behavior problems.

Peer rejection. The relationship between peer experiences and chronic behavior problems has been well documented. Social rejection by peers during the elementary school years is strongly correlated with adolescent chronic behavior problems. Further, the less a child is accepted by his or her peers, the more likely the he or she will engage in chronic behavior problems during adolescence (Laird, Jordan, Dodge, Pettit, & Bates, 2001; Laird, Pettit, Dodge, & Bates, 2005). Laird et al. (2005) found that subgroups that were least often accepted by their peers (i.e., African-American boys) were most likely to engage in chronic behavior problems during adolescence. On the other hand, subgroups who were most accepted by their peers (i.e., European American girls) were the least likely to engage in chronic behavior problems during adolescence. The relationships between peer experiences and chronic behavior problems were equivalent across subgroups, indicating that the level of peer rejection rather than the cultural subgroup from which a child came was predictive of later chronic behavior problems (Laird et al., 2005). Chronic behavior problems are most common when peer rejection is experienced repeatedly during early childhood (i.e., prior to second grade). Children who experience peer rejection for at least 2 years prior to third grade have a 50% chance of displaying chronic behavior problems during adolescence, while children who do not experience peer rejection in early childhood have just a 9% chance of developing such problems (Dodge et al., 2003). Izard (2002) poses that a child may experience feelings of shame in response to repeated rejection from his or her peers. Children and adolescents may

manage these shameful feelings by becoming angry and aggressive. This pattern of peer rejection followed by feelings of shame followed by anger and aggression toward peers is circular in nature with aggression toward peers serving to intensify the peer rejection.

While peer rejection is linked to the development of chronic behavior problems, peer acceptance serves as a protective factor in the prevention of chronic behavior problems. Peer acceptance and high levels of friendship quality moderate the detrimental effects of ecological disadvantage, violent marital conflict, low supervision and awareness, and harsh discipline (Criss, Pettit, Bates, Dodge, & Lapp, 2002; Lansford, Criss, Pettit, Dodge, & Bates, 2003).

Deviant peer influence. Experiencing peer rejection during elementary school increases the likelihood that a child will become involved with peers with chronic behavior problems during adolescence (Laird et al., 2001). This deviant peer affiliation is strongly related to adolescent chronic behavior problems (Toro, Urberg, & Heinze, 2004). Not only do deviant peers model antisocial behavior, they also positively reinforce peer antisocial behavior and talk about deviant topics (e.g., taking drugs, stealing, aggression). While the deviant peers exchange stories of their antisocial behavior, the exchange becomes more and more excited, as each adolescent tries to tell a more dramatic story of their own antisocial behavior. These emotional exchanges, termed deviancy training, bond the deviant peers together and reinforce the likelihood of future talks about deviant behavior (Snyder, Schrepferman, McEachern, Barner, Johnson, & Provines, 2008). Continued talk about deviant topics over time predicts serious antisocial behavior (e.g., number of arrests, school expulsion, and drug use). This was

especially true when the duration of these deviant dyadic interactions increased over time (Granic & Patterson, 2006).

Sociocultural factors. An indirect link exists between the sociocultural context into which a child is born and risk for later conduct problems. Rates of conduct problems vary along with differences in societal, community, neighborhood, and family sociocultural variables. When group rates of conduct problems are used as the unit of analysis, societal factors such as availability of handguns, media exposure to violence (Shahinfar, Kupersmidt, & Matza, 2000), and cultural attitudes toward violence (Shackelford, 2005) are positively correlated with conduct problems. Risk factors for individual antisocial behavior include cultural norms that support children's exposure to harsh physical discipline (Bender, Allen, McElheney, Antonishak, Moore, & Kelly, 2007), that facilitate a lack of respect for others (David & Kistner, 2000), and that value defending one's honor (Shackelford, 2005). Community-level risk factors for chronic behavior problems include poverty, ethnic heterogeneity, and high residential mobility (Beyers, Bates, Pettit, & Dodge, 2003). These variables are most likely related to individual chronic behavior problems because these high poverty, high mobility communities tend to have a greater proportion of single parent homes and individuals who are unemployed, divorced, and uneducated, all of which are risk factors for the development of chronic behavior problems themselves. In fact, parental income, occupation, and education level at the time of a child's birth are some of the strongest and most consistent risk factors for the development of childhood and adolescent conduct problems (Bradley & Corwyn, 2002; Corwyn & Bradley, 2005). Other significant familial risk factors for the development of chronic behavior problems include having a

mother with a history of chronic behavior problems during her school years, having a teenage mother, and having a mother who smoked during her pregnancy (Tremblay et al., 2004).

Family process factors. Inconsistent and harsh discipline within the first 5 years of life has an important and enduring effect on children's development. Harsh parenting styles, particularly mothers' harsh parenting, affect children's ability to regulate their emotions, resulting in increased likelihood of childhood and adolescent chronic behavior problems (Chang, Schwatz, Dodge, & McBride, 2003). Not surprisingly, physically aggressive parenting (e.g. spanking) is positively correlated with child aggression (Aucoin, Frick, & Bodin, 2006; Stormshak et al., 2000). When harsh physical discipline crosses into physical abuse, the effects are particularly acute and are highly related to future conduct problems (Lansford et al., 2003). This is especially true for children who also have a genetic risk for conduct problems. For example, physically maltreated children who also had a first-degree relative with antisocial behavior were more likely to develop chronic behavior problems than children who did not share this genetic risk (Jaffee et al., 2005). The relationship between harsh parenting and escalation of child conduct problems has been shown to be circular in nature with each reliably predicting the presence of the other. Child conduct problems demonstrated upon entry into kindergarten reliably predicted ineffective (i.e., inconsistency and noncontingency) and irritable (i.e., frequent criticism, anger, and scolding) discipline. As child conduct problems escalated, parenting became increasingly ineffective and irritable. Similarly, it was shown that as a parent's discipline became more ineffective and irritable, their child's chronic behavior problems at home increased in intensity as well (Snyder,

Cramer, Afrank & Patterson, 2005). Increases in conduct problems at school were noted when parents reported negative, hostile attributions regarding their child' conduct problems and also engaged in inconsistent, irritable parenting. In other words, children whose parents engaged in harsh parenting and reported believing that their child's conduct problems were careless, selfish, purposeful, defiant, inconsiderate or hostile were more likely to demonstrate chronic behavior problems at school. Similarly, frequent child chronic behavior problems at home at the time of school entry increased the likelihood that parents attribute intentionality to children's misbehavior. Thus, parents of children with early conduct problems are more likely to report that the source of their child's problems are within the child and less likely to consider environmental circumstances or normative development as possible explanations for misbehavior (Snyder et al., 2005).

Many negative interactions between parent and child are initiated by a command given by the parent and followed by a relatively common response pattern known as the coercive family process (Patterson et al., 1992). The coercive family process typically 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 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 has 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 comply with

demands in the future (Barkley, 1997b; Patterson, 1992; Richman, Harrison, & Summers, 1995; Richman et al., 1994). These response patterns pose many problems for the likelihood of increased compliance or positive parent-child interaction. First, 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.

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 (Reid, Patterson, & Gerald, 2002). 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 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).

Parental psychopathology. Parental psychopathology also is related to the development of child and adolescent chronic behavior problems. Children of depressed parents have been found to be less socially competent and more likely to display behavior problems at school (Ashram, Dawson, & Panajiotides, 2008; Ramchandani, Stein, O'Connor, Heron, Murray, & Evans, 2008), demonstrate aggressive behavior, and experience negative peer interactions and peer rejection (Leiferman, 2002). Research suggests that parental depression negatively impacts parenting behavior which in turn adversely effects the parent-child relationship (Knitzer, Theberge, & Johnson, 2008; Mezulis, Hyde, & Clark, 2004). For example, depressed mothers tend to be less tolerant and more critical of their children's behavior and to have less positive interactions with their children (Bigatti, Cronan, & Anaya, 2001; Hill & Herman-Stahl, 2002). Depressed mothers also tend to be less affectionate (Bigatti et al., 2001), less nurturing, more inconsistent, and more punitive with their children than mothers who are not depressed (Chang, Schwatz, Dodge, & McBride, 2003; Knitzer, Theberge, Johnson, 2008). Depressed parents' increased likelihood to engage in ineffective discipline and parenting practices is strongly related to child behavior problems (Malik et al., 2007; Mezulis,

Hyde, & Clark, 2004). Children of depressed parents are more likely to engage in aggressive behavior, particularly toward their depressed parent. It has been 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 (Hops, Sherman, & Biglan, 1990). Thus, the child is negatively reinforced for his or her aggressive behavior by temporary improvements in his or her mother's mood and subsequent parent-child interactions.

Though considerable research links parental depression to childhood and adolescent chronic behavior problems, the nature and direction of the relationship between the variables remains unclear. For example, it remains unknown whether parental depression leads to child behavior problems or if chronic child behavior problems lead to parental depression, though it is likely that depression serves as both a cause and a consequence of child behavior problems (Dodge, 1990; Hammen, 2003). Additionally, recent research indicates the presence of a covariate variable (i.e., parent-child relationship quality) which is significantly related to both parental depression and chronic child behavior problems, particularly for African American families. This research indicates that the relationship between parental depression and child behavior problems is partially mediated by the quality of the parent-child relationship, suggesting that the quality of the parent-child relationship is at least as important to child outcomes as parental depression (Aikens, Coleman, & Barbarin, 2008). As with depressed parents, parents of children with conduct problems are less likely to report feelings of warmth toward their children. This lack of warmth within the parent-child relationship as well as parental inconsistency, and failure to supervise and monitor their children's behavior

negatively impacts parent-child relationship quality and increases the likelihood of child behavior problems (Stormshak, et al., 2000). Children are more likely to display oppositional behavior when there is a low level of warmth between parent and child (Stormshak et al., 2000). Interventions aimed at improving the parent-child relationship such as teaching parents effective conflict resolution skills may help to mediate the negative impact of parental depression on child behavioral functioning.

The relationship between parental depression and chronic child behavior problems appears to be significantly impacted by both protective and risk factors (Mezulis, Hyde, & Clark, 2004). Families who experience acute stressors such as a divorce or death of a family member are at greater risk for both parental depression and child chronic behavior problems, likely because acute stressors tend to negatively impact parental functioning (Hammon, 2003). Chronic stressors such as marital discord, economic disadvantage, and poor health are also risk factors for both parental depression and child behavior problems (Petterson & Albers, 2001). Chronic stressors negatively impact parental mental health (Siefert, Bowman, Heflin, Danziger, & Williams, 2000) and alter parent perceptions and management of their children's behavior (DeMore, Adams, Wilson, & Hogan, 2005; Hops et. al., 1990). 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 (Naerde, Tambs, & Mathiesen, 2002; Patterson, DeGarmo, & Forgatch, 2004). Conversely, parental depression is less predictive of parenting dysfunction and child behavior issues when parents report the existence of a social and emotional support

system (Aikens, Coleman, Barbarin, 2008; Mezulis et al., 2004; Patterson, DeGarmo, & Forgatch, 2004).

Parental supervision. Failure of parents to monitor and supervise their children's behavior is linked to higher levels of child and adolescent chronic behavior problems. Active monitoring of children's behavior allows parents to engage in social coaching practices during which the parent explains appropriate behavior or the reason why inappropriate behaviors are not desirable. This type of social coaching emerges as particularly important during young children's initial social interactions with peers (Ladd & Pettit, 2002) and predicts lower levels of chronic behavior problems in middle childhood and adolescence (Mounts, 2004). Not only is monitoring of adolescent behavior related to less behavior problems but was related also to greater relationship satisfaction between parent and child, more time spent together, and more positive acceptance of parental monitoring (Laird, Pettit, Gregory, Dodge, & Bates, 2003). The decreases in behavior problems associated with more parental monitoring is even more pronounced for youth living in high crime neighborhoods (Beyers, Bates, Pettit, & Dodge, 2003).

Prevention and Intervention of Chronic Behavior Problems

It is not surprising, given the multiple variables that contribute to the development of chronic behavior problems, that a multi-modal intervention approach is strongly recommended. A multi-modal intervention package implemented jointly and preventatively at home and at school ensures the best outcomes for children with chronic behavior problems (MTA Cooperative Group, 1999). The most promising multi-modal

intervention packages will likely include medication, parent training, behavioral and social skills training in school, and academic strategies (MTA Cooperative Group, 1999).

Variables to consider for intervention planning. A child's development should be considered when developing interventions due to the fact that primary symptoms and environmental demands will most likely change with development (Teeter, 1998; Teeter, 1991). Prevention and intervention practices 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 behavior problems 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 groups 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, prevention and intervention practices 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, 1998; 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 who display chronic behavior problems may require training in organization and study skills (Teeter, 1998; 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 (MTA Cooperative Group, 1999).

Adolescents 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 prevention or intervention package (Teeter, 1998; Teeter, 1991). Interventions focusing on academic competency and responsibility also may continue to be necessary.

Common intervention approaches. There is a large body of evidence on the effectiveness of treatments for children who display chronic behavior problems, several of which are large-scale meta-analyses that compare the effect sizes of various treatment approaches (Barlow & Stewart-Brown, 2000; Bradley & Mandell, 2005; Conner, Glatt, Lopez, Jackson, & Melloni, 2002). Pharmacological interventions are by far the most widely employed strategy used to address chronic behavior problems in children, especially when comorbid ADHD symptomology is present. This is likely because stimulant medication has been shown to have large beneficial effects on multiple domains of functioning and is the easiest and least expensive intervention available (Jensen et al., 2005). An analysis of 28 studies of children who displayed aggressive and oppositional behavior within the context of ADHD found that stimulant medication produced an overall weighted effect size of .89, corresponding with approximately one standard deviation improvement in oppositional and aggressive behavior (Conner, Glatt, Lopez, Jackson, & Melloni, 2002). Unfortunately, there is little evidence that stimulants have

any real effects on a child's long-term adjustment, as the majority of children with ADHD continue to experience academic, social, and behavioral difficulties well into adolescence and adulthood whether or not they are treated medically (Barkley, Fischer, Smallish, & Fletcher, 2002). Also notable is that only between 70 to 80% of children who are prescribed stimulant medications have even a short-term response to stimulants (MTA Cooperative Group, 1999; Pelham et. al., 2000; Swanson, McBurnett, Christian & Wigal, 1995). 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 academic and social functioning levels (Frankenberg & Cannon, 1999; Pelham et al., 2000; Majewicz-Hefley & Carson, 2007). 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 (Barkley, 1990; Barkley, 1997b; Pelham, Wheeler & Chronis, 1998). Thus, previously reinforced patterns of behavior are likely to continue despite the introduction of a psychostimulant. Positive effects (e.g., improved attention to task, reduction in noncompliant behavior) are enhanced when stimulant medication is paired with behavioral interventions and parent training (Hinshaw et al., 2000; MTA Cooperative Group, 1999).

Child-centered, evidence-based interventions for chronic behavior problems include anger management training and training in problem-solving skills (Goldstein, Glick, & Gibbs, 1998; Lochman 1992; Sukhodolsky, Kasinove, & Gorman, 2004). Interestingly, when parents were trained in problem-solving in conjunction with their

children, results were more significant than when the children were trained independently of their parents. One review of interventions for children with chronic oppositional and aggressive behavior problems found that the combination of parent training with child problem-solving skills training produced clinically significant improvements in child behavior that were maintained after a 1 year period (Barlow & Stewart-Brown, 2000). Another meta-analysis of treatment effectiveness examined the effect sizes of seven studies in terms of intervention effect on symptoms at home, symptoms at school, academic functioning, social functioning, parent strain/stress, and parenting environment (Bradley & Mandell, 2005). The largest treatment effects on symptoms at home, parenting stress/strain, and parenting environment were seen when the focus of the intervention was the parent (i.e., parent training). Child-centered interventions were most effective in terms of academic functioning and social functioning. Another particularly rigorous review examined the effect of parent training programs on child externalizing problems across 16 randomized controlled trials (Barlow & Stewart-Brown, 2000). Effect sizes for parent training programs ranged from .6 to 2.9, revealing parent training as a highly effective treatment for oppositional and defiant behaviors among children.

Research on the effectiveness of parent training programs is so strong that the National Association of School Psychologists (NASP) has written a parent training provision into its practice guidelines. 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 American Psychological Association Task Force on Promotion and Dissemination of Psychological Procedures

deemed parent training and behavioral classroom intervention to be the only strategies to meet criteria for effective interventions for chronic behavior problems (Pelham, Wheeler & Chronis, 1998). The benefits of working with parents are vast. Parents are one of the few constant adult figures in their child's life, and, as a result, can 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. Additionally, because of the high levels of parental frustration and stress resulting from the behavior problems of their children, most parents welcome assistance with the academic and behavioral needs of their children. Thus, parent training should be considered a critical component of any comprehensive intervention package designed to address the needs of children with chronic behavior problems (Barkley, 2000; MTA Cooperative Group, 1999).

Parent-training programs. 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 (Corcoran, 2000; Kumpfer, 1999) Most parent training programs are standardized, short-term interventions that focus on teaching parents positive attending skills, planned ignoring, the use of reinforcement and punishment to shape behavior, and token economies.

Empirically-supported parent training models. Some of the earliest and most widely recognized methods of parent training models include those 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, planned ignoring, and response-cost procedures). The parent-training programs differ, however, in the format through which parents are trained. 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 systems 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, all three programs have been found to be effective in improving levels of compliance in children with chronic behavior problems (Cunningham, Bremner, & Boyle, 1995; Newby et al., 1991; Patterson, 1982). 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, 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, resulting in higher levels of both child and parent functioning (Anastopoulous, Shelton, DuPaul and Guevremont, 1993; Reid, Webster-Stratton, & Hammond, 2003).

Other, more recently developed, evidenced-based parent training programs include the Incredible Years program (Webster-Stratton & Reid, 2003) and the Parent-Child Interaction Therapy program (Brinkmeyer & Eyberg, 2003). The Incredible Years program is comprised of a set of three comprehensive, multifaceted, and developmentally-based curriculums for parents, teachers, and children. The program is designed to promote emotional and social competence and to prevent, reduce, and treat behavior and emotional problems in young children. The program is intended to prevent behavior problems for at-risk children age two to eight years old and remediate presenting problems including high rates of aggression, defiance, and oppositional and impulsive behavior within this population. The Incredible Years parenting series consists of three programs including the BASIC program, the ADVANCE program, and the Supporting Your Child's Education (SCHOOL) program. The BASIC program emphasizes parenting skills known to promote children's social competence and reduce behavior problems including how to play with children, helping children learn, effective praise and use of incentives, effective limit-setting, and strategies to handle misbehavior. The ADVANCE program emphasizes parent interpersonal skills such as effective communication skills, anger management, problem-solving between adults, and ways to give and get support. The SCHOOL program emphasizes teaching parents methods for

promoting children's academic skills such as reading skills, establishing predictable homework routines, and building collaborative relationships with teachers.

The Incredible Years parenting program consist of 13, 2-hour sessions in which eight to twelve parents meet with a therapist. During treatment, parents view 250 video vignettes which are each approximately 1 to 2 minutes in length. The vignettes demonstrate social learning and child development principles and serve as a catalyst for focused discussions and problem solving.

Randomized control group evaluations of the parenting series indicate significant increases in parental use of praise and reduced use of criticism and negative commands as well as significant increases in parent use of effective limit-setting, increased monitoring of children, and reduced use of harsh and violent discipline practices. Other positive effects of the parenting series include reductions in parental depression, increases in parental self-confidence, and increases in positive family communication and problem-solving. In addition to positive parent effects, parent engagement in the parenting program is also associated with reduced conduct problems in children's interactions with parents and increases in their positive affect and compliance to parental commands (Webster-Stratton, Mihalic, Fagan, Arnold, Taylor, & Tingley, 2001).

In addition to the parenting series, the Incredible Years program also includes a training program for teachers and a training program for children (Webster-Stratton et al., 2001). The Incredible Years Training for Teachers emphasizes effective classroom management skills including the effective use of teacher attention and praise, use of incentives for difficult behavior problems, how to manage inappropriate classroom behaviors, the importance of building positive relationships with students, and how to

teach empathy, social skills, and problem-solving in the classroom. Randomized control group evaluations of the teacher training series indicated significant increases in teacher use of praise and reduced use of criticism and harsh discipline. Teacher training was shown to increase children's positive affect and cooperation with teachers and positive interactions with peers; improve school readiness and engagement with school activities; and reduce aggression toward classroom peers (Webster-Stratton et al., 2001). The Incredible Years Training for Children program (Dinosaur Curriculum) emphasizes training children in skills such as emotional literacy, empathy or perspective taking, friendship skills, anger management, interpersonal problem-solving, school rules, and how to be successful at school. The Dinosaur Curriculum consists of 18-22 weekly, two-hour sessions. Each session includes video vignettes of real-life conflict situations at home and school that model child problem solving and social skills. Sessions also include activities and games and the use of puppets to teach concepts and allow participant to practice skills. Weekly homework activities involve children talking to their parents about what they have learned to encourage positive parent-child interactions. Evaluations of the child training series indicate that the program results in significant increases in children's appropriate cognitive problem-solving strategies, more prosocial conflict management strategies with peers, and reductions in conduct problems at home and school (Hutchings, Bywater, Daley, & Lane, 2007; Webster-Stratton et al., 2001).

The Parent-Child Interaction Therapy program is an evidence-based intervention program designed for parents of young children (age 2-7 years) with chronic behavior problems. The program has two distinct phases, Child-Directed Interaction (CDI) and Parent-Directed Interaction (PDI). For each phase of the program, parents attend one

didactic session during which the therapist describes the new parenting skills and describes the rationale for their use. Following the initial didactic meeting, parents and their child attend weekly coaching sessions together. Between sessions, parents are asked to practice the parenting skills while interacting with their child for 5 to 10 minutes at home (Brinkmeyer & Eyberg, 2003).

During the CDI phase of the intervention, parents learn to use the PRIDE skills (i.e., Praise, Reflection, Imitation, Description, and Enthusiasm) frequently and to avoid questions, commands, and criticism while playing with their child. The play situation at home and in the clinic is carefully designed allowing the child to lead the play interaction while the parent is instructed to simply play along with the child. Parents are coached through the use of a bug-in-the-ear hearing device by a therapist who is observing the parent-child interaction from behind a one-way mirror. The emphasis of in the CDI phase is to increase positive parenting and warmth in the parent-child relationship. The strengthened parent-child relationship accomplished through the CDI activities serves as a foundation for the PDI phase of the intervention program. Movement from the CDI phase to the PDI phase is assessment driven and is not time limited. Once, parents have mastered the skills of the CDI phase, the PDI phase of the intervention program is initiated. The PDI phase focuses on teaching parents a structured and consistent approach to discipline. Within this phase, parents learn and practice giving clear instructions and following through with specific praise or time-out during in vivo discipline situations. Therapists coach parents as they interact with their child. Coaching continues until parents demonstrate that they can calmly and consistently respond to their child's behavior.

Outcome research on the Parent-Child Interaction Therapy program demonstrates clinically and statistically significant improvements in parenting behaviors and in child behavior problems at home and at school (Nixon, Sweeny, Erickson, & Touyz, 2003).

Availability of Parent Training Interventions

Although research has recognized the importance of family life in children's academic achievement and social-emotional functioning, psychological services provided by school psychologists and other school professionals have not typically included parent training within intervention packages (Bramlett, Murphy, Johnson, Wallinford, & Hall, 2002). 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 (Chronis, Chacko, Fabiano, Wymbs, & Pelham, 2004). Even when parent training programs are available, they often are 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; Rayno & McGrath, 2006;). Thus, it is pertinent to consider both cost-effectiveness for schools and accessibility for parents within the design of school-based parent-training programs.

Research indicates that community-based parent training courses reduce the likelihood of high parental dropout rates and resistance to treatment. Parents from low-socioeconomic backgrounds, parents whose second language is English, and parents of children with severe behavior problems were more likely to enroll in and complete community-based programs 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 (Cunningham, Boyle, Offord, & Racine et al., 2000). This may indicate 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 chronic behavior problems are well documented, such programs often are not available to parents. Existing literature lends little information as to why such programs are not being implemented by school psychologists. The current study attempts to determine to which degree specific variables (i.e., demographic, professional practice, training, beliefs, and perception of barriers) are related to the parent training practices of school psychologists. These variables were selected based on an extensive review of the literature, as they have been found to influence other types of service delivery practices.

Factors Affecting the Availability of Parent Training/Education Programs

Professional practice. According to a survey of regular NASP members, school psychologists continue to spend the majority of their time (46-80%) conducting psychoeducational evaluations relating to special education (Bramlett, Murphy, Johnson, Wallingford, & Hall, 2002; Curtis, Lopez, Castillo, Batsche, Minch, & Smith, 2008). School psychologists also reported spending time engaging in consultation, interventions, counseling, conferencing, supervision, in-service training, research, and parent training. However, they reported spending more than twice as much time engaging in assessment

than all other professional roles. Specifically, school psychologists reported spending 16% of their time engaging in consultation, 13% implementing interventions, 8% of their time providing counseling, and 7% of their time conferencing. Much less time was devoted to supervision (3%), in-service training (2%), research (1%), and parent training (1%).

Demographic variables. Demographic variables such as degree level, years of experience, primary work setting, caseload, and gender have been found to be related to school psychologists' professional practices (Curtis, Grier, & Hunley, 2004; Curtis, Hunley, & Grier, 2002; Crosnoe, 2001; Shriver & Watson, 2000; Wilson & Reschly, 1996). Current research lends information regarding the relationship between these demographic variables and school psychologists beliefs regarding the importance of involving parents of at-risk students in their child's education and intervention. However, little is known about the interaction between these variables and school psychologists' engagement in parent training and education with the parents of children with chronic behavior problems.

Degree level. Conflicting data have 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 non-doctoral level school psychologists. Thirteen years later, Shriver and Watson (2000) found doctoral and non-doctoral practitioners to report similar perspectives and practices in family-school partnership activities. Shriver and Watson (2000) hypothesized that this finding may indicate that degree level no longer affects the perspectives and practices of school psychologists as it

once did. More recent research revealed significant positive relationships between highest degree earned and amount of time spent in consultation. This research also indicated a significant negative relationship between highest degree earned and amount of time spent conducting special education activities (Curtis et al., 2002). It is currently unknown whether or not additional time spent in consultation coupled with reduced time spent conducting special education activities would result in more frequent engagement in parent training and education activities with the parents of children with chronic behavior problems by more highly educated school psychologists.

Years of experience. Beginning level school psychologists are more likely than more experienced psychologists to report a belief that parent involvement increases the likelihood that a child will have a successful educational experience (Pelco & Reis, 1999). However, these findings may lack practical significance, as 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 home-school partnership activities (Shriver and Watson, 2000). School psychologists with more years of experience spend more time completing special education re-evaluations, engaging in consultation, and receiving in-service training than less experienced school psychologists (Curtis et al., 2002). The relationship between years of experience and school psychologists' engagement in parent training and education with the parents of children with chronic behavior problems remains unknown.

Employment setting. School psychologists who work primarily with elementary school students are more likely to be involved in family-school partnership activities than psychologists working in secondary schools. Although school psychologists serving

elementary schools and those serving secondary schools report similar perspectives regarding the importance of parent involvement, research has found decreasing levels of parent-involvement activities among educators with each successive grade level (Crosnoe, 2001; Pelco & Ries, 1999). The relationship between school psychologists' employment setting and their engagement in parent training and education with the parents of children with chronic behavior problems is currently unexamined.

Caseload. Higher student to school psychologist ratios are significantly related to the number of initial evaluations and re-evaluations completed for special education as well as the percent of time spent in special education related activities. These relationships indicate that the greater students to school psychologist ratio, the greater the number of activities related to special education services. School psychologists with smaller student ratios are more likely to provide individual and group counseling and to complete psychoeducational evaluations for purposes other than special education eligibility determinations (Curtis et al., 2002). The relationship between a school psychologist's caseload and his or her rate of engagement in parent training and education with the parents of children with chronic behavior problems is currently unknown.

Gender. As the field of school psychology continues to become more and more dominated by women, differences in employment conditions and professional activities continue to exist, with male psychologists reporting a higher likelihood of having a doctorate degree, more years of experience, and higher salaries than their female counterparts (Curtis et al., 2004; Wilson & Reschly, 1996). In addition, male school psychologists reported spending less time on assessment and more time on systems-

organizational consultation than female psychologists (Wilson & Reschly, 1996). When years of experience, highest degree earned, and total number of graduate hours in school psychology were statistically controlled, the service delivery practices of male and female psychologists revealed no significant differences between gender and services delivered (Curtis et al., 2002). Whether or not male and female school psychologists engage in different rates of parent training and education with parents of children with chronic behavior problems remains unknown.

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 chronic behavior problems, 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 that have been modeled are more likely to code the behaviors into long-term memory than learners who do not have an opportunity to practice (Bandura, 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 (Bandura, 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 him 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.

Often, school psychologists do not receive the necessary training in behavioral interventions needed to meet the demands of their expanding roles (Shernoff, Kratochwill, & Stoiber, 2003; Shriver & Watson, 2000). In fact, on a list of top five areas needing improved training, interventions in regular education for behavioral/emotional problems were rated second. In addition, preservice training

programs often fail to adequately prepare students to engage in consultation with parents, limiting their ability to effectively work with parents and lessoning the likelihood that school psychologists will engage in consultation-based practices such as parent training (Anton-LaHart & Ronsenfield, 2004).

Even when school psychologists do receive training in behavioral interventions and parent consultation, 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's reported level of training on the instruments. Significant positive 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) also were 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 consultation and training involves supervised practice, he or she will be more likely to replicate the same interventions in practice than a school psychologist whose training in these areas consists of coursework only or independent reading. Necessary skill proficiency is possible only through multiple opportunities of supervised practice (Rosenfeild, 2002).

Presence of barriers. Multiple factors have been revealed as barriers to the delivery of mental health programs within the schools and negatively impact the quality of family-school partnerships. It is likely that these same variables affect the delivery of parent training interventions. However, the relationships between the perception of specific barriers and school psychologists' engagement in parent training interventions remain to be investigated.

Research by Suldo, Friedrich, and Michalowski (2010) indicate that barriers to the delivery of school-based mental health services fall within three main categories: using the school as a site for service delivery, insufficient training, and lack of support from department and district administrators and school personnel. Barriers involving the use of the school for the delivery of mental health services were mentioned frequently by school psychologists. These barriers included lack of access to sufficient space within the school to provide mental health services and feeling uncomfortable when there is a perceived overlap between the mental health services school psychologists provide and those provided by other school personnel (e.g., guidance counselor, social worker); (Suldo et al., 2010). Many school psychologists reported insufficient training as a barrier

to their implementation of mental health services. As a result of their insufficient training, school psychologists lack content knowledge, applied skill, and confidence in the delivery of mental health services (Suldo et al., 2010). Other identified barriers included school psychologists' perception of insufficient support from their department administrator, school-based administrator, and other school personnel. School psychologists reported frustration regarding their department's conceptualization of the school psychologist role, which focused primarily on assessment and often excluded or at least did not make clear school psychologists' involvement in the delivery of school-based mental health services (Suldo et al., 2010). A lack of monetary support for the provision of mental health services, particularly in regards to lack of money to buy curriculum, was also viewed by school psychologists as a barrier to their implementation of mental health interventions. Insufficient time and integration into the school site also were cited as barriers to school psychologists' delivery of mental health services (Suldo et al., 2010). School psychologists reported that insufficient time within their schools, resulting from being assigned to multiple schools, impaired their ability to adequately complete all of their job responsibilities. In addition, school psychologists indicated that insufficient time within each assigned school negatively impacted their ability to fully integrate into the school community. As a result, school personnel were thought to not understand the school psychologist's role or the full range of interventions that the school psychologist could deliver (Suldo et al., 2010).

Other less prevalent, yet important, barriers included some school psychologists' personal preference for assessment, role strain, and the challenges related to working with some referred students (Suldo et al., 2010). A minority of school psychologists identified

assessment as their preferred professional activity, citing that assessment is an easier and more comfortable role than the role of direct service provider (Suldo et al., 2010). In addition to a preference for assessment, some school psychologists reported role strain associated with completing all of their job responsibilities in the amount of time allotted as well as maintaining an appropriate level of professional competence in multiple areas such as intervention, assessment, and special education procedures as a barrier to implementation of mental health interventions (Suldo et al., 2010).

Barriers to family-school collaboration have been well documented and include educators' beliefs regarding the importance of collaborating with parents (Davis-Kean & Eccles, 2005; Hornby, 2000; Mills & Gale, 2004; Pelco, Ries, Jacobson & Melka, 2000), lack of family and school resources (Ashby, 2006; Bridgemohan, van Wyk & van Staden, 2005; Hoover-Dempsey, Walker, Sandler, Whetsel, Green, & Wikins et al., 2005; Joshi, Eberly & Konzal, 2005), negative school climate (Bemak & Cornely, 2002; Hoover-Dempsey et al., 2005; Lord Nelson, Summers & Turnbull, 2004) , cultural and language differences (Lai & Ishiyama, 2004; Laosa, 2005; Salas, Lopez, Chinn, & Menchace-Lopez, 2005), and a lack of training in how to work collaboratively with parents (Amatea, Smith-Adcock, & Villares, 2006; Bemak & Cornely, 2002; Bridgemohan et al., 2005; Darch, Miao, & Shippen, 2004.). It is likely that these same barriers impact the provision of parent training and education for parents of students with chronic behavior problems.

Although school psychologists likely face significant barriers to engagement in parent training and education, a significant percent continue to report high levels of support for partnering with parents. A survey of 417 school psychology practitioners

regarding their perspectives and practices toward family-school partnership activities indicated high levels of support for the general concept of family-school partnerships amongst the practitioners (Pelco et al., 2000). For example, 90% of the respondents strongly agreed with the statement, "Parent involvement can help increase student success in school." 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 strength 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.

Though ample research exists pertaining to school psychologists' beliefs regarding the importance of parent involvement for student educational and behavioral success, minimal research exists addressing to what extent these beliefs are predictive of actual practice. For example, it is unknown whether or not a school psychologist who reports that parental involvement in intervention for children with behavioral problems is

vital for successful student outcomes is more likely to provide educational programs for parents than a school psychologist who finds parental involvement less important.

Family involvement practices are highly correlated with the availability of resources within the family, particularly money, time, energy, and knowledge (Hoover-Dempsey et al., 2005). Mothers who experience economic problems are less likely than more financially secure mothers to maintain consistent family routines and have an emotional support system and are more likely to demonstrate harsh parenting, all of which reduce the likelihood of parent involvement at school (Taylor, 2005). In a survey of New Jersey educators, teachers reported that as much as 35% of school parents were unable to participate in school activities because they were struggling to provide for their families basic needs (Joshi et al., 2005). Many studies indicate that families who lack access to child-care and transportation are less likely to participate in school-sponsored events (Ashby, 2006; Bridgemohen et al., 2005; Hoover-Dempsey et al., 2005, Joshi et al., 2005; NCES, 1998). When barriers such as lack of transportation or childcare are removed, parental involvement in school-sponsored events increases (Ashby, 2006; Bridgemohen et al., 2005). It is unknown whether or not a school psychologist's ability to secure funding or resources to provide childcare and/or transportation for parents to attend parent training is related to his or her rate of engagement in parent training and education with the parents of children with chronic behavior problems.

Both teachers and school administers report that parents, particularly low SES parents, do not have the time to collaborate with schools. Time challenges are in fact a barrier to parent involvement for parents in general and in particular for low SES parents who often have demanding, inflexible work schedules (Taylor, 2005). In response to

demanding schedules, parents report that teachers need to be more flexible with the times they are available and make more effort to contact parents at times convenient to the parent (Lord Nelson, Summers, & Turnbull, 2004). The relationship between school psychologists' perception of parental availability for parent training and their engagement in parent training and education with the parents of children with chronic behavior problems is unknown.

Parents who feel that they lack the skills or education to effectively contribute to their child's education are less likely to become involved at their child's school (Hoover-Dempsey, Battiato, Walker, Reed, Dejong, & Jones, 2001). At the same time, teachers are less likely to encourage parent involvement when they believe that parents lack the skills, intelligence, or education to make meaningful contributions (Bemek & Cornely, 2002). It is unclear whether or not school psychologists who hold these same beliefs are less likely to engage in parent centered interventions.

A positive school climate is essential in encouraging parental involvement (Hoover-Dempsey et al., 2005). Parent involvement has been found to be significantly higher in schools which demonstrate a positive and welcoming attitude toward parents. Schools that regard parents as partners in educating children and that actively pursue parent involvement report better quality family-school collaboration and higher levels of parent involvement than schools that see parents and educators as having different agendas (Lewis & Forman, 2002). Half of the parents in a study of special education parents reported feeling that teachers held negative views of their child and family (Zionts, Zionts, & Bellinger, 2003). The parents went on to report that they thought that teachers blamed them for their children's disabilities. These feelings are likely

perpetrated by the tendency of educators to contact parents only when a child experiences a problem at school (Ametea et al., 2006). The relationship between school climate issues and school psychologists engagement in parent training and education remains unexamined.

As schools in the United States become increasingly diverse, language and cultural differences between educators and families become increasingly evident (Salas et al., 2005). Language barriers negatively impact the ability of school personnel and families to communicate with each other and significantly impacts the likelihood that parents will become involved in their child's education (Lai & Ishiyama, 2004). Communications to home are often presented only in English, leaving many families unable to respond (Salas et al., 2005). Numerous studies cite educators' lack of training and subsequent knowledge of how to work with diverse student populations and their families as a major barrier to parent involvement for culturally diverse families (Joshi et al., 2005; Zionts et al., 2003). Without education, teachers tend to blame the home environment for low academic achievement and believe that ethnic minority parents do not care about their child's education (DeCastro-Ambrosetti & Cho, 2005). The impact of language barriers and lack of experience working with diverse populations on school psychologists' engagement in parent training and education with the parents of students with chronic behavior problems has not been studied.

Summary

Chronic behavior problems represent a major social problem for American society. Ramifications of chronic behavior problems are far reaching, resulting in severe negative effects for families, schools, and the community at large. Although behavioral

parent training is one of only two intervention strategies recognized by the American Psychological Association Task Force on Promotion and Dissemination of Psychological Procedures as meeting criteria for effective interventions for the treatment of childhood behavior problems (Pelham, Wheeler & Chronis, 1998), parent training/education remains largely unavailable to parents within the school setting (Teeter, 1998; Teeter, 1991). Despite an overall agreement amongst school psychologists that working with the parents of children with chronic behavior problems is essential to improving student behavior, school psychologists report spending very little of their time engaging in such activities (only 1% of their time); (Bramlett, Murphy, Johnson, Wallinford, & Hall, 2002).

Current research lends only cursory information as to why interventions focusing on parent training and education are rarely implemented with parents of children with chronic behavior problems. The current study will examine the relationship between specific demographic, professional practice, perception of barriers, and training variables and the parent training/education practices of school psychologists with these families. This study will contribute to the literature by providing descriptive information regarding school psychologists' engagement in parent training/education activities with families of children with chronic behavior problems. The study will lead to a more precise understanding of variables that impact school psychologists' engagement in parent training/education activities. This information will benefit both pre-service and professional development training programs as well as district school psychology departments, as it will inform the development of training curricula and assignment of

professional activities, and allow departments to more precisely problem-solve barriers to engagement.

Chapter III

Method

Purpose

The purposes of the current research were to determine the rate at which school psychologists engage in parent training/education with the parents of children with chronic behavior problems and to determine the relationships between school psychologists' demographic variables, professional practice, training, and perception of barriers and their engagement. Specifically, the following six research questions were posed:

1. How often are school psychologists currently engaging in parent training/education activities with parents of children with chronic behavior problems?
2. What are the relationships between demographic variables (i.e., sex, degree level, years of experience, recency of training, number of students served, number of schools served, and employment setting) and the rate of engagement in parent training/education activities with parents of children with chronic behavior problems?
3. What is the relationship between intensity of training and the rate of engagement in parent training/education activities with parents of children with chronic behavior problems?

4. What is the relationship between a school psychologists' professional practices (i.e., percent of time spent engaging in assessment, direct intervention, consultation, case management, professional development or other activities) and their rate of engagement in parent training/education activities with parents of children with chronic behavior problems?
5. What is the relationship between the perception of barriers and school psychologists' rate of engagement in parent training/education activities with parents of children with chronic behavior problems?
6. Which of the variables or combination of variables above accounts for the most variance in the rate of engagement of school psychologists in parent training/education activities with parents of children with chronic behavior problems?

Research Design

The study employed a mixed method design including both correlational and qualitative methodology to answer the research questions. This particular design was chosen because the researcher was interested in ascertaining the relationship between variables which could not be manipulated and to gather information regarding facilitators of engagement directly from participants.

Participants

The names and addresses of five-hundred, randomly selected, practicing school psychologists were provided by the National Association of School Psychologists (NASP). The researcher requested the contact information of these 500 school psychologists as it was believed that this number of potential participants would produce

a large enough sample size to detect a medium effect size with power of .8 and an alpha level of .05 (i.e., N=131). Only 64 participants were needed to detect a large effect size.

At the time of the study, there were more than 20,000 NASP members, representing approximately 70% of all school psychologists across the United States (Curtis et al., 2004). According to the most recent NASP survey, seventy-seven percent of practicing school psychologists are female. The mean number of years of experience is 14 years. Approximately 36% of practitioners hold a masters degree, 40% hold a specialist degree, and 24% hold a doctoral degree (Curtis et al., 2008). Five-hundred practicing school psychologists were randomly selected from all practicing psychologists within the NASP membership. Of the 500 surveyed NASP members, 115 returned completed surveys resulting in a response rate of 23%. Twenty-two surveyed psychologists (4.4%) returned the survey uncompleted and indicated that they had retired prior to the 2007-2008 school year. Nineteen surveys (3.8%) were returned with missing data and consequently discarded.

The researcher sought additional information from school psychologists who engaged in parent training/education activities at a rate of once per week or more by asking these participants to engage in a telephone interview with the researcher. The researcher specifically targeted school psychologists with high rates of engagement because she was interested in gathering information regarding the facilitators of consistent and frequent parent training/education engagement.

Demographic characteristics of survey participants. Basic demographic information was gathered in order to determine the relationship between demographic variables and school psychologists' level of engagement in parent training/education

activities. Demographic data for participants are shown in Table 1. Table 1 also shows how the participants in this study compare to the NASP membership.

Table 1. *Descriptive Statistics for Individual Demographic Variables*

Variable	Variable Levels	Percentage of Sample	NASP Demographics
Sex			
	Male	28.7%	23%
	Female	71.3%	77%
Experience			
	Less than 5 years	23.5%	
	5-15 years	31.3%	Average Years
	16-25 years	22.6%	Experience = 14 years
	26 or more years	22.6%	
Degree			
	Masters Degree	22.6%	36%
	Specialist Degree	41.7%	44%
	Doctorate Degree	32.2%	24%
	Other	3.5%	N/A

Table 1. *Descriptive Statistics for Individual Demographic Variables (Continued)*

Variable	Variable Levels	Percentage of Sample	NASP Demographics
Recency of Training			
	Less than 5 years ago	27.8%	N/A
	5-15 years ago	29.6%	N/A
	16-25 years ago	26.1%	N/A
	26 or more years ago	16.5%	N/A
Number of Schools Served			
	1 school	33.9%	N/A
	2 schools	21.7%	N/A
	3 schools	16.5%	N/A
	4 or more schools	27.8%	N/A
Caseload			
	1-20 students	7.0%	N/A
	21-40 students	8.7%	N/A
	41-60 students	20.0%	N/A
	61-80 students	11.3%	N/A
	81-100 students	11.3%	N/A
	101 or more students	45.2%	N/A

Table 1. *Descriptive Statistics for Individual Demographic Variables (Continued)*

Variable	Variable Levels	Percentage of Sample	NASP Demographics
Employment Setting			
	Elementary Only	33.0%	N/A
	Secondary Only	14.8%	N/A
	Both Elementary and Secondary	49.3%	N/A
	Other	7.8%	N/A

Participants' demographic variables were found to be quite similar to those found in the NASP demographics. For instance, the NASP demographics survey found that 77% of school psychologists are female. Demographic information of the current survey found that 71% of respondents were female. While the NASP demographics survey found that on average school psychologists reported practicing for 14 years, the current study found that 60% of school psychologists indicated practicing 15 years or less while 40% reported practicing 16 years or more. Forty-percent of school psychologists hold a specialist degree. Similarly, forty-one percent of study participants reported holding a specialist degree. Study participants were more likely to hold a doctorate degree and less likely to hold a masters degree than was indicated by the NASP demographics survey results.

Non-response bias analysis. A non-response bias analysis was conducted in order to ascertain if school psychologists who returned a survey after the first mailing differed significantly from school psychologists who returned a survey after the second mailing.

Eighty-two school psychologists returned a survey after the first mailing. Twenty-three school psychologists returned a survey after the second mailing. Table 2 includes a comparison of group means, standard deviations, and the standardized mean difference for continuous variables including the percent of time spent engaging in assessment, direct intervention, consultation, and professional development, the rate of engagement in parent training/education activities, the perception of barriers to engagement in parent training/education activities, and the intensity of training related to parent training/education.

Table 2. *Standardized Mean Difference of Response Groups 1 and 2*

Variable	Mean	Pooled Standard Deviation	Standardized Mean Difference
Assessment* Group 1	36.1	21.7	-.11
Assessment* Group 2	38.66		
Direct Intervention* Group 1	17.4	15.9	.0006
Direct Intervention* Group 2	17.39		
Consultation* Group 1	13.8	13.78	-.007
Consultation* Group 2	13.9		
Case Management* Group 1	14.09	13.96	-.19
Case Management* Group 2	16.84		
Professional Development* Group 1	6.39	4.3	-.09
Professional Development* Group 2	6.78		
Engagement** Group 1	2.24	.705	-.08
Engagement** Group 2	2.3		
Perception of Barriers*** Group 1	3.45	.277	.21
Perception of Barriers*** Group 2	3.39		
Training Group ****1	3.16	.6939	.38
Training Group**** 2	2.89		

* Percent of time spent in activity
**Rate of engagement in parent training/education activities
***Perception of barriers to engagement in parent training/education
****Intensity of training related to parent training/education

Standardized mean differences between school psychologists who returned a survey after the first mailing and those who returned a survey after the second mailing ranged from .0006 to .38, indicating no or minimal differences between groups on non-categorical variables (i.e., assessment, direct intervention, consultation, case management, professional development, engagement, perception of barriers, and training). Cohen's effect size W scores were calculated to determine if participants from mailing cycle one and participants from mailing cycle two differed on the categorical, interval, or ordinal variables. Cohen's W scores ranged from .01 to .09 indicating minimal or no difference between participants who responded to the first mailing and those who responded to the second mailing. Table 3 contains the effect sizes of the ordinal, interval, and categorical variables. Based on these analyses, it is assumed that there are no statistically significant difference between responders and non-responders which indicates a non-biased sample.

Table 3. *Effect Size Differences of Response Groups 1 and 2 on Categorical, Interval, and Ordinal Variables*

Variable	Chi-Square Value	Cohen's W Score
Years of Experience	.206	.04
Degree Level	.993	.09
Recency of Training	.352	.05
Gender	.260	.04
Number of Schools	.034	.01
Caseload	.211	.04
Elementary Setting	.837	.085
Middle School Setting	.747	.08
High School Setting	.060	.02

Interview participants. Of the 500 surveyed participants, only 5 indicated that they engaged in parent training/education at least once per week and returned a postcard with their contact information. These five participating school psychologists were called by the researcher in order to collect information regarding what facilitated their engagement in parent training/education activities. All phone calls were made in the evening by the researcher. All five school psychologists were able be contacted by phone and agreed to participate in the interview. Each phone call lasted an average of 20 minutes. Extensive interview notes were taken by the researcher with an attempt to capture the participants' words as accurately as possible. At several points during the interviews and following each interview question, the researcher asked for time to finish recording the response and read back to the participant what had been recorded. The participant then reported back any necessary changes or additions.

Of the five school psychologists who participated in the phone interview, four were female and one was male. All female school psychologists worked in an elementary setting while the sole male school psychologist reported working in a center school which he described as serving children with emotional handicaps.

Materials

Survey. A 98-item survey was developed to analyze the proposed research questions (see Appendix A). The survey consists of five sections: Demographic Information, Professional Practices, Perception of Barriers, Training, and Current Practices. The survey was adapted from an instrument designed by the researcher for previous research that examined the work of school psychologists with the parents of children with ADHD (Sarlo, 2006).

Item Development

The items for this survey were developed following a review of the literature by the researcher. This review aided in the identification of specific variables found to be related to the professional activities of school psychologists.

Demographic information. The demographic information section was modeled after the format used in the 2004-2005 NASP demographic survey (Curtis, Hunley, Walker & Baker, 1999). 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, seven questions were included in order to gather information regarding a respondent's sex, degree level, years of experience, recency of training, number of students served, number of schools served, and employment setting(s) was collected.

Professional Practices. The second section, Professional Practices, was modeled after a survey developed by Curtis, Grier, Abshier, Sutton, and Hunley (2002) and asked participants to write in the percent of time they spent engaging in assessment, direct intervention, consultation, case management, professional development, and "other" activities. Participants were asked to specify activities indicated within the "other" category. Participants were informed that the percent of time spent engaging in assessment, direct intervention, consultation, case management, professional development, and "other" activities should add up to one-hundred percent. "Assessment" was defined as administering norm-referenced measures, conducting curriculum-based measurement, and conducting behavioral observations. "Direct Interventions" was

defined as counseling, crisis intervention, providing academic intervention, providing behavioral intervention. "Consultation" was defined as consulting with teachers or parents, parent training/education, intervention planning, and working on problem-solving/response to intervention teams. "Case Management" was defined as writing reports, independently reviewing data, contacting pediatricians and other pertinent community professionals, and making referrals to outside resources. "Professional Development" was defined as attending conferences, reading articles, receiving feedback from colleagues and/or supervisors. Definitions of each role were provided for clarification.

Perception of barriers. The Perception of Barriers section was developed after reviewing research indicating barriers to school-based mental health services and family-school partnership activities. Questions were designed to measure participants' perception of barriers within the following areas: Logistical problems, lack of training, lack of support from school personnel, beliefs regarding the importance of parent involvement, lack of family and school resources, negative school climate, and cultural and language differences. Participants were asked to indicate their level of agreement on forty specific barrier questions using a Likert scale (i.e., strongly disagree, disagree, neutral, agree, and strongly agree). Individual responses were assigned a score of 5 for strongly disagree, a score of 4 for disagree, a score of 3 for neutral, a score of 2 for agree, and a score of 1 for strongly agree. Summary scores were calculated by adding together the values of each individual item within the Barriers section. Mean Barrier scores were calculated by dividing the Barrier summary score by the total number of items in the Barriers section.

A Maximum Likelihood factor analysis of the perception of barriers variable was performed in order to determine school psychologists' perception of different types of barriers. A Promax rotation was included in this analysis in order to increase interpretability of the factors as it was believed that the perception of barriers factors would be correlated. A post-hoc analysis of the perception of barriers factors revealed that they were, in fact, significantly correlated with each other. These correlations ranged from -.081 to .330. The factor analysis of the perception of barriers variable revealed thirteen factors with eigenvalues of 1 or greater. Scree plot analysis supported a five factor solution. Interpretability of multiple factor structures between five factors and thirteen factors were examined. The five factor solution was found to have the most robust interpretability of all the factor solutions and thus was chosen. The five factor solution explained 41.5% of the variance in perception of barriers. A qualitative analysis of items within the five factors indicated that the general barrier categories represented included parent involvement and participation (factor 1), school and district support and resources (factor 2), school psychologists' attitude regarding parent involvement and parent training (factor 3), school personnel's attitude regarding parents (factor 4), and the extent to which school psychologists' role is focused on assessment (factor 5). See Table 4 for a complete account of items included within each Barriers factor. See Appendix G to review relevant pattern and structure matrixes and scree plot. Mean Barrier scores for each Barrier factor were calculated by dividing the summary Barrier score for each factor by the total number of items within the factor.

Table 4. *Items Included in Each Barriers Factor*

Barriers Factor 1: Parent Involvement and Participation
I have sufficient time to engage in parent training interventions
My school administrator (principal) supports my engagement in parent training interventions
I have too many job responsibilities to provide parent training interventions
My department supervisor supports my engagement in parent training interventions
I have access to sufficient space within the school building to provide parent training interventions
The number of children in need of assessment at my school limits my ability to provide parent training interventions
My school has the resources to provide childcare during parent training meetings
There are clearly defined responsibilities among school employees who can provide parent training interventions (e.g., guidance counselor, social worker)
I communicate regularly with parents regarding parent training opportunities at my school
Schools can afford to provide transportation for parents to attend meetings
Barriers Factor 2: School and District Resources
I am culturally and linguistically similar to the majority of families at my school
School personnel are culturally and linguistically similar to the majority of families at my school
Parents at my school are actively involved in their child's education
The basic needs (food, shelter, clothing, safety) of the families at my school are met
Parents at my school have the necessary ability and education to benefit from parent training interventions
Parents at my school regularly attend school-sponsored events (e.g., open house, conferences)
Language barriers make parent training interventions difficult to implement with families at my school
Parents have sufficient time to participate in parent training interventions
Teaching parents of children with behavior problems about child development, discipline, or parenting will result in improved child behavior at home and at school
Parent involvement can help increase success for a student with chronic behavior problems
I need additional professional development in parent training interventions
Barriers Factor 3: Attitude Regarding Parent Involvement and Participation
I am interested in providing parent training interventions
I have been trained in how to establish and maintain positive collaborative relationships with parents
I feel comfortable working collaboratively with families from diverse cultural, ethnic, and language back grounds
I have sufficient training in parent training interventions
School psychologists should assume the bulk of responsibility for parent training interventions
Parents would utilize parent training interventions if they were available at my school
School psychologists are the best professionals to provide parent training interventions

Table 4. *Items Included in Each Barriers Factor (Continued)*

Barriers Factor 4: School Personnel's Attitude Regarding Parents
Parents of children with behavior problems want to be involved in their children's education more than they are currently involved
My school has a positive and welcoming attitude toward parents
My school values the involvement of parents in interventions for children with behavior problems
School personnel welcome and appreciate parents' involvement in thier child's education
School personnel at my school know when, how, and why to contact me and appear comfortable collaborating with me
Barriers Factor 5: School Psychologists' Role Focused on Assessment
My preferred professional role is psycho-educational assessment
My professional role is focused on psycho-educational testing
It is reasonable to expect me to meet with parents after school hours
School personnel understand my role and full range of interventions that I can deliver
Educators at my school contact parents primarily when their child has a behavior or academic problem

Training. The Training section of the survey included fifteen items designed to assess participants' training experiences in general behavior change practices, formal parent training and support, and supporting home-school collaboration and communication. Respondents were asked to indicate the method of their training for specific practices or concepts (e.g., formal parent training programs, the use of a token economy). The training methods were arranged from least intense to most intense. Options for responding included not covered, coursework, directly observed, implemented without feedback, and implemented with feedback. "Not Covered" was defined as having not been exposed to the activity or intervention through coursework or observation. "Coursework" was defined as obtaining knowledge of an activity or intervention through course-based research and lecture. "Directly Observed" was defined as watching an intervention or activity being implemented by a teacher, supervisor, or qualified personnel. "Implemented without Feedback" was defined as personally

implemented intervention or activity independently without ever receiving feedback from a supervisor or trainer. "Implemented with Feedback" was defined as personally implemented intervention with feedback and/or assistance from a supervisor or trainer. Definitions of each training method were provided for clarification. Individual items were assigned scores depending on the intensity of training indicated by the participant. "Not Covered" was valued at 1. "Coursework" was valued at 2. "Directly Observed" was valued at 3. "Implemented without Feedback" was valued at 4. "Implemented with Feedback" was valued at 5. Summary scores were calculated by adding together the value scores of each individual item. Mean intensity of training scores were calculated by dividing the training summary score by the total number of training items.

A Maximum Likelihood 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 .089 to .501. 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., 60.88%). Both a Scree plot analysis and an examination of the interpretability of the factors supported a three factor solution. A qualitative analysis of items within the three factors indicated that the general activity categories represented included general behavior change practices (factor 1), formal parent training, (factor 2), and supporting home-school collaboration and communication (factor 3). See Table 5 for a complete

account of items included within each Training factor. See Appendix F to review relevant pattern and structure matrixes and scree plot.

Mean factor scores for identified training factors (i.e., general behavior change, formal parent training, and supporting home-school collaboration and communication) were correlated with mean engagement factor scores in order to determine the relationship between intensity of training within specific categories and rate of engagement in each parent training activity category (i.e., teaching parents behavior management practices, supporting home-school collaboration and communication, and implementing parent training and support groups)**.** Because multiple analyses were required to examine this question, a Bonferroni correction procedure was employed to control for family-wise error. As a result of this correction, correlations were considered statistically significant if the probability coefficient was equal to or smaller than .005.

Table 5. *Items Included in Each Training Factor*

Training Factor 1: General Behavior Change Practices
Using positive reinforcement (e.g., giving praise, attention, prizes, etc.) to maintain, teach, or encourage desired behaviors
Observing and noting the relationship between antecedents, behavior, and consequences
Using time-out from positive reinforcement procedure (i.e., removing a child from a desirable activity or environment following their inappropriate or undesirable behavior)
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) to maintain, teach, or encourage desired behavior
Implementing evidence-based interventions for children with chronic behavior problems

Table 5. *Items Included in Each Training Factor (Continued)*

Training Factor 2: Formal Parent Training
Facilitating meetings to create more cooperation between the parents of children with chronic behavior problems and educators
Planning, coordinating, and monitoring interventions implemented jointly by the parents of children with chronic behavior problems and teachers
Consulting with the parents of children with chronic behavior problems about ways they can support their child's learning and behavior at school
Providing training for teachers regarding ways to involve the parents of children with chronic behavior problems in their children's school work
Helping teachers and administrators provide information to the parents of children with chronic behavior problems on grade-level academic and behavioral expectations
Training Factor 3: Supporting Home-School Collaboration and Communication
Coordinating a parent support group for the parents of children with chronic behavior problems
Organizing a parent volunteer program to assist children with chronic behavior problems in the classroom
Implementing a formal parent-training program that includes regular, scheduled meetings and a planned parent training curriculum
Developing or coordinating a family resource center that serves parents of children with chronic behavior problems
Helping schools create participatory roles for parents of children with chronic behavior problems on school advisory committees

Mean Intensity of Training scores for each training factor were calculated by dividing the summary Training score for each factor by the total number of items within the factor. Higher training scores indicate more instance training.

Current practices. The Current Practices section was developed to examine the rate of school psychologists' engagement in parent training/education activities including their involvement in activities designed to involve parents in interventions, provide training or education for parents, or facilitate other educators' work with parents. Thirty 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 chronic behavior problems (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 also were included even when these components were not present in the other curricula (e.g., Barkley's parent counseling component). Respondents were asked to circle the frequency statement that most closely approximated their typical engagement (i.e., once a day or more, once a week, once a month, once a semester, once a year or less) in each activity. "Once a day or more" was valued at 5. "Once a week" was valued at 4. "Once a month" was valued at 3. "Once a semester" was valued at 2. "Once a year or less" was valued at 1. Summary scores were calculated by adding together the values assigned to each individual item within the current practices section. Mean overall Engagement scores were calculated by dividing the Current Practices summary score by the total number of Current Practices items.

The average rate of engagement within specific categories of parent training activities as defined by factor analysis was also determined. A factor analysis of the current practices 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 supported a three factor solution. The interpretability of the three factor solution was found to be more robust than the interpretability of either a four or a five factor solution, and thus a three factor solution was chosen. The three

factors accounted for approximately 58% of the total variance in current practices. The items within each factor were analyzed and found to represent 3 general categories of parent-focused activities including: 1) Teaching parents behavior management practices, 2) Supporting home-school collaboration and communication, and 3) Implementing formal parent training and support groups.

Factor one, teaching parents behavior management practices, consisted of items that focused on promoting behavior management skills such as teaching parents how to reward appropriate behavior, ignore minor inappropriate behavior, and implement a token economy. Factor 2, supporting home-school collaboration and communication, consisted of items that involved communicating with parents regarding the importance of their involvement in their child's education and intervention and working with school personnel to promote parent participation in school activities and decision making. Factor 3, implementing formal parent training and support programs, included items that involved developing or coordinating a family resource center or parent support group and implementing a formal parent training program. See Table 6 for a complete account of items included within each Current Practice factor. See Appendix E to review relevant pattern and structure matrixes and scree plot.

Table 6. *Items Included in Each Current Practice Factor*

Current Practices Factor 1: Teaching Parents Behavior Management Practices
Teaching parents how to use time-out appropriately
Teaching parents positive attending skills to appropriate independent play
Teaching parents positive attending skills to their child's compliance with parental requests
Teaching parents how to manage their child's behavior in public places
Teaching parents effective methods for communicating commands
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)

Table 6. *Items Included in Each Current Practice Factor (Continued)*

Current Practices Factor 1: Teaching Parents Behavior Management Practices
Teaching parents how to avoid adding to their child's escalating problem behavior such as tantrums
Teaching parents to ignore minor behavior problems
Teaching parents to reward positive behavior
Teaching parents how to manage their child's behavior in public places
Counseling parents regarding their emotional reactions (e.g., sadness, guilt, anxiety) to their child's chronic behavior problems
Encouraging parents to set aside a daily time period to interact with their child in activities that are chosen and directed by their child
Increasing parental knowledge of behavior management principles as they apply to their child
Teaching parents about chronic behavior problems core symptomology and epidemiology
Helping parents understand what factors contribute to the emergence and maintenance of their child's problem behavior
Teaching families about child development, discipline, or parenting
Current Practices Factor 2: Supporting Home-School Collaboration and Communication
Helping schools provide information on grade-level academic and behavioral expectations
Helping schools create participatory roles for parents on behavior intervention/problem solving teams
Consulting with families about specific ways that they can support their child's learning and behavior at school
Planning, coordinating, and monitoring interventions implemented jointly by parents and teachers
Communicating with parents regarding the expected outcomes of interventions for their children
Contacting parents who do not attend scheduled conferences or who need follow-up contacts
Helping schools provide information on grade-level academic and behavioral expectations
Explaining to parents the connection between chronic behavior problems and academic underachievement
Current Practices Factor 3 : Implementing Formal Parent Training and Support Groups
Implementing a formal parent training program
Organizing a parent volunteer program to assist teachers, administrators, and children in classroom
Coordinating childcare for the child with chronic behavior problems and his or her siblings during parent training sessions
Arranging transportation to school in order for parents to attend parent training sessions
Developing or coordinating a family resource center
Coordinating a parent support group for parents of children with chronic behavior problems

Mean Engagement scores for each Current Practices factor were calculated by dividing the summary engagement score for each factor by the total number of items within the factor. Higher current practices scores indicate higher rates of engagement.

Instrument reliability. Reliability analysis of the survey when used for previous research revealed moderate to strong internal consistency within all subdomains, with Cronbach's alpha levels ranging from .63 to .93 (Sarlo, 2006). Because only minor changes were made to the survey including changing the words "Attention Deficit Hyperactivity Disorder (ADHD)" to "chronic behavior problems" and the addition of 5 questions to the Perception of Barriers section, it was assumed that the survey used for the current research would possess similar moderate to strong internal consistency within all subdomains. Because of this assumption, the decision was made not to pilot the survey instrument prior to using it for the current research. Instead, a panel of ten practicing school psychologists was assembled by the researcher to review and provide feedback regarding the interpretability of the survey. All panel members were currently practicing school psychologists. Years of experience ranged from 3 years to 27 years with the majority of panel members in practice for between 8 and 12 years. Seven panel members were female and 3 were male. Five panel members currently worked only in elementary settings while 2 panel members served both elementary and secondary schools and 3 worked only in secondary schools. The number of schools served by each panel member ranged from 1 to 4 with the majority (i.e., 7) panel members reporting serving 3 schools. Six of the panel members were employed in Florida, two panel members worked in North Carolina, one panel member worked in Maryland, and another panel member worked in Illinois. As a result of the panel's feedback, eight questions

were rewritten to improve clarity, three questions were added to the barriers section, and two questions were removed from the barriers section.

Internal consistency reliability coefficients were calculated for each study variable. Cronbach's alpha coefficients were produced to determine the extent to which participants consistently answer similar questions. This analysis yielded moderate to strong internal consistency within all subdomains with Cronbach's alpha levels ranging from .759 to .954. Cronbach's alpha levels of variable factors were also calculated in order to determine the reliability of questions which constitute each factor. Reliability of factors ranged from .648 to .829 with the exception of Barriers Factor 5 which possessed a reliability level of .461. Specific Cronbach's alpha levels of the survey used for the current research are noted in Table 6.

Table 7. *Cronbach's Alpha Levels for Training, Barriers, and Current Levels of Engagement Variables*

Variable	Cronbach's Alpha
Perception of Barriers	.759
Barriers Factor 1: Parent involvement and participation	.775
Barriers Factor 2: School and district resources	.723
Barriers Factor 3: Attitude regarding parent involvement and parent training	.718
Barriers Factor 4: School personnel's attitude regarding parents	.648
Barriers Factor 5: School psychologists' role focused on assessment	.461

Table 7. *Cronbach's Alpha Levels for Training, Barriers, and Engagement Variables*

Variable	Cronbach's Alpha
Intensity of Training	.853
Training Factor 1: General behavior change principles	.880
Training Factor 2: Formal parent training	.829
Training Factor 3: Supporting home-school collaboration and communication	.740
Current Practices	.954
Current Practices Factor 1: Teaching parents behavior management practices	.880
Current Practices Factor 2: Supporting home-school collaboration and communication	.829
Current Practices Factor 3: Implementing formal parent training and support groups	.740

Phone interview questions. A phone interview script was designed by the researcher in order to gather additional information from school psychologists who reported engaging in parent training/education with parents of children with chronic behavior problems at a rate of once per week or more frequently. The interview questions were open-ended and designed to prompt discussion regarding participants' engagement in parent training/education activities. Specifically, four interview questions were designed by the researcher which asked participants to discuss their current rate of engagement, barriers to their engagement, facilitators of their engagement, and advice that they would offer other school psychologists regarding parent training. A list of specific interview questions is provided in Appendix D.

Data Collection

An application was submitted to the University of South Florida's Institutional Review Board (IRB) to obtain approval for the research study. Following approval from the IRB, a NASP research application was completed in order to obtain permission to survey NASP members. Once the NASP Research Board approved the sampling of its membership database, five hundred practicing school psychologists were randomly sampled from the NASP general population. In the spring semester of the 2008-2009 school year, all psychologists included in the sample were mailed a survey packet including a cover letter explaining the purpose of the study and ensuring confidentiality (see Appendix B), a copy of the study survey (see Appendix A) and a pre-addressed, postage-paid return envelope. A code number corresponding with each potential participant was placed on the return envelope. A list of potential participants and their assigned code number was kept in a locked file cabinet to assure security of participant names. When a survey was returned, the completed survey was immediately removed and placed in a data entry file in order to ensure confidentiality of participants' responses. The code number on the envelope was then used to delete the respondent from the list of psychologists who would be mailed a second survey packet. The code number allowed the researcher to determine which participants did not respond to the initial mailing and to randomly select winners of the incentive award. Participants who did not respond to the initial mailing were mailed a second survey packet during the summer of 2009 which included a cover letter, a survey, and a pre-addressed, postage-paid return envelope. The secondary mailing took place approximately two months after the initial mailing.

In addition to a cover letter, survey, and return envelope, both initial and secondary mailings also included a postage-paid postcard (see Appendix C). The postcard served as an invitation for psychologists whose rate of engagement in parent training/education activities was at least once per week to engage in follow-up conversation with the researcher via the telephone. The postcard provided space for psychologists to write their telephone contact information. Psychologists were instructed on the postcard to mail the postcard separate from the survey so that identifying information would in no way be attached to the survey responses, guaranteeing that the survey responses remained anonymous.

Five school psychologists returned the postcards and volunteered to engage in a telephone conference with the researcher regarding their parent training experiences. These psychologists were contacted by phone. The researcher asked each contacted psychologist to discuss their current rate of engagement in parent training/education activities, as well as barriers to and facilitators of their engagement. The researcher prepared for and conducted the interviews following a interview protocol suggested by McNamara (1999). The researcher began by choosing a setting that was free of distractions before telephoning the interviewees. When the interviewees were contacted, the researcher explained the purpose of the interview and assured confidentiality of responses. The researcher also explained the format of the interview and informed the interviewees that each interview was expected to take approximately 20 minutes. The researcher allowed the interviewees to ask questions and concerns about the interview prior to posing the first interview question. A standardized, open-ended question format was used while allowing for some clarifying, probing, and follow-up questions. The

standardized format allowed for efficient collection of relevant information and allowed for the interviewees' responses to be more easily analyzed and compared. Clarifying and probing questions allowed the researcher to clarify responses and develop a more in-depth understanding of the interviewee's point of view (Kavale, 1996). The researcher took extensive field notes and attempted to capture the interviewee's responses verbatim whenever possible. The researcher conducted informal member checks by frequently stopping the interview to read back to the interviewee the recorded responses. The interviewees were asked to comment on accuracy and clarify any misreported or misunderstood information (Lincoln & Guba, 1985). After all open-ended question was posed, interviewees were thanked for their participation and given the researcher's contact information so that the interviewees could contact the researcher with additional information not provided in the initial interview. None of the interviewees contacted the researcher following the initial interview.

Data Analysis

Survey data. Descriptive, correlational and linear models were employed to analyze the survey data. This model was most appropriate because the researcher was interested in determining the relationship between variables using complete group data.

> Research Question #1: How often are school psychologists currently engaging in parent training/education activities with parents of children with chronic behavior problems?

The first research question was examined by analyzing the information reported in the Current Practices portion of the survey. Analysis of information reported in this section included the percentage of school psychologists engaging in parent training

activities with parents of children with chronic behavior problems as well as the average rate of that involvement. For each item representing a particular activity, mean rates of engagement and proportions of psychologists selecting each involvement rate (i.e., once a day or more, once per week, once per month, once per semester, or once a year or less) were determined.

Research Question #2: What are the relationships between demographic variables and school psychologists' rate of engagement in parent training/education activities with parents of children with chronic behavior problems?

An Analysis of Variance (ANOVA) was utilized to determine differences in mean engagement between participants belonging to specific demographic groups determined by sex, degree level, years of experience, recency of training, number of students served, employment setting, and number of schools served. Because multiple analyses were required to examine this question, a Bonferroni correction procedure was employed to control for family-wise error. As a result of this correction, correlations were considered statistically significant if the probability coefficient was equal to or smaller than .002.

Research Question #3: What is the relationship between intensity of training and the rate of engagement in parent training/education activities with parents of children with chronic behavior problems?

This question was analyzed using Pearson product moment correlations. Participants' overall mean intensity of training scores were correlated with mean rate of engagement scores in order to determine the relationship between intensity of training in parent training/education activities and the overall implementation of such activities. Mean intensity of training factor scores were correlated with mean rate of engagement

scores and each current practices factor mean score in order to determine the relationships between content of training and overall engagement and engagement within specific types of parent training/education activities.

Research Question #4: What is the relationship between school psychologists' professional practices and their rate of engagement in parent training/education activities with parents of children with chronic behavior problems?

Research question #4 was examined by correlating school psychologists' overall mean rate of engagement in parent training activities with the percent of their time spent engaging in each professional practice (i.e., assessment, direct intervention, consultation, case management, professional development and other activities determined by participants). In addition, the percent of time spent engaging in each professional practice was correlated with mean engagement factor scores in order to determine the relationship between percent of time spent engaging in specific professional practices and rate of engagement within specific categories of parent training activities. Because multiple analyses were required to examine this question, a Bonferroni correction procedure was employed to control for family-wise error. As a result of this correction, correlations were considered statistically significant if the probability coefficient was equal to or smaller than .002.

Research Question #5: What is the relationship between the perception of common barriers and school psychologists' rate of engagement in parent training/education activities with the parents of children with chronic behavior problems?

Research question #5 was examined by correlating school psychologists' mean perception of barriers with their mean rate of engagement in parent training/education activities with parents of children with chronic behavior problems.

Mean perception of barriers scores for each barrier factor were correlated with mean current practices factor scores (i.e., teaching parents behavior management practices, supporting home-school collaboration and communication, and implementing parent training and support groups) to determine the relationship between the perception of specific types of barriers and engagement in specific types of parent training interventions. Because multiple analyses were required to examine this question, a Bonferroni correction procedure was employed to control for family-wise error. As a result of this correction, correlations were considered statistically significant if the probability coefficient was equal to or smaller than .004.

Research Question #6: Which of the variables or combination of variables above accounts for the most variance in the engagement of school psychologists in parent training/education activities with the parents of children with chronic behavior problems?

Question #6 was addressed using a stepwise multiple regression analysis. The correlation between the combination of predictor variables (i.e., demographic, professional practice, perception of barriers, and training) and the criterion variable (i.e., current level of 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 analyzed to answer this question.

Interview data. The researcher utilized an ad hoc approach to analyzing the interview data including narrative structuring, meaning condensation, categorization, and meaning interpretation (Kavale, 1996). First, the researcher read each interviewee's responses and began to structure the narratives to create a more coherent story. Next, the researcher abridged the meaning expressed by each interviewee into briefer statements. The researcher then categorized the interview data and summarized it into a few tables. Once the data was organized into tables relating to frequency and type of engagement, barriers to engagement, facilitators of engagement, and advice for other school psychologists, the researcher began to interpret the data by identifying common themes in the data as well as aspects of the interviewee responses which were unique yet important. The researcher also sent a copy of the summary tables to her major professor who independently interpreted the interview data. Working separately, they each summarized the commonalities amongst participants' responses for each question. Each also identified unique but important information provided by individual participants. They then compared their summaries and resolved any discrepancies in interpretation by collaboratively reviewing the interview transcripts.

Chapter IV

Results

This chapter describes the findings resulting from the analysis of survey and interview data. Specifically, descriptive statistics are reported for participants' demographic characteristics, professional practices, perception of barriers, training, and engagement in parent training/education activities. Information regarding the relationships between school psychologists' engagement in parent training/education activities and their demographic characteristics, professional practices, and perception of barriers are described.

Descriptive Statistics

Professional practices. School psychologists' professional practices were assessed by asking each individual to identify the percentage of time that he or she typically engages in assessment, direct interventions, consultation, case management, professional development, and "other" activities. Participants reported spending more time engaging in assessment than any other professional practice. The percentage of time during the 2007-2008 school year in which school psychologists reported engaging in assessment ranged from 0% to 94% with a mean percentage of 36.85%. Sixty-five percent of school psychologists reported spending 25% of their time engaging in assessment. Twenty-five percent of psychologists reported engaging in assessment 50%

or more of the time. School psychologists reported spending significantly less time engaging in direct intervention (17.4%), consultation (20.38%), case management (16.22%), and professional development (6.5%). Table 8 includes descriptive information for each type of professional practice activity.

Table 8. *Descriptive Statistics for Professional Practice Categories*

Activity Category	*M*	*Min*	*Max*
Assessment	36.85%	0%	94%
Direct Intervention	17.40%	0%	75%
Consultation	20.38%	0%	60%
Case Management	16.22%	0%	75%
Professional Development	6.50%	0%	20%

Perception of barriers. Participants' barrier scores ranged from 2.3 to 3.95 with a maximum possible mean score of 5. The overall mean barriers score was 3.44. School psychologists who perceived fewer barriers to engagement in parent training/education obtained higher mean barrier scores than school psychologists who perceived many barriers to his or her engagement.

The mean barriers score was 2.88 for parent involvement and participation, 2.96 for school and district resources, 3.35 for school psychologists' attitude regarding parent involvement and training, 4.03 for school personnel's attitude regarding parents, and 3.10 for role focused on assessment. These scores indicate that school psychologists perceive the most barriers to their engagement in parent training/education in the areas of parent

involvement and participation and school and district resources. Table 9 contains mean and standard deviation of each barriers factor.

Table 9. *Barriers Factor Means and Standard Deviations*

Barriers Factor	*M*	*SD*
Factor 1: Parent Involvement and Participation	2.88	.497
Factor 2: School and District Resources	2.96	.438
Factor 3: School Psychologists Attitude Regarding Parent Involvement and Training	3.35	.485
Factor 4: School Personnel's Attitude Regarding Parents	4.03	.576
Factor 5: Role Focused on Assessment	3.10	.923

School psychologists reported that school personnel's attitude regarding parents presented the least amount of barriers to their engagement in parent training and education. The percent of school psychologists indicating the presence of specific barriers by item is provided in Table 10.

Table 10. *Percent of Sample Indicating the Presence of Specific Barriers*

Perception of Barriers Item	Percent Indicating Barrier by selecting "disagree" or "strongly disagree"	Factor
School's can afford to provide transportation for parents to attend meetings	75.7%	1
I have sufficient time to engage in parent training interventions	73.9%	1
I communicate regularly with parents regarding parent training opportunities at my school	59.1%	1
School psychologists should assume the bulk of responsibility for parent training interventions	52.2%	3
My school has the resources to provide childcare during parent training meetings	51.3%	1
There are clearly defined responsibilities among school employees who can provide parent training interventions (e.g., guidance counselor, social worker)	46.1%	1

Table 10. *Percent of Sample Indicating the Presence of Specific Barriers (Continued)*

Perception of Barriers Item	Percent Indicating Barrier by selecting "disagree" or "strongly disagree"	Factor
School personnel understand my role and full range of interventions that I can deliver	43.5%	5
I have access to sufficient space within the school building to provide parent training interventions	38.3%	1
Parents have the time to participate in parent training interventions	37.7%	2
The basic needs of (food, shelter, clothing, safety) of the families at my school are met	30.7%	2
It is reasonable to expect me to meet with parents after school hours	27.9%	5
I am culturally and linguistically similar to the majority of families at my school	26.3%	2
School personnel are culturally and linguistically similar to the majority of families at my school	22.8%	2
Parents at my school regularly attend school-sponsored events (e.g., open house, conferences)	22.6%	2
Parents at my school are actively involved in their child's education	20%	2
Parents would utilize parent training interventions if they were available at my school	17.4%	3
School psychologists are the best professionals to provide parent training interventions	15.7%	3
Parents of children with behavior problems want to be involved with their children's education more than they are currently involved	13.9%	4
My department supervisor supports my engagement in parent training interventions	12.4%	1
My school regularly communicates with parents in their dominant language	12.3%	2

Table 10. *Percent of Sample Indicating the Presence of Specific Barriers (Continued)*

Perception of Barriers Item	Percent Indicating Barrier by selecting "disagree" or "strongly disagree"	Factor
My school administrator (principal) supports my engagement in parent training interventions	11.3%	1
I am interested in providing parent training interventions	11.3%	3
Parents at my school have the necessary ability and education to benefit from parent training interventions	9.6%	2
I have been trained on how to establish and maintain a collaborative relationship with parents	7.0%	3
My school values the involvement of parents in interventions for children with chronic behavior problems	7.0%	4
School personnel welcome and appreciate parents' involvement in their child's education	6.1%	4
My school has a positive and welcoming attitude toward parents	6.1%	4
I feel comfortable working collaboratively with families from diverse cultural, ethnic, and language backgrounds	4.4%	3
School personnel know when, how, and why to contact me and appear comfortable collaborating with me	3.5%	4
Parent involvement can help increase success in school for a student with chronic behavior problems	1.7%	2
Teaching parents of children with chronic behavior problems about child development, discipline, or parenting will result in improved child behavior at home and at school	0%	2
	Percent Indicating Barrier by selecting "agree" or "strongly agree"	Factor
I need additional professional development in parent training interventions	61.7%	2
My professional role is focused on psycho-educational testing	51.3%	5
Language barriers make parent training interventions difficult to implement with parents at my school	28.9%	2
The number of children in need of assessment at my school limits my ability to provide parent training interventions	27.9%	1

Table 10. *Percent of Sample Indicating the Presence of Specific Barriers (Continued)*

	Percent Indicating Barrier by selecting "agree" or "strongly agree"	Factor
I have too many job responsibilities to provide parent training interventions	23.5%	1
Educators at my school contact parents primarily when their child has a behavior or academic problem	21.9%	5
My preferred professional role is psycho-educational assessment	18.3%	5
Behavior problems are the result of poor parenting	14.8%	3

Training. School psychologists' overall intensity of training in parent training/education, 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. Results indicated that mean intensity of training scores ranged from 1.53 to 4.53 with a maximum mean intensity of training score of 5. A mean score of 5 would indicate that a participant implemented all assessed activities/interventions with feedback from a supervisor or trainer. The overall mean intensity of training score was 3.08.

The mean intensity of training score was 4.12 within the general behavior change practices, 1.8 within the formal parent training factor, and 3.32 within the supporting home-school collaboration and communication factor. Table 11 includes means and standard deviations of each training factor.

Table 11. *Training Factor Means and Standard Deviations*

Training Factor	*M*	*SD*
Factor 1: General Behavior Change Practices	4.12	.852
Factor 2: Formal Parent Training	1.80	.838
Factor 3: Supporting Home-School Collaboration and Communication	3.32	1.06

Nearly 25% of school psychologists reported that their training in general behavior change practices included implementing the practices with feedback from a trainer or supervisor. Thirty-two percent of school psychologists reported receiving no training in formal parent training and no school psychologists reported implementing all aspects of formal parent training programs with feedback from a trainer or supervisor. Nearly 60% of school psychologists reported that they had at least directly observed strategies for supporting home-school collaboration and communication while approximately 27% reported implementing most strategies without feedback, and 10.5% reported implementing all home-school collaboration and communication support strategies with feedback from a supervisor or trainer. See Table 12 for the percent of school psychologists indicating each level of training intensity for each training item.

Table 12. *Percent of School Psychologists Indicating Each Intensity Level of Training for Specific Training Items*

Factor	Percent of School Psychologists Indicating Training Intensity Level				
Training Factor 1: General Behavior Change Principles	Not Covered	Course-Work	Directly Observed	Implemented Without Feedback	Implemented With Feedback
Using positive reinforcement (e.g., giving praise, attention, prizes, etc.) to maintain, teach, or encourage desired behaviors	0%	6.1%	11.3%	23.5%	58.3%
Observing and noting the relationship between antecedents, behavior, and consequences	0%	9.6%	9.6%	26.1%	53.9%
Using time-out from positive reinforcement procedure (i.e., removing a child from a desirable activity or environment following their inappropriate or undesirable behavior)	0%	11.3%	17.4%	26.1%	44.3%
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) to maintain, teach, or encourage desired behavior	0%	11.3%	17.4%	26.1%	44.3%

Table 12. *Percent of School Psychologists Indicating Each Intensity Level of Training for Specific Training Items (Continued)*

Factor	Percent of School Psychologists Indicating Training Intensity Level				
Training Factor 1: General Behavior Change Principles	Not Covered	Course-work	Directly Observed	Implemented Without Feedback	Implemented With Feedback
Implementing evidence-based interventions for children with chronic behavior problems	6.1%	9.6%	9.6%	33%	40.9%
Training Factor 3: Supporting Home-School Collaboration and Communication					
Facilitating meetings to create more cooperation between the parents of children with chronic behavior problems and educators	9.6%	13%	20%	24.3%	32.2%
Planning, coordinating, and monitoring interventions implemented jointly by the parents of children with chronic behavior problems and teachers	13.9%	18.3%	15.7%	24.3%	27%
Consulting with the parents of children with chronic behavior problems about ways they can support their child's learning and behavior at school	6.1%	19.1%	10.4%	26.4%	37.4%
Providing training for teachers regarding ways to involve the parents of children with chronic behavior problems in their children's school work	27%	25.2%	13.9%	17.4%	15.7%

Table 12. *Percent of School Psychologists Indicating Each Intensity Level of Training for Specific Training Items (Continued)*

Factor	Percent of School Psychologists Indicating Training Intensity Level				
Training Factor 3: Supporting Home-School Collaboration and Communication	Not Covered	Course-work	Directly Observed	Implemented Without Feedback	Implemented With Feedback
Helping teachers and administrators provide information to the parents of children with chronic behavior problems on grade-level academic and behavioral expectations	15.7%	14.8%	14.8%	29.6%	24.3%
Training Factor 2: Formal Parent Training					
Coordinating a parent support group for the parents of children with chronic behavior problems	59.1%	12.2%	11.3%	10.4%	6.1%
Organizing a parent volunteer program to assist children with chronic behavior problems in the classroom	74.8%	9.6%	10.4%	2.6%	1.7%
Implementing a formal parent-training program that includes regular, scheduled meetings and a planned parent training curriculum	45.2%	14.8%	10.4%	16.5%	12.2%
Developing or coordinating a family resource center that serves parents of children with chronic behavior problems	66.1%	14.8%	10.4%	4.3%	3.5%
Helping schools create participatory roles for parents of children with chronic behavior problems on school advisory committees	65.2%	13%	10.4%	7.0%	3.5%

Current practices. Thirty Current Practice items were designed to examine the rate at which school psychologists engage in parent training or education with parents of children with chronic behavior problems. Specifically, school psychologists were asked to indicate approximately how often they typically engaged in each parent training/education activity with the parents of children with chronic behavior problems. For the purposes of this research, each level of engagement was assigned a numerical value. For example, engaging in an activity "once a day or more" was valued at 5 points. Engaging in the activities "once a week" was valued at 4 points, "once a month" was valued at 3 points, "once a semester" was valued at 2 points, and "once a year or less" was valued at 1 point. A mean rate of engagement of 5 would indicate that school psychologists' engage in all parent training/education activities once per day or more. A mean score of 1 would indicate that school psychologists' engage in all parent training/education activities once a year or less. School psychologists revealed a mean overall rate of engagement in parent training/education activities of 2.26, which indicated that, on average, school psychologists engage in parent training/education practices approximately once per semester. Only 1.8% of school psychologists reported an average engagement level of once a year or less. However, approximately 85% of school psychologists reported an overall engagement level of less than once a month. Approximately eleven percent of school psychologists reported engaging in parent training/education activities once a month on average. Only .9% of school psychologists averaged weekly engagement, and none reported averaging daily engagement. The activity in which school psychologists were most frequently engaged was consulting with families about specific ways that they can support their child's learning or behavior at

school. This activity occurred on average once per month, with 43.5% of school psychologists reporting engaging in this activity once per week on average and 11.4% reporting averaging daily engagement. The activities that school psychologists engaged in least frequently included coordinating a parent support group for parents of children with chronic behavior problems, coordinating childcare for the child with chronic behavior problems and his or her siblings during parent training sessions, arranging transportation to school in order for parents to attend parent training sessions, and implementing a formal parent training program. These activities occurred on average once a year or less.

On average, school psychologists reported teaching parents behavior management skills between once a month and once a semester (*M*= 2.52). Approximately 34% of school psychologists reported teaching parents behavior management skills less than once per semester on average while 7% of school psychologists reported teaching these skills to parents at least once per week. School psychologists reported teaching parents to reward positive behavior more frequently (i.e., once per month on average) than any other activity within factor one. The least engaged in activity within factor one was role playing with parents their planned response to their child's behavior. This activity was engaged in by school psychologists on average slightly more than once a year.

The mean level of engagement in this type of activities was 2.82, which represented a rate of engagement of between once a month and once a semester. Fifty-four percent of school psychologists reported an average engagement of less than once a month while less than 4% of school psychologists reported an average engagement rate of once a week or more. School psychologists most often engaged in communicating

with parents regarding the expected outcomes of interventions (*M*=3.07) and helping parents understand the factors that contribute to the emergence and maintenance of their child's problem behavior (*M*=3.01). See Table 13 for a summary of factor means, standard deviations for each Current Practice Factor as well as mean engagement scores by item.

Table 13. *Mean Engagement Scores for Each Current Practice Item by Factor*

	Mean Engagement Score	Standard Deviation
Current Practices Factor 1: Teaching Parents Behavior Management Practices	2.52	.933
Teaching parents how to use time-out appropriately	2.29	
Teaching parents positive attending skills to appropriate independent play	2.02	
Teaching parents positive attending skills to their child's compliance with parental requests	2.27	
Teaching parents how to manage their child's behavior in public places	1.92	
Teaching parents effective methods for communicating commands	2.55	
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)	2.49	
Teaching parents how to avoid adding to their child's escalating problem behavior such as tantrums	2.57	

Table 13. *Mean Engagement Scores for Each Current Practice Item by Factor (Continued)*

	Mean Engagement Score	Standard Deviation
Current Practices Factor 1: Teaching Parents Behavior Management Practices	2.52	.933
Teaching parents to ignore minor behavior problems	2.70	
Teaching parents to reward positive behavior	3.01	
Counseling parents regarding their emotional reactions (e.g., sadness, guilt, anxiety) to their child's chronic behavior problems	2.28	
Encouraging parents to set aside a daily time period to interact with their child in activities that are chosen and directed by their child	2.72	
Increasing parental knowledge of behavior management principles as they apply to their child	2.95	
Teaching parents about chronic behavior problems core symptomology and epidemiology	2.00	
Helping parents understand what factors contribute to the emergence and maintenance of their child's problem behavior	3.01	
Role playing with parents their planned response to their child's behavior	1.47	
Teaching families about child development, discipline, or parenting	2.60	

Table 13. *Mean Engagement Scores for Each Current Practice Item by Factor (Continued)*

	Mean Engagement Score	Standard Deviation
Current Practices Factor 2: Supporting Home-School Collaboration and Communication	2.82	.870
Helping schools provide information on grade-level academic and behavioral expectations	2.84	
Helping schools create participatory roles for parents on behavior intervention/problem solving teams	2.30	
Consulting with families about specific ways that they can support their child's learning and behavior at school	3.45	
Planning, coordinating, and monitoring interventions implemented jointly by parents and teachers	2.90	
Communicating with parents regarding the expected outcomes of interventions for their children	3.07	
Helping schools or teachers develop frequent, varied, and understandable methods for communicating with families	2.39	
Contacting parents who do not attend scheduled conferences or who need follow-up contacts	2.57	
Explaining to parents the connection between chronic behavior problems and academic underachievement	2.76	

Table 13. *Mean Engagement Scores for Each Current Practice Item by Factor (Continued)*

	Mean Engagement Score	Standard Deviation
Current Practices Factor 3: Implementing Formal Parent Training and Support Groups	1.10	.269
Implementing a formal parent training program	1.10	
Organizing a parent volunteer program to assist teachers, administrators, and children in classroom	1.08	
Coordinating childcare for the child with chronic behavior problems and his or her siblings during parent training sessions	1.11	
Arranging transportation to school in order for parents to attend parent training sessions	1.06	
Developing or coordinating a family resource center	1.14	
Coordinating a parent support group for parents of children with chronic behavior problems	1.13	

On average, activities within factor three occurred less than once per semester (*M*= 1.10). All activities within factor 3 were reported to occur slightly more often than once per year on average. No school psychologist reported implementing formal parent training and support programs more often than once a semester. Specific rates of engagement for each parent training/education activity are provided in Table 14. The information provided in Table 14 is useful in that it allows readers to review whether specific activities were engaged in frequently by some school psychologists (e.g., daily or weekly) and very infrequently by others (e.g., once a year or less). This type of

information may be missed if one reviews only the mean level of engagement in each current practice activity.

Table 14. *Rates of Engagement for Each Parent Training/Education Activity*

Current Practice Item	Once per day or more	Once per week	Once per month	Once per semester	Once per year or less
Teaching parents how to use time-out appropriately	11.4%	43.9%	28.1%	12.3%	4.4%
Teaching parents positive attending skills to appropriate independent play	7.0%	21.1%	25.4%	18.4%	28.1%
Teaching parents positive attending skills to their child's compliance with parental requests	10.5%	8.8%	25.4%	20.2%	35.1%
Teaching parents how to manage their child's behavior in public places	7.0%	19.3%	29.8%	12.3%	31.6%
Teaching parents effective methods for communicating commands	12.3%	21.9%	24.6%	20.2%	21.1%
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)	92.1%	4.4%	0.9%	1.8%	0.9%
Teaching parents how to avoid adding to their child's escalating problem behavior such as tantrums	12.3%	22.8%	26.3%	22.8%	15.8%

Table 14. *Rates of Engagement for Each Parent Training/Education Activity (Continued)*

Current Practice Item	Once per day or more	Once per week	Once per month	Once per semester	Once per year or less
Teaching parents to ignore minor behavior problems	5.3%	16.7%	24.6%	14.0%	39.5%
Teaching parents to reward positive behavior	0.9%	0%	0.9%	3.5%	94.7%
Teaching parents how to manage their child's behavior in public places	0%	1.8%	0.9%	6.1%	91.2%
Counseling parents regarding their emotional reactions (e.g., sadness, guilt, anxiety) to their child's chronic behavior problems	5.3%	8.8%	19.3%	14.0%	52.6%
Encouraging parents to set aside a daily time period to interact with their child in activities that are chosen and directed by their child	7.0%	18.4%	38.6%	15.8%	20.2%
Increasing parental knowledge of behavior management principles as they apply to their child	4.4%	14.9%	24.6%	16.7%	39.5%
Teaching parents about chronic behavior problems core symptomology and epidemiology	7.0%	29.8%	36.8%	16.7%	9.6%
Helping parents understand what factors contribute to the emergence and maintenance of their child's problem behavior	6.1%	30.7%	34.2%	16.7%	12.3%

Table 14. *Rates of Engagement for Each Parent Training/Education Activity (Continued)*

Current Practice Item	Once per day or more	Once per week	Once per month	Once per semester	Once per year or less
Teaching families about child development, discipline, or parenting	7.0%	29.8%	27.2%	23.7%	12.3%
Helping schools provide information on grade-level academic and behavioral expectations	5.3%	23.7%	28.9%	22.8%	19.3%
Helping schools create participatory roles for parents on behavior intervention/problem solving teams	2.6%	11.4%	19.3%	19.3%	47.4%
Consulting with families about specific ways that they can support their child's learning and behavior at school	6.1%	11.4%	23.7%	21.1%	37.7%
Planning, coordinating, and monitoring interventions implemented jointly by parents and teachers	7.9%	28.1%	33.3%	19.3%	11.4%
Communicating with parents regarding the expected outcomes of interventions for their children	4.4%	18.4%	30.7%	21.1%	25.4%
Contacting parents who do not attend scheduled conferences or who need follow-up contacts	3.5%	23.7%	33.3%	19.3%	20.2%
Helping schools provide information on grade-level academic and behavioral expectations	4.4%	18.4%	32.5%	20.2%	24.6%

Table 14. *Rates of Engagement for Each Parent Training/Education Activity (Continued)*

Current Practice Item	Once per day or more	Once per week	Once per month	Once per semester	Once per year or less
Explaining to parents the connection between chronic behavior problems and academic underachievement	4.4%	13.2%	33.3%	25.4%	23.7%
Implementing a formal parent training program	4.4%	10.5%	26.3%	28.1%	30.7%
Organizing a parent volunteer program to assist teachers, administrators, and children in classroom	0.9%	8.8%	22.8%	16.7%	50.9%
Coordinating childcare for the child with chronic behavior problems and his or her siblings during parent training sessions	0.0%	4.4%	13.2%	7.9%	74.6%
Arranging transportation to school in order for parents to attend parent training sessions	0.0%	0.0%	1.8%	7.9%	90.7%
Developing or coordinating a family resource center	0.0%	0.9%	0,0%	3.5%	95.6%
Coordinating a parent support group for parents of children with chronic behavior problems	0.0%	0.0%	1.8%	7.0%	91.7%

Inferential Statistics

Demographic variables and current practices. The second research question asked, "What are the relationships between demographic variables and school

psychologists' rate of engagement in parent training/education activities with parents of children with chronic behavior problems?"

This research question was examined by utilizing an Analyses of Variance (ANOVA) to determine differences in mean engagement between participants belonging to specific demographic groups determined by sex, degree level, years of experience, recency of training, number of students served, employment setting, and number of schools served.

Results of these analyses revealed that none of the demographic differences between groups significantly affected the rate of overall engagement in parent training/education. For example, whether a school psychologist was male or female was not related to overall rate of engagement in parent training/education activities (F=.354, p=.553). Differences in rate of engagement in parent training/education activities between school psychologists with varying number of years experience were not found (F=.118, p=.950). There also was no significant difference found between school psychologists with different degree levels (F=.705, p=.551). In addition, no significant differences were found in rate of engagement between school psychologists who served different numbers of schools (F=.791, p=.501) or caseloads (F=1.457, p=.210). Finally, no significant differences were found between school psychologists who served only elementary schools, those who served only secondary school, those who served both elementary and secondary schools, or those who work in a setting other than a traditional elementary or secondary school (F=.798, p= .498). Table 15 contains specific demographic group sample sizes, means, and standard deviations. Complete ANOVA tables for each demographic variable are found in Appendix H.

Table 15. *Demographic Group Means, Standard Deviations, and Sample Sizes*

Group Description	*N*	Mean Engagement Rate	*SD*
Male	33	2.32	.814
Female	82	2.24	.659
Less than 5 years experience	31	2.23	.711
5-15 years of experience	34	2.35	.699
16-25 years of experience	30	2.17	.647
26 or more years of experience	19	2.31	.820
Masters Degree (MA/MS)	26	2.13	.623
Specialist Degree (Ed.S.)	47	2.24	.699
Doctorate Degree (Ph.D./PsyD./Ed.D).	37	2.34	.756
"Other" Degree	4	2.55	.876
1 school	39	2.39	.796
2 schools	24	2.19	.704
3 schools	19	2.27	.524
4 or more schools	32	2.15	.685
Caseload= 1-20 students	8	2.77	1.00
Caseload= 21-40 students	10	2.34	.744
Caseload= 41-60 students	22	2.19	.817
Caseload= 61-80 students	13	2.01	.540
Caseload= 81-100 students	9	2.04	.388
Caseload= 100 or more students	52	2.30	.654
Elementary setting only	38	2.15	.641
Secondary setting only	17	2.25	.609
Both Elementary and Secondary settings	50	2.31	.672
"Other" Setting	9	.252	1.20

Table 15. *Demographic Group Means, Standard Deviations, and Sample Sizes (Continued)*.

Group Description	*N*	Mean Engagement Rate	*SD*
Received Degree less than 5 years ago	31	2.23	.711
Received Degree 5-15 years ago	34	2.35	.699
Received Degree 16-25 years ago	30	2.17	.647
Received Degree 26 or more years ago	19	2.31	.820

In addition to determining the relationship between individual demographic variables and overall engagement in parent training/education activities, ANOVAs were computed for each demographic variable and each of the three factors within the current practices variable. This analysis was completed in order to determine if school psychologists with different demographic backgrounds engaged in different rates of specific types of parent training/education practices. No significant mean differences were found between any of the demographic variables and any of the three current practices factors (i.e., teaching parents behavior management practices and supporting home-school collaboration and communication). Full ANOVA tables containing data on the differences between demographic groups (e.g., male versus female) in engagement rates within each current practice factor are provided in Appendix H.

Intensity of training and current practices. The third research question, "What is the relationship between intensity of training and the rate of engagement in parent training/education activities with parents of children with chronic behavior problems?" was analyzed by examining Pearson product moment correlations. Specifically, mean intensity of training scores were correlated with mean current practices rates 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=.384 (p<.000). This correlation coefficient indicates a moderate, positive relationship between training intensity and rate of engagement in parent training/education activities. In addition to this analysis, intensity of training scores within each training factor (i.e., general behavior change practices, formal parent training, and supporting home-school collaboration and communication) were correlated with mean rate of engagement within each parent training/education factor (i.e., teaching parents behavior management practices, supporting home-school collaboration and communication, and implementing formal parent training and support groups) in order to determine the relationship between intensity of training within a specific category and engagement with specific types of parent-centered activities. These analyses revealed no statistically significant correlations between the intensity of training within training factor 1 (i.e., general behavior change practices) and the extent of engagement in teaching parents behavior management practices (r=.064), supporting home-school collaboration and communication (r=.125), or implementing formal parent training and support groups (r=-.110).

The intensity of school psychologists' training in implementing formal parent training and support programs was significantly correlated with engagement in teaching parents behavior management practices (r=.350), supporting home-school collaboration and communication (r=.280), implementing formal parent training and support programs (r=.358), and promoting effective communication between home and school (r=.287) at a .004 level. Finally, the intensity of school psychologists' training in supporting home-

school collaboration and communication (i.e., training factor 3) was significantly related to their rate of engagement in teaching parents behavior management (r=.349) and supporting home-school collaboration and communication (r=.413). School psychologists' intensity of training in practices which support home-school collaboration and communication was not significantly related to their rate of implementation of parent training and support groups (r=.183). See Table 16 for a complete correlation matrix of training factors and current practices factors.

Table 16. *Correlation Matrix of Training Factors and Current Practices Factors*

		Teaching Parents Behavior Management Practices (Current Practice Factor 1)	Supporting Home-School Collaboration and Communication (Current Practice Factor 2)	Implementing Formal Parent Training and Support Groups (Current Practice Factor 3)
General Behavior Change Practices (Training Factor 1)	Correlation Coefficient	.064	.350*	.371*
	Significance	.500	.000	.000
Formal Parent Training (Training Factor 2)	Correlation Coefficient	.125	.280*	.413*
	Significance	.184	.003	.000
Supporting Home School Collaboration and Communication (Training Factor 3)	Correlation Coefficient	-.110	.287*	.183
	Significance	.246	.002	.052

*Significant at the .004 level

Professional practices and current practices. Research question number four asked, "What is the relationship between school psychologists' professional practices and their rate of engagement in parent training/education activities with parents of children with chronic behavior problems?"

This research question was addressed by correlating the percent of time school psychologists reported engaging in a variety of professional practices with their reported rate of engagement in parent training/education with the parents of children with chronic behavior problems. 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 .028, (F(1.657), p=.151), which indicates that school psychologists' professional practices explains only 2.8% of the variance in overall engagement in parent training/education with the parents of children with chronic behavior problems. Table 17 contains the Multiple Regression Summary Matrix for professional practice and overall engagement.

Table 17. *Multiple Regression Summary Matrix for Professional Practice and Overall Engagement.*

Variable	*b*	*β*	σ^x	*t*	*p*
% Assessment	-.006	-.178	.005	-1.084	.281
% Direct Intervention	.004	.095	.006	.707	.481
% Consultation	-.008	-.150	.006	-1.203	.232
% Case Management	-.005	-.108	.006	-.858	.393
% Professional Dev.	.013	.078	.016	.793	.429

In addition to determining the amount of variance in overall engagement explained by professional practice variables, the amount of variance explained within each engagement factor by school psychologists' professional practices was calculated. This analysis revealed that role profile accounted for only 3.8% of the variance in current

practices factor 1 (*F*(1.892), *p*=.102)**,** 0.1% of the variance in engagement factor 2 (*F*(.970), *p*=.439), and 3.8% of the variance in engagement factor 3 (*F*(1.905), *p*=.099). These correlations indicate virtually no relationship between school psychologists' overall professional practices and their engagement in teaching parents behavior management practices, supporting home-school collaboration and communication, or implementing parent training and parent support groups. Table 18 contains the R^2 Matrix for professional practice and each engagement factor.

Table 18. *Multiple Regression Matrix for Professional Practice and Each Engagement Factor.*

Factor 1: Teaching Parents Behavior Management Practice

Variable	b	β	σ^x	t	p
% Assessment	-.007	-.170	.007	-1.036	. 303
% Direct Intervention	.006	.098	.008	.733	.465
% Consultation	-.013	-.198	.008	-1.592	.114
% Case Management	-.008	-.118	.008	-.940	.349
% Professional Dev.	.015	.071	.021	.726	.470

Factor 2: Supporting Home-School Collaboration and Communication

Variable	b	β	σ^x	t	p
% Assessment	-.009	.007	-.234	-1.400	.164
% Direct Intervention	-.002	.008	-.037	-.271	.787
% Consultation	-.003	.008	-.047	-.374	.709
% Case Management	-.006	.008	-.099	-.778	.438
% Professional Dev.	.013	.020	.066	.659	.511

Table 18. *Multiple RegressionMatrix for Professional Practice and Each Engagement Factor (Continued)*

Factor 3: Implementing Formal Parent Training and Support Groups					
Variable	b	β	σ^x	t	p
% Assessment	.000	.012	.034	.206	.837
% Direct Intervention	.005	.002	.289	2.157	.033
% Consultation	.000	.002	-.012	-.097	.923
% Case Management	.000	.002	-.014	-.113	.910
% Professional Dev.	.001	.006	.021	.210	.834

Perception of barriers and current practices. The fifth research question, "What is the relationship between the perception of barriers and school psychologists' rate of engagement in parent training/education activities with the parents of children with chronic behavior problems?" was analyzed by correlating school psychologists' mean barriers scores with their mean rate of engagement in parent training/education activities. This analysis revealed a Pearson correlation of .367 which indicates a moderate positive relationship between the perception of barriers and overall rate of engagement in parent training/education activities. Lower perception of barriers scores indicate more perceived barriers overall or within a particular barrier factor. As school psychologists perceived less barriers to their engagement in parent training/education activities, their overall engagement in parent training/education activities increased.

In addition to examining the relationship between mean perception of barriers scores and overall engagement in parent training/education activities, the relationships between mean perception of barriers within each barrier factor and mean rate of

engagement within each current practices factor were examined. These analyses were performed in order to determine the relationship between the perception of specific types of barriers and school psychologists' engagement in specific parent training/education activities. The results of these analyses revealed that school psychologists' perception of barriers in the area of parent involvement and participation (factor 1) is not significantly related to school psychologists' engagement in teaching parents behavior management practices (r= .033, p= .729), to supporting home-school collaboration and communication (r= .019, p= .840) or to implementing parent training or support groups (r=.118, p= .210). School psychologists' perception of barriers in the area of school and district support and resources (factor 2) was significantly related to their engagement in teaching parents behavior management practices (r=.347, p= .000), to supporting home-school collaboration and communication (r=.273, p= .004), and to implementing parent training and support groups (r= .312, p= .001). School psychologists' attitude toward parent involvement and parent training (factor 3) was also found to be significantly related to their engagement in all three current practices areas. The strongest correlation was found between school psychologists' attitude toward parent involvement and parent training and their engagement in teaching parents behavior management practices (r= .490, p= .000). Moderate, positive correlations were also indicated between school psychologists' attitude toward parents and parent training and their engagement in supporting home-school collaboration and communication (r= .389, p= .000) and their engagement in implementing parent training and support groups (r= .273, p= .003). School psychologists' perception of barriers in the area of school personnel's attitude toward parents (factor 4) was significantly related only to their engagement in supporting home-

school collaboration and communication (r=.293, p= .003). Thus, school psychologists were less likely to facilitate collaboration between home and school when they perceived that school personnel regarded parent communication and collaboration as unimportant. School psychologists' direct work with parents was not significantly impacted by their perception of school personnel's attitude toward parents (r= .180, p= .056; r= .047, p= .618). See Table 19 to review the complete correlation matrix between Perception of Barriers factors and Current Practice factors.

Table 19. *Correlation Matrix for Perception of Barriers and Current Practice Factors*

		Teaching Parents Behavior Management Practices (Current Practice Factor 1)	Supporting Home-School Collaboration and Communication (Current Practice Factor 2)	Implementing Formal Parent Training and Support Groups (Current Practice Factor 3)
Parent Involvement and Participation (Barriers Factor 1)	Correlation Coefficient	.033	-.019	.118
	Significance	.729	.840	.210
School and District Resources (Barriers Factor 2)	Correlation Coefficient	.347*	.273*	.312*
	Significance	.000	.004	.001
School Psychologists' Attitude Regarding Parent Involvement and Training (Barriers Factor 3)	Correlation Coefficient	.490*	.389*	.273*
	Significance	.000	.000	.003
School Personnel's Attitude Regarding Parents (Barriers Factor 4)	Correlation Coefficient	.180	.293*	.047
	Significance	.056	.002	.618

Table 19. *Correlation Matrix for Perception of Barriers and Current Practice Factors (Continued)*

		Teaching Parents Behavior Management Practices (Current Practice Factor 1)	Supporting Home-School Collaboration and Communication (Current Practice Factor 2)	Implementing Formal Parent Training and Support Groups (Current Practice Factor 3)
Role Focused on Assessment (Barriers Factor 5)	Correlation Coefficient	.160	.205	.193
	Significance	.089	.029	.040

*Statistically Significant at the .004 level

Contribution of predictor variables. The final research question was **"**Which variable or combination of variables accounts for the most variance in the rate of engagement of school psychologists in parent training/education activities with parents of children with chronic behavior problems?" This research question was addressed using a Stepwise regression analysis. All variables were initially included in the regression analysis. Variables with probability scores equal to or less than .100 were statistically excluded from the analysis. This resulted in the exclusion of all variables except mean intensity of training and mean perception of barriers. This analysis indicated that the overall intensity of training variable accounted for the most variance in extent of engagement. Specifically, Intensity of Training had an adjusted R^2 value of .141, indicating that a participant's intensity of training accounted for 14.1% of the total variance in engagement. School psychologists' total perception of barriers accounted for an additional 8.6% of the variance in engagement. Together, intensity of training and perception of barriers accounted for 22% of the total variance in rate of engagement in parent training/education activities with parents of children with chronic behavior problems (R^2= .220, F(12.288), p=.001). See Table 20 for in-depth results of the regression analysis. See Appendix I for details regarding excluded variables.

Table 20. *Regression of Mean Perception of Barriers and Mean Intensity of Training*

Regressor	b	β	σ^x	t	p
Intensity of Training	.334	.323	.089	3.763	.000
Perception of Barriers	.768	.300	.220	3.497	.001

Facilitators of parent training/education engagement. An attempt was made to recruit all school psychologists who engaged in parent training/education with the parents of children with chronic behavior problems at a rate of at least once per week to participate in a phone interview with the researcher. Five school psychologists returned a postcard indicating that they engaged in parent training/education at least weekly and would be willing to participate in a telephone interview.

The first question posed to the five participants was "How often are you currently engaging in parent training/education with parents of children with chronic behavior problems." All five school psychologists reported engaging in parent training/education activities at least weekly with parents of children with chronic behavior problems. Three of the five school psychologists reported daily engagement in parent training/education activities. Table 21 summarizes the participants' responses to this question.

Table 21. *Summary and Representative Quote for Interview Question 1*

Participant Number	Type, frequency and location of Parent Training/Education	Representative Quote
School Psychologist 1 (Female)	Formal Weekly before school At assigned elementary schools	"I call it Coffee with Connie" "It is really informal but the parents really seem to like it. I post a topic that we are going to be talking about on my office door and in the main office. Some parents come almost weekly and others come just when they are interested in the topic"
School Psychologist 2 (Female)	Formal Once per week At district office building	"I was actually asked to do parent training classes by the head of community involvement in my district about 3 years ago…We advertise at all of the elementary schools in the district. I usually have parents sign up for an 8 week program. Some parents come back a couple of times a year."
School Psychologist 3 (Male)	Informal Daily individual meetings with parents At Center serving children with Emotional Handicaps	"I am constantly conferencing with them, making home visits, having meetings. Parents are so important and we leave them out way too much. I have found that the best way to get children to behave and make better choices is to get parents on your side, help them set boundaries, help to reward their children when they do the right thing. We encourage our parents to come to school and spend time whenever they can."
School Psychologist 4(Female)	Informal Daily At assigned elementary schools Formal 3 times per year (10 week program) At assigned elementary schools	"There is a really large PreK unit at my school. PreK parents have so many questions about parenting. Sometimes I just park myself outside of the PreK rooms and field questions all morning about thing like 'How do I get Jessi to get dressed in the morning,' 'Why does Jane cry every morning when I drop her off. Is she ever going to like school?' I encourage the parents to come to my parenting sessions"
School Psychologist 5 Female	Informal Daily At assigned elementary schools Formal Weekly At assigned elementary schools	" I meet with parents all of the time to talk about ways that they can help their child do better in school academically and behaviorally. I talk to parents on the phone often. I run a lunch bunch group where parents come in and have lunch with their child and then stay for a group. The parents suggest topics for the weekly meetings from week to week…every other week I conduct the meeting in Spanish. I think it is the first time for a lot of the parents that they can be involved in something like that."

Type, rate, and location of engagement. Common themes across participants suggest that all five school psychologists recognized the importance of parents in their children's development (e.g., "Supporting parents is so important," "The more I work with parents, the less evaluations that are needed because the kids start doing better," "Parents are so important and we leave them out way too much"). Further, they had each devised creative and nonthreatening ways of providing training and education opportunities for parents (e.g., "I call it Coffee with Connie," "I run a lunch bunch group where parents come in and have lunch with their child and then stay for group," "Sometimes I just park myself outside of the PreK rooms and field questions all morning…"). For example, three of the five participants' described their engagement in parent training/education activities as informal in nature including the implementation of before and during school meetings (i.e., Lunch Bunch, Coffee with Connie) and consistently being visible and available to parents (i.e., regularly standing outside of Pre-Kindergarten classrooms). They were responsive to parents needs and collaborated with parents to select topics for weekly meetings. While some of the participants focused on formal parent training (i.e., school psychologists 1 and 2), others were using a combination of informal and formal training (i.e., school psychologists 4 and 5) with one participant using the informal parent training opportunities to recruit parents into more formal parent training programs (i.e., school psychologist 5).

Barriers to engagement. The second interview question asked the participants to identify barriers that impeded their implementation of parent training/education activities and describe how they were able to overcome the potential barriers. Although all five participants reported engaging in parent training/education at a rate well above the

average rate, all noted specific barriers to their implementation of parent training/education activities. Interestingly, many of the barriers cited by the 5 participants were the same barriers noted by a large percentage of the survey participants including a lack of time (73.9% of survey participants), the amount of time spent completing assessments (28% of survey participants), lack of transportation for parents to attend meetings (75.7% of survey participants), and a lack of childcare during parent meetings (51.3% of survey participants).

All five participants identified a lack of time as a barrier to their implementation. Four participants described this lack of time as resulting from the pressure to engage in assessment (Participants 1, 2, 4, and 5). One participant (3) described the amount of time spent responding to crises as negatively impacting his ability to engage in parent training/education.

Two participants (Participants 2 and 5) cited a lack of transportation for parents to attend parent training/education meetings as a barrier to their engagement in parent training/education. Participant 5 identified a lack of childcare during parent training meetings as a barrier to his implementation. Table 22 summarizes the participants' responses to this question.

Table 22. *Summary of Identified Barriers and Representative Quotes*

Participant Number	Barriers Summary	Representative Quote
School Psychologist 1 (Female)	Barrier: • Time • Pressure to engage in assessment	"Well, time is always a difficult one. I still feel like I am pulled every which way most days. I am not really sure that I have overcome the fact that there is not enough time in the day. Sometimes people are confused about what my role is. They think that I am supposed to spend my day in a room testing kids."

Table 22. Summary of Identified Barriers and Representative Quotes *(Continued)*

Participant Number	Barriers Summary	Representative Quote
School Psychologist 2 (Female)	Barrier: • Space • Lack of Training • Time • Meetings are difficult for parents to get to because of the distance	"At first finding space to meet was really hard. I was trying to hold the classes at my elementary school but I couldn't always find a space. Other things were going on at the school that took priority. Sometimes I couldn't use the school because no one was there to close up after the classes. I had to cancel the meetings at the last minute sometimes. I almost gave up but then it was suggested that I could use a room at the district office. It has really worked out well. Unfortunately, now that the classes are downtown, I have parents that can't come because they can't get there. It would be easier for them if we met at the schools by their home… . Another thing that was hard when I first started is that I really didn't do a lot of parent training in school. I wasn't sure how it was going to go. I wasn't even sure that I wanted to do it. I just wish that I had even more time to meet with parents, especially during the school day."
School Psychologist 3 (Male)	Barrier: • Limited parental trust • Time spent responding to crisis at school • Pressure to engage in assessment	"Getting parents to trust you. Many of our parents have had bad experiences in school themselves and definitely with their children. They don't trust us that we want to do the right thing for their children. It takes a long time sometimes to show them that you are on their team. The bad part is that I spend a lot of time dealing with crisis at my school. So, much of the parent training happens after there has been a big blowup. I wish that I had more time to work with parents before the blowups happen….It used to be before I was working at the center school that there was a lot of pressure to test the children who had behavior problems and get them out of the class. I got a lot of urgent demands to evaluate children whose teachers weren't sure how to deal with them."
School Psychologist 4 (Female)	Barrier: • Time • Pressure to engage in assessment	"Time, time, time. No one ever has enough time. I have three schools and each one of them feels like a full time job. At one of my schools I have a lot of evaluations and it takes up a lot of my time."
School Psychologist 5 Female	Barrier: • Time due to competing job demands • Pressure to engage in assessment • Difficulty getting parents to come to meetings • Lack of childcare during meetings	"It is always hard to stick to the meeting schedule when you get pulled in so many directions. At one of my schools, the staff really sees my job as testing. They request a lot of evaluations every year especially for behavior. I think it is especially important to do parent training at that school….It's hard to get parents to come and keep coming sometimes. Sometimes they can't get there because they work or because they don't have a car. A lot of times they won't come because they have no one to watch their kids…."

Facilitators of engagement. Throughout the interviews, all discussion of barriers to parent training/education implementation was followed closely by a discussion of facilitators to engagement. These facilitators served to remove or lessen the impact of the identified barriers on the participants' engagement in parent training/education activities. Interviewee responses indicated a high level of personal perseverance and commitment to the implementation of parent training/education activities. Two participants (1 and 5) indicated that time spent working with parents facilitated the availability of more time for parent training/education activities in that the more time spent working with parents led to less time required for assessment. Three participants (1, 4 and 5) indicated that they had received intense training in parent training/education during graduate school which included opportunities to provide parent training with feedback from a supervisor. This training was referenced as a facilitator of the participants' engagement in parent training, as it allowed them to feel comfortable implementing parent training on their in practice. One participant (3) reported that his graduate training experiences prompted him to seek a school psychology position that would allow him to provide parent training and education to parents of children with chronic behavior problems.

All 5 participants identified their ability to garner the support of their school principal as an essential facilitator to their ability to provide parent training/education. Four participants (1, 2, 3, and 4) spoke of their ability to secure food and childcare for meetings as important in their facilitation of parent training/education. Two of these participants relayed that they had secured food for meetings through donations and childcare through volunteers. Two participants (2 and 4) indicated that grant writing skills allowed them to provide food and childcare during meetings. Other unique but

important facilitators included a parent-friendly school environment, sufficient space to meet with parents, flexibility of schedules to allow for convenient meeting times, and ability to communicate with parents in their dominant language. Table 23 summarizes the participants' responses regarding facilitators of their engagement in parent training/education.

Table 23. *Summary of Identified Facilitators and Representative Quotes*

Participant Number	Facilitators Summary	Representative Quote
School Psychologist 1 (Female)	<u>Facilitators:</u> • Overall commitment to providing parent training for parents • More time spent in parent training leads to less time needed for evaluations • Intense training in parent training during graduate school • Support from school administrators and teachers • Parent friendly school climate • Ability to secure donations of food from local restaurants	"I am willing though to put in extra time to work with parents because it is important. Actually I have found that the more I work with parents the less time I have to run all over campus chasing a kid who has had a meltdown….Fortunately, the more I do parent training, the more support I get from the principals and teachers. They really see that it works. As far as training, I was lucky. My program required all of us to work in a clinic for a year. I worked with parents all of the time there. One of my professors was really into parent training and she helped me learn the ropes. One of the schools that I work at is very parent friendly. It was pretty easy to convince the principal that parent training would help kids. He gave me a lot of flexibility to change my schedule….He also provides coffee, cookies, muffins and things like that for my morning meetings. Many of the restaurants around town donated food and gift certificates, so we always have good food."
School Psychologist 2 (Female)	<u>Facilitators:</u> • Space provided at district office for trainings • Support of supervisor to purchase parent training materials • Support of community involvement director • Grant writing skills • High school students to provide babysitting • Students' desire to come to meetings	"I almost gave up but then it was suggested that I could use a room at the district office. It has really worked out well….I found a program that really explained what to do at each weekly meeting which made me feel better. My supervisor really encouraged me to do it. She let me pick out and buy all of the materials that I needed. The community involvement director is really helpful too….I wrote a grant that helped pay for food….door prizes and raffles….I have high schoolers watch the kids, which is a must. Sometimes, I think the parents come because the kids are asking to come…They just have fun."

Table 23. Summary of Identified Facilitators and Representative Quotes *(Continued)*

Participant Number	Facilitators Summary	Representative Quote
School Psychologist 3 (Male)	Facilitator • Support of school principal • Assignment to a center school where there is more emphasis on intervention and less pressure to evaluate children who have behavior problems • Teacher support • Personal perseverance	"I started talking to the school's principal last year about it and we agreed to start setting aside some time each month to invite parents in to meet in a group. About three months ago we started our meetings… At the center school where I am now, the children have essentially reached the end of the line. There isn't really pressure to test them because they wouldn't go anywhere anyway. So teachers are really appreciative of the work I do with them and their parents because they see the difference in the classroom. Don't take no for an answer. If you are told that there is no money for food or babysitting, find a way."
School Psychologist 4 (Female)	Facilitator • Support of school principal • Parent training part of school discipline plan • Grant writing skills • Intense training during graduate school in parent training	"I was able to convince the school principal to let me work with parents in place of suspending students for misbehaving. So now she gives parents the option of coming to one of my sessions in place of having their child suspended. Most of our parents work and can't really afford to stay home with their child during the day so they almost always agree. Once they come in and meet with other parents, they see how helpful it is and come back. I won a grant that paid for food, childcare, and prizes. It just makes it more fun and keeps parents coming. I had great training in graduate school. I had to provide parent training as part of my internship and had a supervisor that really helped me. At first, she held the parent classes and I just assisted. Then we did the classes together. Near the end, I did the classes, and she just gave me pointers. Because I had such great training, I felt really prepared to do it on my own when I started working."

Table 23. Summary of Identified Facilitators and Representative Quotes *(Continued)*

Participant Number	Facilitators Summary	Representative Quote
School Psychologist 5 Female	Facilitator • More time spent in parent training leads to less time needed for evaluations • Flexible schedule to meet at times convenient for parents • Support of school principal and supervisor • Personal perseverance • Bilingual	"The more I work with parents, the less evaluations that are needed because the kids start doing better. Even though it takes a lot of time in the beginning to plan and get situated, I think it saves time in the end. At the very least, it is time better spent…. So, you have to have sitters or figure out ways to have the kids at school with you. The good news is that I have been able to convince all of my principals and my supervisor that I need to be spending my time educating parents. If you are not sure what parent training should look like, get some training. Find someone who is doing it now and shadow them. It is better to learn by working with someone who is doing it than just reading about it or just trying it on your own. I am bilingual and many our parents at one of my schools speak Spanish. Every other week I hold the meeting in Spanish. I think it is the first time for a lot of parents that they can be involved in something like that."

Advice. In addition to discussing their rate of engagement and identifying barriers and facilitators of their engagement, each participant was asked to offer advice to other school psychologists regarding the implementation of parent training/education activities. A few common themes emerged including the importance of being persistent, asking for help from others, and providing food and childcare during meetings for parents. All participants recommended that school psychologist ask for help from others to facilitate their implementation of parent training/education activities. Specifically, one participant spoke of asking for help from local restaurants to provide food during meetings and encouraging parents to recruit other parents for parent training meetings (Participant 1). Other participants (2, 3, and 5) discussed the importance of seeking help from district personnel to garner general support for parent training/education implementation (Participant 2), to obtain assistance with writing grants (Participant 3), and to receive training in the implementation of parent training/education programs (Participant 5).

Perhaps what was most evident in the participants' responses was their commitment to providing support for parents. Although they had all faced barriers to their implementation of parent training/education activities, all stressed the importance of working with parents and encouraged other school psychologists to be persistent in their implementation efforts. Table 24 provides a summary of the advice offered by each participant and representative quotes for review.

Table 24. *Summary of Advice Offered by Participants*

Participant Number	Advice Summary	Representative Quote
School Psychologist 1 (Female)	Advice: • Begin with informal parent training first • Provide food • Ask for help • Be persistent • Parents in the group help to recruit other parents	"Start small. It doesn't have to be all official to be helpful. I think that "Coffee with Connie" is as helpful for a lot of parents as the parenting classes. Always give them food. Feed them and they will come. Check with local restaurants. Many of the restaurants around town donated food and gift certificates, so we always have great food. Don't give up if you don't get a lot of parents at first. It took me at least a year to have a group of parents that came almost of all the time. These parents have been the best advertisers and have recruited a lot of other parents."
School Psychologist 3 (Male)	Advice: • Be persistent • Secure the support of the school principal • Provide food • Provide childcare • Consult with a grant specialist in your district to find money • Ask for help	"Try to find a school where the principal trusts you and will let you do what you know is right. Supporting parents is so important. It is best for them and for children and really for the school too. Don't take no for an answer. If you are told that there is no money for food or babysitting, find a way. There's a lot of money out there if you know where to find it. If you have a grant's specialist in your district they can probably help you."

Table 24. *Summary of Advice Offered by Participants (Continued)*

Participant Number	Advice Summary	Representative Quote
School Psychologist 4 (Female)	<u>Advice:</u> • Secure the support of the school's principal • Begin with willing parents • Provide food • Write a grant to get money for childcare, food, and prizes	"Work with your school's principal. If you can get them to agree and see the benefits to your work with parents, it will be much easier. Also, know who the key parents are to get involved. PreK, kindergarten and 1st grade parents are usually pretty interested in joining a parenting support group because for many of them, this is all new. Also, try to find money to give parents dinner and snacks. This is a big draw, especially if you work in a poor community. I wrote a grant that paid for food, childcare, and prizes. It just makes it more fun and keeps parents coming."
School Psychologist 5 Female	<u>Advice:</u> • Provide a flexible, convenient meeting schedule for parents • Provide childcare • Get training if necessary • Ask for help	"Know your community. You have to work around the family's schedule. Make sure you have babysitters for the families especially if many of your families are poor. Think about having high schoolers come over to help or maybe meet when there is still childcare available at school like an afterschool program. You want to make it as convenient as possible so that more parents will come and keep coming. If you are not sure what parent training should look like, get some training. Find someone who is doing it now and shadow them. It is better to learn by working with someone who is doing it than just reading about it or just trying it on your own."

Chapter V

Discussion

The purposes of the current research were to determine the rate at which school psychologists engage in parent training/education with the parents of children with chronic behavior problems and to determine the relationships between school psychologists' demographic variables, professional practice, training, and perception of barriers and their engagement. The independent 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, professional practices, training, and perception of barriers) are related to the frequency of engagement in parent training/education activities by school psychologists as well as the types of parent training/education provided for parents of children with chronic behavior problems.

Five-hundred practicing school psychologists were randomly sampled from the National Association of School Psychology (NASP) membership. These school psychologists were mailed a survey and a postcard invitation to participate in a phone interview. Of the 500 surveyed school psychologists, 115 (23%) returned a useable survey. Five school psychologists returned a postcard indicating that they currently engaged in parent training at a rate of at least once per week and would be willing to participate in a phone interview with the researcher. All five school psychologists were

contacted by phone and provided responses to 4 discussion questions focused on their rate of engagement, barriers to their engagement, facilitators of their engagement, and advice that they would offer other school psychologists about implementing parent training/education interventions.

Descriptive, correlational, linear, and qualitative data analysis were utilized to answer the research questions. Additionally, phone interview responses were analyzed qualitatively in order to identify participant commonalities and important individual uniqueness.

Parent Training/Education Activities

Despite a solid foundation of research clearly documenting the benefits of parent training and education for children with chronic behavior problems and their families (Barlow & Stewart-Brown, 2000), the current study revealed that the average frequency of school psychologists' engagement in parent training/education with the parents of children with chronic behavior problems was infrequent (i.e., approximately once per semester on average). School psychologists reported most often engaging in activities which involved supporting home-school collaboration and communication (i.e., once per month on average) while activities such as developing or coordinating a family resource center or implementing a formal parent training program occurred far less frequently (i.e., between once per semester and once per year). 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. Supporting home-school communication and collaboration can occur during informal, impromptu interactions with parents and require far fewer tangible resources than formal parent training programs which require

curriculum development or purchase, extensive planning and coordination, and liberal amounts of time for scheduled parent meetings. Further, school psychologists report receiving more intense training in home-school collaboration and communication than in implementing formal parent training and support groups. More intense training in collaborating and communication with parents may allow school psychologists to feel more comfortable and confident in these areas than they would feel with less intense training and result in higher rates of engagement. Conversely, approximately 62% of school psychologists indicated the need for additional training in parent training interventions. School psychologists may be less likely to engage in formal parent training activities because they feel ill prepared.

Demographic Variables and Rate 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 chronic behavior problems. Specifically, it was hypothesized that no significant differences would be found between participants of varying degree levels, years of experience, or sex. These hypotheses were supported by the current study. It was hypothesized that employment setting, number of schools, and number of students served would impact engagement in parent training with parents of children with chronic behavior problems. Specifically, it was theorized that school psychologists who serve elementary schools and those with less schools and students on their caseload would report higher levels of engagement in parent training/education with parents of children with chronic behavior

problems. No significant relationship was found between employment setting and overall engagement in parent training/education or engagement within specific types of parent training/education activities with the parents of children with chronic behavior problems. Similarly no significant differences were found between school psychologists serving different numbers of schools or students. These findings are discussed in greater detail below.

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 (Crosnoe, 2001; Pelco & Ries, 1999). Thus, it was hypothesized that the current study would find that school psychologists who work only in elementary school settings would report a higher level of engagement in parent training/education activities than psychologists who work only in secondary settings or a combination of elementary and secondary schools. In contrast to this hypothesis, school psychologists who reported working in only elementary schools were not found to engage in significantly different levels of parent training/education activities than school psychologists who serve secondary schools or both elementary and secondary schools. Also, school psychologists who reported working only in an elementary school were not more likely than school psychologists who work only or also in secondary schools to engage in specific types of parent training/education activities (i.e., teaching parents behavior management practices, supporting home-school collaboration and communication, implementing formal parent training and support groups). These findings are inconsistent with previous research which indicates decreasing levels of parent involvement activities with each successive

grade level (Pelco & Ries, 1999). Such results could indicate increased participation in parent training/education activities by school psychologists in secondary 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. Because school psychologists as a group engage in very low levels of parent training/education, identifying significantly different rates of engagement between varying groups of school psychologists is difficult.

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 a barrier to the implementation of various other interventions (Christenson, 1995; Pelco, Jacobson, Ries, & Melka, 2000). Although these variables were thought to be related to available time, they were not found to be significantly related to overall engagement in parent training/education activities with the parents of children with chronic behavior or to engagement in specific types of parent training/education activities. Interestingly, school psychologists' perception of time was found to be more significantly related to their engagement in parent training/education activities than variables that would likely be related to school psychologists' actual time (e.g., caseload, number of schools served, and percentage of time engaging in assessment or case management). Specifically, as

school psychologists perceive less available time, they may be less likely to teach parents behavior management practices and even more unlikely to implement formal parent training programs. School psychologists' support of home-school collaboration and communication was not found to be significantly related to their perception of available time. Thus, as school psychologists perceive insufficient time to engage in parent training interventions, they may choose parent training/education activities which require less time, fewer resources, and less planning than is necessary for formal parent training programs or even less formal parent training in behavior management.

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

Research indicates that school psychologists are more likely to engage in a particular activity if they have received supervised practice with that activity during training (Rosenfeild, 2002). 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 mean intensity of training scores were correlated with mean rates of engagement, the analysis resulted in a moderate, positive correlation. School psychologists with more intensive training were more likely to engage in parent training/education activities with the parents of children with chronic behavior problems than were their counterparts who received less intensive training.

Study participants reported receiving the most intense training in general behavior change practices, less intense training in supporting home-school collaboration and

communication, and the least intense training in implementing formal parent training/education programs. Intensity of training scores within each training factor (i.e., general behavior change practices, formal parent training, and supporting home-school collaboration and communication) were correlated with rate of engagement within each current practice factor (i.e., teaching parents behavior management practices, supporting home-school collaboration and communication, and implementing formal parent training and support groups) in order to determine the relationship between type and focus of training and engagement in the specific types of parent training/education activities. These analyses revealed a statistically significant positive relationship between school psychologists' training in formal parent training/education and their engagement in parent training/education activities across all current practice factors. School psychologists' training in general behavior change principles were not significantly related to their work with parents of children with chronic behavior problems including the rate at which they teach parents behavior management practices. Interestingly, although school psychologists reported receiving the most intensive training in behavior management principles, this area was the least closely related to engagement in parent training/education activities with the parents of children with chronic behavior problems. These study results may indicate that knowledge of behavior management practices alone may not guarantee that this knowledge will be passed on to parents. In contrast, providing school psychologists more intensive training in formal parent training/education may lead to a higher rate of both formal and informal parent interventions for parents of children with chronic behavior problems. Thus, training programs may wish to consider providing intense training (i.e., supervised practice) for

school psychology trainees in the coordination and implementation of formal parent training programs in order to increase the likelihood that these types of programs as well as other less formal parent training/education activities will be implemented in practice.

Professional Practices and Rate of 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 a significant amount of time engaging in assessment activities. Sixty-five percent of school psychologists report spending at least a quarter of their time engaging in assessment, and 25% of school psychologists reported spending a least half of their time engaging in assessment. Although only 18% of school psychologists indicated that their preferred professional role is psycho-educational testing, approximately 50% of school psychologists indicated that their professional role continues to be focused on psycho-educational testing. According to approximately 28% of school psychologists, the demands placed on school psychologists to assess students to determine special education interferes with their ability to provide parent training interventions. These demands are likely placed on school psychologists by school administrators and teachers who continue to view school psychologists primarily as evaluation specialists. Nearly 40% of school psychologists reported that school personnel do not understand their role or the full range of interventions that they can deliver. Further, only 11% of school psychologists agreed or strongly agreed that their school administrator supported their engagement in parent training interventions while approximately 38% of school psychologists indicated that their school administrator did not support their engagement in such activities. This lack

of support and understanding of the full range of interventions that school psychologists can provide may make it difficult for school psychologists to venture away from the assessment role, particularly for school psychologists whose own training was focused heavily on psycho-educational testing (Ysseldyke, Burns, Dawson, Kelley, Morrison, Ortiz, Rosenfield, & Telzrow, 2006).

Consultation. Although school psychologists often do not receive sufficient training in consultation (Anton-LaHart et al., 2004) to meet the demands of their expanding roles, the vast majority of participating school psychologists (i.e., 99.1%) reported engaging in consultation. On average, school psychologists reported spending 20.3% of their time consulting. The definition of "consultation" for the purposes of this research included consulting with teacher and parents. Providing parent training/education was included in the definition of consultation. Given that parent training/education were used to define consultation, 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 devoted to 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 activities with the parents of children with chronic behavior problems, it is hypothesized that school psychologists may be choosing to consult primarily with other educators and not with parents. When these data are considered along with information that school psychologists do not receive intensive training in collaborating or communicating with

parents or formal parent training/education, one could 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 chronic behavior problems. Thus, it may be important for training programs to prepare school psychology students for consultation specifically with parents, as this may result in more frequent engagement in such practices.

Overall, the combination of the percent of time spent by school psychologist in specific professional practices (i.e., assessment, direct interventions, consultation, and professional development) was not significantly related to their extent of engagement in parent training/education activities and explained less than 3% of the total variance in engagement. Percent of time spent engaging in specific professional practices also explained very little of the variance in the current practices factors (i.e., teaching parents behavior management practices, supporting home-school collaboration and communication, and implementing formal parent training and support groups). Although school psychologists consistently report that time spent engaging in assessment negatively impacts their ability to provide other types of services including direct intervention support for students and consultation with parents and teachers, percent of time spent engaging in assessment activities was not found to be significantly related to school psychologists' engagement in parent training/education.

Perception of Barriers to Parent Training/Education Engagement

In addition to gathering information about role profile, beliefs, and training, school psychologists were asked to provide information regarding the presence of barriers of parent training/education engagement. Five general barrier categories were assessed including: level of parent involvement and participation, school and district resources, school psychologists' attitude regarding parent involvement and training, school personnel's attitude regarding parent involvement and parent training, and the extent to which the school psychologists' role is focused on assessment. Of the five general barriers categories, only 3 were found to be significantly correlated with school psychologists' rate of engagement in parent training/education activities. Although school psychologists' attitude regarding parent involvement and parent training, school and district support and resources, and school personnel's attitude regarding parents were all significantly correlated with engagement in parent training, current levels of parent involvement and participation and the focusing of school psychologists' role on assessment were not significantly related to engagement. Each of these findings is discussed in further detail below.

Beliefs and parent training/education engagement. Consistent with previous research (Pelco et al., 2000), this study found that school psychologists' general attitudes regarding the importance of supporting parent involvement through parent training and education activities were very positive in nature. In fact, it is notable that 98.2% of school psychologists reported that they agreed or strongly agreed that parental involvement in intervention can help increase success in school for students with chronic behavior problems. The vast majority of school psychologists (i.e., 96.5%) also agreed or strongly agreed that teaching parents of children with behavior problems about child

development, discipline, or parenting would result in improved child behavior both at home and at school. School psychologists were less positive regarding whether or not parents of children with chronic behavior problems would take advantage of parent training/education opportunities. For instance, only 36.5% of school psychologists agreed or strongly agreed that parents of children with behavior problems want to be more involved in their children's education, and only 39% of school psychologists reported a belief that parents would take advantage of additional parent training opportunities. Interestingly, whether or not a school psychologist believed that parents would take advantage of parent training opportunities was not significantly related to school his or her implementation of such interventions. This finding suggests that school psychologists may be willing to engage in parent training/education activities even when parent recruitment and attrition are problematic.

Although ample research exists pertaining to school psychologists' beliefs regarding the importance of parent involvement for student educational and behavioral success (Pelco et al., 2000), little research investigates the extent to which 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 school psychologists' attitude toward parent involvement and their engagement in parent training/education activities with the parents of children with chronic behavior problems. This hypothesis was supported by the current research. Specifically, data analysis revealed a moderate, positive, statistically significant correlation (r=.49) 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 chronic behavior problems. This finding was not surprising to the researcher as it seems logical 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 showed, 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 chronic behavior problems. Although the majority of school psychologists reported a very positive general attitude regarding parent training/education, few frequently engaged in such activities, indicating that variables other than beliefs negatively impact rates of engagement. One such variable may be school psychologists' beliefs regarding the adequacy of their training in parent training interventions and their need for additional professional development in this area. Many school psychologists report insufficient training as a barrier to their implementation of mental health services. As a result of their insufficient training, school psychologists lack content knowledge, applied skill, and confidence in the delivery of mental health services (Suldo et al., 2010). It was hypothesized that school psychologists who report insufficient training in parent training interventions would also report a lack of content knowledge, applied skill, and confidence in the implementation of parent training interventions and will be less likely to engage in such activities than school psychologists who report being sufficiently trained. These hypotheses were validated by the current study. A moderate, statistically significant relationship was found between perception of sufficiency of training and engagement in parent training interventions (i.e., $r = .383$),

indicating that school psychologists who perceive their training in parent training/education to be strong are more likely to engage in parent training/education activities. Further analysis revealed that school psychologists' perceptions regarding the sufficiency of their training in parent-focused interventions was significantly related to the intensity of their training in formal parent training but was not significantly related to the intensity of their training in general behavior change principals or supporting home-school collaboration and communication.

School and district support and resources. Barriers involving the use of the school for the delivery of mental health services were mentioned frequently by school psychologists in previous research (Ashby, 2006; Bridgemohen et al., 2005; Suldo et al., 2010). These barriers included lack of access to sufficient space within the school to provide parent training, lack of district and school administrator support of parent training, lack of sufficient time to engage in parent focused interventions, and a lack of monetary resources to provide transportation and childcare for parents. The current research revealed a moderate, statistically significant correlation (r=.354) between school and district support and resources and school psychologists' engagement in parent training/education activities, suggesting that when school psychologists perceive such barriers they may be less likely to engage in parent training/education activities then when school psychologists do not perceive these barriers.

Nearly 40% of school psychologists reported that they do not have sufficient space to provide parent training interventions. Interestingly, while a large percentage of school psychologists indicated insufficient space as a barrier to engagement in parent

training activities, their actual engagement in parent training/education activities was not significantly related to the presence or absence of this barrier (r=.171).

A lack of monetary support for the provision of mental health services has been cited in previous research as a barrier to school psychologists' implementation of mental health interventions (Suldo et al., 2010). It was hypothesized that school psychologists who reported that their school had the resources to provide transportation and childcare for parents during parent training meetings would be more likely to provide parent training interventions. Unfortunately, the majority of school psychologists (75%) disagreed or strongly disagreed that their school had the resources to provide transportation for parents or childcare (51%) during parent training meetings. While the majority of school psychologists reported a lack of resources to provide either transportation or childcare for parents, only the school's inability to provide transportation was significantly related to their engagement in parent training/education activities (r=.274). Perhaps school psychologists viewed childcare as less of a barrier to their engagement in parent training activities because they could more easily work around this barrier. For example, three of the five school psychologists interviewed regarding their high levels of engagement in parent training/education also cited lack of transportation and childcare as barriers to their engagement. However, all three school psychologists reported finding ways to relieve or lessen the impact of the childcare barrier. For example, two school psychologists reported recruiting high school students who needed to earn volunteer hours to provide childcare. Another school psychologist reported writing a grant to pay for childcare during the parent training meetings.

It was hypothesized that school psychologists who report a lack of support for their involvement in parent training interventions both in terms of assigned role responsibility would be less likely to engage in parent training interventions than school psychologists who report higher levels of department and school support. This hypothesis was supported by the current study which found that school psychologists' engagement in parent training/education was significantly related to their perception of their school administrator's and department supervisor's support of their engagement in such activities (i.e., r=.347, r=.386 respectively). This is of particular importance when one considered the number of school psychologists who report little or no support for their engagement in parent training/education activities from their department supervisor (50%) or school administrator (89%).

School personnel's attitude regarding parents. The degree to which school personnel were thought to welcome and value parent involvement in their children's education and intervention was significantly related to school psychologists' engagement in parent training/education activities with parents of children with chronic behavior problems. Specifically, school psychologists who perceived that their school valued the involvement of parents in interventions for children with behavior problems were more likely to provide parent training/education for parents. Fortunately, 78% of school psychologists reported that their school valued such parent involvement.

Role focused on assessment. 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 chronic behavior problems. This hypothesis was supported by the current research

in that 59% 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. Because large numbers of evaluations and reevaluations would leave little time to work with parents of children with chronic behavior problems, 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/education activities. Surprisingly, 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. Anecdotal information provided by the five interviewed psychologists may shed some light on this issue. Although all five psychologists reported that the number of assessments as well as the pressure to focus their role on assessment were potential barriers to their implementation of parent training/education interventions, all five reported overcoming this barrier. Specifically, four of the five psychologists expressed a belief that working with parents of children with chronic behavior problems resulted in improved student behavior and thus fewer requests for or pressure to evaluate the children for exceptional student education. All five psychologists spoke of their success with helping their school administrator as well as school personnel see the connection between parent-focused intervention and improved student behavior. Through their consultation with administrators and teachers, the school psychologists were able to garner more support for implementing parent

training/education interventions and felt less pressure to evaluate students with chronic behavior problems for exceptional student education.

Time. Insufficient time is frequently cited as a barrier to school psychologists' delivery of mental health services (Suldo et al., 2010). School psychologists have reported that insufficient time within their schools, resulting from being assigned to multiple schools and carrying caseloads requiring a large number of assessments and a significant amount of time with case management, negatively impacts their ability to provide direct service to students and consultative support to parents and teachers. Nearly 90% of the participants within the current study indicated that insufficient time was a barrier to their implementation of parent training interventions. Interestingly, school psychologists' perception of available time was not found to be significantly related to the number of schools or students served or the amount of time engaging in assessment or case management activities. Additionally, the number of school or students served and the amount of time spent engaging in assessment or case management were not significantly related to engagement in parent training/education interventions. At first glance, this could be interpreted to mean that availability of time is not related to work with parents of children with chronic behavior problems. A closer look, however, reveals that when participants were asked directly about having enough time to engage in parent training/education interventions, more than 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 interventions. The number of assessments and the amount of required case management may be indirectly related to engagement in parent

training/education interventions because they may impact school psychologists' perception of adequacy of time. 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. 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 chronic behavior problems.

Contribution of Predictor Variables to Engagement in Parent Training/Education

It was hypothesized that professional practice, training, and perception of barriers would be significantly related to school psychologists' engagement in parent training/education interventions with parents of children with chronic behavior problems. Specifically, the final research question was as follows: "Which of the variables (i.e., professional practice, 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 chronic behavior problems?" Data analysis indicated that school psychologists' intensity of training accounted for the most variance in engagement, with a participant's intensity of training accounting for 13.9% of the total variance in engagement. School psychologists' perception of barriers accounted for a significant amount of variance in engagement

(12.7%). The combination of variables which resulted in the most explained variance in engagement was intensity of training and perception of barriers. This combination of variables accounted for 23% of the total variance in engagement in parent training/education interventions with parents of children with chronic behavior problems. These results indicate that school psychologists who receive more intense training and who perceive less barriers to their engagement in parent training/education may be more likely to engage in such activities than school psychologists who have received less intense training and/or perceive a greater number of barriers to their engagement. Perhaps most interesting is the multitude of variables which were not significantly related to school psychologists' engagement in parent training/education with the parents of children with chronic behavior problems. Even variables which were hypothesized to be related to engagement such as the amount of time spent engaging in assessment and the number of schools and students served were not found to be significantly related to rates of engagement.

While school psychologists overwhelming report that working with parents is important and valuable, they continue to engage in parent training/education at very low rates. Perhaps this discrepancy is due to school psychologists' multiple job responsibilities and increasingly complex job demands. While school psychologists in general consider working with parents important and valuable, they also likely consider other job responsibilities (e.g., facilitating problem solving teams, consulting with teachers, providing counseling for students, etc.) as being as or perhaps even more important. The combination of these competing demands paired with the limited training in parent training/education that school psychologists receive and the multiple barriers to

engagement that school psychologists perceive may help to explain the difference between school psychologists' desire to engage in parent training and their actual engagement rates. For example, a school psychologist may be more likely to engage in assessment than to provide parent training/education even though he/she values each activity equally because he/she has received more training in assessment than parent training/education and perceives fewer barriers to engaging in assessments (e.g., easy access to students, support of school-administrator).

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 23%, which is less than ideal (Punch, 2003). The small sample size made it difficult to detect small to medium effect sizes. Thus, results should be interpreted with caution as variables which were found not to be statistically related to engagement in parent training/education with the current research may have been found to be statistically related with a larger sample size. 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 demographic information of the study participants with the results of the National Association of School Psychologists (NASP) demographic survey **(**Curtis, Hunley, & Grier, 2002) and conducting a non-response bias analysis. Participants'

demographic variables were found to be quite similar to those found in the NASP demographics survey in terms of gender, years of experience, and degree level. Additionally, the non-response bias analysis indicated no or minimal differences on all study variables between school psychologists who sent back a survey after the first mailing and those who sent back a survey after the second mailing. Because these response groups are not statistically different from eachother, it is assumed that the third group (i.e., non-responders) also is not statistically significant from the responders as a whole.

Additional limitations of survey research include misinterpretation of items and answering in a way that is considered socially acceptable or "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 bulk of the survey items were drawn from a survey instrument used by the researcher for previous research (Sarlo, 2006). Analysis of the survey used in the previous research indicated moderate to strong internal consistency within all variables and factors. Interpretability of items was further improved through the review and feedback of a panel of school psychologists. Post-hoc analysis of the reliability of survey items indicated strong internal consistency.

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 answers instead of answering truthfully. The researcher

attempted to address this issue by guaranteeing confidentiality of respondent's answers and communicating this protection of confidentiality to participants.

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' engagement in parent training/education activities demonstrated less variability than expected. School psychologists' rate of engagement in parent training/education activities clustered near the low end (i.e., less than once per semester on average), indicating that most school psychologists engage in parent training/education activities very infrequently. This restriction of range affected the ability to detect if there was a significant relationship between the independent variables (i.e., demographics, professional practices, intensity of training, and perception of barriers) and engagement in parent training/education activities.

Participants were asked to report their rate of engagement in parent training/education activities during the 2007-2008 school year. Because participants received the survey during the spring or summer of 2009, it is possible that their reported rates of engagement were impacted by recall bias. It is also possible that the participants actually reported their 2008-2009 rates of engagement instead of their 2007-2008 engagement rates. The impact of this limitation is thought to be minimal, as school psychologists' engagement in parent training/education activities with the parents of

children with chronic behavior problems is not thought to vary significantly from year to year.

Generalizability of findings is significantly limited by the fact that only five school psychologists participated in the phone interview. Further, these five school psychologists were recruited based on uncharacteristically high rates of engagement in parent training/education activities. Thus, interview data should be interpreted with caution as the sample is not representative of the population overall. Further, because conversations with these five participants were directly recorded by the researcher and were not audio-taped, there is a possibility that participant responses were recorded without one-hundred percent accuracy. The researcher attempted to address this limitation by attempting to record the participants' responses verbatim and pausing frequently to report back and clarify interview notes. Given these limitations, information provided through the phone interviews serves primarily to indicate a need for additional research examining the impact of facilitators on engagement in parent training/education activities with the parents of children with chronic behavior problems.

Future Research

Despite its limitations, this study contributes to the literature by providing practitioners with important information regarding the etiology and treatment of childhood and adolescent chronic behavior problems. Additionally, the study provides descriptive information regarding the services school psychologists are engaging in with parents of children with chronic behavior problems as well as the variables that are related to their 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 interventions with the parents of children with chronic behavior problems. 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. Along with the future directions alluded to throughout the discussion chapter, the following specific recommendations are offered:

Perhaps the most interesting information was gained through the process of interviewing the five psychologists who reported frequently engaging in parent training/education interventions. In addition to answering questions regarding barriers to their implementation, the interviewees provided valuable insight into variables which facilitated their engagement. Future researchers may benefit from dialogue with practitioners which focus not on the presence or absence of barriers to implementation but on the facilitators which increase the likelihood of engagement in parent training/education interventions.

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 interventions within the graduate school curriculum is more or less beneficial than providing training regarding these issues for practitioners.

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 chronic behavior problems, as the study variables accounted for only 23% of the variance in engagement. Thus, future researchers may wish to

collect information regarding other relevant variables including school psychologists' role as part of the school leadership team, the impact of and involvement with implementing a problem-solving/response to intervention framework, and school psychologists' knowledge of systems/organizational level change practices.

Conclusions and Implications for Future Research

Although the benefits of parent training programs for the families of children with chronic behavior problems are well documented, such programs are not often readily available to parents. Previous research does not lend information as to why school psychologists are not frequently engaging in parent training/education activities with the parents of children with chronic behavior problems. The purpose of this research was to determine to what degree school psychologist's demographic variables, professional practices, training, and perception of barriers were related to their engagement in parent training/education interventions with the parents of children with chronic behavior problems.

Data analysis revealed significant findings which suggest important implications for school psychology training programs. For instance, study results indicated that school psychologists as a group may not receive sufficient training in supporting home-school collaboration and communication and receive even less training in formal parent training/education activities. Training in these areas was found to be significantly related to school psychologists' engagement in parent training/education activities with parents of children with chronic behavior problems. Thus, training programs who wish for their students to engage in parent training/education with parents of children with chronic behavior problems may consider evaluating whether or not trainees are being provided

with the necessary training in collaborating with and providing formal parent training for parents of children with chronic behavior problems.

Once adequate training in parent involvement and education is insured, training programs may find it advantageous 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 rate of engagement in such practices. Beyond simply observing others engaging in parent training/education, trainees will likely benefit from opportunities to practice parent involvement and training/education activities, especially when this practice is accompanied by immediate feedback from a supervisor.

The results of the current research also suggest that training in general consultation alone may not be adequate to ensure that school psychologists will engage in consultation based practices such as parent training/education with the parents of children with chronic behavior problems. Specific training in consulting with parents, including supervised practice of collaborating and communicating with parents 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 chronic behavior problems.

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, the perception of having adequate time to engage in parent training/education with the parents of children with chronic behavior problems was

significantly related to engagement in parent training/education interventions. 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 chronic behavior problems.

Perhaps the most interesting findings were related not to the variables which were found to be significantly related to school psychologists' engagement in parent training/education but in the multiple variables which were not significantly related. Even variables which have been found to be related to other professional practices of school psychologists (e.g., number of schools or students served) were not found to be significantly related to parent training/education engagement. While school psychologists generally believe that providing training/education for parents is both important and beneficial to students, engagement in parent training/education activities is very infrequent. The discrepancy between school psychologists' attitude regarding parent training/education and their practice is intriguing. Perhaps this discrepancy could be at least partially attributed to the vast professional activities that school psychologists are expected to complete as part of their ever-increasingly complex job description (Curtis et al., 2008). Although school psychologists as a group value parent training/education there are likely multiple job responsibilities and roles that are valued as highly or more highly than parent training/education. Future research may wish to ask

school psychologists to rank order the importance of their various job responsibilities and indicate the percent of time spent engaging in each job responsibility/role. This research may shed light on the interaction between relative perceived importance and engagement and specifically on the impact of having multiple job responsibilities on school psychologists' engagement in parent training/education.

Although the generalizability of data gathered through the phone interview may be limited given the very small sample size, training programs may wish nonetheless to consider the information provided by the phone interview participants. For instance, although all participants noted barriers to their implementation of parent training/education programs, they all reported rates of engagement which were well above average (i.e., once per week or more versus once per semester). Participant responses seemed to indicate that both personal and professional skills facilitated their ability to provide parent training/education to parent of children with chronic behavior problems. For instance, the participants' ability to problem-solve and to come up with creative solutions to common barriers to implementation was evident to the researcher. In addition, most referenced their ability to communicate with their school administrator regarding the importance of parent training interventions as positively impacting their engagement in parent training/education activities. Specifically, consultation with school administrators allowed the participants access to additional school support and resources (e.g., food and childcare) which facilitated the implementation of parent training interventions. Finally, the interviewed school psychologists' alluded to knowledge of systems/organizational level change practices. They seemed adept at integrating into the school culture, securing the support of key district and school stakeholders, and building

consensus regarding the importance and need for parent training/education programs. The interviewed school psychologists' engagement in parent training/education seemed to be related to their highly developed problem-solving skills and knowledge of systems/organizational level change practices.

Future research focused on assessing the impact of problem-solving skills and knowledge of system/organizational level change practices on school psychologists' engagement in parent training/education would help to determine the importance of these concepts for training.

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Appendices

For the purpose of this survey, please note that the term "CHRONIC BEHAVIOR PROBLEMS" refers to students who display consistent patterns of disruptive, aggressive, or noncompliant behavior.

1. Please circle one response for each question.

A. I have worked as a school psychologist for: a. less than 5 years b. 5-15 years c. 16-25 years d. 26+ years ago

B. My highest degree in school psychology is a: a. MA/MS b. Specialist/Ed.S. c. PhD/PsyD/EdD d. Other (specify)_____

C. I obtained my highest degree in school psychology:

a. Less than 5 years ago b. 5-15 years ago c. 16-25 years ago d. 26 or more years ago

D. What is your gender? a. Male b. Female

E. During the 2007-2008 school year, I served: a. 1 school b. 2 schools c. 3 schools d. 4 or more schools

F. The estimated number of students for whom I was responsible (caseload) during the 2007-2008 school year at all of my schools combined was: a. 1-20 b. 21-40 c. 41-60 d. 61-80 e. 81-100 f. 101+

G. I was employed within the following setting(s) **(Circle all that apply):** a. Elementary School b. Middle/Junior High School c. High School

d.

Other (please specify):_____

2. Please write in the percentage of time that you typically engaged in the following activities during the 2007-2008 school year. The percentages for all activities 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, providing academic intervention, providing behavior intervention

Indirect Services/ Consultation
Consulting with teachers or parents; parent training, intervention planning, working on a problem-solving/Response to Intervention Team

Case Management
Writing reports, independently reviewing data, 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 _____%

Other (please specify)_____ _____%

3. Please circle your level of agreement with each of the following statements.					
2A. Parent involvement can help increase success in school for a student with chronic behavior problems.	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
2B. Teaching parents of children with behavior problems about child development, discipline, or parenting will result in improved child behavior at home and at school.	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
2C. Parents of children with behavior problems want to be involved in their children's education more than they are currently involved.	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
2D. I have access to sufficient space within the school building to provide parent training interventions.	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
2E. There are clearly defined responsibilities among school employees who can provide parent training interventions (e.g., guidance counselor, social worker)	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
2F. School psychologists are the best professionals to provide parent training interventions.	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
2G. I have sufficient training in parent training interventions.	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
2H. I need additional professional development in parent training interventions.	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
2I. My school administrator (principal) supports my engagement in parent training interventions.	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
2J. My department supervisor supports my engagement in parent training interventions.	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
2K. I have sufficient time to engage in parent training interventions.	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
2L. School personnel understand my role and the full range of interventions that I can deliver.	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
2M. My professional role is focused on psycho educational testing.	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree

2N. The number of children in need of assessment at my school limits my ability to provide parent training interventions.	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
2O. My preferred professional role is psycho educational assessment.	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
2P. I have too many job responsibilities to provide parent training interventions.	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
2Q. I am interested in providing parent training interventions.	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
2R. School personnel at my school know when how and why to contact me and appear comfortable collaborating with me.	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
2S. I communicate regularly with parents regarding parent training opportunities at my school.	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
2T. School psychologists should assume the bulk of responsibility for parent training interventions.	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
2U. It is reasonable to expect me to meet with parents after school hours.	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
2V. Parents would utilize parent training interventions if they were available at my school.	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
2W. My school has a positive and welcoming attitude toward parents.	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
2X. My school values the involvement of parents in interventions for children with behavior problems.	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
2Y. Behavior problems are the result of poor parenting.	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
2Z. Schools can afford to provide transportation for parents to attend meetings.	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
3A. Parents at my school regularly attend school-sponsored events (e.g., open house, conferences).	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
3B. Parents at my school are actively involved in their child's education.	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
3C. My school has the resources to provide childcare during parent training meetings.	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree

3D. The basic needs (food, shelter, clothing, safety) of the families at my school are met.	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
3E. Parents at my school have the necessary ability and education to benefit from parent training interventions.	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
3F. Parents have the time to participate in parent training interventions.	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
3G. School personnel welcome and appreciate parents' involvement in their child's education.	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
3H. Language barriers make parent training inventions difficult to implement with families at my school.	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
3I. My school regularly communicates with families in their dominant language.	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
3J. School personnel are culturally and linguistically similar to the majority of families at my school.	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
3K. I am culturally and linguistically similar to the majority of families at my school.	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
3L. Educators at my school contact parents primarily when their child has a behavior or academic problem.	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
3M. I have been trained in how to establish and maintain a positive collaborative relationship with parents.	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
3N. I feel comfortable working collaboratively with families from diverse cultural, ethnic, and language backgrounds.	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree

4. For each of the following activities or practices, please indicate the nature of your training experiences by circling 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, "Directly Observed" because this is the more intense training method.

Training methods are listed from the lowest level (not covered) to the highest level (implemented with feedback from a supervisor or trainer).

Definitions of Training Methods

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

Coursework--Obtained knowledge of activity or intervention through course-based readings and lecture

Directly Observed--Watched intervention/activity being implemented by teacher, supervisor, or qualified personnel.

Implemented without Feedback--Personally implemented intervention independently without ever receiving feedback from a supervisor or trainer (self-directed practicum experience).

Implemented with Feedback **--**Personally implemented intervention with feedback and/or assistance from a supervisor or trainer. Not Covered

3O. Consulting with the parents of children with chronic behavior problems about ways they can support their child's learning or behavior at school.	Not Covered	Coursework	Directly Observed	Implemented Without Feedback	Implemented With Feedback
3P. Facilitating meetings to create more cooperation between the parents of children with chronic behavior problems and educators	Not Covered	Coursework	Directly Observed	Implemented Without Feedback	Implemented With Feedback
3Q. Providing training for teachers regarding ways to involve the parents of children with chronic behavior problems in their children's school work.	Not Covered	Coursework	Directly Observed	Implemented Without Feedback	Implemented With Feedback
3R. Helping teachers and administrators provide information to the parents of children with chronic behavior problems on grade-level academic and behavioral expectations	Not Covered	Coursework	Directly Observed	Implemented Without Feedback	Implemented With Feedback
3S. Developing or coordinating a family resource center that serves parents of children with chronic behavior problems.	Not Covered	Coursework	Directly Observed	Implemented Without Feedback	Implemented With Feedback
3T. Planning, coordinating, and monitoring interventions implemented jointly by the parents of children with chronic behavior problems and teachers	Not Covered	Coursework	Directly Observed	Implemented Without Feedback	Implemented With Feedback
3U. Helping schools create participatory roles for parents of children with chronic behavior problems on school advisory committees.	Not Covered	Coursework	Directly Observed	Implemented Without Feedback	Implemented With Feedback
3V. Organizing a parent volunteer program to assist children with chronic behavior problems in the classroom	Not Covered	Coursework	Directly Observed	Implemented Without Feedback	Implemented With Feedback
3W. Coordinating a parent support group for the parents of children with chronic behavior problems.	Not Covered	Coursework	Directly Observed	Implemented Without Feedback	Implemented With Feedback
3X. Implementing a formal parent-training program that included regular, scheduled meetings and a planned parent training curriculum	Not Covered	Coursework	Directly Observed	Implemented Without Feedback	Implemented With Feedback
3Y. Implementing evidence-based interventions for children with chronic behavior problems.	Not Covered	Coursework	Directly Observed	Implemented Without Feedback	Implemented With Feedback
3Z. Observing and noting the relationship between antecedents, behavior, and consequences.	Not Covered	Coursework	Directly Observed	Implemented Without Feedback	Implemented With Feedback

4A. Using positive reinforcement (e.g., giving praise, attention, and prizes, etc.) to maintain, teach, or encourage desired behaviors.	Not Covered	Coursework	Directly Observed	Implemented Without Feedback	Implemented With Feedback
4B. Using time-out from positive reinforcement (i.e., removing a child from desirable activity or environment following inappropriate behavior).	Not Covered	Coursework	Directly Observed	Implemented Without Feedback	Implemented With Feedback
4C. 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) to maintain, teach, or encourage desired behavior.	Not Covered	Coursework	Directly Observed	Implemented Without Feedback	Implemented With Feedback

5. Please circle the statement that most closely approximates how often you typically engage in each activity with the parents of children with chronic behavior problems.					
4D. Consulting with families about specific ways that they can support their child's learning or behavior at school.	Once a day or more	Once a week	Once a month	Once a semester	Once a year or less
4E. Teaching families about child development, discipline, or parenting.	Once a day or more	Once a week	Once a month	Once a semester	Once a year or less
4F. Helping schools or teachers develop frequent, varied, and understandable methods for communicating with families.	Once a day or more	Once a week	Once a month	Once a semester	Once a year or less
4G. Contacting parents who do not attend scheduled conferences or who need follow-up contacts.	Once a day or more	Once a week	Once a month	Once a semester	Once a year or less
4H. Helping schools provide information on grade-level academic and behavioral expectations.	Once a day or more	Once a week	Once a month	Once a semester	Once a year or less
4I. Developing or coordinating a family resource center.	Once a day or more	Once a week	Once a month	Once a semester	Once a year or less
4J. Planning, coordinating, and monitoring interventions implemented jointly by parents and teachers	Once a day or more	Once a week	Once a month	Once a semester	Once a year or less
4K. Helping schools create participatory roles for parents on behavior intervention/problem-solving teams.	Once a day or more	Once a week	Once a month	Once a semester	Once a year or less
4L. Organizing a parent volunteer program to assist teachers, administrators, and children in the classroom.	Once a day or more	Once a week	Once a month	Once a semester	Once a year or less
4M. Coordinating a parent support group for parents of children with chronic behavior problems.	Once a day or more	Once a week	Once a month	Once a semester	Once a year or less
4N. Teaching parents about chronic behavior problems core symptomology and epidemiology.	Once a day or more	Once a week	Once a month	Once a semester	Once a year or less
4O. Explaining to parents the connection between chronic behavior problems and academic underachievement.	Once a day or more	Once a week	Once a month	Once a semester	Once a year or less
4P. Counseling parents regarding their emotional reactions (e.g., sadness, guilt, anxiety) to their child's chronic behavior problems.	Once a day or more	Once a week	Once a month	Once a semester	Once a year or less
4Q. Communicating with parents regarding the expected outcomes of intervention for their child.	Once a day or more	Once a week	Once a month	Once a semester	Once a year or less
4R. Helping parents understand what factors contribute to the emergence and maintenance of their child's problem behavior.	Once a day or more	Once a week	Once a month	Once a semester	Once a year or less

4S. Increasing parental knowledge of behavior management principles as they apply to their child.	Once a day or more	Once a week	Once a month	Once a semester	Once a year or less
4T. Encouraging parents to set aside a daily time period to interact with their child in activities that are chosen and directed by their child.	Once a day or more	Once a week	Once a month	Once a semester	Once a year or less
4U. Teaching parents positive attending skills to appropriate independent play.	Once a day or more	Once a week	Once a month	Once a semester	Once a year or less
4V. Teaching parents positive attending skills to their child's compliance with parental requests.	Once a day or more	Once a week	Once a month	Once a semester	Once a year or less
4W. Teaching parents to reward positive behavior.	Once a day or more	Once a week	Once a month	Once a semester	Once a year or less

4X. Teaching parents effective methods of communicating commands.	Once a day or more	Once a week	Once a month	Once a semester	Once a year or less
4Y. Teaching parents to ignore minor behavior problems.	Once a day or more	Once a week	Once a month	Once a semester	Once a year or less
4Z. Teaching parents how to avoid adding to their child's escalating problem behavior such as tantrums.	Once a day or more	Once a week	Once a month	Once a semester	Once a year or less
5A. 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).	Once a day or more	Once a week	Once a month	Once a semester	Once a year or less
5B. Teaching parents how to use time-out appropriately.	Once a day or more	Once a week	Once a month	Once a semester	Once a year or less
5C. Teaching parents how to manage their child's behavior in public places.	Once a day or more	Once a week	Once a month	Once a semester	Once a year or less
5D. Role playing with parents their planned response to their child's behavior.	Once a day or more	Once a week	Once a month	Once a semester	Once a year or less
5E. Coordinating childcare for the child with chronic behavior problems and his or her siblings during parent training sessions.	Once a day or more	Once a week	Once a month	Once a semester	Once a year or less
5F. Arranging transportation to school in order for parents to attend parent training sessions.	Once a day or more	Once a week	Once a month	Once a semester	Once a year or less
5G. Implementing a formal parent training program	Once a day or more	Once a week	Once a month	Once a semester	Once a year or less

Professional Training Experiences and School Psychologist's Work with Parents of Children with Chronic Behavior Problems

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 dissertation research, I am surveying NASP members to gather information about their beliefs, training, role profile, and current parent education/training practices with the parents of children with chronic behavior problems.

The purpose of this letter is to invite you to participate in my dissertation 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 National Association of School Psychologists (NASP). The survey will ask you questions about your training, beliefs, role profile, perception of current barriers, and current practices in the area of parent training/education with the parents of children with chronic behavior problems. The survey will take approximately 30 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 $25 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.

All participant responses will be kept anonymous. 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.

If you are currently providing parent training/education for parents of children with chronic behavior problems at least once per week, you are encouraged to take part in an additional phone interview. You can indicate that you would be willing to engage in a brief conversation about your parent training experiences by mailing back the enclosed

post card with your contact information. Participants who take part in this portion of the research project will be asked questions regarding variables which have facilitated their implementation of their parent training activities. All information will be kept confidential and reported as group data only.

If you have any questions, comments, or concerns about this study, please feel free to contact me, Rebecca Sarlo, Ed.S., 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) 974-7363.

I thank you for your time, help, and support of this study.

Sincerely,

Rebecca Sarlo, Ed.S., NCSP

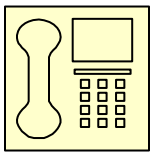
Appendix C: Recruitment Postcard

Dear NASP Member,

If you are currently engaging in parent training on a regular basis (at least once per week) and would be willing to conference with me on the telephone regarding your experiences, please mail back this stamped post card with your telephone contact information. I will contact you within the next few weeks. Your participation is greatly appreciated!

My Name is:_____
My Telephone Number is: _____

Sincerely,
Rebecca Sarlo, Ed.S., NCSP
School Psychology Doctoral Student



Appendix D: Draft Script for Telephone Conference

Standardized, Open-Ended Questions Posed to All Interviewees

1. How often are you currently engaging in parent training or education activities with parents of children with chronic behavior problems?

2. Many school psychologists cite barriers that impede their implementation of parent training and education activities such as a lack of time or training. How have you been able to overcome these or other potential barriers?

3. Are there variables that facilitate your implementation of parent training and education activities?

4. Do you have any advice for school psychologists who want to start a parent training or education program at his or her school?

Appendix E: Pattern and Structure Matrixes and Scree Plot

Table 25. *Pattern Matrix for Current Practice Factors*

Pattern Matrix[a]

	Component		
	1	2	3
FiveB: Teaching parents how to use time-out appropriately	.954	-.089	-.043
FourU: Teaching parents positive attending skills to appropriate independent play	.911	-.181	.107
FourV: Teaching parents positive attending skills to their child's compliance with parental requests	.898	.009	.024
FiveC: Teaching parents how to manage their child's behavior in public	.888	-.202	.099
FourX: Teaching parents effective methods of communicating commands	.858	.028	.004
FiveA: 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)	.850	-.032	-.109
FourZ: Teaching parents how to avoid adding to their child's escalating problem behavior such as tantrums	.849	.121	-.057
FourY: Teaching parents to ignore minor behavior problems	.812	.063	-.065
FourW: Teaching parents to reward positive behavior	.782	.102	-.061
FiveD: Role playing with parents their planned response to their child's behavior	.674	-.284	.328
FourP: Counseling parents regarding their emotional reactions (e.g., sadness, guilt, anxiety) to their child's chronic behavior problems	.654	.082	.071
FourT: Encouraging parents to set aside a daily time period to interact with their child in activities that are chosen and directed by their child	.607	.186	.031

Table 25. *Pattern Matrix for Current Practice Factors (Continued)*

Pattern Matrix[a]			
	Component		
	1	2	3
FourS: Increasing parental knowledge of behavior management principles as they apply to their child	.578	.391	-.074
FourN: Teaching parents about chronic behavior problems core symptomology and epidemiology	.557	.174	.046
FourR: Helping parents understand what factors contribute to the emergence and maintenance of their child's behavior problems	.506	.455	-.086
FourE: Teaching families about child development, discipline, or parenting	.496	.311	.042
FourH: Helping schools provide information on grade-level academic and behavioral expectations	-.195	.780	-.124
FourK: Helping schools create participatory roles for parents on behavior intervention/problem-solving teams.	-.144	.767	.201
FourD: Consulting with families about specific ways that they can support their child's learning or behavior at school	.064	.764	-.002
FourJ: Planning, coordinating, and monitoring interventions implemented jointly by parents and teachers	-.095	.739	.155
FourQ: Communicating with parents regarding the expected outcomes of intervention for their child	.189	.687	-.002
FourG: Contacting parents who do not attend scheduled conferences or who need follow-up contact	.023	.640	-.151
FourF: Helping schools or teachers develop frequent, varied, and understandable methods for communicating with families	.115	.609	.053

Table 25. *Pattern Matrix for Current Practice Factors (Continued)*

Pattern Matrix[a]			
	Component		
	1	2	3
FourO: Explaining to parents the connection between chronic behavior problems and academic underachievement	.180	.600	.089
FiveG: Implementing a formal parent training program	-.098	-.002	.873
FourL: Organizing a parent volunteer program to assist teachers, administrators, and children in the classroom	-.002	.076	.621
FiveE: Coordinating childcare for the child with chronic behavior problems and his or her siblings during parent training sessions	.043	.067	.611
FiveF: Arranging transportation to school in order for parents to attend parent training sessions	.026	.008	.559
FourI: Developing or coordinating a family resource center	.006	-.019	.556
FourM: Coordinating a parent support group for parent of children with chronic behavior problems	.119	.040	.369

Table 26: *Structure Matrix for Current Practice Factors*

Structure Matrix			
	Component		
	1	2	3
FourV: Teaching parents positive attending skills to their child's compliance with parental requests	.915	.591	.459
FourZ: Teaching parents how to avoid adding to their child's escalating problem behavior such as tantrums	.898	.653	.379
FourX: Teaching parents effective methods of communicating commands	.878	.581	.424

Appendix E: Pattern and Structure Matrixes and Scree Plot

Table 26: *Structure Matrix for Current Practice Factors*

Structure Matrix			
	Component		
	1	2	3
FiveB: Teaching parents how to use time-out appropriately	.876	.515	.397
FourU: Teaching parents positive attending skills to appropriate independent play	.846	.428	.505
FourY: Teaching parents to ignore minor behavior problems	.821	.570	.341
FourW: Teaching parents to reward positive behavior	.817	.590	.338
FiveC: Teaching parents how to manage their child's behavior in public	.806	.391	.481
FourS: Increasing parental knowledge of behavior management principles as they apply to their child	.793	.745	.293
FiveA: 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)	.777	.489	.293
FourT: Encouraging parents to set aside a daily time period to interact with their child in activities that are chosen and directed by their child	.742	.583	.366
FourP: Counseling parents regarding their emotional reactions (e.g., sadness, guilt, anxiety) to their child's chronic behavior problems	.741	.518	.404
FourE: Teaching families about child development, discipline, or parenting	.717	.640	.352
FourN: Teaching parents about chronic behavior problems core symptomology and epidemiology	.691	.542	.353
FiveD: Role playing with parents their planned response to their child's behavior	.650	.224	.589
FourQ: Communicating with parents regarding the expected outcomes of intervention for their child	.630	.808	.245

Appendix E: Pattern and Structure Matrixes and Scree Plot

Table 26: *Structure Matrix for Current Practice Factors*

Structure Matrix			
	Component		
	1	2	3
FourD: Consulting with families about specific ways that they can support their child's learning or behavior at school	.554	.805	.202
FourR: Helping parents understand what factors contribute to the emergence and maintenance of their child's behavior problems	.757	.761	.261
FourO: Explaining to parents the connection between chronic behavior problems and academic underachievement	.608	.735	.311
FourK: Helping schools create participatory roles for parents on behavior intervention/problem-solving teams.	.447	.721	.305
FourJ: Planning, coordinating, and monitoring interventions implemented jointly by parents and teachers	.455	.713	.276
FourF: Helping schools or teachers develop frequent, varied, and understandable methods for communicating with families	.532	.694	.246
FourH: Helping schools provide information on grade-level academic and behavioral expectations	.247	.627	-.042
FourG: Contacting parents who do not attend scheduled conferences or who need follow-up contact	.362	.621	.005
FiveG: Implementing a formal parent training program	.322	.132	.825
FiveE: Coordinating childcare for the child with chronic behavior problems and his or her siblings during parent training sessions	.381	.233	.647
FourL: Organizing a parent volunteer program to assist teachers, administrators, and children in the classroom	.346	.215	.637
FiveF: Arranging transportation to school in order for parents to attend parent training sessions	.301	.151	.574

Appendix E: Pattern and Structure Matrixes and Scree Plot

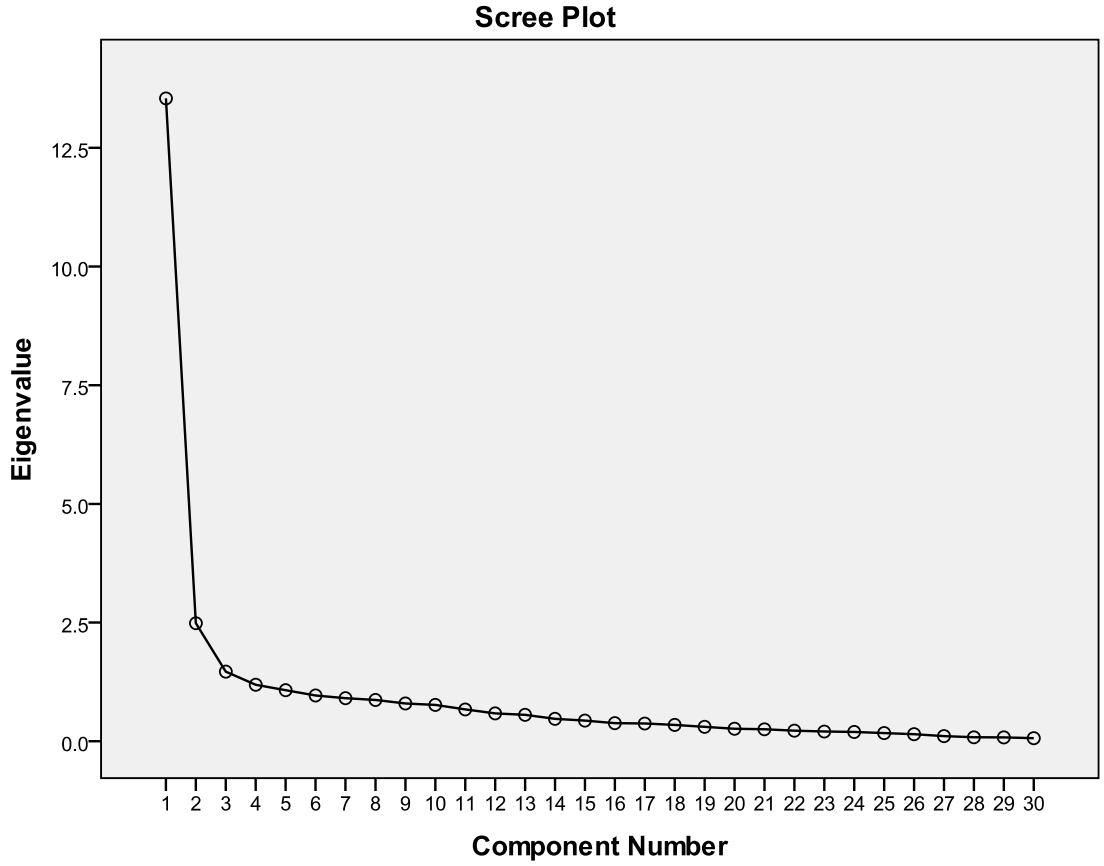
Table 26: *Structure Matrix for Current Practice Factors*

Structure Matrix			
	Component		
	1	2	3
FourI: Developing or coordinating a family resource center	.263	.111	.555
FourM: Coordinating a parent support group for parent of children with chronic behavior problems	.322	.200	.435

Appendix E: Pattern and Structure Matrixes and Scree Plot

Figure 1

Scree Plot of Current Practice Factors



Appendix F: Pattern and Structure Matrix and Scree Plot

Table 27. *Pattern Matrix of Training Factors*

Pattern Matrix[a]			
	Factor		
	1	2	3
ThreeO: Consulting with parents of children with chronic behavior problems about ways they can support their child's learning or behavior at school	.112	-.022	.741
ThreeP: Facilitating meetings to create more cooperation between parents of children with chronic behavior problems and educators	-.166	-.055	.953
ThreeQ: Providing training for teachers regarding ways to involve the parents of children with chronic behavior problems in their children's school work	.079	.326	.420
ThreeR: Helping teachers and administrators provide information to parents of children with chronic behavior problems on grade-level academic and behavioral expectations	.049	.152	.412
ThreeS: Developing or coordinating a family resource center that serves parent of children with chronic behavior problems	-.115	.551	.013
ThreeT: Planning, coordinating, and monitoring interventions implemented jointly by the parents of children with chronic behavior problems and their teachers	.183	.085	.571
ThreeU: Helping schools create participatory roles for parents of children with chronic behavior problems on school advisory committees	-.107	.375	.204
ThreeV: Organizing a parent volunteer program to assist children with chronic behavior problems in the classroom	-.096	.557	.064
ThreeW: Coordinating a parent support group for the parents of children with chronic behavior problems	.045	.763	-.081

Table 27. *Pattern Matrix of Training Factors (Continued)*

Pattern Matrix[a]			
	Factor		
	1	2	3
ThreeX: Implementing a formal parent training program that included regular, scheduled meetings and a planned parent training curriculum	.109	.702	.002
ThreeY: Implementing evidence based interventions for children with chronic behavior problems	.621	.025	.086
ThreeZ: Observing and noting the relationships between antecedents, behavior, and consequences	.819	-.073	.098
FourA: Using positive reinforcement (e.g., giving praise, attention, prizes, etc.) to maintain, teach, or encourage desired behavior	.910	.008	-.036
FourB: 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	.869	.089	-.222
FourC: 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) to maintain, teach, or encourage desired behavior	.682	-.174	.161

Appendix F: Pattern and Structure Matrix and Scree Plot

Table 28. *Structure Matrix of Training Factors*

Structure Matrix			
	Factor		
	1	2	3
ThreeO: Consulting with parents of children with chronic behavior problems about ways they can support their child's learning or behavior at school	.433	.385	.778
ThreeP: Facilitating meetings to create more cooperation between parents of children with chronic behavior problems and educators	.244	.427	.852
ThreeQ: Providing training for teachers regarding ways to involve the parents of children with chronic behavior problems in their children's school work	.306	.559	.627
ThreeR: Helping teachers and administrators provide information to parents of children with chronic behavior problems on grade-level academic and behavioral expectations	.249	.377	.514
ThreeS: Developing or coordinating a family resource center that serves parent of children with chronic behavior problems	-.036	.543	.254
ThreeT: Planning, coordinating, and monitoring interventions implemented jointly by the parents of children with chronic behavior problems and their teachers	.444	.411	.696
ThreeU: Helping schools create participatory roles for parents of children with chronic behavior problems on school advisory committees	.032	.469	.355
ThreeV: Organizing a parent volunteer program to assist children with chronic behavior problems in the classroom	.006	.579	.317
ThreeW: Coordinating a parent support group for the parents of children with chronic behavior problems	.110	.726	.342
ThreeX: Implementing a formal parent training program that included regular, scheduled meetings and a planned parent training curriculum	.203	.717	.421

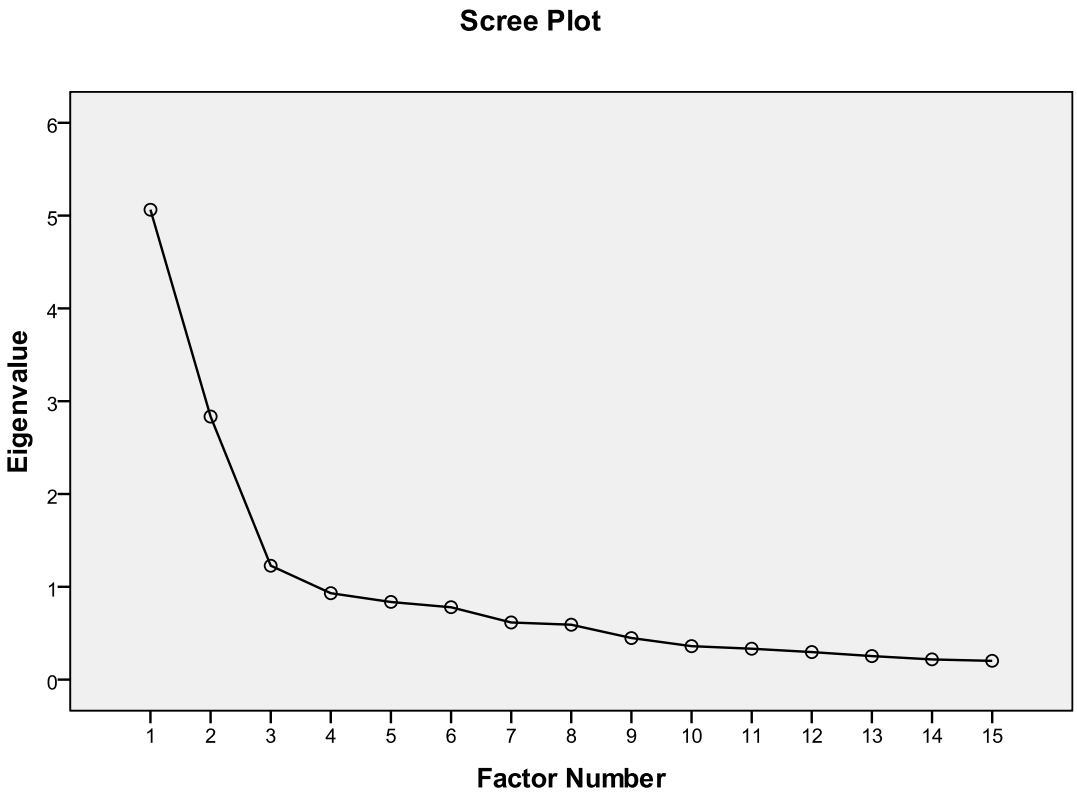
Table 28. *Structure Matrix of Training Factors (Continued)*

Structure Matrix			
	Factor		
	1	2	3
ThreeY: Implementing evidence based interventions for children with chronic behavior problems	.662	.153	.371
ThreeZ: Observing and noting the relationships between antecedents, behavior, and consequences	.853	.087	.418
FourA: Using positive reinforcement (e.g., giving praise, attention, prizes, etc.) to maintain, teach, or encourage desired behavior	.895	.109	.366
FourB: 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	.783	.087	.205
FourC: 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) to maintain, teach, or encourage desired behavior	.730	.002	.368

Appendix F: Pattern and Structure Matrix and Scree Plot

Figure 2

Scree Plot of Training Factors



Appendix G: Pattern and Structure Matrixes and Scree Plot for Barriers Factors

Table 29. *Pattern Matrix of Perception of Barriers Factors*

Pattern Matrix[a]					
	Component				
	1	2	3	4	5
I have sufficient time to engage in parent training interventions	.704	.087	.036	-.021	-.147
My school administrator (principal) supports my engagement in parent training interventions	.700	-.101	.106	.083	.033
I have too many job responsibilities to provide parent training interventions	.674	.049	.005	-.127	.039
My department supervisor supports my engagement in parent training interventions	.662	-.192	.141	.262	.014
I have access to sufficient space within the school building to provide parent training interventions	.610	.135	-.083	.028	-.263
The number of children in need of assessment at my school limits my ability to provide parent training interventions	.548	-.034	-.106	-.276	.474
My school has the resources to provide childcare during parent training meetings	.443	.234	.161	-.041	.108
There are clearly defined responsibilities among school employees who can provide parent training interventions (e.g., guidance counselor, social worker)	.438	-.201	-.137	.305	-.209
I communicate regularly with parents regarding parent training opportunities at my school	.331	.149	.241	-.108	.161
Schools can afford to provide transportation for parents to attend meetings	.274	.157	.186	-.008	-.033
I am culturally and linguistically similar to the majority of families at my school	-.006	.820	-.044	-.150	-.003

Table 29. *Pattern Matrix of Perception of Barriers Factors (Continued)*

Pattern Matrix[a]					
	Component				
	1	2	3	4	5
School personnel are culturally and linguistically similar to the majority of families at my school	-.102	.775	-.055	-.214	.004
Parents at my school are actively involved in their child's education	.151	.711	-.014	.237	-.037
The basic needs (food, shelter, clothing, safety) of the families at my school are met	.288	.620	-.282	.117	-.127
Parents at my school have the necessary ability and education to benefit from parent training interventions	.014	.597	.270	-.005	.246
Parents at my school regularly attend school-sponsored events (e.g., open house, conferences)	.087	.554	-.032	.430	.073
Language barriers make parent training interventions difficult to implement with families at my school	-.103	.552	.008	-.275	.031
Parents have sufficient time to participate in parent training interventions	.199	.509	.119	-.065	-.003
Teaching parents of children with behavior problems about child development, discipline, or parenting will result in improved child behavior at home and at school	.237	-.269	.154	-.042	.059
Parent involvement can help increase success for a student with chronic behavior problems	.148	-.224	.002	-.147	-.218
I need additional professional development in parent training interventions	.097	-.213	.080	.152	-.070
I am interested in providing parent training interventions	.121	-.041	.746	-.104	-.143

Table 29. *Pattern Matrix of Perception of Barriers Factors (Continued)*

Pattern Matrix[a]					
	Component				
	1	2	3	4	5
I have been trained in how to establish and maintain positive collaborative relationships with parents	-.056	.141	.666	.192	.155
I feel comfortable working collaboratively with families from diverse cultural, ethnic, and language back grounds	-.086	-.237	.559	.136	.112
I have sufficient training in parent training interventions	.252	-.089	.547	.095	-.258
School psychologists should assume the bulk of responsibility for parent training interventions	.183	.003	.493	-.294	-.349
Parents would utilize parent training interventions if they were available at my school	-.014	.300	.463	.070	.076
School psychologists are the best professionals to provide parent training interventions	.105	-.089	.460	-.075	-.328
Parents of children with behavior problems want to be involved in their children's education more than they are currently involved	.034	-.017	.409	.005	.143
My school has a positive and welcoming attitude toward parents	.125	-.004	-.027	.804	.145
My school values the involvement of parents in interventions for children with behavior problems	-.036	-.019	.220	.795	.223
School personnel welcome and appreciate parents' involvement in their child's education	-.102	-.106	.041	.571	.033
School personnel at my school know when, how, and why to contact me and appear comfortable collaborating with me	.045	-.285	.018	.517	.193

Table 29. *Pattern Matrix of Perception of Barriers Factors (Continued)*

My preferred professional role is psycho educational assessment	-.017	.061	-.283	.459	-.264
My professional role is focused on psycho educational testing	-.418	.154	.180	.146	-.600
Behavior problems are the result of poor parenting	-.193	.085	.062	.089	.581
It is reasonable to expect me to meet with parents after school hours	.097	-.030	.036	-.196	-.520
School personnel understand my role and full range of interventions that I can deliver	.377	.029	-.152	.026	.432
Educators at my school contact parents primarily when their child has a behavior or academic problem	-.122	.001	-.064	-.167	-.350
My school regularly communicates with families in their dominant language	-.192	.033	.247	.054	.251

Table 30. *Structure Matrix for Perception of Barriers Factors*

Structure Matrix

	Component				
	1	2	3	4	5
My school administrator (principal) supports my engagement in parent training interventions	.721	.038	.240	.149	.121
I have sufficient time to engage in parent training interventions	.701	.181	.171	.117	-.044
My department supervisor supports my engagement in parent training interventions	.697	-.003	.272	.300	.077
I have too many job responsibilities to provide parent training interventions	.670	.111	.132	-.027	.147

Table 30. *Structure Matrix for Perception of Barriers Factors (Continued)*

Structure Matrix

	Component				
	1	2	3	4	5
I have access to sufficient space within the school building to provide parent training interventions	.582	.215	.036	.171	-.182
My school has the resources to provide childcare during parent training meetings	.517	.305	.270	.089	.190
I communicate regularly with parents regarding parent training opportunities at my school	.407	.193	.318	-.018	.235
There are clearly defined responsibilities among school employees who can provide parent training interventions (e.g., guidance counselor, social worker)	.394	-.064	-.058	.314	-.196
Schools can afford to provide transportation for parents to attend meetings	.328	.210	.251	.093	.020
Parents at my school are actively involved in their child's education	.279	.802	.096	.475	-.015
I am culturally and linguistically similar to the majority of families at my school	.086	.769	.018	.094	.040
Parents at my school regularly attend school-sponsored events (e.g., open house, conferences)	.229	.697	.071	.599	.060
School personnel are culturally and linguistically similar to the majority of families at my school	-.027	.691	-.021	.003	.039
The basic needs (food, shelter, clothing, safety) of the families at my school are met	.322	.667	-.167	.335	-.091
Parents at my school have the necessary ability and education to benefit from parent training interventions	.187	.631	.339	.172	.284

Table 30. *Structure Matrix for Perception of Barriers Factors (Continued)*

Structure Matrix

	Component				
	1	2	3	4	5
Parents have sufficient time to participate in parent training interventions	.287	.529	.198	.125	.056
Language barriers make parent training interventions difficult to implement with families at my school	-.053	.456	.019	-.124	.067
Parent involvement can help increase success for a student with chronic behavior problems	.067	-.254	-.012	-.172	-.191
Teaching parents of children with behavior problems about child development, discipline, or parenting will result in improved child behavior at home and at school	.230	-.231	.175	-.087	.094
I need additional professional development in parent training interventions	.092	-.148	.087	.114	-.077
I am interested in providing parent training interventions	.226	.008	.751	-.029	-.079
I have been trained in how to establish and maintain positive collaborative relationships with parents	.140	.258	.690	.262	.166
I have sufficient training in parent training interventions	.322	.016	.582	.169	-.209
I feel comfortable working collaboratively with families from diverse cultural, ethnic, and language back grounds	.021	-.154	.537	.083	.105
Parents would utilize parent training interventions if they were available at my school	.139	.364	.496	.186	.101
School psychologists should assume the bulk of responsibility for parent training interventions	.192	-.027	.489	-.195	-.268

Table 30. *Structure Matrix for Perception of Barriers Factors (Continued)*

Structure Matrix

	Component				
	1	2	3	4	5
School psychologists are the best professionals to provide parent training interventions	.126	-.067	.450	-.019	-.285
Parents of children with behavior problems want to be involved in their children's education more than they are currently involved	.130	.032	.421	.020	.167
My school has a positive and welcoming attitude toward parents	.245	.261	.065	.802	.076
My school values the involvement of parents in interventions for children with behavior problems	.139	.244	.283	.777	.145
School personnel welcome and appreciate parents' involvement in their child's education	-.030	.057	.057	.525	-.042
My preferred professional role is psycho educational assessment	-.038	.161	-.259	.481	-.326
School personnel at my school know when, how, and why to contact me and appear comfortable collaborating with me	.101	-.113	.049	.417	.135
My professional role is focused on psycho educational testing	-.423	.131	.094	.214	-.657
The number of children in need of assessment at my school limits my ability to provide parent training interventions	.551	-.029	.000	-.272	.571
Behavior problems are the result of poor parenting	-.077	.111	.068	.033	.552
It is reasonable to expect me to meet with parents after school hours	.002	-.092	.011	-.135	-.486
School personnel understand my role and full range of interventions that I can deliver	.415	.095	-.053	.028	.474

Table 30. *Structure Matrix for Perception of Barriers Factors (Continued)*

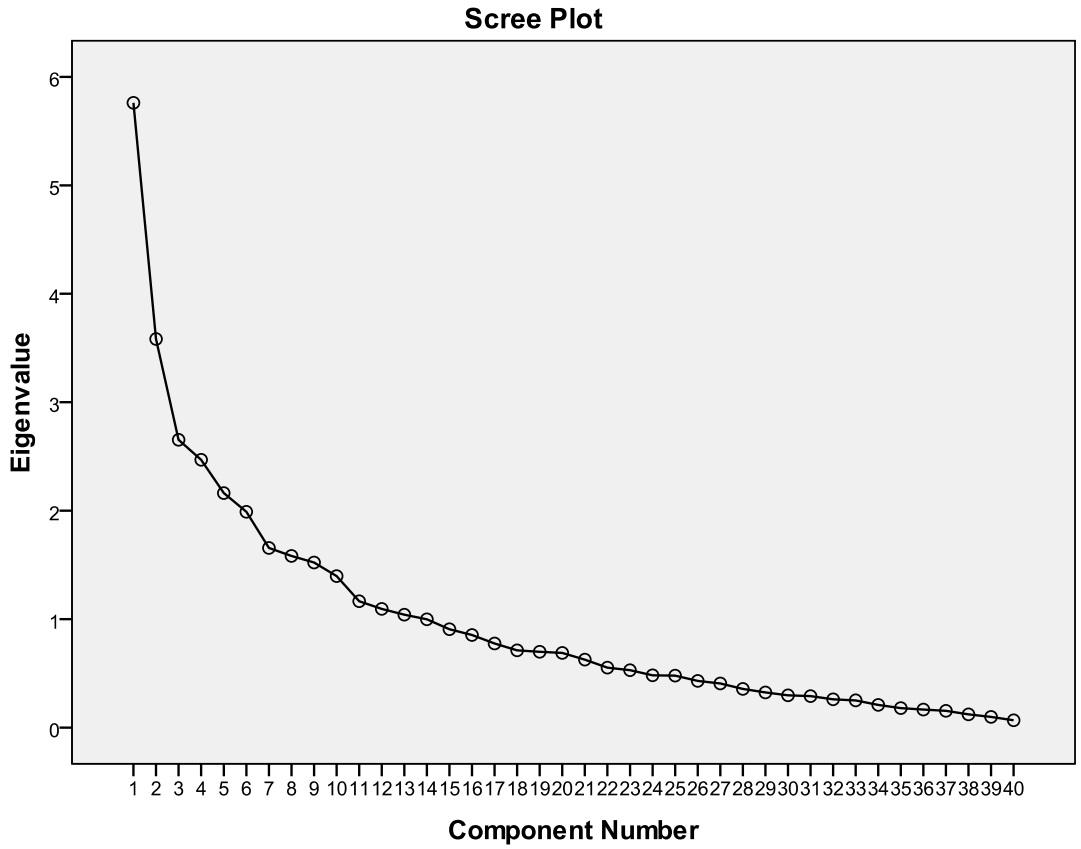
Structure Matrix

	Component				
	1	2	3	4	5
Educators at my school contact parents primarily when their child has a behavior or academic problem	-.205	-.087	-.118	-.151	-.353
My school regularly communicates with families in their dominant language	-.098	.053	.230	.030	.233

Appendix G: Pattern and Structure Matrixes and Scree Plot for Barriers Factors

Figure 3

Scree Plot Depicting Perception of Barriers Factors



Appendix H: ANOVA Tables for Demographic Variables

Table 31. *ANOVA Table for Gender and Overall Engagement*

ANOVA

Average Engagement

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.177	1	.177	.354	.553
Within Groups	56.031	112	.500		
Total	56.209	113			

Table 32. *ANOVA Table for Gender and Current Practice Factors*

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Teaching parents behavior management practices	Between Groups	.788	1	.788	.903	.344
	Within Groups	97.713	112	.872		
	Total	98.501	113			
Supporting home-school collaboration and communication	Between Groups	.177	1	.177	.232	.631
	Within Groups	85.446	112	.763		
	Total	85.623	113			
Implementing formal parent training and support groups	Between Groups	.068	1	.068	.935	.336
	Within Groups	8.153	112	.073		
	Total	8.221	113			

Appendix H: ANOVA Tables for Demographic Variables

Table 33. *ANOVA Table for Degree and Overall Engagement*

ANOVA

Average Engagement

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.061	3	.354	.705	.551
Within Groups	55.148	110	.501		
Total	56.209	113			

Table 34. *ANOVA Table for Degree and Current Practice Factors*

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Teaching parents behavior management practices	Between Groups	3.047	3	1.016	1.170	.324
	Within Groups	95.454	110	.868		
	Total	98.501	113			
Supporting home-school collaboration and communication	Between Groups	.928	3	.309	.402	.752
	Within Groups	84.694	110	.770		
	Total	85.623	113			
Implementing formal parent training and support groups	Between Groups	.160	3	.053	.727	.538
	Within Groups	8.061	110	.073		
	Total	8.221	113			

Table 35. *ANOVA Table for Recency of Degree and Overall Engagement*

ANOVA

Average Engagement

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.597	3	.199	.393	.758
Within Groups	55.612	110	.506		
Total	56.209	113			

Appendix H: ANOVA Tables for Demographic Variables

Table 36. *ANOVA Table for Recency of Degree and Current Practice Factors*

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Teaching parents behavior management practices	Between Groups	1.497	3	.499	.566	.639
	Within Groups	97.004	110	.882		
	Total	98.501	113			
Supporting home-school collaboration and communication	Between Groups	.447	3	.149	.192	.901
	Within Groups	85.176	110	.774		
	Total	85.623	113			
Implementing formal parent training and support groups	Between Groups	.140	3	.047	.633	.595
	Within Groups	8.082	110	.073		
	Total	8.221	113			

Table 37. *ANOVA for Employment Setting and Overall Engagement*

ANOVA

Average Engagement

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.197	3	.399	.798	.498
Within Groups	55.012	110	.500		
Total	56.209	113			

Table 38. *ANOVA Table for Employment Setting and Current Practice Factors*

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Teaching parents behavior management practices	Between Groups	3.481	3	1.160	1.343	.264
	Within Groups	95.021	110	.864		
	Total	98.501	113			
Supporting home-school collaboration and communication	Between Groups	.470	3	.157	.202	.895
	Within Groups	85.153	110	.774		
	Total	85.623	113			
Implementing formal parent training and support groups	Between Groups	.256	3	.085	1.178	.322
	Within Groups	7.965	110	.072		
	Total	8.221	113			

Table 39. *ANOVA Table for Years of Experience and Overall Engagement*

ANOVA

Average Engagement

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.180	3	.060	.118	.950
Within Groups	56.029	110	.509		
Total	56.209	113			

Table 40. *ANOVA Table for Years of Experience and Current Practice Factors*

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Teaching parents behavior management practices	Between Groups	.742	3	.247	.278	.841
	Within Groups	97.759	110	.889		
	Total	98.501	113			
Supporting home-school collaboration and communication	Between Groups	.196	3	.065	.084	.969
	Within Groups	85.427	110	.777		
	Total	85.623	113			
Implementing formal parent training and support groups	Between Groups	.091	3	.030	.411	.746
	Within Groups	8.130	110	.074		
	Total	8.221	113			

Table 41. *ANOVA Table for Number of Schools and Overall Engagement*

ANOVA

Average Engagement

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.187	3	.396	.791	.501
Within Groups	55.022	110	.500		
Total	56.209	113			

Table 42. *ANOVA Table for Number of Schools and Current Practice Factors*

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Teaching parents behavior management practices	Between Groups	1.558	3	.519	.589	.623
	Within Groups	96.943	110	.881		
	Total	98.501	113			
Supporting home-school collaboration and communication	Between Groups	1.339	3	.446	.583	.628
	Within Groups	84.284	110	.766		
	Total	85.623	113			
Implementing formal parent training and support groups	Between Groups	.300	3	.100	1.39	.250
	Within Groups	7.921	110	.072		
	Total	8.221	113			

Table 43. *ANOVA Table for Caseload and Overall Engagement*

ANOVA

Average Engagement

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3.553	5	.711	1.457	.210
Within Groups	52.656	108	.488		
Total	56.209	113			

Table 44. *ANOVA Table for Caseload and Current Practice Factors*

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Teaching parents behavior management practices	Between Groups	6.001	5	1.200	1.401	.230
	Within Groups	92.500	108	.856		
	Total	98.501	113			
Supporting home-school collaboration and communication	Between Groups	3.807	5	.761	1.005	.418
	Within Groups	81.816	108	.758		
	Total	85.623	113			
Implementing formal parent training and support groups	Between Groups	1.369	5	.274	4.314	.001
	Within Groups	6.853	108	.063		
	Total	8.221	113			

Appendix I: Table of Variables Excluded through Stepwise Regression Analysis

Table 45. Variables Excluded from the Stepwise Regression Analysis

Excluded Variables					
Variable				Partial	Collinearity Statistics
	Beta In	t	Sig.	Correlation	Tolerance
Assessment	-.122[b]	-1.400	.164	-.134	.920
Direct Intervention	.141[b]	1.653	.100	.157	.954
Consultation	.037[b]	.422	.674	.041	.933
Case Management	-.013[b]	-.156	.876	-.015	.989
Professional Development	.089[b]	1.042	.300	.100	.953
Elementary	-.122[b]	-1.453	.149	-.138	.991
Middle	.011[b]	.130	.897	.012	.996
High	.020[b]	.240	.811	.023	.999
Years Experience	.036[b]	.427	.670	.041	.990
Degree	.034[b]	.401	.689	.039	.957
Recency of Degree	.023[b]	.269	.788	.026	.983
Gender	-.046[b]	-.538	.591	-.052	.966
Number of Schools	-.074[b]	-.878	.382	-.084	.978
Caseload	-.021[b]	-.243	.808	-.023	.989

Exclusion Criteria= probability of *F* equal to or less than .10

About the Author

Rebecca Sarlo was born in Grand Rapids, Michigan. She received her Bachelors of Science degree in Psychology from Florida State University in 1997. She earned a Master's degree and an Educational Specialist degree in School Psychology from the University of South Florida. Rebecca worked as a school psychologist in Florida for eight years prior to taking her current position with the Florida Department of Education. Currently, Rebecca works on Florida's Differentiated Accountability Team as as a Response to Intervention Specialist, providing support to Florida's lowest performing schools. She is a participant on the State's Response to Intervention Advisory Group and the Florida Educator Accomplished Practices Work Group.