

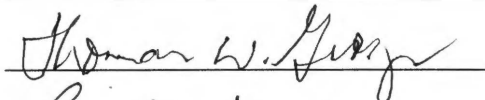
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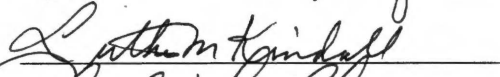
I am submitting herewith a dissertation written by Carolyn Wade Hooper entitled "Assessment of Self-Reported Parenting Practices with the Home Environment Profile-Abbreviated Form: Comparing Parents of Children With and Without Disabilities." I have examined the final paper copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Education.

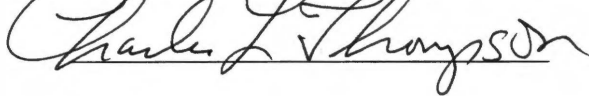

Donald J. Dickinson, Major Professor

We have read this dissertation
and recommend its acceptance:









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Vice Provost and Dean of
Graduate Studies

ASSESSMENT OF SELF-REPORTED PARENTING PRACTICES
WITH THE HOME ENVIRONMENT PROFILE-ABBREVIATED FORM:
COMPARING PARENTS OF CHILDREN WITH AND WITHOUT DISABILITIES

A Dissertation
Presented for the
Doctor of Philosophy
Degree

The University of Tennessee, Knoxville

Carolyn Wade Hooper
May 2002

DEDICATION

Thesis
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This dissertation is dedicated to my parents, Henry and Lillian Wade. I am so grateful to both of you for your love, support, kindness, strength, and encouragement. I have such admiration for you both. Thank you for all of your help during this project and throughout my life. Thank you for always believing in me.

This dissertation is also dedicated to my husband, V. Scott Hooper. Words cannot express how grateful I am to you for all of your support and assistance during this research project. I could not have completed this dissertation without you. I will always be amazed by your unconditional love and by all of the sacrifices you have made for me.

I am truly blessed to have each of you in my life.

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I also would like to thank Linda Hooper, principal of the school where this research was conducted. I am indebted and grateful for her cooperation and support. I would also like to thank the teachers who assisted in the data collection process. I am additionally very appreciative for the many parents who completed the questionnaires. Without you, this project would not have been possible.

ABSTRACT

This study examined the differences in self-reported parenting practices between parents of children with and without disabilities. These differences were investigated using the Home Environment Profile-Abbreviated Form (HEP-AF; Dickinson, 2001). The HEP-AF measures self-reported parenting practices in the areas of Nurturing, Monitoring, Discipline, and Modeling Attitudes and Behaviors. (These areas make up the subscales of the HEP-AF.) The research sample consisted of 308 parents of 4th through 8th grade students. Fifty-two parents reported that their child had a disability; 256 parents reported that their child did not have a disability. The results from multivariate analysis of covariance (MANCOVA) indicated that student group (nondisabled students/students with a disability) had a statistically significant effect on the multivariate combination of parenting practices, after controlling for the effect of parent income and education level. Univariate analyses of covariance (ANCOVAs) were subsequently conducted and, while controlling for the effect of parent income and education, indicated a significant effect with the parenting practices of Monitoring, Discipline and Modeling Attitudes and Behaviors (Modeling). A comparison of the adjusted means between groups indicated that parents of children with a disability scored significantly lower (less desirable) than parents of nondisabled children on the subscales of Monitoring, Discipline, and Modeling. Scores on the Nurturing subscale were not different between groups. Significant differences between groups were also found for the Total Scale and a number of specific HEP-AF items with the parents of children with a disability scoring lower (less desirable) than parents of nondisabled children.

Also, parents were asked to rate their child's behavior on the degree of internalizing and externalizing problems. Parents who reported that their child had a disability were significantly more likely to report that their child had externalizing and internalizing behavior problems. Child externalizing behavior problems, as reported by the parents, were negatively correlated with each of the parenting practice subscales (Nurturing, Monitoring, Discipline, and Modeling). However, child internalizing behavior problems were only negatively correlated with the subscale of Modeling. Also, items were selected from the HEP-AF to measure the extent to which parents displayed proactive and reactive practices. Parents whose children were not disabled had significantly higher scores on both the proactive and reactive parenting practices scales. Additionally, the age of the child was negatively correlated with each parenting practice assessed. Results should be interpreted cautiously as estimates of effect size were small to medium.

Findings from this study were generally consistent with the literature on parenting practices and academic and behavioral outcomes in children. The finding that the parents differ on proactive and reactive behaviors is of importance and should warrant additional research. Implications for using the assessment of specific parenting practices as a method for developing preventive interventions were discussed.

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CHAPTER I

Introduction

Purpose

The primary purpose of this study was to determine to what extent self-reported parenting practices, as measured by the Home Environment Profile-Abbreviated Form (HEP-AF; Dickinson, 2001), differed for parents of children with and without disabilities. This study also sought to further examine the validity of the Home Environment Profile-Abbreviated Form as an instrument for evaluating parenting practices.

Rationale

It has been estimated that “20-30% of the more than 39 million students enrolled in public schools are having trouble acquiring academic skills and making adequate school adjustment” (Christenson, 1990, p. 505). A significant body of research has been generated which focuses on instructional practices and behavioral techniques that best facilitate the attainment of skills by students with different learning characteristics and conduct problems.

Much empirical evidence exists to support the idea that the interrelated environments of the home and school have an effect on the development of the child (Christenson, 1990). There is a growing body of research on familial patterns associated with academic and behavioral problems. Several family variables have been identified as important to academic and behavioral functioning. Therefore, there appears to be an increased need for assessment and intervention involving the family of children who are having difficulties in school. The trend in “environmental research has been away from

crude measures of socioeconomic variables and toward more subtle intra-family and interpersonal process variables” (Christenson, 1990, p. 506). Assessment materials used with families should be research-based and examine specific, educationally-relevant aspects of the home environment. The Home Environment Profile-HEP (Dickinson, 1995) and the Home Environment Profile-Abbreviated Form (HEP-AF) are instruments that are research-based and assess specific parenting practices. They were formulated from a social learning theory perspective. Because parenting practices are observable behaviors, they can be precisely defined and reliably assessed (Brenner & Fox, 1999).

The HEP has been shown to have adequate validity in discriminating parents whose children are high and low academic achievers (Crowe, 1998) and parents who are at risk from those not at risk for committing child abuse (Wilson, 2000). The instrument can be used to tailor specific interventions for parents, to assist them in enhancing parenting practices.

Statement of the Problem

With the reauthorization of the Individuals with Disabilities Education Act (1997), schools are being required to be more inclusive of parents in the process of educating children with disabilities. Because a number of parenting variables have been identified as important correlates of academic and behavioral performance and because little data are available on parenting behaviors of students with different disabilities and more information is needed (Christenson, 1990), this study sought to examine specific parenting practices of parents of children with and without disabilities.

Parenting practices have played important roles in various theoretical and clinical models that have sought to explain the development and course of child behavior (Jacob,

Moser, Windle, Loeber, & Stouthamer-Loeber, 2000). Literature in the area of family and child assessment reports very few adequate parent instruments for describing these patterns. There appears to be a “relative dearth of well-constructed parenting assessment instruments that provide reliable and valid assessments of key constructs” that are research-based (Jacob et al., 2000, p. 613). Thus, this study sought to determine if the Home Environment Profile-Abbreviated Form was useful in addressing this need.

The Home Environment Profile-Abbreviated Form was utilized to investigate differences in self-reported parenting practices of parents of children with and without disabilities. Parents who had children in special education and/or who had reported that their child had a disability were compared to parents whose children were in the regular education program and who did not have a reported disability (“nondisabled”). Practices were also compared of parents whose children had ADHD, Specific Learning Disabilities, behavior problems, and who were nondisabled.

CHAPTER II

Review of the Literature

Introduction

The importance of the family's impact in academic, behavioral and emotional problems (Hetherington & Martin, 1979), the negative effects of home problems on school learning (Esterson, Feldman, & Krigsman, 1975), and the identification of a school problem as relevant to situations at home (Green & Fine, 1980) have been well-researched. Also, it has been found that a school-related crisis, such as a child being labeled as a student in need of special education, may negatively affect the home environment (Christenson, 1990). A growing body of research on familial patterns associated with learning and behavior problems has involved comparisons between the home environments of children with and without disabilities (Christenson, 1990).

Libitz and Johnson (1975) examined the families of referred (for special education services) and nonreferred children. They reported that referred children demonstrated significantly more problematic behaviors and less prosocial behavior than nonreferred children. They also found that their parents showed more negative and controlling behaviors than parents of nonreferred students. Parental attitudes were also significantly different between the two groups. Christenson (1990) compared specific, educationally-relevant aspects of the home environments of children with mild handicaps with the home environments of nonhandicapped students. She found that the home environments for students with learning disabilities and nondisabled students were significantly more positive than home environments for students with emotional and behavioral disorders (in terms of home organization, stress level, expectations, parental

support for school, and for child responsibility). These two examples illustrate research comparing home environments and parenting practices of parents of children with and without disabilities. In this kind of research, however, it is important not to interpret the results as one-directional and causal. In other words, it is important not to assume that specific parenting practices cause a particular disability or that only parents have an effect on the children. As will be made clear in this literature review, the relationship between parent practices and child development is complex, interactive, reciprocal, and multiply determined (Baharudin & Luster, 1998). However, studies that show correlations between particular parenting practices and child problems are valuable and can lead to more involved longitudinal studies, as well as helpful parenting interventions.

This literature review will describe research that illustrates the parenting practices associated with child behavior and academic problems often encountered in school. It will also describe the usefulness in assessing parenting practices with appropriate instruments that enhance our knowledge of parent-child interactions and that have treatment validity.

Parenting Practices Defined

Parenting practices can be defined as “the specific, goal-directed behaviors through which parents perform their parental duties” (Darling and Steinberg, 1993, p. 488). Parenting practices represent the specific parent behaviors used to guide children. Some examples of parenting practices include monitoring, nurturing, disciplinary behaviors (Darling and Steinberg, 1993) and modeling attitudes.

Considerations

Several variables can influence both the formation and the quality of parenting practices in general, including the child, the parents, and the environment (Vacca, 2001). With regard to the child, three variables influence parental ease in forming a healthy attachment and relationship: temperament, biological state, and the child's interests (Vacca, 2001). Research has indicated a relationship between the child's temperament and the type of parenting practice utilized. A child's temperament might be easy, slow to warm, difficult, etc. If a child has an easy temperament, for example, parents might not experience the same levels of disappointment and frustration that parents of a child with a difficult temperament may experience. Parents of children with difficult temperaments may require "intense mental and physical stamina to continue meeting the child's needs in a consistent and nurturing manner" (Vacca, 2001, p. 5). Likewise, parents raising a child with a challenging disability might have difficulty being consistent in their parenting practices due to the constant draining of their physical and mental energies caused by the child's problems (Vacca, 2001).

Biological state of the child is another variable which could influence the formation and quality of the practices used by the parent. It is a common issue among children with various developmental disabilities (Vacca, 2001). Those having severe forms of physiological dysfunction or special healthcare problems often require parents to meet the physical needs of the child first, and personal, learning, and socio-emotional needs next. Thus, parents raising a child with a disability might feel emotionally and physically drained, which could make choosing the most appropriate parenting practices rather challenging (Mullen, 1998). Also, Wasserman, Allen, and Solomon (1985)

observed that infants and young children with physical disabilities performed poorly on measures of production of language, social initiative, focused play, and expression of affect. Moreover, these children tend to be non-compliant and distractible. All of these factors, alone or in combination, could serve to impede the parents' abilities to interact with the child effectively and consistently (Wasserman et al., 1985). Therefore, the ability to employ the most effective parenting practices can be quite a formidable task when the child's problems involve a clearly defined physical anomaly (Barden, 1990).

The third child-related variable relates to the child's personal interests. As such, whatever parenting practices are employed should also be tailored to the desires and interests of the child. This will facilitate quality family relationships while at the same time offering the child an opportunity to overcome limitations (Vacca, 2001).

With respect to parent-related variables, issues like the parents' own internal working model of parenting (based on how the parent was raised), emotional state, and the match between their personality and the child's temperament appear to be influential factors in which parenting practices are eventually implemented (Solomon & George, 1999). In order to meet the child's needs consistently, an indispensable prerequisite to employing effective parenting practices is the capability of the parents to "effectively read the child's behavioral cues" (Vacca, 2001, p. 5). In the situation of parents who are overly stressed, for example, their ability to emotionally sense their child's needs can be compromised (Vacca, 2001).

Finally, environmental variables, such as abuse, neglect, parental alcoholism, socioeconomic status, and traumatic stress, may easily influence the emotional status of both parents and their child. So the manner in which the parents and child interact is

likely to be determined in part by environmental factors, potentially making consistency more difficult to attain (Vacca, 2001).

Parenting Practices and Children with Behavior Problems

The majority of theories that seek to explain the development of behavior problems in children put a large emphasis on the role of parenting practices in their etiology (Frick, Christian, & Wooten, 1999). According to Jacob, Moser, Windle, Loeber, and Stouthamer-Loeber (2000), research support for the hypothesized relationship between inadequate parenting and the development of aggressive, antisocial behavior in children can be found in three bodies of work: a) the child development literature of the past 50 years, which has consistently associated parenting practices with the development of childhood aggression and antisocial behavior (Maccoby & Martin, 1983; Rollins & Thomas, 1979); b) social learning theory studies of child psychopathology and interventions, which have shown specific parent-child interactions that precede and are linked to the emergence of aggressive, antisocial behavior (Patterson, Reid, & Dishion, 1992; Wahler & Dumas, 1987); and c) longitudinal studies into the development of delinquency, which have reviewed reports of inadequate parenting in the histories of young children who later develop antisocial behaviors and substance abuse (Loeber & Dishion, 1983; Loeber & Stouthamer-Loeber, 1986). Jacob and colleagues (2000), after conducting their own review of this literature, concluded that two major parenting dimensions appear to be the most important to child development; these dimensions are nurturance and control. They hold that problems in parental nurturance and/or control can have significant, negative effects on the child (Jacob et al., 2000). A number of theories and models have dealt with this, but Social Learning

Theory has had the most influence, as seen in Patterson's long-term work with antisocial children (Jacob et al., 2000).

Some of the earliest work in the field of family interaction and child behavior problems came from Patterson (1982). His coercion theory emphasizes that processes that take place during family conflict create and maintain behavior problems (Gardner, 1998). According to Patterson (1982), antisocial behavior is shaped and reinforced by numerous episodes of conflict between members of the family. A difficult child "learns to gain control over a chaotic or unpleasant family environment" (Gardner, 1998, p. 59). The child learns to avoid parents' demands by continuing with his own demands; while in the same interactions, parents and other family members learn to give in to the child. Both parent and child are negatively reinforced for their behavior, as they learn how to turn off the other's unpleasant behavior (Gardner, 1998). Over numerous repetitions, these "interactions become overlearned and more-or-less automatic" (Gardner, 1998, p. 59). As the child learns that this coercive behavior is successful, then the child may behave in the same manner in other environments (in the community and at school) and, depending on the reaction received, he may find that his behavior is negatively reinforced there also.

There may need to be a combination of a difficult child and problematic parenting skills for this negative cycle of family interaction to start and continue, although Patterson's theory gives much greater weight to parenting factors (Buchanan, 1998). Patterson's observational studies in the home showed that, compared to parents of children without behavioral problems, parents of children with behavioral problems tended to be more harsh, punitive, and inconsistent in their responses to the child (1982).

Patterson, Reid, and Dishion (1992) defined a set of important family management practices, which included discipline, monitoring and problem solving. The discipline construct has been particularly well-researched (Gardner, 1998). Patterson described good discipline as: “accurately tracking and noticing problem behavior, ignoring trivial transgressions, and having clear, firm sanctions” (Gardner, 1998, p. 60).

Patterson et al. (1992) discovered that parents of children with behavior problems had difficulty with all three types of discipline practices. They tended to be “overinclusive in their defining and tracking of problem behavior, and poor at ignoring more trivial transgressions, instead engaging in ineffective scolding and nagging” (Gardner, 1998, p. 60). These parents tended to increase their demands on the child, and to become more angry, but did not provide effective, non-abusive back-up consequences (Patterson et al., 1992). In three different longitudinal studies starting in middle childhood, Patterson and colleagues found that poor disciplinary practices predicted the persistence of antisocial behavior into adolescence, and accounted for a “highly significant 30 per cent of the variance in antisocial outcomes, even after controlling for the stability of antisocial behavior over time” (Gardner, p. 62).

A key element of discipline that Patterson emphasizes is the need for parents to be consistent and follow through on their demands for their child (Buchanan, 1998). This does not mean that demands placed on the child are not negotiable. It means that once the parent has provided clear ground rules and insisted on a plan of action, then the parent should stick to this, and not give in, otherwise the child learns to be coercive to get his own way (Gardner, 1998). This element of following through on demands is important to Patterson’s theory.

A study by Gardner (1994) supported Patterson's theory and research. Gardner used a sample of 40 preschoolers, 20 with behavior problems and 20 without behavior problems. The results showed that compared to mothers in the control group, mothers of children with behavior problems were seven times more likely to be inconsistent by failing to follow through on demands during times of angry conflict. These episodes were defined as a "mother-child dispute" where one or the other showed negative affect, e.g., yelling, hitting, and threatening (Gardner, 1998, p. 61). Mothers gave in to child demands in nearly 50 per cent of the conflict episodes in the problem group, compared to less than 10 per cent in the control group. Additionally, the likelihood of the mother giving in was significantly higher when the conflict began with a demand by the mother, compared to a demand from the child (Gardner, 1998). According to Gardner (1994), this result supported Patterson's theory that what children learn in families with significant conflict is to successfully avoid conforming to parental demands (a negative reinforcement process). Difficult children appeared to be less successful at persuading others to conform to their demands (a positive reinforcement process), according to Gardner (1994).

According to Buchanan (1998), Patterson's theories have stood up well to the most rigorous causal tests yet seen in this field, especially for the parental discipline construct.

Loeber and Stouthamer-Loeber (1986) conducted a meta-analysis of more than 300 studies connecting parenting practices to aggressive and antisocial behavior in children and adolescents. They found that the most consistent and strongest links with antisocial and aggressive behavior were with measures of parental monitoring and

supervision of the child and with measures of parental involvement in child activities (poor monitoring and involvement is associated with poor outcomes). Other studies have supported these results (Frick et al., 1999).

A small but growing literature has linked positive (e.g., responsive and affectionate) parenting practices with lower levels of externalizing behavioral problems. It has been argued that positive parenting may mitigate against the development of behavioral problems because it provides a context a) in which children's social-emotional needs are being met in emotionally supportive ways, thus decreasing the occurrence of frustration and oppositional behavior; and b) where children can view positive models (Pettit, Bates, & Dodge, 1997; Bronstein, Duncan, D Ari, & Pieniadz, 1996).

Parenting Practices and Children with ADHD

According to the DSM-IV, the essential feature of Attention-Deficit/Hyperactivity Disorder, is a persistent pattern of inattention and/or hyperactivity-impulsivity that is more frequent and severe than is typically observed in individuals at a comparable level of development. Some hyperactive-impulsive symptoms that cause impairment must have been present before age 7 years, although many individuals have been diagnosed after symptoms have been present for a number of years. Some impairment from symptoms must be present in at least two settings (e.g., at home and at school or at work). There must be clear evidence of interference with developmentally appropriate social, academic, or occupational functioning. The disturbance does not occur exclusively during the course of a Pervasive Developmental Disorder, Schizophrenia, or other Psychotic Disorder and is not better accounted for by another mental disorder (American Psychiatric Association, 1994).

Not surprisingly, this disorder of attentional capacity poses significant difficulties for parents and afflicted children alike (Johnston, 1996). With their parents, children with ADHD are more active, less cooperative, and less likely to sustain their attention to play or task-related activities (Cunningham & Barkley, 1979).

Estimates are that ADHD occurs in about 5 percent of school-aged children (Barkley, 1998). ADHD is more often diagnosed in boys than girls, with typical ratios of 3:1 to 6:1 reported in the professional literature (Batsche & Knoff, 1994). Nevertheless, any gender difference in actual diagnosis might be due to the differing symptom pattern between girls and boys, mainly because boys are more likely to exhibit aggressive and hyperactive symptoms than are girls. Boys are also more likely to exhibit co-morbid conduct disorder and oppositional defiant disorder, and thus are referred more often than girls because of the disruptive effects of these other disorders (Goldstein, 1994, 1996). Of children referred to clinics for ADHD, 50 percent to 80 percent will probably continue to have ADHD symptoms into adolescence, and sometime beyond (Barkley, 1998).

Numerous causal factors seem to contribute to the ADHD's development, including hereditary (genetic), neurophysiological, biochemical, and toxic prenatal and postnatal influences (Barkley, 1998; DuPaul & Stoner, 1994; Guevremont, DuPaul, & Barkley, 1990). For instance, ADHD occurs more frequently in family members of persons with the disorder, which supports a genetic explanation. Neurological etiology has been implicated due to apparent underactivity in areas of the brain involved in attentional responses, sensitivity to reinforcement, and inhibitory processes (Barkley, 1998).

Interestingly, research from Barkley (1990) indicated that environmental factors like poor parenting or educational practices do not cause ADHD, but can exacerbate the symptoms. ADHD children often experience disruptions in their family relationships (Johnston, 1996). Cunningham and Barkley (1979) and Mash and Johnston (1982) showed that ADHD children were less compliant and more negative, and their mothers gave more commands, provided fewer rewards, and were less interactive in laboratory settings, compared to nonproblem mother-child controls. The active, poorly regulated, behavior of children with ADHD elicited a more controlling, less positive approach to child management (Cunningham & Barkley, 1979). Similar parent-child difficulties have been seen in studies with ADHD children of various ages (Barkley, Karlsson, & Pollard, 1985), with girls with ADHD (Befera & Barkley, 1985), and in father-ADHD child interactions (Tallmadge & Barkley, 1983). Negative parent-child interaction patterns in childhood have been found to be significantly predictive of continuing parent-child conflicts 8 to 10 years later in adolescence in families with ADHD children (Barkley et al., 1985).

Parents of children with ADHD have been the focus of research as well. Mash and Johnston (1983) found that mothers of children with ADHD reported more stress and less parenting self-esteem than mothers of children without ADHD and reported a limited sense of control over their child's difficulties. Increased levels of depression, other psychiatric disorders, and marital problems have also been found in parents of ADHD children compared to controls (Befera & Barkley, 1985; Cantwell, 1972; Cunningham, Benness, & Siegel, 1988; Morrison, 1980).

Important in this research of family interaction and ADHD children has been the finding that it is the presence of comorbid diagnosis of oppositional or conduct disorder that is associated with many of the conflicts in parent-child interactions of ADHD children. (Barkley, Anastopoulos, et al., 1992; Anastopoulos, Guevremont, Shelton, & DuPaul, 1992; Schachar & Wachsuth, 1990). Indeed, the families of ADHD children without conduct problems often do not differ from normal controls (Johnston, 1996). However, other studies indicate that although certain difficulties in parent-child interactions may be more common in families having higher levels of oppositional-defiant behavior than in families having nonproblem children, these difficulties also often appear in families of ADHD children with lower levels of oppositional-defiant behavior (Johnston, 1996).

Difficult-to-guide behavior in children can become consolidated and contribute to conduct disorder or ADHD, and research in these areas has also contributed to the recognition of two-way effects. As an example, Barkley (1990) summarized research demonstrating that parents of ADHD children manifest symptoms of overactivity, impulsiveness, and distractibility, and that these symptoms are likely to increase children's noncompliance with parental demands, which then provoke controlling and coercive parental responses. Consistent with Patterson's (1982) coercion theory (c.f. McCord, 1995), Lytton (1990) proposed that conduct-disordered children are less responsive to both social reinforcement and punishment, again underscoring the impact of ADHD children in addition to parents' roles.

According to research from Barkley (1998), the primary direction of effects within these interactions is from child to parent rather than the other way around. In

other words, much of the disturbance in the interaction seems to start from the effects of the child's excessive, unruly, noncompliant, emotional behavior on the parent rather than from the effects of the parent's behavior on the child. This discovery was seen primarily through studies that evaluated the effects of stimulant medication on the behavior of the children and their interaction patterns with their mothers (Barkley, 1998).

Studies of the effects of stimulant medication on ADHD offer an interesting experimental test of the strength of the child's influence on parental response. The presentation of stimulant medication induces changes in the behavior of hyperactive children (increases compliance, and reduces negative, overly talkative behaviors) that are then associated with subsequent changes in caregivers' directive and negative behavior (Lytton, 1990; Whalen, Henker, & Dotemoto, 1980). These effects of medication are seen in preschool children to adolescents.

Adolescence can be a challenging period for parents of children with ADHD because children are going through considerable physiological, cognitive, behavioral, and emotional changes (Robin, 1998). A "comprehensive biobehavioral-family systems model" is useful in understanding the elements that determine the degree of conflict concerning home management issues experienced by the family with an adolescent with ADHD (Robin, 1998, p. 414). Within this biobehavioral-family systems model, Robin (1998) holds that the physiological/genetic factors underlying ADHD interact with the developmental tasks of adolescence and family contingencies to effect the frequency and intensity of management problems at home. Parent-adolescent relationships go through significant change and conflict as adolescents become more independent, "necessitating a

shift from a more authoritarian to a more democratic parental decision-making structure and communication process” (Robin, 1998, p. 415).

Parenting Practices and Children with Academic Problems

Many researchers have found that parenting practices are linked to school achievement (Linver & Silverberg, 1997). For example, the parenting practices of “warmth,” “monitoring” and “psychological autonomy giving” were significantly associated positively with both adolescent school grades and adolescent psychosocial maturity for both boys and girls (Linver & Silverberg, 1997). In this study, parental warmth reflected how responsive and accepting the parent was to the child. Parental monitoring reflected the parent’s knowledge of their child’s whereabouts and the extent to which the parent set limits. Psychological autonomy giving reflected how the parent’s control was carried out in relation to the child (in an open, democratic manner or in a covert, guilt-inducing way). In this study, monitoring had the greatest positive impact with both school grades and psychosocial maturity (Linver & Silverberg, 1997). Crouter (1990) also found a positive relationship between parental monitoring and boys’ school achievement. Likewise, a lack of parental monitoring was seen more frequently in children with learning problems (Crouter, 1990).

Parenting Children with Learning Disabilities

The federal definition of Specific Learning Disability is as follows (Individuals with Disabilities Education Act, 1997). The term means a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, that may manifest itself in an imperfect ability to listen, think, speak, read, write,

spell, or to do mathematical calculations, including conditions such as perceptual disabilities, minimal brain dysfunction, dyslexia, and developmental aphasia.

The family environment may be the “most important social force in shaping and maintaining a child’s belief in himself or herself” (Bryan, Dohrn, & Bryan, 1994, p.227). Children with Specific Learning Disability (SLD) tend to possess a more external locus of control orientation, compared to normal achieving peers (Williams, Omizo, & Abrams, 1984). That is, children with SLD are more likely to believe that events are determined by factors over which he or she has little or no control, such as fate, luck, chance, or powerful others. The research on parents’ attributions regarding the abilities of children with Specific Learning Disability (SLD) is significant. Numerous studies have found that mothers of children with SLD and nondisabled children differ in their beliefs about why their children succeed or fail (Bryan, Dohrn, & Bryan, 1994). The beliefs of the mothers usually reflect the beliefs of the children. Pearl and Bryan (1982) found that mothers of elementary-age students with SLD, attributed success more to luck and less to ability, while attributing failure more to a lack of ability and less to bad luck, compared to mothers of nondisabled children. Bryan, Pearl, Zimmerman and Matthews (1982) discovered that mothers described children with SLD as having more academic and behavioral problems, and less strengths, than did mothers of nondisabled children. Chapman and Boersma (1979) found that mothers of boys with SLD had lower expectations for their children’s academic achievement than did mothers of normally-achieving boys. Similarly, Hiebert, Wong, and Hunter (1982) reported that parents of adolescents with SLD had lower academic expectations for their children than did parents of adolescents who did not have SLD.

Some studies have examined mothers' attributions and mother-child interactions (Bryan, Dohrn, & Bryan, 1994). In addition to finding that mothers of SLD males held lower expectations for their sons than mothers of normally-achieving males, Chapman and Boersma (1979) discovered that mothers of boys with SLD reported more negative and fewer positive reactions with their sons. Tollison, Palmer, and Stowe (1987) found that in comparison to mothers of normally-achieving boys, mothers of boys with SLD "held lower expectations for their sons' performance, were more likely to attribute their sons' failures to lack of ability, and provided more negative nonverbal responses" (p. 84). When given feedback indicating their child was successful, mothers of boys with SLD interpreted their son's ability as important; when given feedback indicating their child had failed, mothers of boys with SLD viewed their sons' lack of ability played an essential part. Mothers of nondisabled boys perceived ability as important in determining success, but unimportant in determining failure (Tollison et al., 1987).

Mothers seem to be aware of their children's lack of self-confidence; they "may compensate as well as they can yet be less certain of their child's and their own ability than are mothers of nondisabled children" (Bryan, Dohrn, & Bryan, 1994, p. 228). Given the reciprocal, interactive nature of parent-child relationships (Bell, 1968), these studies show that more examination of parents' perceptions of and interactions with their children may be helpful in "furthering our understanding of children with SLD and the complex milieu in which they are expected to succeed" (Bryan et al., 1994, p. 228).

Parenting Practices and Child Age

Kandel & Wu (1995) found that as children grow up, parents engage in less active parenting. They found that "punitive discipline," "closeness," and "supervision,"

decreased as children became older (from childhood to early adolescence). These measurements were based on maternal self-report and were part of a longitudinal study. Mothers were interviewed twice over a 6-year interval, in 1984 and 1990. Also, mothers in this study were less likely to report in positive terms about their children as their children became older. They were more likely to report that their children had problems with aggression as they became older. The mothers in the study were less likely to report that they had positive relations with their children and that their children were as well-adjusted as they had been when their children were six years younger (Kandel & Wu, 1995).

Kandel & Wu (1995) also found that children's negative behaviors were positively related to maternal punitive discipline and negatively related to maternal closeness and supervision. Also, they found that children's positive behaviors were negatively related to maternal punitive discipline and positively related to maternal closeness and supervision. The comparisons of the correlations at the two different points in time (six-year interval) also indicated that the relationships between parenting and children's behavior became stronger from childhood to early adolescence (Kandel & Wu, 1995).

Effect of Children on Parents/ Reciprocal Interactions

A good deal of scientific evidence supports the notion that parental factors play a critical role in the development of children's behavior. But, as we have seen, the reverse also appears to be true, according to research on the reciprocal nature of family relations and behavior (i.e., child behavior/problems influence parenting practices and parenting practices influence child behavior; e.g., Stern & Smith, 1999; Ambert, 1992, 1997; Hinde

& Stevenson-Hinde, 1988; Peterson & Rollins, 1987). In contrast to the stereotypical idea that parents exercise a largely one-way influence upon their children, evidence also indicates the effects of children on parents - that “child effects” exist alongside of “parent effects.” In other words, the influence that parents have on children depends, at least in part, on the children’s behaviors and temperament. In spite of any conceptual acknowledgment that familial interactions are indeed reciprocal, such a stand has only recently been empirically supported via research (Anderson, Lytton, & Romney, 1986; Patterson, 1982; Patterson, DeBaryshe, & Ramsey, 1989). In assessing parents and in developing interventions, this idea is important to keep in mind.

Assessment of Parenting Practices

Methods

Many studies involving the assessment of parenting behaviors rely on parent self-report data (Brenner & Fox, 1999). Other studies rely on direct observations of parent-child interactions, while other studies utilize a combination of several methods (Brenner & Fox, 1999). Correspondence between verbally expressed attitudes and actual behaviors has been a “classic and troublesome research issue in social psychology” (Kochanska, Kuczynski, & Radke-Yarrow, 1989, p.56). The predictive value of parent self-reports in relation to their actual parenting behaviors remains somewhat problematic; results from studies correlating parent self-report of behavior to observations of behaviors have been mixed (Kochanska et. al, 1989). However, a number of studies of have shown high correlations between parent self-reports and observed behaviors (Dekovic, Janssens, & Gerris, 1991; Kochanska, Kuczynski, & Radke-Yarrow, 1989; Portes, Dunham, & Williams, 1986).

Self-Report Inventories

Jacob and colleagues (2000) conducted an extensive review of the literature of parenting assessments and concluded that most of the instruments had weak psychometric properties and limited usefulness. They could only recommend a few of the instruments. Overall, they found that most “seemingly relevant instruments assessed relatively global constructs,” lacked coverage of important constructs and/or relied on reports from the child (Jacob et al., 2000, p. 613). They found two noteworthy instruments. One was the Parenting Scale (Arnold, O’Leary, Wolff, & Acker, 1993), which assesses “the domain of parental discipline broadly, but directly, and in a psychometrically adequate manner” (Jacob et al., 2000, p. 613). The Parenting Scale provides important measures of three divisions of problematic parenting style, “laxness,” “overreactivity,” and “verbosity” (Jacob et al., 2000).

Jacob and colleagues also recommended that Alabama Parenting Questionnaire (APQ; Frick, 1991). The Alabama Parenting Questionnaire consists of 35 items assessing the five parenting constructs that “past research has found to be most consistently associated with conduct problems” (Frick, Christian, & Wooten, 1999, p.127). The APQ includes a Parental Involvement scale, a Positive Parenting scale, a Poor Supervision scale, an Inconsistent Discipline scale, and a Corporal Punishment scale.

The Loeber Youth Questionnaire (LYQ; Loeber, & Stouthamer-Loeber, 1987) was revised and evaluated by Jacob et al. (2000). Preliminary findings indicated that this instrument reliably and validly assessed parenting behavior and the parent-child relationship. The two major dimensions of this instrument (affect and control) appeared

to fit well with the existing clinical and research literature (Jacob et al., 2000). This questionnaire included both a parent and child report.

Content

Cummings, Davies, & Campbell (2000) divided the consideration of parenting practices, based on parent theory and research, into two parts: control-parenting as behavioral or psychological control and child management, and emotional relationship-parenting as emotionality, sensitivity, and emotional bonds or attachments. This division appears well-suited to evaluating parenting practices in the manner that the Home Environment Profile-Abbreviated Form does: assessing specific parenting behaviors along the dimensions of discipline, monitoring, nurturing, and modeling attitudes and behaviors.

From the literature, it does appear that in the assessment of parenting practices these factors are especially important. Discipline, Monitoring, Nurturing, and Modeling Attitudes and Behaviors form the subscales on the Home Environment Profile-Abbreviated Form. A brief summary of each follows.

Parental discipline, as has been shown, is a critical factor in child development. Disciplinary approaches described as consistent, firm, predictable and nonphysical have been linked to academic and behavioral competency (Wahler & Dumas, 1989; Crowe, 1998). Parent agreement of discipline practices has been associated with positive child behaviors (Blechman, 1984, cf Crowe, 1998). Harsh, coercive, and inconsistent discipline practices have been linked to child conduct problems and antisocial behavior (Patterson, 1982; Shumow, Vandell, & Posner, 1998). Ineffective discipline techniques

have been found to correlate with adolescent alcohol and drug use (Selnow, 1987).

Coercive family processes has been linked to juvenile delinquency (Patterson, 1982).

Parental monitoring is often referred to as “supervision” in the literature (Crowe, 1998). Monitoring has been found to correlate strongly with positive behavioral outcomes and academic achievement (Darling & Steinberg, 1993). Poor parental monitoring has been linked to juvenile delinquency, drug and alcohol use, and conduct and academic problems (Loeber & Stouthammer, 1986). Wahler and Dumas (1989) found that poor monitoring by parents is associated with problematic outcomes for children. They reported that parents who demonstrated poor monitoring failed to attend to both appropriate and inappropriate behaviors in which their children engaged.

Parental nurturing is considered an “affective” dimension and is often characterized as parental warmth, concern, and support (Crowe, 1998). Nurturing by parents has been associated with positive indicators of student achievement (Christenson, 1990). While the absence of nurturing has been linked to juvenile delinquency (Campbell, 1987), adolescent alcohol and drug use (Selnow, 1987), and child abuse (Fritz, 1985).

Modeling attitudes and behaviors has had an important position in parenting theory and research (Crowe, 1998). Parent’s beliefs and attitudes impact their children’s academic achievement and behavior (Baumrind, 1973). High academic performance in children has been linked to the level of identification with the parent (Kandel & Lesser, 1969). Parenting behaviors have also been associated with child outcomes. Parents who model positive behaviors about school often have children who are successful at school. (Bradley & Caldwell, 1984). Negative parental attitudes toward authority have been

linked to juvenile delinquency, and negative parental attitudes about school have been associated with the child's negative attitude toward school (Crowe, 1998).

Knowing what parenting practices are linked to problem behaviors and academic difficulties in children can be helpful in designing interventions for parents to help modify both parents' and children's behavior. According to Jacob et al. (2000), despite the considerable amount of clinical, theoretical, and empirical literature which illustrate parenting practices linked to children's behavior problems, there are few well-constructed parent assessment instruments that provide reliable and valid measures of important constructs. This study examined the usefulness of the Home Environment Profile-Abbreviated Form in addressing this need.

CHAPTER II

Methodology

The primary purpose of this study was to compare self-reported parenting practices, as measured by the Home Environment Profile-Abbreviated Form (HEP-AF), of parents whose children are nondisabled with parents whose children have been identified as having a disability. Hereafter, these two groups will be referred to as parents of nondisabled children and parents of children with a disability. This study also sought to further examine the validity of the Home Environment Profile as an instrument for evaluating parenting practices.

Research Questions

The following research questions were addressed in this study:

- 1) Do self-reported parenting practices differ (as measured by scores on each of the subscales of the HEP-AF, the total scale score of the HEP-AF, and scores on items) for parents of children with and without disabilities?
- 2) Do self-reported parenting practices (as measured by scores on each of the subscales of the HEP-AF) differ between parents whose children have been identified as having a Specific Learning Disability, ADHD, an Emotional Disturbance, and/or Mental Retardation?
- 3) Is there a relationship between self-reported parenting practices and children who are behaviorally at-risk? (Do scores on each of the subscales of the HEP-AF and scores on items correlate with scores on the externalizing behavior scale? Do

scores on each of the subscales of the HEP-AF and scores on items correlate with scores on the internalizing behavior scale?)

- 4) Do parents who have children who have a disabilities rate their children as having more behavior problems than parents who have children who are not disabled?
- 5) Is there a difference between these groups (parents of children with and without disabilities) in self-reported proactive and reactive parenting practices?
- 6) Is there a correlation between the age of the child and differences in parenting practices?

Subjects

The subjects consisted of 308 parents of students enrolled in grades 4-8 in a public school system in Southeast Tennessee. The county where the parents live is rural. The population of the county is 26,733 (US Census Bureau, 1997). The median household income of people who live in this county is \$28,563. Approximately 52% of adults over 25 in this county have graduated from high school; 6.4% of adults have graduated from college (US Census Bureau, 1997).

For this study, demographic information will be described. A total of 315 participants responded to the survey. Three participants were excluded because of they did not place their child in a category of having or not having a disability. Four participants were excluded because all demographic questions were unanswered. Of the remaining 308 participants, some had missing responses to various questions. The computing software excluded those missing responses in the analyses. (Substituted replacement values, such as means, were not used.) Responses from 52 parents whose

children were reported to have a disability and 256 parents whose children were reported to have no disabilities were used in this study.

Children whose parents reported that they were in regular education and did not report a disability were classified as nondisabled. Also, responses indicating that the child was intellectually gifted were classified as nondisabled. If the parent reported that the child had any disability listed on the survey, then their child was classified as having a disability.

Demographics are presented in Tables A-1 through A-7. (All of the tables have been placed in the appendices.) Ages of children of the parents surveyed ranged from 9 to 16, with an average of 12.2 and standard deviation of 1.4. The majority of the children were ages 10-14. The grades of children ranged from 4 to 8. There were 150 (48.7%) female students and 158 (51.3%) male students.

Among the 308 study participants, 235 (76.3%) of them described themselves as mother, 29 (9.4%) as father, and 43 (14.0%) as other types of guardians indicated in Question 47. One of the respondents did not provide such information.

In surveying the age of the parent/guardian when the child was born, eight (2.6%) respondents were 15 years or younger. Thirty-two (10.4%) respondents were in the range of 16-18 years, 103 (33.4%) of them were in the range of 19-22, 67 (21.8%) participants were in the range of 23-25, and 90 (29.62%) of them were 26 years or older. Eight respondents (4.1%) did not indicate such age information.

In terms of education level, the majority (84.1%) of the parents/guardians had high school or college education. There were 12.0% of the parents/guardians who received a junior high education or less, and 1.3 % attended graduate school.

In terms of annual family income of the respondents, 17 families (5.5%) reported yearly incomes of below \$10,000. Fifty-six families (18.2%) reported incomes from \$10,000 to \$20,000. Ninety families (29.2%) reported incomes from \$21,000 to \$30,000. Forty-six families (14.9%) reported incomes from \$31,000 to \$40,000. Thirty-nine families (12.7%) reported incomes from \$41,000 to \$50,000. Seventeen families (5.5%) reported incomes \$51,000-\$60,000. Twenty-two families (7.1%) reported incomes above \$60,000.

In surveying the number of members in the household, 4.2% of the families had two people living in the house, 20.8% had 3 people, 44.8% had 4 people, 16.6% had 5 people, and 13.6% had 6 or more people.

In Question 42, parents or guardians indicated their children's educational classification and/or disability. Table A-8 summarizes these results. Based on the survey data, 256 of respondents indicated that their child was in regular education and did not have a disability. Of these, five students were identified as "Intellectually Gifted." As indicated earlier, these students were treated as part of the "nondisabled" group for this study. Fifty-two parents reported that their child had a disability and made up the "disabled" group. A total of 34 parents reported that their child had a Specific Learning Disability. Six of these parents reported that their child also had ADHD. Fourteen parents reported that their child had ADHD, including the six who reported that their child had a Specific Learning Disability. Three parents reported that their child had been identified as a student with Mental Retardation. Seven parents reported that their child had been identified as a student with Emotional Disturbance.

The definitions for these disability categories come from the State of Tennessee's Department of Education.

Specific Learning Disability

Definition: A child who has a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, which may manifest itself in significant difficulties in the acquisition and use of listening, speaking, reading, writing, spelling or performing mathematical calculations, is considered to have a Specific Learning Disability.

Criteria: A child exhibits a significant discrepancy between achievement and cognitive/intellectual functioning when provided with learning experiences appropriate for the individual's age and ability levels. A significant discrepancy is defined as a difference of more than one standard deviation between cognitive/intellectual functioning and measured achievement in one or more of the following areas: listening comprehension, oral expression, basic reading skill, reading comprehension, written expression, mathematics calculation, and/or mathematics reasoning.

Emotionally Disturbed

Definition: A child who exhibits one or more of the characteristics listed below over an extended period of time and to a marked degree, which adversely affects educational performance, is considered emotionally disturbed.

Criteria: A child must exhibit to a marked degree one or more of the following: inability to learn which cannot be explained primarily by intellectual, sensory, health or specific learning disability factors; inability to build or maintain satisfactory interpersonal relationships with peers, teachers and other significant persons; inappropriate types of

behavior of feelings under normal circumstances; general pervasive mood of unhappiness or depression; tendency to develop physical symptoms or fears associated with personal or school problems.

Mental Retardation

Definition: A child, who has or develops a continuing impairment in intellectual functioning and adaptive behavior which significantly impairs the ability to think and/or act and the ability to relate to and cope with the environment, is considered mentally retarded.

Criteria: A child must meet all of the following: significantly impaired intellectual functioning, which is more than two (2) standard deviations below the mean of normal distribution; significantly impaired adaptive behavior in the home or community; significantly impaired adaptive behavior in the school, day care center, or residential program.

Attention-Deficit/Hyperactivity Disorder (ADHD)

The definition from the DSM-IV was presented earlier. A student can be diagnosed with Attention-Deficit/Hyperactivity Disorder and not receive exceptional education services. Or, a student with ADHD could be served in exceptional education as a student with a Health Impairment. The definition from the State of Tennessee Department of Education for “Health Impairment” is presented.

Definition (Health Impairment): A child who has limited strength, vitality or alertness due to chronic or acute health problems, such as attention deficit disorder, heart condition, rheumatic fever...which adversely affect educational performance is considered health impaired.

Criteria: A student who is health impaired has chronic or acute health problems which adversely affect educational performance.

Instrument

The Home Environment Profile-Abbreviated Form (HEP-AF) is a rating scale used by parents to rate their own behaviors and practices in the home environment. The HEP-AF form consists of 50 questions. Items 1-40 were designed to allow parents to rate their own behaviors and practices in the home environment. Item 41 contains 8 questions that were designed to measure their child's internalizing (withdrawn) and externalizing (aggressive, acting out) behaviors. Item 42 was used for parents to indicate their child's educational classification or disability (in "regular" education, certified as a child with a Specific Learning Disability, diagnosed with ADHD, etc.). Items 43-50 were designed to capture general demographic information of both parents and children.

The HEP-AF is a revision of the original Home Environment Profile (Dickinson, 1995) and can be found in Appendix J. The HEP was selected for use in this study because the scale measures some of the parental practices, based on research, that have been shown to have an influence on children. Such practices as modeling, nurturing, and monitoring are included and are not measured on many parenting scales, according to Dickinson (personal communication, March 30, 2002). This original instrument was developed to measure parenting behaviors in categories Dickinson originally termed "styles" (Crowe, 1998). These "styles" include: Modeling Attitudes and Behaviors, Monitoring Social Behaviors, Monitoring Academic Behaviors, Rewarding School Work and Behavior, Discipline, Problem Solving and Communicating, Nurturing, Self-Management, and Teaching and Motivating. Questions measuring these "styles" were

taken from current research in these areas (Crowe, 1998). These “styles” form the subscales on the HEP. The original HEP, through Crowe’s research ($N = 196$), was found to have test-retest reliability of $r = .77$, with item coefficients ranging from .03 to .98 (two-week interval for a sample of 30). Scale reliability was also determined by test-retest, with correlation coefficients ranging from .44 to .93. Crowe also assessed the validity of the HEP, correlating items to school achievement. He reported forty-five items correlated significantly (Spearman’s Rho) with ranks of grades.

For the current study, the HEP-AF was designed to include the following subscales from the original HEP: Discipline, Monitoring (combining Social and Academic Monitoring from the original HEP), Nurturing, and Modeling Attitudes and Behaviors.

The Discipline subscale measures parents’ use of rules and consequences in managing the behavior of children. This includes the use of consistent rewards and punishers, and also includes questions about the use of time-outs and spankings. The Monitoring subscale measures parents’ supervision and awareness of what children are doing. It also encompasses parents’ knowing what their children are learning in school and how they study at home. Some of the questions in this scale ask parents if they know where their children are, whom they are with, and what they are doing. The Nurturing subscale measures parents’ feelings of closeness with their children, if they show interest in their children, if they are pleasant to their children, read to their children, etc. The Modeling Attitudes and Behaviors subscale measures parental attitudes and behaviors that reflect an interest in education and learning. This subscale also examines parental attributions to their children’s successes and failures.

Ten questions are in each of the subscales. The majority of items selected for the HEP-AF were found to be reliable and have significant item-subscale correlation and significant item-total scale correlation, based on Crowe's research (1998).

Among the first 40 questions on the HEP-AF, questions 1-10 comprise the Nurturing subscale, questions 11-20 comprise the Monitoring subscale, questions 21-30 comprise the Discipline subscale, and questions 31-40 comprise the Modeling Attitudes and Behaviors (Modeling) subscales.

For the current study, internal consistency for each of the four subscales and the total scale was determined by Cronbach's alpha. The individual questions comprising the appropriate scale were used to determine Cronbach's alpha. The Cronbach's alphas for Nurturing, Monitoring, Discipline, and Modeling were 0.82, 0.67, 0.63, and 0.58, respectively. The Cronbach's alpha for the total scale was 0.87. These numbers indicate generally acceptable reliability of the scales used in this study. A Cronbach's alpha value of 0.6 to 0.7 is considered acceptable.

Questions, on the HEP-AF, were also divided into 2 subscales: Reactive Parenting (parenting behavior occurring after child behavior, in reaction to it) and Proactive Parenting (parenting behavior occurring prior to a child behavior; preventive).

Items on the HEP were categorized as "proactive", "reactive" or "neither" by using a Q-sort method, similar to the method used by Crowe's research (1998) to categorize items into "styles." For the current study, the judges included an advanced Ph.D. student in School Psychology and a middle school principal with a graduate degree in Education and significant experience with children. The judges were given operational definitions of proactive and reactive parenting. They were also given instructions for

placing items in these categories. Separately, they identified the proactive questions as 1, 2, 3, 5, 6, 7, 8, 9, 11, 12, 13, 16, 18, 20, 21, 25, and 26. They identified the reactive questions as 17, 22, 23, 24, 27, 28, 29, and 30. The remaining items were rated as “neither.” There was 100% agreement between raters. The Cronbach’s alpha for the Proactive Parenting subscale was 0.85; the Cronbach’s alpha for the Reactive Parenting subscale was 0.61.

On the section of the HEP-AF where parents rate their children’s behaviors, there are 5 questions that deal with externalizing problems (lying/cheating; cruel to others; gets into trouble at home; gets into trouble at school; bullying) and 3 questions that deal with internalizing problems (excessive worrying; overly fearful; crying excessively). Among the 8 questions in Item 41, questions 41a, 41b, 41c, 41d, and 41e measure the child’s externalizing behavior as reported by the parent. These questions formed the Externalizing Behavior Problems subscale (Cronbach’s alpha= 0.76). Questions 41f, 41g, and 41h measure the child’s internalizing behavior as reported by the parent. These questions formed the Internalizing Behavior Problems subscale (Cronbach’s alpha= 0.66).

On question 42, parents indicate their child’s educational classification or disability (in “regular” education, certified as a child with a Specific Learning Disability, certified as a child with Mental Retardation, certified as a child with Emotional Disturbance, diagnosed with ADHD, certified as Intellectually Gifted).

The answers to questions on the HEP-AF consist of 5 options. Responses were revised to conform to a five-point Likert scale. Most items were phrased in a positive way (i.e., “I know where my child is.”; “I am consistent when I discipline my child.”).

Some items were phrased in a negative way (“I use yelling, name-calling, or threats to punish my child.”; “If my child whines, complains, or argues when I scold him/her, then I back off and stop scolding. I give in to my child.”) This questionnaire is untimed.

By utilizing a self-report scale, a wider range of behaviors could be evaluated than by direct observation in a laboratory setting, as a number of other parenting studies have used (Wilson, 2000). Also, self-report scales are more cost-efficient and less time-consuming to administer.

Procedure

The first step in this study was to secure the permission in writing of the superintendent of the school system where the study was conducted. The principal of the school selected was then asked to assist with the research project and gave written permission as well. In the spring of 2001, the principal at the participating school received a packet detailing the research study. In the target school, the major duties of the principal were to a) give each classroom teacher, who wanted to participate, the letters to be sent to parents (detailing the research study) and the copies of the HEP-AF, and b) set up a collection box at the school for parents to return the HEP-AF's in sealed envelopes (placed in a location where school personnel cannot see who returns the questionnaires). Teachers were asked to participate in the study by sending out the parent letter and the HEP-AF. Teachers and the school could withdraw from the study at any time.

Parents' participation in the study was as follows:

- 1) Parents received a letter describing the study from the teacher. The letter to parents explained the purpose of the study, how it would be conducted, how parents

would indicate their agreement to participate, the benefits and risks of the study, how confidentiality would be maintained and how to contact the researchers. Along with the parent letter, parents received a HEP-AF. No names or identifying characteristics were noted on the questionnaires.

2) The parents provided informed consent to participate in the research by completing the HEP-AF and returning it in a sealed envelope either directly to the University of Tennessee or to the collection box at their child's school.

3) Parents kept the letter that described the study and contained the names and telephone numbers of the researchers.

Researchers then collected the completed questionnaires, with no identifying information. Scores on the HEP-AF were analyzed to test the objectives stated previously. (Letters to the Superintendent, Principal, and parents are in Appendix I.)

Data Analysis

Questions (Q1 to Q40) from the Home Environment Profile-Abbreviated Form were scored for response rank value, 1 through 5. For questions 1-40, the parenting practice items, the higher the score on the item (scored 1-5), the more positive the parenting practice. Items, which were initially negatively phrased, were adjusted so that the most positive response scored a "5." Thus, the higher scores on the parenting practice items, subscales, and total scale represented more positive practices. (This also includes the Proactive and Reactive subscales. Higher scores on these scales indicated more positive practices.)

For question 41, which measured child externalizing and internalizing behavior problems, the higher the score, the more behavior problems the child was experiencing.

Thus, a higher score on the externalizing or internalizing behavior problems scale would reflect more behavior problems. A lower score on these scales would reflect less problems.

The SPSS, SAS, and JMP software programs were used to perform the statistical analyses.

First, a factor analysis was performed to determine the factor structure of the HEP-AF and to determine the number of factors that would be required to explain a significant amount of the variance. This information was used to determine whether or not the original HEP-AF subscales (Nurturing, Discipline, Monitoring, Modeling Attitudes and Behaviors) should be used in data analysis. To answer research questions, multivariate analysis of covariance (MANCOVA) and analysis of covariance (ANCOVA) were conducted, and adjusted means were determined. Correlation coefficients were also calculated to answer research questions.

CHAPTER IV

Results

Preliminary Analyses

Factor Analysis

According to Crowe's research (1998), the majority of items 1-40 selected from the HEP-AF were found to be reliable. A factor analysis was performed to determine the factor structure of the HEP-AF and to determine the number of factors that would be required to explain a significant amount of the variance. This information was used to determine whether or not the original HEP-AF subscales (Nurturing, Discipline, Monitoring, Modeling Attitudes and Behaviors) should be used in data analysis. Table B-1 shows that eleven factors had eigenvalues greater than one, but accounted for only 57.7% of the total variance. Thirty factors were required to achieve about 90% of the total variance. (Table B-2 shows the factor loadings for varimax rotation eleven-factor solution for the Home Environment Profile-Abbreviated Form.) Because of the small numbers of items in each factor and because the factors seemed to lack face validity, it was determined that the original subscales would be used for the study. Additionally, Crowe (1998) had found that these original subscales had high face validity as determined by judges. The subscales, as shown, were found to have adequate reliability; all, except for one, of the subscales had Cronbach's alpha values greater than 0.6.

Control Variables

A series of correlations was computed to determine if any of the demographic variables needed to be controlled for in subsequent analyses. Because certain demographic characteristics have been associated with parents of students with

disabilities, preliminary analysis was conducted to determine which of the demographic variables would be appropriate covariates. According to Weinfurt (1995), covariates are used to reduce error variance in ANCOVA and MANCOVA. Weinfurt (1995) also stated that a covariate should only be used if there is a significant linear relationship between covariate and the dependent measures. Results indicated that parent income and education level were significantly correlated with dependent variables, the parenting practice subscales (Table B-3). Thus, parent income and educational level were controlled in future analyses.

Research Question 1

Do self-reported parenting practices differ (as measured by scores on each of the subscales of the HEP-AF, the total scale score of the HEP-AF, and scores on items) for parents of children with and without disabilities?

HEP-AF Parenting Practices Subscales

To examine differences in parenting practices between parents of children with and without disabilities, scores for the four subscales of parenting practices were computed. The first subscale, Nurturing, is defined as the mean score of questions 1-10. The second subscale, Monitoring, is defined as the mean score of questions 11-20. The third subscale, Discipline, is defined as the mean score of questions 21-30. The fourth subscale, Modeling Attitudes and Behaviors (abbreviated as 'Modeling'), is defined as the mean score of questions 31-40. The intercorrelations among the subscales are shown in Table C-1. Then, multivariate analysis of covariance (MANCOVA) was used. The results are presented in Table C-2. Dependent variables for this analysis were the subscales, Nurturing, Monitoring, Discipline, and Modeling. The independent variable

was student group (with/without disabilities). The covariates were parent income and educational level. After controlling for the effect of parent income and education level, student group (with/without disability) had a statistically significant effect on the multivariate combination of parenting practices, $F(4, 276) = 8.453, p < .01$. (All multivariate F 's were computed using Wilks' lambda.) Eta-squared equaled .109. Eta-squared is the proportion of the variance in the dependent variable accounted for by an independent variable (Weinfurt, 1995). Therefore, student group (with/without disabilities) accounted for 10.9% of the variance in the parenting practices variable, after controlling for education and income.

Univariate analyses of covariance were subsequently conducted to determine the source of the significance. Results of the analyses of covariance are presented in Table C-3. Results of the ANCOVAs indicated a significant effect of student group with Monitoring $F(1, 279) = 6.718, p = .01$; Discipline $F(1, 279) = 11.135, p < .01$; and Modeling $F(1, 279) = 28.205, p < .001$, after controlling for parent education level and income. Eta-squared values indicated that student group (with/without disabilities) accounted for 0.5% of the variance in Nurturing, 2.4% of the variance in Monitoring, 3.8% of the variance in Discipline, and 9.2% of the variance in Modeling. The adjusted means are presented in Table C-4. Results indicate that statistically significant differences between parents of children with and without disabilities exist in self-reported parenting practices in the areas of Monitoring, Discipline and Modeling Attitudes and Behavior. Parents of nondisabled children scored higher (more positive practices) than did parents of children with disabilities on these subscales.

HEP-AF Items

Further analysis was conducted to determine if scores on specific items on the Home Environment Profile-Abbreviated Form differed for parents of children with and without disabilities. Multivariate analysis of covariance (MANCOVA) was used. Dependent variables for this analysis were the scores on items. This analysis was conducted by grouping scores on items for the MANCOVA based upon subscale, in groups of 10 (i.e., HEP items 1-10 were run at the same time for the MANCOVA, HEP items 11-20 were run at the same time, etc.). The independent variable was student group (with/without disabilities). The covariates were parent income and educational level.

For the first 10 HEP-AF items, after controlling for the effect of parent income and education level, student group (with/without disabilities) did not have a statistically significant effect on the multivariate combination of HEP-AF items. The results are presented in Tables C-5, C-6, and C-7.

To compare scores for the next set of HEP-AF items, #11-20, multivariate analysis of covariance (MANCOVA) was used. The results are presented in Table C-8. After controlling for the effect of parent income and education level, student group (with/without disabilities) had a statistically significant effect on the multivariate combination of HEP items, $F(10,271) = 2.175, p < .05$. (All multivariate F 's were computed using Wilks' lambda.)

Univariate analyses of covariance were subsequently conducted to determine the source of the significance. Results of the analyses of covariance are presented in Table C-9. Results of the ANCOVAs indicated a significant effect of student group with HEP item 12, $F(1, 280) = 5.296, p < .05$; HEP item 13, $F(1, 280) = 6.687, p < .05$; HEP item 14,

$F(1,280)= 4.674, p<.05$ and HEP item 17, $F(1,280)= 7.665, p<.01$ after controlling for parent education level and income. Item 12 is: “I know where my child is.” Item 13 is: “I know the person who is with my child.” Item 14 is: “I allow my child to have close friends who get in trouble at school or with the law.” Item 17 is “I am able to immediately stop inappropriate behavior once it has started.”

Adjusted means are presented in Table C-10. Parents of nondisabled children scored higher (more positive practices) than did parents of children with disabilities on the significant items. (As noted in the Method section, responses to items that were negatively phrased were adjusted to reflect that higher scores represented positive practices. In other words, on item 14, parents of children with disabilities were more likely to indicate that they allowed their child to have close friends who get in trouble at school or with the law.) Parents of children without disabilities reported that they were more likely to know where their child was and who was with their child. They reported that they were more likely able to immediately stop inappropriate behavior once it started and less likely to allow their child to have close friends who get in trouble at school or with the law.

To compare scores for the next set of HEP-AF items, #21-30, multivariate analysis of covariance (MANCOVA) was used. The results are presented in Table C-11. After controlling for the effect of parent income and education level, student group (with/without disabilities) had a statistically significant effect on the multivariate combination of HEP items, $F(10,270)= 3.369, p< .001$. (All multivariate F 's were computed using Wilks' lambda.)

Univariate analyses of covariance were subsequently conducted to determine the source of the significance. Results of the analyses of covariance are presented in Table C-12. Results of the ANCOVAs indicated a significant effect of student group with HEP item 21, $F(1, 279) = 7.753, p < .01$; HEP item 24, $F(1, 279) = 8.159, p < .01$; HEP item 26, $F(1, 279) = 11.195, p < .01$, after controlling for parent education level and income. Item 21 is: “The adult members of our family agree on how to discipline the children.” Item 24 is: “I use spankings to discipline my child.” Item 26 is: “I am consistent when I discipline my child.”

The adjusted means are presented in Table C-13. Parents of nondisabled children scored higher (more positive practices) than did parents of children with disabilities on these significant items. In other words, parents of nondisabled children were more likely to report that the adult members of their family agree on discipline, less likely to use spankings to discipline their child, and more likely to be consistent when disciplining their child.

To compare scores for the next set of HEP-AF items, #31-40, multivariate analysis of covariance (MANCOVA) was used. The results are presented in Table C-14. After controlling for the effect of parent income and education level, student group (with/without disabilities) had a statistically significant effect on the multivariate combination of HEP items, $F(10, 271) = 3.964, p < .001$. (All multivariate F 's were computed using Wilks' lambda.)

Univariate analyses of covariance were subsequently conducted to determine the source of the significance. Results of the analyses of covariance are presented in Table C-15. Results of the ANCOVAs indicated a significant effect of student group with HEP

item 31, $F(1, 280) = 11.008, p < .01$; HEP item 32, $F(1, 280) = 6.475, p < .05$; HEP item 33, $F(1, 280) = 18.561, p < .001$; HEP item 35, $F(1, 280) = 8.883, p < .01$; HEP item 37, $F(1, 280) = 11.752, p < .01$, after controlling for parent education level and income. Item 31 is: "I expect my child to make good grades at school." Item 32 is: "I frequently read (to myself) at home." Item 33 is: "I am capable of controlling my anger when I am around my child." Item 35 is: "I expect my child to graduate from high school." Item 37 is: "If my child makes a good grade on a test, it is because he/she was lucky."

Adjusted means are presented in Table C-16. Parents of nondisabled children scored higher (more positive practices) than did parents children with disabilities on these items. In other words, parents of students without disabilities reported that they were more likely to expect their child to make good grades at school, were more likely to frequently read to themselves at home, and more capable of controlling anger when around their child. Parents of nondisabled students reported that they were more likely to expect their child to graduate from high school and less likely to believe that if their child scored well on a test that he/she was lucky.

Total Scale

Further analysis was conducted to determine if scores on the Total Scale of the Home Environment Profile-Abbreviated Form differed for parents of disabled and nondisabled students. The Total scale is defined as mean scores of questions 1-40. Analyses of covariance (ANCOVA) was used. The dependent variable for this analysis was the Total Scale score. The independent variable was student group (with/without disability). The covariates were parent income and educational level. Results of the ANCOVA indicated a significant effect of student group with total scale, $F(1, 279) =$

13.557, $p < .001$, after controlling for parent education level and income. Eta-squared values indicated that student group (with/without disability) accounted for 4.6% of the variance in the Total scale. These results are presented in Table C-17. Estimated (adjusted) means are presented in Table C-18. Parents of nondisabled children scored higher (more positive practices) than did parents of children with disabilities on the Total scale.

Research Question 2

Do self-reported parenting practices (as measured by scores on each of the subscales of the HEP-AF) differ for parents whose children have been identified as having a Specific Learning Disability, ADHD, an Emotional Disturbance, and/or Mental Retardation?

Observations from the 52 parents of students with disabilities were reviewed to determine possible variation in scores. Multivariate analysis of covariance (MANCOVA) was used to answer this question. The results are presented in Table D-1. Dependent variables for this analysis were the subscales, Nurturing, Monitoring, Discipline, and Modeling. The independent variable was student disability (Specific Learning Disability, ADHD, Mental Retardation, Emotional Disturbance, Specific Learning Disability and ADHD). The covariates were parent income and educational level. After controlling for the effect of parent income and education level, student disability had no statistically significant effect on the multivariate combination of parenting practices. (All multivariate F 's were computed using Wilks' lambda.) Adjusted means are presented in Table D-2.

Parents of children in the disability groups did not differ significantly in terms of self-reported parenting practices. In other words, parents who have children with Specific Learning Disabilities, parents who have children with ADHD, parents who have

children with Mental Retardation, parents who have children with Emotional Disturbance, and parents who have children with both Specific Learning Disabilities and ADHD did not significantly differ in parenting practices. This may be due to the small sample size of some of the disability groups.

Research Question 3

Is there a relationship between self-reported parenting practices and children who are behaviorally at-risk? (Do scores on each of the subscales of the HEP-AF and scores on items correlate with scores on the externalizing behavior scale? Do scores on each of the subscales of the HEP-AF and scores on items correlate with scores on the internalizing behavior scale?)

HEP-AF Parenting Practices subscales

Correlation coefficients were computed to determine if the parenting practices subscales correlated with the Externalizing Behavior Problems subscale. The Externalizing Behavior Problems subscale was computed by calculating the mean score for HEP-AF items 41a-41e. Externalizing behavior problems were significantly negatively correlated (Spearman's rho) with each of the parenting practice subscales. In other words, as self-reported positive parenting practices increase, externalizing behavior problems decrease; as self-reported parenting practices decrease, externalizing problems increase. As Nurturing increases, externalizing behavior problems decrease. As Monitoring increases, externalizing behavior problems decrease. As positive Discipline techniques increase, externalizing problems decrease. As positive Modeling techniques increase, externalizing problems decrease. Results are presented in Table E-1.

Correlation coefficients were also computed to determine if the parenting practices subscales correlated with the Internalizing Behavior Problems subscale. The Internalizing Behavior Problems subscale was computed by calculating the mean score for HEP-AF items 41f-41h. Internalizing behavior problems were significantly negatively correlated (Spearman's rho) only with the parenting practice subscales of Modeling. In other words, as self-reported positive Modeling practices increase, internalizing behavior problems decrease; as self-reported positive Modeling practices decrease, internalizing problems increase. Results are presented in Table E-1.

HEP-AF Items

Correlations between each of the items on the HEP-AF, questions 1-40, and the externalizing behavior problems subscale were calculated. All of the items were significantly negatively correlated with the externalizing behavior problems subscale, except for HEP-AF items 8,21,23,25,30,32, and 38. Results are presented in Tables E-2 to E-5.

Correlations between each of the items on the HEP-AF, questions 1-40, and the internalizing behavior problems subscale were also calculated. The items that were significantly negatively correlated with the internalizing behavior problems subscale were HEP-AF items 15, 24, 29,33, and 39. One item was significantly positively correlated with the internalizing behavior problems subscale: HEP-AF item 20. Results are presented in Table E-2 to E-5.

Research Question 4

Do parents who have children with disabilities rate their children as having more behavior problems than parents who have children who are not disabled?

To examine differences between parents of children with and without disabilities in their ratings of their children's behavior problems, scores for the subscales of externalizing and internalizing behavior problems were computed. The first subscale, the Externalizing Behavior Problems subscale was computed by calculating the mean score for HEP-AF items 41a-41e. The second subscale, the Internalizing Behavior Problems subscale, was computed by calculating the mean score for HEP-AF items 41f-41h. Correlations between the subscales are presented in Table F-1. Then, multivariate analysis of covariance (MANCOVA) was used. The results are presented in Table F-2. Dependent variables for this analysis were the subscales, Externalizing Behavior Problems and Internalizing Behavior Problems. The independent variable was student group (with/without disabilities). The covariates were parent income and educational level. After controlling for the effect of parent income and education level, student group (with/without disabilities) had a statistically significant effect on the multivariate combination of the behavior problems scales, $F(2,279)=9.558, p<.001$. (All multivariate F 's were computed using Wilks' lambda.) Eta-squared equaled .064. Therefore, student group (with/without disabilities) accounted for 6.4% of the variance in the behavior problems variable, after controlling for education and income.

Univariate analyses of covariance were subsequently conducted to determine the source of the significance. Results of the analyses of covariance are presented in Table F-3. Results of the ANCOVAs indicated a significant effect of student group with Externalizing Behavior Problems $F(1, 280)=13.388, p<.001$; and Internalizing Behavior Problems $F(1, 280)=8.183, p<.01$, after controlling for parent education level and income. Eta-squared values indicated that student group (with/without disabilities)

accounted for 4.6% of the variance in Externalizing Behavior Problems; and 2.8% of the variance in Internalizing Behavior Problems. The adjusted means are presented in Table F-4. Results indicate that differences between parents of children with and without disabilities exist in parent report of their children's behavior problems. Parents of nondisabled children reported that their children had less externalizing and less internalizing behavior problems.

Research Question 5

Is there a difference between these groups (parents of nondisabled children and parents of children with disabilities) in self-reported proactive and reactive parenting practices?

To examine differences between parents of children with and without disabilities in their self-report of proactive and reactive parenting practices, scores for the subscales of Proactive and Reactive Practices were computed. The first subscale, the Proactive Practices subscale was computed by calculating the mean score for HEP-AF items 1, 2, 3, 5, 6, 7, 8, 9, 11, 12, 13, 16, 18, 20, 21, 25, and 26. The second subscale, the Reactive Practices subscale, was computed by calculating the mean score for HEP-AF items 17, 22, 23, 24, 27, 28, 29, and 30. High scores on both of these scales represent more positive parenting practices. Correlations between the subscales are presented in Table G-1. Then, multivariate analysis of covariance (MANCOVA) was used. The results are presented in Table G-2. Dependent variables for this analysis were the subscales, Proactive Parenting Practices and Reactive Parenting Practices. The independent variable was student group (student with disability/nondisabled). The covariates were parent income and educational level. After controlling for the effect of parent income and education level, student group (student with disability/nondisabled) had a statistically

significant effect on the multivariate combination of the Proactive and Reactive subscales, $F(2,278)= 4.558, p< .01$. (All multivariate F 's were computed using Wilks' lambda.) Eta-squared equaled .032. Therefore, student group (student with disability/nondisabled) accounted for 3.2% of the variance in the behavior problems variable, after controlling for education and income.

Univariate analyses of covariance were subsequently conducted to determine the source of the significance. Results of the analyses of covariance are presented in Table G-3. Results of the ANCOVAs indicated a significant effect of student group with Proactive Practices $F(1, 279)= 4.603, p< .05$; and Reactive Practices $F(1, 279)=8.666, p< .01$, after controlling for parent education level and income. Eta-squared values indicated that student group (student with a disability/nondisabled) accounted for 1.6% of the variance in Proactive Practices; and 3.0% of the variance in Reactive Practices. The adjusted means are presented in Table G-4. Results indicate that differences exist between parents of children with and without disabilities in self-reported proactive and reactive parenting practices. Parents of nondisabled children reported better proactive and reactive practices.

Research Question 6

Is there a correlation between the age of the child and differences in parenting practices?

Correlation coefficients were computed to determine if the parenting practices subscales correlated with child age. Child age was significantly negatively correlated (Spearman's rho) with each of the parenting practice subscales (Nurturing, Monitoring, Discipline, and Modeling). In other words, as child age increases, self-reported positive parenting practices decrease. As the child gets older, the self-reported parenting practices

of Nurturing, Monitoring, Discipline and Modeling decrease. Results are presented in Table H-1.

CHAPTER V

Discussion

Summary of Results

This study compared two groups of parents in terms of self-reported parenting practices. Parents of children who were identified as being nondisabled (in regular education with no identified disability or certification as intellectually gifted) were compared to parents of children who were identified as having a disability (a Specific Learning Disability, ADHD, Mental Retardation, and/or Emotional Disturbance). Self-reported parenting practices were found to be significantly different between the groups in the areas of Monitoring, Discipline, and Modeling Attitudes and Behaviors, when controlling for the income and education level of the parent. The parents of nondisabled children reported higher levels of monitoring, reported that they used more appropriate discipline techniques, and reportedly modeled better behaviors than did parents of children with disabilities. Self-reported nurturing behaviors were not significantly different between groups.

This study also examined differences in self-reported parenting practices between parents whose children were identified with Specific Learning Disabilities, Mental Retardation, ADHD, and Emotional Disturbance. There were no significant differences between these groups on any of the parent practices subscales. This could be due to the small sample size of some of the disability groups.

Parents were also asked to rate their child's behavior in terms of internalizing (withdrawn) and externalizing (aggressive, acting out) problems. Parents who reported that their child had been identified as having a disability were significantly more likely to

report that their child had externalizing and internalizing behavior problems. Child externalizing behavior problems, as reported by the parent, were negatively correlated with each of the parenting practice subscales (Nurturing, Monitoring, Discipline, and Modeling). That is, the more acting-out behavior exhibited by the child, the lower the scores were for measures of positive parenting practice. However, child internalizing behavior problems were only negatively correlated with the subscale of Modeling. Parents whose children are not disabled also had significantly higher scores in both proactive (preventive) and reactive (actions that follow the behavior) parenting practices.

Age of the child was negatively correlated with each area of parenting practice assessed. In other words, as the age of the child increased, parents reported less nurturing behaviors, less monitoring, less positive discipline, and less modeling of appropriate behaviors.

Conclusions

The results of this study are encouraging. The Home Environment Profile-Abbreviated Form appears to provide reliable measures of key constructs related to parenting practices. The HEP-AF Total Scale, and all, except for one of the subscales, had Cronbach alpha values greater than 0.6. The HEP-AF also appeared to discriminate between the self-reported parenting practices of the parents of children with and without disabilities.

Although statistically significant differences were found between parents of children with and without disabilities, these results should be interpreted cautiously. Statistical significance was demonstrated, but was practical significance demonstrated? Were these differences meaningful? In addition to determining whether a finding could

have occurred by chance, it is also useful to know the magnitude of the finding (Weinfurt, 1995). Looking at estimates of effect size addresses this issue. According to Cohen (1987, pp. 284-288), in analysis of variance, the magnitude of the effect size below .10 is considered small, around .25 is moderate, and above .40 is considered large. Cohen (1987) stated that the magnitudes of effect size estimates in nonexperimental designs of social research are expected to be generally small because of the lack the experimental control and measurement error. In the case of multiple means, effect size measures are expected generally to be from .00 to .40 (Hojat, 1998). Weinfurt (1995) stated that the more proper standard to judge the magnitude of eta-squares “should be the one Cohen suggested for effect sizes measured via R^2 or other such indices: 0.01 is small, 0.09 is medium, and 0.25 or greater is large” (p. 249). According to Weinfurt, in most behavioral science research, the estimates of effect size are small to medium. In this study, the estimates of effect size were small to medium. According to Hojat (1998), therefore, modest practical significance can be interpreted from this study.

However, the study of parenting and the relationships between parenting and child outcome are complex. Self-reported parenting practices were likely related to several characteristics of children, parents, and environmental variables. It would be unusual for a single variable associated with parenting to have a large effect on parenting practices.

This is indeed a preliminary effort in assessing the properties of the HEP-AF and in its assessment of parenting practices of parents of children with and without disabilities. It would be beneficial to replicate this study to see if similar findings could be demonstrated, perhaps with additional sources of data (child report and teacher report,

for example). The results, though, are promising and could contribute to the literature in several ways.

Several parenting practices were assessed in this study that are not often seen in other instruments of parenting behaviors. Modeling is an area that does not typically appear in many parenting scales (D.J. Dickinson, personal communication, March 30, 2002). Student group accounted for the most variance in the parenting practice subscale of Modeling Attitudes and Behavior, compared to the other subscales. Parents of children with disabilities scored significantly lower on this subscale than did parents of children without disabilities. It could be hypothesized that parents of children without disabilities have higher expectations of their children. Modeling of behaviors such as reading to oneself or decreased television watching could possibly contribute to enhanced child interest in academic-related activities that may be related to higher achievement in school. This finding does appear to corroborate results of research on the lower expectations parents have of students with learning disabilities (Bryan et al., 1982). Thus, it may indeed be important to include some measurement of parental modeling of attitudes and behaviors in future parenting assessments.

Some of the constructs measured by the HEP-AF are new in the area of parent assessment. This study also examined self-reported parenting practices in terms of “proactive” parenting and “reactive” parenting and found that parents of children without disabilities scored higher on both of these subscales. They demonstrated more positive proactive strategies and demonstrated more positive reactive strategies. Evidence in the literature that indicates measurement of parenting practices along these two dimensions is sparse. This study appears to be among the first to assess parenting practices termed as

“proactive” and “reactive”. There appears to be a need for further exploration in this area.

The Home Environment Profile (Dickinson, 1995) was originally designed as both a normative and criterion test (Crowe, 1998). It was conceived that the subscales could be used for determining how parents differed in parenting practices. The items within a subscale could then be used as criterion reference point to direct intervention. In this study, scores on a number of specific items on the HEP-AF were significantly different between parents of children with and without disabilities. Perhaps, this study has given some support to the idea of using parenting assessments, like the HEP-AF, as a way to identify parents and families who may benefit from preventive interventions (See “Implications for Practice”).

Other findings from this study are generally consistent with contemporary and prior research in this area. Positive parenting practices have been consistently linked to better academic and behavioral outcomes for children (Brenner & Fox, 1998). Externalizing behavior problems have consistently been linked to less than ideal parenting practices, especially in the area of discipline (Gardner, 1998). The finding regarding parenting practices and child age is generally consistent with the literature as well. It has been found that, as children get older, parents report less “supervision” and less “closeness” with the child (Kandel & Wu, 1995). Some studies, however, have reported less reliance on “punitive discipline” as children get older (Kandel & Wu, 1995).

Limitations

One of the limitations of this study is that data were collected from parents using a self-report instrument. Therefore, the data consisted of parents' perceptions of their parenting practices as opposed to actual behaviors observed by an independent observer. Parental responses may reflect the extent to which parents are aware of good parenting practices (Stormshak, 2000). Even though parents' anonymity was assured, some parents may have answered questions to represent themselves in an overly positive manner. It should be noted that mean scores for both groups of parents on the parenting practices scales and total scale were above 3 on a 5-point scale. This indicates either that many parents demonstrate good parenting practices, or that they reported that they do.

It is possible that effect size can be improved by enhancing the validity of the independent and dependent variables (Hojat, 1998). Improvements in the validity of parent self-report perhaps could be made by utilizing direct observations of the parenting practices and by incorporating teacher or child reports of child behavior and parenting practice.

Another limitation of this study is that the groups were not comprised of random samples. Surveys were provided to all parents at the school and the parents who chose to participate returned them. Thus, generalizing the results of this study should be done cautiously. Also, because of the sample's limited age range, cultural background and restricted geographic area, generalizing to a larger population and different demographic groups should be done cautiously as well.

Additionally, although differences were found in self-reported proactive and reactive parenting practices between parents of children with and without disabilities, this

should be interpreted cautiously. These subscales were newly developed and this study was the first to utilize them for the purpose of research. The items in the subscales appear to have face validity, as measured by persons requested to judge the content of the items and sort them according to the named subscales. However, they may be measuring the same thing as another construct on the Home Environment Profile-Abbreviated Form.

Also, this study did not resolve issues of cause and effect. Relationships among the variables were examined, but not patterns of cause and effect. It is likely that complex bi-directional relationships exist and that other configurations among the variables may be likely as well. Longitudinal investigations would be necessary to determine causality in these relationships.

Implications for Practice

If this study were replicated with similar results, this study could have implications for practice in the schools and for professionals working with parents. Educating parents of children with disabilities regarding how the disability may affect parenting practices and how parenting practices may serve to exacerbate or ameliorate academic and behavioral problems in children would be beneficial. This benefit may be derived from parents' increased understanding of the complex interaction between the within child aspects of the disability, e.g., neurological, biochemical, and temperamental, and the effect of particular parenting practices on the unique expression of particular behaviors associated with the disability. It has also been demonstrated in the literature that particular parenting practices may exacerbate or somewhat alleviate specific types of behaviors that are part of the constellation of symptoms that comprise particular disorders.

This study, if replicated, would lend validity to the inclusion of measures of parenting practices when conducting comprehensive psychoeducational assessments of preschool and school age children suspected of exhibiting characteristics of a disability. The fact that the HEP-AF seemed to show some sensitivity in discriminating between groups of parents of children with and without disabilities could make it useful as potentially an instrument in the identification of parents and families “at-risk.”

In so doing, positive and maladaptive parenting practices can be identified early in the course of the disability and interventions created to facilitate the development of parenting practices that have been associated with improved academic and behavioral outcomes. These interventions may be provided as related services on the individualized education program (IEP) for a child identified with a disability or as a preventive service for children who may not be identified with a disability, but exhibit characteristics or have environmental circumstances that place them “at-risk” for later being identified as having a disability. These interventions or related services may include direct parent training, family counseling, and bibliotherapy, and should be collaboratively developed with parents in order to better ensure a high degree of compliance with the recommended activities, to select activities that promote generalization of new skills across environments, and to empower parents with a sense of ownership for improving outcomes for their children.

Implications for Future Research

Future research in this area may include attempts to replicate the results found in this study using several methods of data collection, including direct observations of parent-child interactions, and surveying teachers, parents, and children. Additionally,

longitudinal research would help determine directionality of relationships between parenting practices and the within child factors associated with particular disabilities. This type of research design would also allow for the testing of hypotheses regarding differential long-term outcomes for children with and without disabilities based on the interaction between the disability and parenting practices.

It would also be helpful to determine if particular intervention programs could successfully facilitate the development of specific parenting practices that have been associated with improved academic and behavioral outcomes. Experimental designs utilizing a random assignment procedure to different treatment groups, e.g., a direct parent-training group, a group that participates in family counseling, and a group that utilizes only bibliotherapy, may assist in determining the differential effectiveness of such intervention programs in the development of positive and proactive parenting practices. In this experimental design, pre- and post tests (using the HEP-AF), reports from additional sources such as teachers and children, and focused direct observations would be useful in documenting changes in parenting practices that could be attributed to intervention strategies.

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APPENDICES

APPENDIX A

Table A-1. Age of Child by Group.

Count		Age of Child								
		9	10	11	12	13	14	15	16	Total
Group	Nondisabled	1	31	60	63	57	36	7	1	256
	With a Disability		5	12	11	7	11	6		52
Total		1	36	72	74	64	47	13	1	308

Table A-2. Grade of Child by Group.

Count		Grade					Total
		4	5	6	7	8	
Group	Nondisabled	18	64	70	50	54	256
	With a Disability	4	17	12	1	18	52
Total		22	81	82	51	72	308

Table A-3. Gender of Child by Group.

Count		Gender		Total
		Male	Female	
Group	Nondisabled	125	131	256
	With a Disability	33	19	52
Total		158	150	308

Table A-4. Parent's Age at Birth of Child by Group

Count		Parent's Age					Total
		15 years or younger	16-18	19-22	23-25	26 or older	
Group	Nondisabled	6	27	85	58	75	251
	With a Disability	2	5	18	9	15	49
Total		8	32	103	67	90	300

Table A-5. Education Level of the Parent by Group.

Count		Education Level					Total
		Elementary or less	Junior high school	High School	College	Graduate School	
Group	Nondisabled	3	19	184	38	4	248
	With a Disability	3	12	32	5		52
Total		6	31	216	43	4	300

Table A-6. Family Income of Subjects by Group.

Count		Income							Total
		Below \$10,000	\$10,000-20,000	\$21,000-30,000	\$31,000-40,000	\$41,000-50,000	\$51,000-60,000	Above \$60,000	
Group	Nondisabled	10	44	72	41	34	16	19	236
	With a Disability	7	12	18	5	5	1	3	51
Total		17	56	90	46	39	17	22	287

Table A-7. Number of People in the Home by Group.

Count		# People at Home					Total
		2	3	4	5	6 or more	
Group	Nondisabled	10	58	118	42	28	256
	With a Disability	3	6	20	9	14	52
Total		13	64	138	51	42	308

Table A-8. Frequency and Percentage of Students with Specific Disabilities and Nondisabled.

	Frequency	Percent
Nondisabled	256	83.1
SLD	28	9.1
ADHD	8	2.6
SLD & ADHD	6	1.9
ED	7	2.3
MR	3	1.0
Total	308	100.0

APPENDIX B

Table B-1. Percent of Variance Explained Through Factor Analysis

Component	Initial Eigenvalues		
	Total	% of Variance	Cumulative %
1	8.063	20.158	20.158
2	2.611	6.528	26.686
3	1.941	4.854	31.540
4	1.837	4.592	36.132
5	1.483	3.707	39.839
6	1.334	3.335	43.174
7	1.320	3.301	46.476
8	1.194	2.986	49.461
9	1.167	2.919	52.380
10	1.086	2.716	55.096
11	1.025	2.563	57.659
12	.975	2.437	60.096
13	.937	2.342	62.437
14	.878	2.194	64.631
15	.850	2.125	66.756
16	.836	2.091	68.847
17	.784	1.959	70.806
18	.775	1.937	72.743
19	.729	1.821	74.565
20	.724	1.810	76.374
21	.700	1.750	78.124
22	.671	1.678	79.802
23	.654	1.634	81.436
24	.595	1.488	82.924
25	.584	1.461	84.385
26	.570	1.426	85.811
27	.558	1.396	87.206
28	.529	1.322	88.528
29	.512	1.281	89.809
30	.487	1.218	91.027
31	.460	1.149	92.176
32	.440	1.100	93.277
33	.424	1.060	94.336
34	.394	.986	95.322
35	.373	.933	96.255
36	.363	.908	97.163
37	.328	.819	97.982
38	.289	.724	98.706
39	.271	.678	99.384
40	.247	.616	100.000

Table B-2. Factor loadings for Varimax rotation 11-factor solution for the Home Environment Profile-Abbreviated Form

	Component										
	1	2	3	4	5	6	7	8	9	10	11
HEP5	.751										
HEP1	.715										
HEP6	.632										
HEP3	.627										
HEP11	.620										
HEP7	.603										
HEP10	.589										
HEP38	.520										
HEP9	.492										
HEP18	.423										
HEP8	.409										
HEP2	.393										
HEP20	.383										
HEP26		.684									
HEP23		.659									
HEP27		.593									
HEP21		.531									
HEP36			.698								
HEP31			.639								
HEP35			.583								
HEP37			.492								
HEP40			.486								
HEP13				.661							
HEP12				.641							
HEP24					.720						
HEP4					.578						
HEP29					.404						
HEP39					.352						
HEP15						.667					
HEP14						.657					
HEP17							.756				
HEP33							.576				
HEP30								.588			
HEP16								.531			
HEP32									.698		
HEP19									.638		
HEP34										.804	
HEP25											
HEP22											.712
HEP28						.451					

Table B-3. Correlations between parenting practices subscales and demographics.

Spearman's rho	Parent's Age	Correlation Coef	Parent's Education			Nurturing	Monitoring	Discipline	Modeling
			Age	Level	Income				
		Correlation Coef	.045		.039	.110	.105	-.063	.020
		Sig. (2-tailed)	.442		.511	.056	.071	.280	.728
		N	295		283	300	299	299	300
Education Level		Correlation Coef	.045		.377**	.126*	.132*	.116*	.297**
		Sig. (2-tailed)	.442		.000	.030	.022	.045	.000
		N	295		284	300	299	299	300
Income		Correlation Coef	.039	.377**		.180**	.233**	.000	.375**
		Sig. (2-tailed)	.511	.000		.002	.000	.996	.000
		N	283	284		287	287	286	287
Nurturing		Correlation Coef	.110	.126*	.180**		.511**	.350**	.410**
		Sig. (2-tailed)	.056	.030	.002		.000	.000	.000
		N	300	300	287		307	307	308
Monitoring		Correlation Coef	.105	.132*	.233**	.511**		.434**	.422**
		Sig. (2-tailed)	.071	.022	.000	.000		.000	.000
		N	299	299	287	307		306	307
Discipline		Correlation Coef	-.063	.116*	.000	.350**	.434**		.413**
		Sig. (2-tailed)	.280	.045	.996	.000	.000		.000
		N	299	299	286	307	306		307
Modeling		Correlation Coef	.020	.297**	.375**	.410**	.422**	.413**	
		Sig. (2-tailed)	.728	.000	.000	.000	.000	.000	
		N	300	300	287	308	307	307	

** Correlation is significant at the .01 level (2-tailed).

* Correlation is significant at the .05 level (2-tailed).

APPENDIX C

Table C-1. Intercorrelations among the Subscales of the HEP-AF.

			Nurturing	Monitoring	Discipline	Modeling
Spearman's rho	Nurturing	Correlation Coeff.		.511**	.350**	.410**
		Sig. (2-tailed)		.000	.000	.000
		N		307	307	308
	Monitoring	Correlation Coeff.	.511**		.434**	.422**
		Sig. (2-tailed)	.000		.000	.000
		N	307		306	307
	Discipline	Correlation Coeff.	.350**	.434**		.413**
		Sig. (2-tailed)	.000	.000		.000
		N	307	306		307
	Modeling	Correlation Coeff.	.410**	.422**	.413**	
		Sig. (2-tailed)	.000	.000	.000	
		N	308	307	307	

** . Correlation is significant at the .01 level (2-tailed).

Table C-2. Multivariate Analysis of Covariance of Parenting Practices Subscales as a Function of Student Group (With a Disability/Nondisabled), with Parent Education Level and Income as Covariates.

Effect	Wilks' Lambda	F	Hypothesis df	Error df	Partial Eta Squared
EDLEVEL	.960	2.852*	4	276	.040
INCOME	.885	8.955**	4	276	.115
GROUP	.891	8.453**	4	276	.109

*p<.05. **p<.01.

Table C-3. Univariate Analysis of Covariance of Parenting Practices Subscales as a Function of Student Group (With a Disability/Nondisabled), with Parent Education Level and Income as Covariates.

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Partial Eta Squared
EDLEVEL	NURTURE	1.142	1	1.142	4.728*	.017
	MONITOR	.349	1	.349	2.066	.007
	DISCIPLINE	.792	1	.792	3.730*	.013
	MODELING	1.213	1	1.213	10.991**	.038
INCOME	NURTURE	.945	1	.945	3.915*	.014
	MONITOR	1.500	1	1.500	8.885**	.031
	DISCIPLINE	.119	1	.119	.560	.002
	MODELING	2.062	1	2.062	18.678***	.063
GROUP	NURTURE	.338	1	.338	1.401	.005
	MONITOR	1.134	1	1.134	6.718*	.024
	DISCIPLINE	2.365	1	2.365	11.135**	.038
	MODELING	3.113	1	3.113	28.205***	.092
Error	NURTURE	67.350	279	.241		
	MONITOR	47.093	279	.169		
	DISCIPLINE	59.245	279	.212		
	MODELING	30.796	279	.110		
Total	NURTURE	5135.390	283			
	MONITOR	5076.810	283			
	DISCIPLINE	4279.760	283			
	MODELING	4755.060	283			

*p<.05. **p<.01. ***p<.001

Table C-4. Estimated Marginal Mean Scores of Parenting Practices Subscales as a Function of Student Group (With A Disability/Nondisabled), with Parent Education Level and Income as Covariates.

Dependent Variable	Group	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
NURTURE	Nondisabled	4.247	.032	4.183	4.310
	With a Disability	4.154	.070	4.016	4.293
MONITOR	Nondisabled	4.244	.027	4.191	4.298
	With a Disability	4.075	.059	3.959	4.191
DISCIPLINE	Nondisabled	3.904	.030	3.844	3.964
	With a Disability	3.660	.066	3.530	3.790
MODELING	Nondisabled	4.132	.022	4.089	4.175
	With a Disability	3.852	.048	3.758	3.945

Table C-5. Multivariate Analysis of Covariance of HEP-AF Items 1-10 as a Function of Student Group (With A Disability/Nondisabled), with Parent Education Level and Income as Covariates.

Effect	Wilks' Lambda	F	Hypothesis df	Error df	Partial Eta Squared
EDLEVEL	.934	1.918*	10	271	.066
INCOME	.862	4.322**	10	271	.138
GROUP	.954	1.293	10	271	.046

*p<.05. **p<.01

Table C-6. Univariate Analysis of Covariance of HEP-AF Items 1-10 as a Function of Student Group (With A Disability/Nondisabled), with Parent Education Level and Income as Covariates.

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Partial Eta Squared
EDLEVEL	HEP1	7.482	1	7.482	11.267**	.039
	HEP2	1.040	1	1.040	1.882	.007
	HEP3	2.496E-02	1	2.496E-02	.045	.000
	HEP4	.186	1	.186	.314	.001
	HEP5	2.736	1	2.736	4.495*	.016
	HEP6	1.370	1	1.370	1.978	.007
	HEP7	.499	1	.499	.889	.003
	HEP8	1.509	1	1.509	1.121	.004
	HEP9	.472	1	.472	1.069	.004
	HEP10	4.195	1	4.195	8.178**	.028
INCOME	HEP1	8.159	1	8.159	12.287**	.042
	HEP2	1.778E-02	1	1.778E-02	.032	.000
	HEP3	.681	1	.681	1.217	.004
	HEP4	3.722	1	3.722	6.289*	.022
	HEP5	.887	1	.887	1.458	.005
	HEP6	7.979	1	7.979	11.523**	.040
	HEP7	4.747	1	4.747	8.452**	.029
	HEP8	9.352E-02	1	9.352E-02	.069	.000
	HEP9	3.327	1	3.327	7.526**	.026
	HEP10	9.428E-03	1	9.428E-03	.018	.000
GROUP	HEP1	.161	1	.161	.243	.001
	HEP2	.318	1	.318	.576	.002
	HEP3	.292	1	.292	.522	.002
	HEP4	2.991	1	2.991	5.0548*	.018
	HEP5	5.902E-02	1	5.902E-02	.097	.000
	HEP6	3.674	1	3.674	5.305*	.019
	HEP7	5.884E-02	1	5.884E-02	.105	.000
	HEP8	5.787E-03	1	5.787E-03	.004	.000
	HEP9	8.668E-04	1	8.668E-04	.002	.000
	HEP10	.815	1	.815	1.588	.006
Error	HEP1	185.927	280	.664		
	HEP2	154.621	280	.552		
	HEP3	156.722	280	.560		
	HEP4	165.680	280	.592		
	HEP5	170.409	280	.609		
	HEP6	193.882	280	.692		
	HEP7	157.266	280	.562		
	HEP8	377.050	280	1.347		
	HEP9	123.764	280	.442		
	HEP10	143.630	280	.513		
Total	HEP1	5239.000	284			
	HEP2	4271.000	284			
	HEP3	5748.000	284			
	HEP4	5834.000	284			
	HEP5	5230.000	284			
	HEP6	4831.000	284			
	HEP7	5406.000	284			
	HEP8	4144.000	284			
	HEP9	6172.000	284			
	HEP10	6138.000	284			

*p<.05. **p<.01.

Table C-7. Estimated Marginal Mean Scores of HEP-AF items (1-10) as a Function of Student Group (With a Disability/Nondisabled), with Parent Education Level and Income as Covariates.

Dependent Variable	Group	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
HEP1	Nondisabled	4.196	.054	4.091	4.302
	With a Disability	4.260	.117	4.030	4.490
HEP2	Nondisabled	3.822	.049	3.726	3.919
	With a Disability	3.733	.106	3.524	3.942
HEP3	Nondisabled	4.452	.049	4.355	4.549
	With a Disability	4.366	.107	4.155	4.577
HEP4	Nondisabled	4.514	.051	4.414	4.614
	With a Disability	4.240	.110	4.023	4.456
HEP5	Nondisabled	4.225	.051	4.124	4.326
	With a Disability	4.187	.112	3.967	4.406
HEP6	Nondisabled	4.086	.055	3.979	4.194
	With a Disability	3.782	.119	3.548	4.016
HEP7	Nondisabled	4.303	.049	4.206	4.400
	With a Disability	4.264	.107	4.053	4.475
HEP8	Nondisabled	3.643	.076	3.493	3.793
	With a Disability	3.631	.166	3.304	3.958
HEP9	Nondisabled	4.614	.044	4.527	4.700
	With a Disability	4.609	.095	4.422	4.796
HEP10	Nondisabled	4.617	.047	4.524	4.710
	With a Disability	4.474	.103	4.272	4.676

Table C-8. Multivariate Analysis of Covariance of HEP-AF Items 11-20 as a Function of Student Group (With a Disability/Nondisabled), with Parent Education Level and Income as Covariates.

Effect	Wilks' Lambda	F	Hypothesis df	Error df	Partial Eta Squared
EDLEVEL	.956	1.252	10	271	.044
INCOME	.913	2.591**	10	271	.087
GROUP	.926	2.175*	10	271	.074

*p<.05. **p<.01

Table C-9. Univariate Analysis of Covariance of HEP-AF Items 11-20 as a Function of Student Group (With a Disability/Nondisabled), with Parent Education Level and Income as Covariates.

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Partial Eta Squared
EDLEVEL	HEP11	2.030	1	2.030	3.226	.011
	HEP12	.404	1	.404	1.641	.006
	HEP13	1.506E-02	1	1.506E-02	.059	.000
	HEP14	.425	1	.425	1.119	.004
	HEP15	1.070	1	1.070	.825	.003
	HEP16	1.182	1	1.182	1.105	.004
	HEP17	.424	1	.424	.758	.003
	HEP18	.798	1	.798	1.110	.004
	HEP19	1.707	1	1.707	1.646	.006
	HEP20	8.500E-02	1	8.500E-02	.110	.000
INCOME	HEP11	1.332	1	1.332	2.117	.008
	HEP12	1.279	1	1.279	5.197*	.018
	HEP13	3.025	1	3.025	11.768**	.040
	HEP14	2.645	1	2.645	6.956*	.024
	HEP15	1.896	1	1.896	1.462	.005
	HEP16	2.842	1	2.842	2.656	.009
	HEP17	.814	1	.814	1.457	.005
	HEP18	.598	1	.598	.832	.003
	HEP19	5.425	1	5.425	5.231*	.018
	HEP20	4.777	1	4.777	6.174*	.022
GROUP	HEP11	3.541E-02	1	3.541E-02	.056	.000
	HEP12	1.303	1	1.303	5.296*	.019
	HEP13	1.719	1	1.719	6.687*	.023
	HEP14	1.777	1	1.777	4.674*	.016
	HEP15	.160	1	.160	.123	.000
	HEP16	1.010	1	1.010	.944	.003
	HEP17	4.285	1	4.285	7.665**	.027
	HEP18	1.629	1	1.629	2.267	.008
	HEP19	2.729	1	2.729	2.631	.009
	HEP20	1.961	1	1.961	2.535	.009
Error	HEP11	176.170	280	.629		
	HEP12	68.912	280	.246		
	HEP13	71.977	280	.257		
	HEP14	106.474	280	.380		
	HEP15	363.065	280	1.297		
	HEP16	299.541	280	1.070		
	HEP17	156.515	280	.559		
	HEP18	201.237	280	.719		
	HEP19	290.389	280	1.037		
	HEP20	216.623	280	.774		
Total	HEP11	5474.000	284			
	HEP12	6510.000	284			
	HEP13	6391.000	284			
	HEP14	6228.000	284			
	HEP15	3424.000	284			
	HEP16	4257.000	284			
	HEP17	5388.000	284			
	HEP18	5285.000	284			
	HEP19	4653.000	284			
	HEP20	5380.000	284			

*p<.05. **p<.01

Table C-10. Estimated Marginal Mean Scores of HEP-AF items (11-20) as a Function of Student Group (With a Disability/Nondisabled), with Parent Education Level and Income as Covariates.

Dependent Variable	Group	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
HEP11	Nondisabled	4.312	.052	4.209	4.414
	With a Disability	4.341	.114	4.118	4.565
HEP12	Nondisabled	4.793	.033	4.729	4.857
	With a Disability	4.612	.071	4.472	4.752
HEP13	Nondisabled	4.752	.033	4.686	4.818
	With a Disability	4.544	.073	4.401	4.687
HEP14	Nondisabled	4.679	.041	4.599	4.759
	With a Disability	4.467	.088	4.293	4.641
HEP15	Nondisabled	3.270	.075	3.123	3.418
	With a Disability	3.334	.163	3.013	3.655
HEP16	Nondisabled	3.758	.068	3.623	3.892
	With a Disability	3.598	.148	3.307	3.889
HEP17	Nondisabled	4.348	.049	4.251	4.445
	With a Disability	4.019	.107	3.808	4.230
HEP18	Nondisabled	4.265	.056	4.155	4.375
	With a Disability	4.063	.121	3.824	4.301
HEP19	Nondisabled	3.959	.067	3.827	4.091
	With a Disability	3.697	.146	3.410	3.984
HEP20	Nondisabled	4.300	.058	4.187	4.414
	With a Disability	4.078	.126	3.830	4.326

Table C-11. Multivariate Analysis of Covariance of HEP-AF Items 21-30 as a Function of Student Group (With a Disability/Nondisabled), with Parent Education Level and Income as Covariates.

Effect	Wilks' Lambda	F	Hypothesis df	Error df	Partial Eta Squared
EDLEVEL	.970	.836	10	270	.030
INCOME	.911	2.633**	10	270	.089
GROUP	.889	3.369***	10	270	.111

*p<.05. **p<.01. ***p<.001

Table C-12. Univariate Analysis of Covariance of HEP-AF Items 21-30 as a Function of Student Group (With a Disability/Nondisabled), with Parent Education Level and Income as Covariates.

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Partial Eta Squared
EDLEVEL	HEP21	4.170E-02	1	4.170E-02	.048	.000
	HEP22	.551	1	.551	.577	.002
	HEP23	2.226	1	2.226	2.822	.010
	HEP24	2.549	1	2.549	2.022	.007
	HEP25	1.370	1	1.370	1.150	.004
	HEP26	1.622	1	1.622	1.913	.007
	HEP27	.681	1	.681	.745	.003
	HEP29	4.589E-03	1	4.589E-03	.006	.000
	HEP28	.104	1	.104	.139	.000
	HEP30	3.063	1	3.063	2.950	.010
INCOME	HEP21	1.160	1	1.160	1.332	.005
	HEP22	.499	1	.499	.522	.002
	HEP23	.498	1	.498	.631	.002
	HEP24	6.949	1	6.949	5.514*	.019
	HEP25	4.358	1	4.358	3.659	.013
	HEP26	.437	1	.437	.515	.002
	HEP27	2.064	1	2.064	2.257	.008
	HEP29	2.512	1	2.512	3.383	.012
	HEP28	1.150	1	1.150	1.544	.006
	HEP30	1.917	1	1.917	1.846	.007
GROUP	HEP21	6.748	1	6.748	7.753**	.027
	HEP22	.769	1	.769	.805	.003
	HEP23	.216	1	.216	.274	.001
	HEP24	10.282	1	10.282	8.159**	.028
	HEP25	2.040	1	2.040	1.713	.006
	HEP26	9.490	1	9.490	11.195**	.039
	HEP27	9.004E-02	1	9.004E-02	.098	.000
	HEP29	2.745	1	2.745	3.697	.013
	HEP28	1.625	1	1.625	2.183	.008
	HEP30	.240	1	.240	.231	.001
Error	HEP21	242.859	279	.870		
	HEP22	266.686	279	.956		
	HEP23	220.036	279	.789		
	HEP24	351.610	279	1.260		
	HEP25	332.302	279	1.191		
	HEP26	236.510	279	.848		
	HEP27	255.136	279	.914		
	HEP29	207.191	279	.743		
	HEP28	207.741	279	.745		
	HEP30	289.683	279	1.038		
Total	HEP21	5056.000	283			
	HEP22	4039.000	283			
	HEP23	4713.000	283			
	HEP24	4206.000	283			
	HEP25	3481.000	283			
	HEP26	4351.000	283			
	HEP27	4389.000	283			
	HEP29	5343.000	283			
	HEP28	5016.000	283			
	HEP30	4446.000	283			

*p<.05. **p<.01.

Table C-13. Estimated Marginal Mean Scores of HEP-AF items (21-30) as a Function of Student Group (With a Disability/Nondisabled), with Parent Education Level and Income as Covariates.

Dependent Variable	Group	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
HEP21	Nondisabled	4.194	.062	4.073	4.316
	With a Disability	3.782	.134	3.519	4.045
HEP22	Nondisabled	3.675	.065	3.548	3.802
	With a Disability	3.536	.140	3.261	3.811
HEP23	Nondisabled	3.996	.059	3.880	4.111
	With a Disability	3.922	.127	3.672	4.172
HEP24	Nondisabled	3.774	.074	3.628	3.920
	With a Disability	3.265	.161	2.948	3.581
HEP25	Nondisabled	3.373	.072	3.231	3.515
	With a Disability	3.146	.156	2.839	3.454
HEP26	Nondisabled	3.894	.061	3.774	4.013
	With a Disability	3.405	.132	3.145	3.664
HEP27	Nondisabled	3.828	.063	3.704	3.953
	With a Disability	3.781	.137	3.511	4.050
HEP29	Nondisabled	4.305	.057	4.193	4.417
	With a Disability	4.042	.123	3.799	4.285
HEP28	Nondisabled	4.157	.057	4.045	4.269
	With a Disability	3.954	.123	3.711	4.197
HEP30	Nondisabled	3.844	.067	3.712	3.977
	With a Disability	3.767	.146	3.480	4.054

Table C-14. Multivariate Analysis of Covariance of HEP-AF Items 31-40 as a Function of Student Group (With a Disability/Nondisabled), with Parent Education Level and Income as Covariates.

Effect	Wilks' Lambda	F	Hypothesis df	Error df	Partial Eta Squared
EDLEVEL	.924	2.240*	10	271	.076
INCOME	.751	8.993***	10	271	.249
GROUP	.872	3.964***	10	271	.128

*p<.05. **p<.05. ***p<.001.

Table C-15. Univariate Analysis of Covariance of HEP-AF Items 31-40 as a Function of Student Group (With a Disability/Nondisabled), with Parent Education Level and Income as Covariates.

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Partial Eta Squared
EDLEVEL	HEP31	.267	1	.267	.822	.003
	HEP32	4.627	1	4.627	4.755*	.017
	HEP33	8.741E-03	1	8.741E-03	.014	.000
	HEP34	4.928	1	4.928	5.741*	.020
	HEP35	.616	1	.616	4.227	.015
	HEP36	.728	1	.728	1.260	.004
	HEP37	1.212	1	1.212	2.229	.008
	HEP38	.113	1	.113	.153	.001
	HEP39	5.883	1	5.883	4.918*	.017
	HEP40	.489	1	.489	1.232	.004
INCOME	HEP31	2.847	1	2.847	8.749**	.030
	HEP32	5.305E-03	1	5.305E-03	.005	.000
	HEP33	.210	1	.210	.331	.001
	HEP34	1.274	1	1.274	1.484	.005
	HEP35	1.142	1	1.142	7.832**	.027
	HEP36	20.962	1	20.962	36.277***	.115
	HEP37	6.018	1	6.018	11.065**	.038
	HEP38	25.102	1	25.102	34.038***	.108
	HEP39	12.946	1	12.946	10.823**	.037
	HEP40	6.930	1	6.930	17.472***	.059
GROUP	HEP31	3.583	1	3.583	11.008**	.038
	HEP32	6.301	1	6.301	6.475*	.023
	HEP33	11.788	1	11.788	18.561***	.062
	HEP34	.946	1	.946	1.102	.004
	HEP35	1.295	1	1.295	8.883**	.031
	HEP36	1.893	1	1.893	3.276	.012
	HEP37	6.392	1	6.392	11.752**	.040
	HEP38	.685	1	.685	.929	.003
	HEP39	3.438	1	3.438	2.874	.010
	HEP40	1.296	1	1.296	3.268	.012
Error	HEP31	91.126	280	.325		
	HEP32	272.462	280	.973		
	HEP33	177.821	280	.635		
	HEP34	240.370	280	.858		
	HEP35	40.818	280	.146		
	HEP36	161.792	280	.578		
	HEP37	152.283	280	.544		
	HEP38	206.495	280	.737		
	HEP39	334.932	280	1.196		
	HEP40	111.058	280	.397		
Total	HEP31	5888.000	284			
	HEP32	4221.000	284			
	HEP33	5151.000	284			
	HEP34	3484.000	284			
	HEP35	6703.000	284			
	HEP36	5266.000	284			
	HEP37	5466.000	284			
	HEP38	4122.000	284			
	HEP39	3544.000	284			
	HEP40	6130.000	284			

*p<.05. **p<.01. ***p<.001.

Table C-16. Estimated Marginal Mean Scores of HEP-AF items (31-40) as a Function of Student Group (With a Disability/Nondisabled), with Parent Education Level and Income as Covariates

Dependent Variable	Group	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
HEP31	Nondisabled	4.568	.038	4.494	4.642
	With a Disability	4.268	.082	4.107	4.428
HEP32	Nondisabled	3.793	.065	3.666	3.921
	With a Disability	3.395	.141	3.117	3.673
HEP33	Nondisabled	4.277	.052	4.174	4.381
	With a Disability	3.732	.114	3.508	3.957
HEP34	Nondisabled	3.401	.061	3.281	3.521
	With a Disability	3.247	.133	2.986	3.508
HEP35	Nondisabled	4.874	.025	4.825	4.923
	With a Disability	4.693	.055	4.586	4.801
HEP36	Nondisabled	4.265	.050	4.166	4.363
	With a Disability	4.046	.109	3.832	4.260
HEP37	Nondisabled	4.389	.049	4.293	4.485
	With a Disability	3.988	.106	3.780	4.195
HEP38	Nondisabled	3.721	.057	3.609	3.832
	With a Disability	3.589	.123	3.347	3.831
HEP39	Nondisabled	3.405	.072	3.263	3.547
	With a Disability	3.111	.157	2.802	3.419
HEP40	Nondisabled	4.631	.041	4.549	4.713
	With a Disability	4.450	.090	4.273	4.628

Table C-17. Univariate Analysis of Covariance of Total Scale as a Function of Student Group (With a Disability/Nondisabled), with Parent Education Level and Income as Covariates.

Dependent Variable: TOTAL					
Source	Type III Sum of Squares	df	Mean Square	F	Partial Eta Squared
Intercept	148.265	1	148.265	1313.261***	.825
EDLEVEL	.833	1	.833	7.377**	.026
INCOME	.676	1	.676	5.984*	.021
GROUP	1.531	1	1.531	13.557***	.046
Error	31.499	279	.113		
Total	4785.098	283			

*p<.05. **p<.01. ***p<.001

Table C-18. Estimated Marginal Mean Scores of Total Scale as a Function of Student Group (With a Disability/Nondisabled), with Parent Education Level and Income as Covariates

Dependent Variable: TOTAL				
Group	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Nondisabled	4.132	.022	4.088	4.175
With a Disability	3.935	.048	3.841	4.030

APPENDIX D

Table D-1. Multivariate Analysis of Covariance of Parenting Practice Subscales as a Function of Student Disability Group, with Parent Education Level and Income as Covariates

Effect	Wilks' Lambda	F	Hypothesis df	Error df
EDLEVEL	.879	1.418	4	41
INCOME	.842	1.916	4	41
DISABILITY GROUP	.539	1.746	16	126

Table D-2. Estimated Marginal Mean Scores of Parenting Practices Subscales as a Function of Student Disability Group, with Parent Education Level and Income as Covariates

		95% Confidence Interval			
Dependent Variabl	Disability	Mean	Std. Error	Lower Bound	Upper Bound
NURTURE	Specific Learning Disability	4.215	.119	3.972	4.457
	Mentally Retarded	3.898	.263	3.167	4.630
	Emotionally Disturbed	3.542	.238	3.060	4.024
	ADHD	4.051	.224	3.595	4.508
	SLD and ADHD	4.418	.255	3.900	4.936
MONITOR	Specific Learning Disability	4.096	.106	3.878	4.313
	Mentally Retarded	3.837	.261	3.180	4.494
	Emotionally Disturbed	3.697	.211	3.265	4.130
	ADHD	4.224	.199	3.815	4.634
	SLD and ADHD	3.971	.226	3.507	4.436
DISCIPLINE	Specific Learning Disability	3.597	.107	3.381	3.814
	Mentally Retarded	3.202	.257	2.548	3.856
	Emotionally Disturbed	3.483	.213	3.053	3.914
	ADHD	4.030	.202	3.623	4.379
	SLD and ADHD	3.723	.229	3.260	4.185
MODELING	Specific Learning Disability	3.758	.082	3.594	3.921
	Mentally Retarded	3.375	.232	2.881	3.868
	Emotionally Disturbed	3.636	.164	3.311	3.961
	ADHD	4.155	.155	3.847	4.463
	SLD and ADHD	3.821	.176	3.471	4.170

APPENDIX E

Table E-1. Correlations between Externalizing and Internalizing Behavior Problems Subscales and Parenting Practices Subscales.

		EXTERNAL	INTERNAL
Spearman's rho	NURTURING	Correlation Coefficient	-.289**
		N	308
	MONITORING	Correlation Coefficient	-.333**
		N	308
	DISCIPLINE	Correlation Coefficient	-.263**
		N	308
	MODELING	Correlation Coefficient	-.331**
		N	308

** Correlation is significant at the .01 level (2-tailed).

Table E-2. Correlations between HEP-AF items 1-10 and Externalizing Behavior Problems and Internalizing Behavior Problems Subscales.

			EXTERNAL	INTERNAL
Spearman's rho	HEP Question 1	Correlation Coefficient	-.180**	.108
		N	308	308
	HEP Question 2	Correlation Coefficient	-.279**	-.065
		N	308	308
	HEP Question 3	Correlation Coefficient	-.190**	.074
		N	308	308
	HEP Question 4	Correlation Coefficient	-.312**	-.074
		N	308	308
	HEP5	Correlation Coefficient	-.173**	.034
		N	308	308
	HEP6	Correlation Coefficient	-.190**	-.024
		N	308	308
	HEP7	Correlation Coefficient	-.132*	.070
		N	308	308
	HEP8	Correlation Coefficient	-.088	.017
		N	308	308
	HEP9	Correlation Coefficient	-.218**	.011
		N	308	308
	HEP10	Correlation Coefficient	-.232**	-.028
		N	308	308

*. Correlation is significant at the .05 level (2-tailed).

**. Correlation is significant at the .01 level (2-tailed).

Table E-3. Correlations between HEP-AF items 11-20 and Externalizing Behavior Problems and Internalizing Behavior Problems Subscales.

			EXTERNAL	INTERNAL
Spearman's rho	HEP11	Correlation Coefficient	-.166**	.065
		N	308	308
	HEP12	Correlation Coefficient	-.168**	-.038
		N	308	308
	HEP13	Correlation Coefficient	-.196**	.026
		N	308	308
	HEP14	Correlation Coefficient	-.209**	-.103
		N	308	308
	HEP15	Correlation Coefficient	-.132*	-.120*
		N	308	308
	HEP16	Correlation Coefficient	-.155**	.037
		N	308	308
	HEP17	Correlation Coefficient	-.205**	-.066
		N	308	308
	HEP18	Correlation Coefficient	-.210**	-.011
		N	308	308
	HEP19	Correlation Coefficient	-.352**	-.030
		N	308	308
	HEP20	Correlation Coefficient	-.166**	.113*
		N	308	308

*. Correlation is significant at the .05 level (2-tailed).

**. Correlation is significant at the .01 level (2-tailed).

Table E-4. Correlations between HEP-AF items 21-30 and Externalizing Behavior Problems and Internalizing Behavior Problems Subscales.

Spearman's rho			EXTERNAL	INTERNAL
	HEP21	Correlation Coefficient	-.099	-.082
		N	308	308
	HEP22	Correlation Coefficient	-.180**	.037
		N	308	308
	HEP23	Correlation Coefficient	-.078	-.019
		N	308	308
	HEP24	Correlation Coefficient	-.209**	-.202**
		N	308	308
	HEP25	Correlation Coefficient	-.070	.005
		N	308	308
	HEP26	Correlation Coefficient	-.168**	-.078
		N	308	308
	HEP27	Correlation Coefficient	-.185**	-.026
		N	308	308
	HEP28	Correlation Coefficient	-.159**	.033
		N	308	308
	HEP29	Correlation Coefficient	-.237**	-.213**
		N	308	308
	HEP30	Correlation Coefficient	-.064	.004
		N	308	308

** Correlation is significant at the .01 level (2-tailed).

Table E-5. Correlations between HEP-AF items 31-40 and Externalizing Behavior Problems and Internalizing Behavior Problems Subscales.

			EXTERNAL	INTERNAL
Spearman's rho	HEP31	Correlation Coefficient	-.144 *	-.078
		N	308	308
	HEP32	Correlation Coefficient	-.045	.021
		N	308	308
	HEP33	Correlation Coefficient	-.290 **	-.235 **
		N	308	308
	HEP34	Correlation Coefficient	-.137 *	-.024
		N	308	308
	HEP35	Correlation Coefficient	-.129 *	-.024
		N	308	308
	HEP36	Correlation Coefficient	-.130 *	.045
		N	308	308
	HEP37	Correlation Coefficient	-.207 **	.011
		N	308	308
	HEP38	Correlation Coefficient	-.052	-.025
		N	308	308
	HEP39	Correlation Coefficient	-.223 **	-.259 **
		N	308	308
	HEP40	Correlation Coefficient	-.188 **	-.006
		N	308	308

*. Correlation is significant at the .05 level (2-tailed).

**. Correlation is significant at the .01 level (2-tailed).

APPENDIX F

Table F-1. Intercorrelations between the Externalizing and Internalizing Behavior Subscales of the HEP-AF.

		Externalizing Behavior	Internalizing Behavior
Spearman's rho	Externalizing Behavior	Correlation Coeff.	.144*
		Sig. (2-tailed)	.011
		N	308
	Internalizing Behavior	Correlation Coeff.	.144*
		Sig. (2-tailed)	.011
		N	308

*. Correlation is significant at the .05 level (2-tailed).

Table F-2. Multivariate Analysis of Covariance of Externalizing and Internalizing Behavior Problems Subscales as a Function of Student Group (With a Disability/Nondisabled), with Parent Education Level and Income as Covariates.

Effect	Wilks' Lambda	F	Hypothesis df	Error df	Partial Eta Squared
EDLEVE	.992	1.060	2	279	.008
INCOME	.997	.439	2	279	.003
GROUP	.936	9.558***	2	279	.064

***p<.001

Table F-3. Univariate Analysis of Covariance of Externalizing and Internalizing Behavior Problems Subscales as a Function of Student Group (With a Disability/Nondisabled), with Parent Education Level and Income as Covariates.

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Partial Eta Squared
EDLEVEL	Externalizing Behavior	.485	1	.485	1.703	.006
	Internalizing Behavior	.454	1	.454	.665	.002
INCOME	Externalizing Behavior	.103	1	.103	.361	.001
	Internalizing Behavior	.429	1	.429	.628	.002
GROUP	Externalizing Behavior	3.811	1	3.811	13.388***	.046
	Internalizing Behavior	5.593	1	5.593	8.183**	.028
Error	Externalizing Behavior	79.706	280	.285		
	Internalizing Behavior	191.369	280	.683		
Total	Externalizing Behavior	1064.800	284			
	Internalizing Behavior	1667.556	284			

p<.01. *p<.001

Table F-4. Estimated Marginal Mean Scores of Externalizing and Internalizing Behavior Problems Subscales as a Function of Student Group (With a Disability/Nondisabled), with Parent Education Level and Income as Covariates

Dependent Variable	Group	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
Externalizing Behavior	Nondisabled	1.802	.035	1.733	1.871
	With a Disability	2.112	.076	1.962	2.262
Internalizing Behavior	Nondisabled	2.207	.054	2.100	2.314
	With a Disability	2.583	.118	2.350	2.816

APPENDIX G

Table G-1. Intercorrelations between the Proactive and Reactive Subscales of the HEP-AF

		PROACTIVE	REACTIVE
Spearman's rho	PROACTIVE	Correlation Coeff.	.435 **
		Sig. (2-tailed)	.000
		N	307
	REACTIVE	Correlation Coeff.	.435 **
		Sig. (2-tailed)	.000
		N	307

** . Correlation is significant at the .01 level (2-tailed).

Table G-2. Multivariate Analysis of Covariance of Proactive and Reactive Subscales as a Function of Student Group (With a Disability/Nondisabled), with Parent Education Level and Income as Covariates

Effect	Wilks' Lambda	F	Hypothesis df	Error df	Partial Eta Squared
EDLEVE	.981	2.677	2	278	.019
INCOME	.957	6.290**	2	278	.043
GROUP	.968	4.558**	2	278	.032

**p<.01

Table G-3. Univariate Analysis of Covariance of Proactive and Reactive Subscales as a Function of Student Group (With a Disability/Nondisabled), with Parent Education Level and Income as Covariates.

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Partial Eta Squared
EDLEVEL	PROACTIVE	.764	1	.764	3.825	.014
	REACTIVE	.839	1	.839	4.365*	.015
INCOME	PROACTIVE	1.384	1	1.384	6.930**	.024
	REACTIVE	7.766E-02	1	7.766E-02	.404	.001
GROUP	PROACTIVE	.919	1	.919	4.603*	.016
	REACTIVE	1.666	1	1.666	8.666**	.030
Error	PROACTIVE	55.726	279	.200		
	REACTIVE	53.626	279	.192		
Total	PROACTIVE	4930.702	283			
	REACTIVE	4480.297	283			

*p<.05. **p<.01

Table G-4. Estimated Marginal Mean Scores of Proactive and Reactive Subscales as a Function of Student Group (With a Disability/Nondisabled), with Parent Education Level and Income as Covariates.

Dependent Variable	Group	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
PROACTIVE	Nondisabled	4.176	.029	4.118	4.234
	With a Disability	4.023	.064	3.897	4.149
REACTIVE	Nondisabled	3.991	.029	3.934	4.047
	With a Disability	3.786	.063	3.662	3.909

APPENDIX H

Table H-1. Correlations between Child Age and Parenting Practices Subscales.

			NURTURE	MONITOR	DISCIPLINE	MODELING
Spearman's	Age of Child	Correlation Coeff.	-.120*	-.255**	-.115*	-.156**
rho		N	308	307	307	308

*. Correlation is significant at the .05 level (2-tailed).

**. Correlation is significant at the .01 level (2-tailed).

APPENDIX I

Dear Superintendent:

Thank you for considering our request to conduct research in your school system. This research, entitled "A Comparison of Parenting Practices for Parents of Regular and Exceptional Children," would require a collection of information on parenting behavior. We would like to have parents of students in your school system (in grades K, 1, 2, 3, 4, 5, 6, 7, and 8) complete a questionnaire, called the *Home Environment Profile-Abbreviated Form (HEP-AF)*. This questionnaire measures parenting behaviors in four areas.

With permission of the principals and teachers, we would like to have teachers send the HEP-AF to parents of students in their classrooms. Along with the HEP-AF, parents will receive a letter detailing the study. The letter will explain the purpose of the study, how it will be conducted, how parents indicate their agreement to participate, the benefits and risks of the study, how confidentiality will be maintained, and how to contact researchers. (Please see the HEP-AF and the parent letter enclosed.) Parents, who choose to participate, would complete the HEP-AFs and send them to the University upon completion. Or, the parents could choose to return the questionnaire to the school and place it in a special collection box. Researchers would then collect the surveys and analyze them.

Parents, schools, and your school system can withdraw from this project at any time without penalty. Participation is voluntary. There will be no identifying information on the Home Environment Profiles and the researchers will not know the names of the parents. The confidentiality of parents will be protected. Also, there will be no method of identifying one school from another.

The information we gather will assist us in determining how parenting styles may differ between regular and exceptional children. This data will also help us to find out how the styles of parenting differ for parents who have children in different grades (4-8) and assist us in determining the parenting styles that most parents use with their children. This research may allow us, therefore, to develop specific interventions for parents. Your approval, in writing, would be appreciated. If you are interested in participating in this study, please type the attached permission statement on your school system's stationery, and return it to us. No action on this matter will be initiated without your approval.

If you have any questions about this research study, please contact Carolyn Hooper at . Thank you very much for your time and consideration.

Sincerely,

Carolyn Hooper
Enclosure

SUPERINTENDENT INFORMED CONSENT FORM

I, _____, as the authorized representative of _____ School System, am completely informed about the proposed study, "A Comparison of Parenting Practices for Parents of Regular and Exceptional Children." I understand the content of this study and the parameters of participation and confidentiality. I understand that this poses no or minimal risk to this school system, parents, and their children, and that I can withdraw this permission at any time.

I give consent to participate.

Signature of Superintendent

Date

Dear Principal:

Thank you for considering our request to conduct research in your school system. This research, entitled "A Comparison of Parenting Practices for Parents of Regular and Exceptional Children," would require a collection of information on parenting behavior. We would like to have parents of students in your school system (in grades 4 to 8) complete a questionnaire, called the *Home Environment Profile-Abbreviated Form (HEP-AF)*. This questionnaire measures parenting behaviors in four areas.

With your permission and permission from teachers, we would like to have teachers send the HEP-AF to parents of students in their classrooms. Along with the HEP-AF, parents will receive a letter detailing the study. The letter will explain the purpose of the study, how it will be conducted, how parents indicate their agreement to participate, the benefits and risks of the study, how confidentiality will be maintained, and how to contact researchers. (Please see the HEP-AF and the parent letter enclosed.) Parents, who choose to participate, would complete the HEP-AFs and send them to the University upon completion. Or, the parents could choose to return the questionnaire to the school and place it in a special collection box. Researchers would then collect the surveys and analyze them.

Parents, schools, and your school system can withdraw from this project at any time without penalty. Participation is voluntary. There will be no identifying information on the Home Environment Profiles and the researchers will not know the names of the parents. The confidentiality of parents will be protected. Also, there will be no method of identifying one school from another.

The information we gather will assist us in determining how parenting styles may differ between regular and exceptional children. This data will also help us to find out how the styles of parenting differ for parents who have children in different grades (4-8) and assist us in determining the parenting styles that most parents use with their children. This research may allow us, therefore, to develop specific interventions for parents. Your approval, in writing, would be appreciated. If you are interested in participating in this study, please type the attached permission statement on your school system's stationery, and return it to us. No action on this matter will be initiated without your approval.

If you have any questions about this research study, please contact Carolyn Hooper at Thank you very much for your time and consideration.

Sincerely,

Carolyn Hooper
Enclosure

PRINCIPAL INFORMED CONSENT FORM

I, _____, as the authorized representative of _____ School, am completely informed about the proposed study, "A Comparison of Parenting Practices for Parents of Regular and Exceptional Children." I understand the content of this study and the parameters of participation and confidentiality. I understand that this poses no or minimal risk to this school system, parents, and their children, and that I can withdraw this permission at any time.

I give consent to participate.

Signature of Principal

Date

Dear Parents:

For the sake of our children

There has never been a time when the involvement of parents in their children's lives is more important than it is today. The pressures and stresses of life for children in the 21st century necessitate active and effective parenting methods in the areas of monitoring, nurturing, discipline, modeling, and self-management. We are asking for your assistance in discovering how the habits of parents in these areas affect children's behavior and their ability to learn. By examining this, school systems would be able to assist parents in helping their children. Thus, this information could directly benefit parents.

It is all confidential!

We are asking you to participate in this research by completing the enclosed questionnaire, called the Home Environment Profile (HEP-AF). It should take no longer than 15-30 minutes to complete. Your participation in this project is completely voluntary and you may withdraw from the study without penalty. All information provided will be kept confidential. The researchers will not know the identity of the parents completing the questionnaires. If you decide to participate, you will complete the Home Environment Profile, seal the stamped envelope provided, and mail it directly to the researchers. Or, if you prefer, you can take your sealed envelope to your child's school and place it in the marked collection box. Please do not put your name or your child's name on the questionnaire. Teachers and your principal will not know your responses to questions on the HEP. *Return of the HEP will constitute your consent to participate.*

When your questionnaire is received, your answers will be transposed to computer format and the questionnaires will be destroyed one year after they were received. The computer file can only be accessed by the researchers. All data will be held for a minimum of three years by the Co-Principal Investigator,

What are the possible risks and benefits to you for participating?

There will be no risk to you for participating in this study. You may benefit from completing the HEP, though, because the experience may help you to focus on behaviors that appear related to your child's achievement and conduct.

If you have questions:

This study is being conducted by Carolyn Hooper, doctoral student, at the University of Tennessee-Knoxville.

We would very much appreciate your help with this project. Please keep this letter as it contains the telephone numbers of the researchers and information about the study. For more details, please see the Instructions for the HEP.

Thank you for your time and consideration.

Sincerely,

Carolyn Hooper
Enclosure

APPENDIX J

Home Environment Profile- Abbreviated Form (HEP-AF)

The Home Environment Profile-Abbreviated Form measures the parenting styles of: Disciplining, Modeling Attitudes and Behaviors, Nurturing, and School and Social Monitoring.

Instructions

1. Using pen or pencil, circle the answer to each question that comes closest to being accurate for you. Try to answer all the questions even though some of the situations may not have occurred in your family.
2. If you have more than one child, answer the questions for the child whose teacher sent you the questionnaire. Only one member of the family need complete the questionnaire; however it is possible for more than one person to assist in answering.
3. When you have completed the questionnaire, please place it in the enclosed self-addressed envelope and mail to The University of Tennessee. Or, if you prefer, you may return your completed questionnaire to your child's school and place it in the collection box marked for this purpose. Please place the HEP in the enclosed envelope and seal it. Please answer the questions and return as soon as possible. The results may serve as a basis to help children learn and cope more effectively in school.
4. **Please do not put your name or your child's name on this questionnaire.** The researchers will not know the names of the parents completing the questionnaires. The teachers and principal at your child's school will not know your responses to items on this questionnaire. All information provided will be kept confidential.
5. Your participation is completely voluntary.

Results

The participating school systems will be notified of the results in the Spring of 2002. In addition, we will encourage the school systems to use the results to train parents in those areas that make a difference in how children achieve and behave at school.

Questions?

If you have any questions, please contact your child's principal. Or, you may contact the Principal Investigator, Carolyn Hooper or the Co-Principal Investigator, Dr. Don Dickinson. Thank you very much for your participation.

This instrument is not to be reproduced without written permission.
August 1995; February 2001

Please circle the one answer to each question that comes closest to being accurate for you.					
Circle A if the statement is always or almost always true. Circle O if the statement is often true. Circle S if the statement is sometimes true. Circle R if the statement is rarely true. Circle N if the statement is never true.					
	Always	Often	Sometimes	Rarely	Never
1. I talk to my child about everyday things, such as friends, television programs, hobbies, and activities.	A	O	S	R	N
2. When I am around my child, I am in a consistently good mood.	A	O	S	R	N
3. I compliment, support, encourage, praise, or show affection to my child.	A	O	S	R	N
4. I act cold or unfriendly to my child.	A	O	S	R	N
5. I talk to my child about things that interest him/her.	A	O	S	R	N
6. I spend time going to movies, watching television, or doing other activities with my child.	A	O	S	R	N
7. I get my child materials, tools, equipment, and/or books to support his/her interests.	A	O	S	R	N
8. I give or read books to my child.	A	O	S	R	N
9. I see to it that my child eats breakfast, has dental care, and gets enough sleep.	A	O	S	R	N
10. I feel close to my child.	A	O	S	R	N
11. I talk to my child about what he/she is learning in school.	A	O	S	R	N
12. I know where my child is.	A	O	S	R	N
13. I know the person who is with my child.	A	O	S	R	N
14. I allow my child to have close friends who get in trouble at school or with the law.	A	O	S	R	N
15. I allow my child to have good friends who make poor grades in school.	A	O	S	R	N
16. I urge my child to study at the same time and place each day.	A	O	S	R	N
17. I am able to immediately stop inappropriate behavior once it has started (for example, children pinching each other or children starting to "rough house").	A	O	S	R	N

18. When my child is studying, I make certain he/she is actually studying by checking on him/her.	A	O	S	R	N
19. It is hard for me to keep my child busy or occupied when we go places in public, so that he/she does not get into trouble.	A	O	S	R	N
20. I check to see what my child watches on television and/or views on the internet.	A	O	S	R	N
21. The adult members of our family agree on how to discipline the children.	A	O	S	R	N
22. I give short rather than long lectures to my child when he/she does something wrong.	A	O	S	R	N
23. When I say I am going to punish my child, I follow through and do it.	A	O	S	R	N
24. I use spankings to discipline my child.	A	O	S	R	N
25. When I correct my child, I give my child an activity that keeps him/her from getting into trouble again.	A	O	S	R	N
26. I am consistent when I discipline my child.	A	O	S	R	N
27. When my child does something I don't like (such as not hanging up a coat), I calmly explain to my child what he/she did that was wrong.	A	O	S	R	N
28. If my child whines, complains, or argues when I scold him/her, then I back off and stop scolding. (I give in to my child.)	A	O	S	R	N
29. I use yelling, name calling, or threats to punish my child.	A	O	S	R	N
30. I use such things as time-out, TV restrictions, or the taking away of privileges in order to punish my child if he/she misbehaves.	A	O	S	R	N
Please select the answer that best describes your agreement with each statement. Circle SA if you strongly agree with the statement. Circle A if you agree with the statement. Circle N if you neither agree nor disagree with the statement. You are neutral. Circle D if you disagree with the statement. Circle SD if you strongly disagree with the statement.					
	Agree	Agree	Neutral	Disagree	Strongly Disagree
31. I expect my child to make good grades at school.	SA	A	N	D	SD
32. I frequently read (to myself) at home.	SA	A	N	D	SD
33. I am capable of controlling my anger when I am around my child.	SA	A	N	D	SD

34. I watch a great deal of television each day.	SA	A	N	D	SD
35. I expect my child to graduate from high school.	SA	A	N	D	SD
36. I expect my child to graduate from college.	SA	A	N	D	SD
37. If my child makes a good grade on a test, it is because he/she was lucky.	SA	A	N	D	SD
38. I am actively involved in activities such as hobbies, social/church organizations, community and/or other recreation.	SA	A	N	D	SD
39. My child often hears me complain about my job or household work.	SA	A	N	D	SD
40. I believe that when my child puts forth good effort at school, he/she makes better grades.	SA	A	N	D	SD
<u>Information about your child:</u>					
41. Please circle the one answer to each question that best describes your child:					
	Always	Often	Sometimes	Rarely	Never
a) My child bullies other children.	A	O	S	R	N
b) My child gets into trouble at school.	A	O	S	R	N
c) My child gets into trouble at home.	A	O	S	R	N
d) My child lies or cheats.	A	O	S	R	N
e) My child is cruel to other children.	A	O	S	R	N
f) My child worries too much.	A	O	S	R	N
g) My child cries easily.	A	O	S	R	N
h) My child is overly fearful.	A	O	S	R	N

42. Which describes your child? Check all that apply.

- ☐ My child is in "regular education."
- ☐ My child has been certified as a child with a Specific Learning Disability.
- ☐ My child has been certified as a child with Mental Retardation.
- ☐ My child has been certified as a child with Emotional Disturbance.
- ☐ My child has been diagnosed with ADHD.
- ☐ My child has been certified as Intellectually Gifted.

General Information:

43. The age of my child is: _____ years old.

44. My child is in the _____ grade.

45. My child is: **Male** **Female**

46. Which best describes you?

Mother **Father** **Sister/Brother** **Grandparent** **Foster Parent**
Stepparent **Guardian**

47. My age when my child was born was:

15 years or younger **16-18** **19-22** **23-25** **26 or older**

48. The highest educational level that I have completed is:

Elementary level or less **Junior high school** **High school** **College** **Graduate School**

49. Our yearly total income is closest to:

Below \$10,000 **\$10,000-20,000** **\$21,000-30,000** **\$31,000-40,000** **\$41,000-50,000**
\$51,000-60,000 **Above \$60,000**

50. The number of people who live in my house is

2 **3** **4** **5** **6 or more**

Thank you for completing the Home Environment Profile-Abbreviated Form.

VITA

Carolyn Wade Hooper was born in Suffern, New York. She attended public schools in Goshen, New York and Charlotte, North Carolina. She was graduated from Independence High School, Charlotte, North Carolina, in June of 1984. The author was awarded several scholarships to attend college. She was graduated from Duke University in May of 1988, with an AB in Psychology. After working in the public relations field for one year, the author began graduate school, receiving a fellowship to participate in the Lyndhurst Teacher Certification Program at the University of Tennessee-Knoxville. She received a Master of Science degree in Curriculum and Instruction in August of 1991 from the University of Tennessee-Knoxville. The author then taught elementary school for two years in Charlotte, North Carolina, before entering the doctoral program in School Psychology at the University of Tennessee-Knoxville. The predoctoral internship was completed through the Tennessee Internship Consortium in Professional Psychology. The author has worked in the School Psychology field in New Orleans, Louisiana and Chattanooga, Tennessee. The Doctor of Philosophy degree was conferred in May of 2002.