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DISRUPTIVE BEHAVIORS IN EARLY CHILDHOOD: THE ROLE
OF PARENT DISCIPLINE AND PARENT STRESS

by

Angela L. W. Ehrlick

A thesis submitted in partial fulfillment
of the requirements for the degree

of

MASTER OF SCIENCE

in

Psychology

UTAH STATE UNIVERSITY
Logan, Utah

2002

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ABSTRACT

Disruptive Behaviors in Early Childhood: The Role
of Parent Discipline and Parent Stress

by

Angela L.W. Ehrlick, Master of Science
Utah State University, 2002

Major Professor: Dr. Gretchen A. Gimpel
Department: Psychology

Externalizing behavior problems during early childhood are fairly common, with approximately 10% to 15% of young children exhibiting at least mild to moderate disruptive behaviors. Of great significance, disruptive behaviors persist beyond early childhood for a substantial number of children and are related to impaired functioning for children and families. Parent discipline and parent stress are two variables that have been examined in relation to children's disruptive behaviors. While a significant body of research has documented the association between broad parental discipline strategies and behavior problems during early childhood, little research attention has been devoted to specific discipline techniques that may be related to disruptive behaviors. This study surveyed 30 parents of children with behavior problems and 57 parents of children without behavior problems about the discipline techniques they use with their preschool children. The relationships between the specific techniques parents use with their

young children, parents' perceived stress level, and parent-reported child behavior problems were examined. Telling the child "no," corrective feedback, lecturing, and scolding were the discipline techniques parents reported using most often. The discipline techniques of corrective feedback and threats as well as parent stress emerged as significant predictors of disruptive behaviors. Conclusions and clinical implications of these findings are provided.

(117 pages)

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Angela L.W. Ehrlick

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CHAPTER I

INTRODUCTION

Behavior problems in young children have been the focus of increasing research attention over the last two decades. Researchers have noted that behavior problems during toddlerhood and the preschool years are fairly common, with roughly 10% to 15% of young children exhibiting at least mild to moderate behavior problems (Campbell, 1995). Externalizing behavior problems are especially prominent among young children and can be a source of significant distress for parents. For instance, in a study examining child-rearing difficulties of parents, more than 40% of the parents sampled reported whining to be a problem for them, while defiant behavior and temper tantrums were also common sources of frustration for these parents (O'Brien, 1996).

Although it has been assumed that behavior problems in young children are a phase that children will soon outgrow, recent studies have suggested that externalizing behaviors persist into elementary school and beyond for a substantial number of children (Campbell, 1987). In fact, research has indicated that up to half of children who exhibit problem behaviors during early childhood will continue to display troublesome behaviors throughout the school-age years and into adolescence and adulthood (Campbell, 1995; Campbell, Ewing, Breaux, & Szumowski, 1986; Caspi, Moffitt, Newman, & Silva, 1996). Furthermore, problem behaviors during early childhood may be precursors to disruptive behavior disorders (e.g., attention-deficit/hyperactivity disorder, oppositional defiant disorder, conduct disorder), criminal behavior, and substance abuse (Campbell, 1995; Lerner, Inui, Trupin, & Douglas, 1985;

Loeber & Dishion, 1983). In addition, these problem behaviors often have a negative impact on children's peer relationships and academic functioning and impair the quality of parent-child relationships (Campbell, 1995; Donenberg & Baker, 1993). As such, it is imperative that problem behaviors be identified and treated in early childhood before they escalate to a more serious level.

A growing body of research has investigated the discipline strategies used by parents of young children in relation to children's behavior problems. This is an important area of study because of the link between parent discipline and the number and severity of parent-reported behavior problems in young children. Specifically, studies have reported that overreactive, lax, or inconsistent discipline and negative-coercive parent-child interactions are strong predictors of externalizing behavior problems in young children (Arnold & O'Leary, 1997; Gardner, 1989; O'Leary, Slep, & Reid, 1999; Patterson, Capaldi, & Bank, 1991). It is important to identify discipline techniques that are associated with problem behaviors so that parents and clinicians can use this knowledge to modify parental discipline before the child behavior problems accelerate to even greater levels of severity as children age.

Though researchers have examined broad parental discipline tendencies and parent-child interaction patterns, few studies have looked at the specific discipline techniques (e.g., rewards, spanking, time-out) parents utilize on a day-to-day basis in response to the problem behaviors of their young children. Indeed, just five studies in the literature have inquired about parent use of discipline techniques with toddler and preschool-age children (i.e., Chapman & Zahn-Waxler, 1982; Gardner, Sonuga-Barke,

& Sayal, 1999; Larzelere, Schneider, Larson, & Pike, 1996; Reid, O'Leary, & Wolff, 1994; Socolar & Stein, 1996), and all studies have limitations in terms of sample characteristics or discipline techniques studied. The study by Socolar and Stein (1996) consisted of a rather limited sample (a hospital-based sample of mothers of 1- to 4-year-old children), and participants were asked to indicate the frequency with which they had used just five specific discipline techniques (distraction, bribing, praise, explanation, spanking) during a 1-week period. Similarly, the studies by Chapman and Zahn-Waxler (1982), Larzelere et al. (1996), Reid et al. (1994), and Gardner et al. (1999) examined maternal responses toward misbehavior, focusing on a limited number of maternal discipline techniques. Thus, the wide variety of discipline techniques that a nonclinical population of parents uses to address the behavior problems of young children on a long-term basis is unknown. Moreover, the association between parental use of specific discipline techniques and the number and severity of parent-reported child behavior problems has not been addressed in the research literature. The identification of the specific techniques related to these behaviors will better help parents and clinicians know where modifications in parental discipline should be made, as opposed to attempting to modify broad discipline patterns. In addition, knowledge of the discipline techniques parents use that do not lead to externalizing behavior problems will inform parents and clinicians of the techniques that are most successful in discipline situations.

A factor that has been examined in relation to both child behavior problems and parental discipline techniques is parent stress level. Specifically, researchers have noted that higher parental stress levels are related to higher reported levels of child behavior

problems and less responsive parenting (Dumas & Wekerle, 1995; Hall & Farel, 1988; Mouton & Tuma, 1988; Patterson, 1983). However, parent stress and its association with child behavior problems and discipline techniques have not consistently been studied as stress pertains to toddlers and preschool-age children and their parents. Because parent stress is a factor that is associated with child behavior problems and parent discipline techniques, it is important that its relationship with both be studied within this population.

In sum, the lack of research examining parental discipline techniques exclusively with young children is problematic. If left alone, problem behaviors in early childhood do not necessarily go away; thus, identifying the factors that are associated with these behaviors, such as discipline techniques, is an important area of study. As such, the purpose of this study is to determine the discipline techniques parents of toddlers and preschool-age children use on a daily basis. Moreover, this study will examine how the discipline techniques used by parents who report a high frequency of behavior problems in their children and those who report fewer behavior problems might differ. Finally, parent stress level will be examined as it relates to both child behavior problems and parent use of discipline techniques.

CHAPTER II

REVIEW OF LITERATURE

Behavior Problems in Young Children

Prevalence and Nature of Behavior Problems in Young Children

In recent years, research studies have indicated an increase in the frequency and severity of behavior problems in children (Achenbach & Howell, 1993). However, most researchers have focused their attention on behavior problems in school-age children and adolescents, while behavior problems exhibited by children in their toddler and preschool years have been overlooked. Within the last two decades, the literature on behavior problems in young children has grown considerably, and researchers have begun to recognize that externalizing behavior problems are not infrequent in this population, nor will they necessarily be outgrown. In fact, recent studies indicate that many young children exhibit problem behaviors that often increase in severity with the passage of time (Campbell, 1987, 1994).

Various studies have shown that behavior problems are fairly common in young children. In a literature review completed by Campbell (1995), it was noted that 10 to 15% of children exhibited "mild" to "moderate" problem behaviors, as reported by their parents, while 7% to 14% of children were reported to exhibit severe problem behaviors. Recent studies that have examined behavior problems in 2- to 4-year old children from low-income families report prevalence rates between 31% and 48%, with problem behaviors occurring across both home and school settings (Gross, Sambrook,

& Fogg, 1999; Webster-Stratton & Hammond, 1998). McGuire and Richman (1986) examined the prevalence and nature of behavior problems in preschool children attending three different childcare settings. They noted that roughly 35% of children attending day nurseries (i.e., facilities in which many of the children come from poor home conditions and inadequate parenting environments) were reported to exhibit significant externalizing behaviors.

Research has further shown that young children exhibit many behaviors that are of significant concern to their parents. For instance, O'Brien (1996) reported that in her sample of parents from predominantly middle-class, well-educated backgrounds, 23% indicated that their children exhibited 12 or more problem behaviors (e.g., refusing to obey, yelling and screaming, dawdling). In a similar study (Ralph, Haines, Harvey, McCormack, & Sherman, 1999), nearly 50% of parents sampled reported that their children exhibit at least seven behaviors to a serious extent (e.g., fighting with siblings, temper tantrums). According to recent studies, whining, noncompliance, overactivity, angry and aggressive behavior, and defiance are the most common concerns parents have about the behavior of their young children (Campbell, 1995; Jenkins, Bax, & Hart, 1980; O'Brien, 1996; Ralph et al., 1999). These behaviors are a source of great frustration for many parents. Indeed, in a study examining behavior problems in 3-year-old children, Stallard (1993) noted that 16% of parents reported "a lot of concern" about their child's behavior, while 66% of parents had at least some concern.

Many of the behaviors exhibited by young children are not out of the realm of "normal," age-appropriate behavior, but reflect expected change as children enter a

difficult stage of development. Indeed, behaviors cited as problems by many parents (e.g., temper tantrums, physical aggression, noncompliance) are also prevalent in nonclinical populations of children (Campbell, 1990; Crowther, Bond, & Rolf, 1981; Egeland, Kalkoske, Gottesman, & Erickson, 1990). Both Campbell (1995) and Crowther et al. (1981) noted that caregiver concerns about problem behaviors tend to increase when children reach 2 and 3 years of age, though these behaviors decline in frequency and severity as children approach school age among some samples of children.

However, at least some children begin to exhibit behaviors that are precursors to disruptive behavior disorders during early childhood. Campbell, Breaux, Ewing, and Szumowski (1986) reported that 50% of “hard-to-manage” preschoolers exhibited inattentive and impulsive behaviors, aggressive behaviors, or both, and one third of those children met diagnostic criteria for attention-deficit/hyperactivity disorder (ADHD). Within their sample of 2- to 5-year-old children, Lavigne et al. (1996) reported that 21% met diagnostic criteria for a “pure” disorder, most commonly oppositional defiant disorder (ODD). As such, serious problem behaviors begin to emerge in early childhood and continue to be exhibited by many children beyond the toddler and preschool years. An important next step is identifying factors related to the stability of behavior problems and which children may be especially “at-risk” for continuing to manifest externalizing behaviors beyond early childhood.

Stability of Behavior Problems

While behavior problems represent a “passing phase” in some young children,

researchers have recognized that externalizing behaviors originating in early childhood persist beyond the toddler and preschool years among a subsample of children. In fact, research findings have indicated that many children who exhibit problem behaviors as toddlers and preschoolers continue to exhibit these behaviors during later childhood and adolescence, and these behaviors often increase in frequency and severity as children age.

The course of problem behaviors has been examined in nonclinical samples of young children, as well as “hard-to-manage” children referred by their parents. Campbell (1995) reported that the stability of problem behaviors in young children over 1- to 2-year periods is “remarkably high.” Similarly, in a study examining behavior problems in young children over a 6-year period, Rose, Rose, and Feldman (1989) reported a strong continuity in behavior from one year to the next.

Problem behaviors have also been found to continue beyond the preschool years. For instance, Olson and Hoza (1993) noted a moderate stability in behavior problems from the preschool years through kindergarten, while other researchers (e.g., Campbell, 1987; Campbell & Ewing, 1990; Egeland et al., 1990; Verhulst & van der Ende, 1992) have reported that problem behaviors persist well into middle childhood and are displayed across both home and school settings. In an early study initially examining externalizing behaviors in 3-year-old children, Richman, Stevenson, and Graham (1975) found that behavior problems were still present in 62% of the children at eight years of age. More recently, Heller, Baker, Henker, and Hinshaw (1996) reported that 94% of children in their study who displayed externalizing behavior problems during the

preschool years continued to exhibit behaviors that were of at least some concern in first grade. Similarly, Lavigne et al. (1998a) noted that children with disruptive disorders in early childhood were eight to nine times more likely to have a disruptive disorder during early elementary school. Overall, in her review of the literature, Campbell (1995) reported that roughly 50% of children described as “hard-to-manage” at 3 or 4 years of age continue to exhibit behavior problems into elementary school and early adolescence.

Though it is often difficult to predict which children will continue to exhibit behavior problems beyond the preschool years, research suggests that these behaviors are most likely to persist in children who demonstrate externalizing behaviors of high frequency and severity during early childhood. Specifically, children who exhibit more severe hyperactive and aggressive behaviors during early childhood have been shown to demonstrate more persistent problems, and are more likely to meet diagnostic criteria for ADHD and other behavior disorders as they enter school (Campbell, Breaux, et al., 1986; Campbell, Pierce, March, Ewing, & Szumowski, 1994; Pierce, Ewing, & Campbell, 1999). Additionally, children who exhibit a broader range of behaviors and demonstrate the behaviors in the presence of different people (e.g., parents, other caregivers, peers) are typically those who continue to engage in these behaviors beyond the toddler and preschool years (Campbell, 1987, 1990, 1994; Prior, Smart, Sanson, Pedlow, & Oberklaid, 1992).

Unfortunately, problem behaviors often increase in frequency and severity in children who continue to exhibit these behaviors in later stages of development. As

children progress into middle childhood and adolescence, externalizing behaviors are displayed across a wide variety of settings (e.g., home, school, community) and may include forms of antisocial behavior (e.g., lying, stealing; McMahon & Wells, 1998). Numerous researchers have documented a general behavioral pattern, whereby behavior problems persist in children who exhibit high levels of noncompliance, temper tantrums, impulsivity, and aggression during early childhood, exhibit even greater levels of oppositional behavior in middle childhood, and exhibit delinquent behaviors during adolescence (Gardner & Ward, 2000; Patterson, Forgatch, Yoerger, & Stoolmiller, 1998; Pierce et al., 1999). Therefore, it cannot be assumed that behavior problems exhibited by young children will automatically be outgrown as children age. Rather, a substantial body of research indicates that externalizing behaviors displayed during early childhood represent long-standing behavior patterns for half of these children.

Early Predictors and Correlates of Behavior Problems

Child age. As previously noted, many externalizing behaviors exhibited by children in the toddler and preschool years are “age-appropriate, reflecting developmental change or age-related conflict or frustration” (Campbell, 1995, p. 116). Indeed, a large body of research has documented that younger children are more likely to exhibit annoying or frustrating behaviors (e.g., whining, temper tantrums), while these behaviors decrease with the passage of time. For instance, in their sample of 2-, 3-, and 4-year-old children, McGuire and Richman (1986) reported that 2 year olds

demonstrated the highest rates of behavior problems. They noted that many of these behaviors constituted age-related difficulties, such as toileting problems and poor concentration. Cummings, Iannotti, and Zahn-Waxler (1989) examined the stability of aggressive behavior in toddler and preschool-age children. According to their results, the frequency and duration of aggressive behavior declined between the ages of 2 and 5. Finally, Lavigne et al. (1996) reported an increased prevalence of externalizing behaviors among children ages 2 and 3, but a decline in the prevalence of disruptive behavior disorders among 4- to 5-year-old children. They suggested that some behavioral problems are likely limited to a younger developmental period, though the toddler years may be a “critical period of understanding the onset” of externalizing behavior problems (p. 211).

Child sex. Prevalence rates of disruptive behavior disorders, as documented in the Diagnostic and Statistical Manual of Mental Disorders--Fourth Edition (DSM-IV; APA, 1994), indicate that externalizing behaviors are much more prevalent in boys than girls. Specifically, the DSM-IV reports that four to nine times as many boys as girls are diagnosed with ADHD; ODD is more prevalent among pre-pubertal males than females; and conduct disorder (CD), particularly childhood-onset type, is more prevalent among males.

Research examining the prevalence and nature of externalizing behaviors in young children has generally confirmed higher prevalence rates among boys. McGuire and Richman (1986) noted that, among the 2- to 4-year-old children included in their sample, boys demonstrated higher activity levels and attention-seeking behaviors, and

generally exhibited a greater number of conduct problems. In an early study examining the prevalence of behavior problems among a nonclinical sample of 3-year-old children, Richman et al. (1975) reported that boys demonstrated higher rates of moderate to severe behavior problems than girls. In their nonclinical sample of preschool children, Lavigne et al. (1996) reported that nearly 17% met diagnostic criteria for ODD, with boys twice as likely to be diagnosed with ODD, particularly at more severe levels.

Although prevalence rates for externalizing behaviors are higher among boys, such data should not serve to diminish the fact that girls often exhibit significant behavior problems as well. However, the nature of behaviors exhibited by boys and girls appears to differ a great deal. For instance, Richman et al. (1975) reported that the overall rates of behavior problems did not differ between boys and girls, though boys were significantly more likely to demonstrate toileting problems and to be described as too active, whereas girls were significantly more fearful. When girls exhibit disruptive behaviors, the behaviors may persist for a greater length of time. Lavigne et al. (1998a) noted that girls who exhibited severe disruptive behaviors at early ages were likely to maintain disruptive behavior case status for a longer period of time than boys (i.e., 68% of girls versus 27% of boys maintained case status for up to 3 years following initial data collection).

Socioeconomic status. While environmental factors typically do not cause behavior problems in children, a substantial amount of research has documented that environmental factors, such as socioeconomic status, are associated with higher rates of initial behavior problems and more long-standing behaviors. In her review of the

literature, Campbell (1995) concluded that children who exhibit externalizing behavior problems were more likely to come from families of lower socioeconomic status. Similarly, Lavigne et al. (1996) reported that children in their sample who received higher total behavior problem scores on the Child Behavior Checklist generally came from families of lower socioeconomic backgrounds. Both Campbell, Ewing, et al. (1986) and Lavigne et al. (1998b) identified socioeconomic status as a predictor of persistent behavior problems. Specifically, in their follow-up study of preschool children, Campbell, Ewing et al. (1986) reported that socioeconomic background was associated with a higher initial level of externalizing behaviors, as well as continued behavior problems at ages four and six. Lavigne et al. (1998b) identified lower socioeconomic status as one of the best predictors in the stability of diagnostic case status among preschool children included in their sample.

Child temperament. A large body of research has examined child temperament as a risk factor in the development and maintenance of externalizing behaviors. Webster-Stratton and Eyberg (1982) observed interactions between middle-class mothers and their 3- to 4-year-old children. They noted that mothers with children described as having highly active temperaments reported more behavior problems within the home. In turn, children with higher ratings of parent-reported behavior problems tended to exhibit more negative, nonaccepting, and dominant behaviors while interacting with their mothers in the laboratory setting. Similarly, in an observational study of mothers and their 2-year-old children, children who were perceived by their mothers as having a difficult temperament were more likely to have negative

interactions with their mothers than “easy” or “average” children. These children were observed to be more negative and resistant in response to their mothers’ control attempts than those in other mother-child dyads (Lee & Bates, 1985).

Researchers have identified the combination of difficult child temperament and negative parenting behavior as showing especially strong associations with child behavior problems. Patterson (1997) noted that oppositional child behavior plays a pivotal role in shaping parents’ coercive behaviors. Sanson and Rothbart (1995) reported direct associations between child temperament and parent behavior, stating that adaptable, easy to soothe, and sociable children tend to elicit warm and responsive parenting, whereas irritable and demanding children are more likely to elicit parental irritation and withdrawal of contact. Miller and Scarr (1989) reported that parents of children with attentional and behavioral modification difficulties (i.e., those easily losing interest in tasks and relatively quick to show anger) were more likely to use punitive discipline (e.g., physical restraint, physical punishment).

Rubin, Hastings, Chen, Stewart, and McNichol (1998) examined the association between temperament, maternal behavior, and child aggressive behavior in a nonclinical sample of 2-year-old children. Results indicated that boys observed to be and described by mothers as “emotionally dysregulated” and who had highly negative and dominant mothers (i.e., commanding, physically intrusive) were more likely to demonstrate aggressive behavior toward peers. In their observations of mother-child dyads, Lee and Bates (1985) noted that mothers of difficult children were especially likely to respond to their children’s negative behaviors through more intrusive control strategies (e.g.,

physically punitive discipline). Buss (1981) reported that parent-child interactions involving “active” children were characterized by more power struggles on the part of parents, more parent intrusions during child play, and a general difficulty establishing good parent-child working relationships. As such, neither child behavior, parent behavior, nor environmental factors alone can be said to cause and maintain externalizing behaviors. Rather, it is likely the combination of various factors that influence the emergence and stability of problem behaviors.

Impact of Behavior Problems on Children

Research has consistently documented the adverse effects early-onset behavior problems have on children. As Bennett, Lipman, Racine, and Offord (1998) noted, when externalizing behavior problems are present in early childhood, “there is an increased risk for persistent, life-long psychosocial problems” (p. 1059). Lerner et al. (1985) examined the relationship between behavior problems in a nonclinical sample of preschool children and future psychiatric disorders. Results of the study indicated that children who demonstrated the greatest behavior disturbance at 3 to 5 years of age were twice as likely to meet diagnostic criteria for a psychiatric disorder at age 18.

Children who exhibit externalizing behaviors at early ages are especially likely to demonstrate symptoms of disruptive behavior disorders (e.g., ADHD, ODD, CD) during middle childhood and adolescence (Campbell, 1994; Pierce et al., 1999). Campbell (1991, as cited in Webster-Stratton & Hammond, 1998) reported that 67% of children described as hard-to-manage during their preschool years and demonstrating continued behavior problems throughout childhood met the diagnostic criteria for

ADHD, ODD, or CD at age 9. Pierce et al. (1999) later reported that 94% of these children met criteria for a disruptive behavior disorder diagnosis at age 13. McGee, Partridge, Williams, and Silva (1991) conducted a 12-year follow-up study of children identified as “pervasively hyperactive” during early childhood, noting that children in the “hyperactive” group exhibited more behavior problems as secondary school students than children not identified as hyperactive. While many of these behaviors were ADHD-related, McGee et al. reported that these children exhibited significantly higher rates of various psychological disorders. As such, externalizing behaviors during early childhood may place children “at a general risk for disorder at adolescence” (McGee et al., p. 231).

Early-onset behavior problems continue to be strong predictors of more serious externalizing behaviors during adolescence and adulthood, including juvenile delinquency, substance abuse, and antisocial activity (Heller et al., 1996; Lerner et al., 1985; Loeber & Dishion, 1983). Patterson et al. (1998) noted that 76% of “early-onset” boys (i.e., those who start to exhibit antisocial behaviors at early ages) became chronic juvenile offenders, compared to 19% of “late-onset” boys. Indeed, Bennett et al. (1998) reported that externalizing behavior problems during early childhood are the best predictors of future antisocial behavior.

Early-onset externalizing behaviors are associated with other psychosocial problems during childhood and adolescence as well. In addition to future externalizing behavior problems, researchers report that children who exhibit problem behaviors during early childhood have a greater likelihood of developing symptoms of

internalizing behavior disorders (Campbell, 1994, 1995; Lerner et al., 1995). In a study examining behavior problems in an “at-risk” sample of young children, Rose et al. (1989) reported that children who received high scores on the externalizing behavior dimension of the Child Behavior Checklist at age 2 tended to have high scores on the internalizing behavior dimension at ages 4 and 5. Caspi et al. (1996) noted that children who were considered as undercontrolled (i.e., impulsive, restless, and easily distractible) during early childhood were significantly more likely to have attempted suicide by age 21.

Early-onset behavior problems have further been associated with academic and social problems during the school years. Research indicates that children who continue to exhibit externalizing behavior problems upon school entry demonstrate lower academic achievement, have higher academic failure and drop-out rates, and in general function more poorly in the classroom setting than “normal” peers (Campbell, Ewing, et al., 1986; Heller et al., 1996; Lerner et al., 1985). These children have difficulties with peer relationships as well, as the negative behaviors they display seem to impede their ability to develop and maintain relationships, and they tend to be less socially competent than their same-age peers (Campbell, 1994; Campbell, Ewing, et al., 1986).

Impact of Behavior Problems on Parents and Families

Behavior problems during the preschool years also have a deleterious impact on parents. By their nature, children who demonstrate externalizing behavior problems present greater challenges to parents, as they require greater parental supervision and

control, and they typically do not respond well to usual behavior management strategies (Donenberg & Baker, 1993). As a result, parents of these children report that the demands their children exert strain the parent-child relationship.

In studies examining the parenting experience of mothers and fathers from both lower and middle-income backgrounds, parents of children with behavior problems report more negative feelings toward parenting, less certainty about their abilities as parents, and less satisfaction with the parenting role and their parenting abilities (Baker & Heller, 1996; Campbell, 1994; Donenberg & Baker, 1993; Gross et al., 1999). Parents of children with behavior problems often report that their children cause great disruption to their lives, and in particular negatively impact their marital relationships and social lives (Campbell, 1994; Donenberg & Baker, 1993). In their nonclinical sample of mothers and fathers of preschool children, Baker and Heller (1996) noted that mothers were especially likely to report that childrearing had a negative impact on their lives.

A relationship has also been documented between behavior problems during early childhood and parent psychopathology. Specifically, numerous studies have noted significant correlations between problem behaviors and maternal depression (DeKlyen, Bierbaum, Speltz, & Greenberg, 1998; O'Leary et al., 1999; Ralph et al., 1999). According to Gardner and Ward (2000), family members of children who exhibit severe externalizing behaviors often feel stigmatized, isolated, and hopeless about the future.

Research has consistently documented the relationship between child behavior problems and parent reports of stress. Parents of children who exhibit externalizing

behavior problems report higher child-related stress and environmental stress, and indicate feeling greater stress due to daily hassles (Baker & Heller, 1996; Gross et al., 1999). Donenberg and Baker (1993) examined the impact on families of 3- to 6-year-old children with externalizing behaviors, autism, and no significant problem behaviors. They noted that parents of children with externalizing behavior problems reported levels of stress as high as those of parents with children with autism. While childrearing in general can cause strains on parents and within the parent-child relationship, the demands of childrearing are exacerbated when children exhibit behaviors that are difficult to manage. Due to the stability of externalizing behaviors and their adverse impact on children and parents, it is imperative that risk factors associated with the development and maintenance of these behaviors are identified before the behaviors become entrenched with the passage of time.

Parenting Strategies

As previously mentioned, parenting behavior can have significant influence on child behavior. The next two sections examine specific parenting strategies and the manner in which these strategies are related to child behavior in more detail.

Parenting Styles

The manner in which parents interact with their children is a topic that has garnered a substantial amount of research attention. A large body of literature has examined parenting behaviors (e.g., control, affection) and broad parent-child interaction patterns (e.g., authoritarian parenting, uninvolved parenting). Researchers

have been particularly interested with how parents respond to their children in discipline situations. Studies have examined various discipline styles, including negative, lax, and inconsistent parenting. More recently, research has begun to focus on the specific techniques (e.g., rewards, spanking, time-out) that parents use in discipline situations.

Schaefer's parenting styles. Early research on parenting styles was conducted by Schaefer (1959). Schaefer's research was based on observations of mother-child interactions, in which 56 mothers were rated on 32 parenting behaviors. Schaefer determined that parenting behavior varied in two areas: the degree to which parents attempt to control their children's behavior and the amount of affection parents demonstrate toward their children. He identified the two bipolar dimensions as autonomy versus control and love versus hostility. According to Schaefer, on the first dimension maternal respect for child autonomy was contrasted with maternal overprotection. On the second dimension, the positive variables of positive evaluation of the child, equalitarianism, and expression of affection were contrasted with the negative variables of ignoring, punitiveness, perceiving the child as a burden, strictness, use of fear to control, punishment, and irritability.

Baumrind's parenting styles. Diana Baumrind formulated a very influential body of research in the area of parenting styles. Baumrind's research, which began in the early 1960s, centered on preschool children from middle-class backgrounds in California. Parent and child behaviors were garnered from observations of children in the preschool setting, parent interviews, and observations of parent-child interaction. Parent behavior was found to differ with regard to nurturance toward children, control

of children's actions through rules and punishment, communication with children, and maturity demands (i.e., expectations about age-appropriate behavior). Based on these differences, Baumrind identified three distinct styles of parenting: authoritarian, permissive, and authoritative (Baumrind, 1967).

According to Baumrind, authoritarian parents try to influence the behavior of their children to conform with a set standard. They emphasize the importance of obedience to adult authority; their word is "law" within the family. These parents typically favor punitive measures to influence compliance. Authoritarian parents show little warmth toward their children, are highly controlling, put little effort into parent-child communication, and have high (and often unrealistic) maturity demands.

Permissive parents make few demands on their children and rarely discipline them. Rather, children are given leeway to engage in behaviors and activities of their choosing. While children are consulted about family policies, they are overinvolved in determining their own schedules and appropriate manners of conduct. Permissive parents are nurturant and attentive toward their children, and they value parent-child communication. However, they have little control over their children's behavior and make few maturity demands.

Authoritative parents exercise control over their children, but do so through use of explanations and reasoning. They are willing to recognize their children's point of view, though they may not always agree with it. These parents share warm relationships with their children and encourage open communication. They have high maturity demands and set limits on their children's behavior, yet they are also attentive

to the needs and requests of their children (Baumrind, 1980).

Baumrind was one of the first researchers to suggest that parenting behavior demonstrated clear associations with child behavior. Within the samples of families included in her studies, Baumrind reported that children of authoritarian, permissive, and authoritative parents tended to behave quite differently (Baumrind, 1989).

Specifically, authoritarian parents tended to have sons who were hostile and resistive to authority and daughters who were lacking in independence and dominance. Permissive parents tended to have sons who were less achievement-oriented and daughters who were less socially assertive. Finally, authoritative parents tended to have children who were more competent overall, sons who were friendly and cooperative, and daughters who were purposive and achievement-oriented (Baumrind).

More recently, Baumrind (1989) has proposed an additional parenting style, referred to as traditional parenting. According to Baumrind, traditional parents assume more old-fashioned gender roles; mothers are more permissive, while fathers are authoritarian. For example, traditional mothers might allow certain behaviors in the home when fathers are not present, but inform their children that the behaviors must stop when fathers return home. Later research relating to Baumrind's parenting styles suggests that the permissive style of parenting can take two distinct forms, which can be referred to as democratic-indulgent and rejecting-neglecting. While parents using both forms of permissive parenting exercise little control over their children, democratic-indulgent parents demonstrate greater warmth toward their children. In contrast, rejecting-neglecting parents are rather cold toward their children and are uninvolved in

their children's lives (Berger, 1994).

Maccoby and Martin's parenting styles. Maccoby and Martin's (1983) research on parenting styles builds off that of Baumrind. They proposed similar parenting style dimensions as Baumrind, suggesting that parent behavior differs with regard to the amount of demands made and control exercised over children and parents' acceptance and responsiveness toward children. Four parenting styles can be identified from Maccoby and Martin's two-dimensional classification of parenting behavior: authoritarian or autocratic parents, indulgent or permissive parents, authoritative or reciprocal parents, and indifferent or uninvolved parents.

According to Maccoby and Martin, authoritarian or autocratic parents are those who are highly controlling and rejecting of their children. In these families, parents are the clear authority figures and determine the rules of the household. Any efforts children make toward challenging authority are quickly suppressed. Severe (and generally physical) punishment is imposed when child behavior deviates from parental expectations. Maccoby and Martin (1983) noted that children of authoritarian parents tend to have a lower self-esteem, demonstrate above average levels of aggressive behavior, and exhibit a lack of social competence.

Maccoby and Martin (1983) identified indulgent or permissive parents as those who are low in control attempts and accepting of their children. In these families, parents are tolerant of and make few demands on children's behavior, and they generally avoid asserting their authority and using punishment. According to Maccoby and Martin, children of indulgent parents tend to demonstrate more immature,

impulsive, and aggressive behavior than their peers.

Authoritative or reciprocal parents are demanding and controlling, yet accepting of and responsive toward their children. Within these families, children are required to be responsive to parents' expectations for behavior, but parents are accepting of their children's needs and desires. According to Maccoby and Martin, a high level of bidirectional communication is exhibited in these families. Children of authoritative parents tend to be more competent, independent, and have a higher self-esteem than their peers.

Finally, Maccoby and Martin (1983) described indifferent or uninvolved parents as those who are both undemanding and rejecting of their children. In general, these parents are detached from their children and uninterested in the parenting role. Maccoby and Martin stated that such parents avoid the time and effort required in interacting with their children.

Discipline Styles

Researchers have expanded on Baumrind and Maccoby and Martin's models of parenting styles, specifically focusing on styles of parenting evident in discipline situations. Additionally, rather than examining broad parent-child interaction styles, recent research has focused on more defined styles of parenting behavior. Three discipline styles have consistently emerged within the literature: negative discipline, lax discipline, and inconsistent discipline. Arnold and O'Leary (1997) examined discipline styles used by parents of toddlers described as hard-to-manage. Two styles of discipline were the focus of the study: overreactivity (i.e., parents' outward expressions of anger,

frustration, and irritation when responding to misbehavior) and laxness (i.e., parents' tendencies to allow rules to go unenforced or to give in to children's behavior). Parents and children were observed during potential conflict situations (e.g., clean-up task, phone call simulation, quiet time). The researchers noted that parents, particularly mothers, were likely to use overreactive discipline in response to children's problem behaviors. O'Leary et al. (1999) focused specifically on parent overreactivity in discipline situations, describing these parents as coercive, controlling, overly strict, and as using harsh discipline measures (e.g., name-calling, yelling, physical aggression, threats). In a longitudinal study examining the association between overreactive discipline and toddlers' externalizing behaviors, both variables were found to be stable and related over a period of 2½ years. Finally, Gardner (1989) focused specifically on parents' inconsistent discipline patterns, particularly in response to young children's noncompliant behavior. She noted a pattern whereby parents, particularly "insular" parents (i.e., those with little social support), were not consistent in following through with commands or refusing child demands. This inconsistent discipline style was associated with increased negative child behaviors (e.g., noncompliance).

Specific Parental Discipline Techniques

While a substantial amount of literature has examined broad parenting styles, few studies have examined the specific techniques parents of young children use in discipline situations. In fact, just five studies (Chapman & Zahn-Waxler, 1982; Gardner et al., 1999; Larzelere et al., 1996; Reid et al., 1994; Socolar & Stein, 1996) have identified specific techniques used by parents of this population. Socolar and

Stein's (1996) research will be discussed in this section, while the remaining studies will be discussed in detail in the next section.

Socolar and Stein (1996) examined mothers' beliefs about and practice of specific discipline techniques with regard to their 1- to 4-year-old children during interviews with each mother. The mothers included in the study reported greater acceptability of using positive techniques in discipline situations. With regard to specific techniques, mothers reported that they most believed in teaching (i.e., telling or showing the child expected behaviors when he or she is misbehaving), while they least believed in spanking. It was noted that maternal belief in spanking began at an earlier age than the other discipline techniques.

Mothers were also asked what types of discipline techniques they had used during the past week and how often each technique was used. The authors specifically inquired about maternal use of distraction, bribing, praise, explanation, and spanking. Mothers reported that they most frequently used explanation, praise, and distraction. They were less likely to use distraction as children aged, while they were more likely to use explaining, praise, and bribing as children aged. Additionally, the researchers inquired about mothers' beliefs regarding time-out. In general, mothers' belief in the use of time-out and their actual practice of time-out increased with the age of their children. These results suggested that mothers in this study became more supportive of the use of time-out over time, especially when their children were between 1 and 2 years of age.

The study by Socolar and Stein is an important first step in identifying specific

techniques parents use in disciplining their young children. However, the study is limited in the number of discipline techniques that were assessed and the time frame in which they were assessed. As noted above, Socolar and Stein (1996) inquired about mothers' use of five specific techniques, and the researchers asked mothers to record the discipline techniques used in only a 1-week period. Thus, the literature in the area of parent discipline is limited because the various discipline techniques parents have used on a daily basis with their young children has not been addressed.

Behavior Problems and Parent Discipline

As previously noted, because early-onset externalizing behaviors do not necessarily resolve without intervention as children age, it is essential to identify variables that are associated with these behaviors. Parent discipline is a factor that has consistently been associated with the development and maintenance of externalizing behavior problems in the toddler and preschool years. Indeed, Campbell, Shaw, and Gilliom (2000) noted that early parent-child conflict, beginning in the toddler and preschool years, may "set the stage for more prolonged coercive exchanges than become an entrenched part feature of the parent-child relationship" (p. 471).

Numerous studies have examined the association between behavior problems and broad discipline strategies, including negative, lax, and inconsistent discipline. Harsh, permissive, and inconsistent discipline strategies were among the most consistent and powerful predictors of aggressive and delinquent behavior (Loeber & Dishion, 1983; Olweus, 1980). More recently, researchers have begun to examine the

relationship between behavior problems and specific discipline techniques.

Behavior Problems and Negative Discipline

A substantial body of literature has examined the use of negative discipline in relation to child behavior problems. As detailed in the literature, negative discipline encompasses authoritarian parenting styles (Baker & Heller, 1996; Baumrind, 1967, 1980; Heller et al., 1996); and power assertive (Belsky, Woodworth, & Crnic, 1996; Lee & Bates, 1985), harsh (DeKlyen et al., 1998; Dumas & Wahler, 1985; Webster-Stratton & Hammond, 1998), and overreactive (O'Leary et al., 1999; Ralph et al., 1999) discipline practices. Research has consistently shown that child behavior problems (e.g., noncompliance, defiance, aggression) are associated with these negative discipline patterns.

Baker and Heller (1996) examined factors related to child externalizing behavior in a sample of preschool children. Their research noted that children who exhibited significant externalizing behavior problems, according to parent report, were generally reared via authoritarian/autocratic styles of parenting. Similarly, Heller et al. (1996) examined the stability of externalizing behaviors from preschool through first grade. Their results indicated that authoritarian discipline practices implemented when children were preschoolers was a predictor of externalizing behavior exhibited by children in first grade.

Belsky et al. (1996) conducted naturalistic observations of mother-child dyads on two occasions: when children were 15 and 21 months of age. They noted that parents in families identified as "troubled" (i.e., families having difficulty managing

their children and characterized by marital, work-family, and social support concerns) tried to control their toddlers more often at each age observed and had children who were more likely to exhibit defiant behavior. In a study examining interaction patterns between pre-kindergarten children and their parents, Pettit, Bates, and Dodge (1993) found a strong relationship between negative-coercive interaction styles and initially high levels of externalizing behaviors. Additionally, the results of the study indicated that family interaction styles were associated with continued increases in behavior problems over time.

Gross et al. (1999) examined externalizing behaviors among 2- and 3-year-old children from low-income families. They reported that parents of children identified as exhibiting significant behavior problems (via parent and childcare provider report) were more likely to use harsh and coercive discipline strategies. In a study comparing discipline strategies reported by fathers of preschool boys with and without clinic-referred behavior problems, DeKlyen et al. (1998) noted that harsh discipline practices contributed uniquely to boys' clinic status. Arnold and O'Leary (1995) examined the effect of child behavior on maternal discipline behavior in mothers of toddlers. Mothers were randomly assigned to view videotape that contained a child exhibiting a high level of negative affect (e.g., crying, screaming, tantrumming) or videotape containing no negative affect. The subsample of mothers who viewed the videotape containing a high level of child negative affect were subsequently more likely to respond with overreactivity in conflict situations with their children.

In general, researchers have noted a pattern whereby parents of children who

exhibit hard-to-manage behaviors respond to any misbehavior through the use of aversive discipline practices (e.g., yelling, threatening, physical aggression, name-calling, criticism, threats). In contrast, research has indicated that authoritative discipline practices (e.g., reasonable expectations for behavior, firm standards with regard to child compliance) are associated with child compliance and less disruptive behavior overall (Campbell, 1995). In fact, Kandel and Wu (1995) noted that negative discipline practices are associated with more negative and fewer positive behaviors of children, while positive discipline practices are associated with more positive and fewer negative child behaviors.

Behavior Problems and Lax Discipline

Increasing research attention has focused on child behavior problems in relation to lax discipline practices. Baumrind (1967) was among the first to examine the relationship between lax discipline and child behavior through her observations of permissive parents. More recent research (Baker & Heller, 1996; Gross et al., 1999) has indicated that indifferent or uninvolved parenting strategies are associated with noncompliant and defiant behavior.

Shaw et al. (1998) examined factors associated with continuing externalizing behavior problems in a nonclinical sample of young children. They reported that maternal lack of responsiveness was related to boys' externalizing behavior at ages 2 and 3½, while rejecting parenting was related to both boys' and girls' externalizing behavior. In an observational study examining interactions between "highly active" preschool children and their parents, mothers of children who were especially active

demonstrated less responsiveness to their children and were less clear about conveying expectations for child behavior (Buss, 1981).

Wakshlag and Hans (1999) examined maternal responsiveness toward their children during infancy and children's behavior problems in middle childhood within a high-risk sample of children. They reported that 26% of children with highly unresponsive mothers developed disruptive behavior disorders by middle childhood, whereas none of the children who received responsive parenting developed disruptive behavior disorders. Researchers have suggested that children of parents who use lax discipline or are generally unresponsive to their children's behavior misbehave as a means of gaining attention, even if the attention is negative. As such, these children may begin exhibiting noncompliant or aggressive behaviors at early ages to receive parental attention, and they are then at-risk for developing further behavior problems, particularly should parenting behaviors lacking in responsiveness remain stable (Cohen & Brook, 1995; Wahler & Dumas, 1987).

Behavior Problems and Inconsistent Discipline

Gerald Patterson was among the first to examine inconsistent parental discipline in relation to child misbehavior. He suggested a cluster of inconsistent styles of parenting, including lack of rules, failure to monitor the child, and use of erratic punishment and reward, all of which may have a causal link to children's disruptive behaviors (Patterson, 1982). Other researchers have expanded on Patterson's formulation of inconsistent parental discipline. Dumas and Wahler (1985) observed

interactions between clinic-referred mother-child dyads. They noted that mothers were likely to respond to any child behavior in a nonaversive rather than an aversive manner. However, mothers who reported experiencing a lack of social support were more likely to respond to any child behavior, whether positive or negative, in an aversive manner. In an observational study of three "high-risk" families (i.e., those of low income status, residing in poor, inner city areas, and with child management problems), Wahler and Dumas (1986) found that children were more likely to exhibit relatively high proportions of aversive behavior on days when their mothers offered indiscriminate attention.

Some researchers have specifically examined parents' inconsistency with regard to lack of follow through on commands given to their children. Gardner (1987, 1989) conducted home observations of mothers and their preschoolers, examining the responses of mothers in situations with parent-child conflict. Results indicated that mothers managed conflict inconsistently, in the sense that they often failed to enforce their commands. However, mothers were much less likely to be inconsistent by initially refusing their child's demand and then giving in. In general, Gardner (1989) noted that mothers of children exhibiting significant conduct problems were seven times more likely to be inconsistent in their parenting than mothers of children not exhibiting significant conduct problems. Kuczynski, Kochanska, Radke-Yarrow, and Girnius-Brown (1987) examined children's responses to maternal directives in a sample of mothers and their young children. They specifically examined children's noncompliant behavior, identifying four categories of noncompliance: passive noncompliance (i.e.,

child does not perform the requested behavior, but does not overtly refuse or defy), direct defiance (i.e., noncompliance by overt refusal), simple refusal (i.e., verbal refusal without negative affect), and negotiation (i.e., child proposes bargains or otherwise attempts to reach a newly agreed upon directive). The results of the study indicated that indirect or persuasive maternal strategies (e.g., making suggestions or requests rather than issuing direct commands) were associated with children's negotiation.

Patterson's Social Interactional Model

Gerald Patterson and his colleagues at the Oregon Social Learning Center have proposed an influential model accounting for the onset and stability of behavior problems in young children (Patterson, 1982; Reid & Patterson, 1989). While Patterson's model acknowledges the contribution of contextual factors (e.g., parent psychopathology and antisocial behavior, stress, socioeconomic status) and difficult child temperament in the progression of externalizing behaviors, the interaction between parent behavior and child behavior is emphasized (Patterson, 1997).

Patterson (1982) conducted observations in the homes of families referred for treatment on the basis of concerns regarding antisocial behaviors exhibited by children. He noted that parents within these families tended to use ineffective discipline strategies in response to children's noncompliant and aggressive behaviors. Specifically, parents were observed to be relatively noncontingent in their support for prosocial child behaviors, whereas they were likely to respond to problem behaviors through scolding and verbal threats. According to Patterson, parents' threats were seldom "backed up" with effective punishment. In general, he reported that parents of children with conduct

problems tended to be rather harsh, erratic, and inconsistent in their discipline responses.

In his research, Patterson (1982, 1997) noted a pattern whereby parents of children with conduct problems make demands, yet rarely follow through with enforcing them. Children respond to parents' aversive behavior by ignoring parents or making counterattacks (e.g., tantrums, whining). Parents subsequently withdraw their demands, which serves as a reward for both parents and children; parents are able to escape aversive child behavior and children are able to escape aversive parent behavior. However, parents' succumbing to negative child behaviors serves to increase the likelihood that children will exhibit similar behaviors in the future as a means of controlling their environment. Over time, Patterson reported that children learn that ordinary forms of coercive behaviors may not work to "get them what they want," but an increase in the severity of behaviors (e.g., hitting rather than whining) is effective. As a result, children's problem behaviors continue to escalate, and parents are left even more unequipped to manage the behaviors. Chamberlain and Patterson (1995) noted that, within families characterized by especially high rates of noncompliant and coercive child behavior and an escalation in parent-child conflict, parents will have an especially difficult time turning the coercive processes around.

In comparison to families of children with conduct problems, Patterson (1982, 1997) noted that aversive interactions in control families tended to be less frequent and shorter in duration. Whereas parents of children with conduct problems generally exhibited aversive behavior in response to parent-child conflict, "normal" parents were

more likely to ignore coercive child behavior or effectively stop the behavior. Indeed, Patterson indicated that coercive child behavior was significantly more likely to be followed by effective termination of conflict in nondistressed families. Within distressed families, Patterson reported that only coercive child behaviors were related to termination of family conflict. Comparatively, both prosocial and coercive behaviors of children were related to the termination of conflict in nondistressed families.

Behavior Problems and Lack of Positive Discipline Techniques

An overwhelming amount of research has documented the contribution of negative parental behaviors to children's problem behaviors, while an examination of positive discipline techniques used by parents and their impact on child behavior has been relatively neglected. Reid (1987) noted that aversive exchanges within families represent a small percentage of the overall time parents and children spend together. In fact, he stated that positive exchanges make up 95% of all parent-child interactions, while only 5% of interactions are marked by conflict. Gardner (1987) suggested that "the sorts of interactions occurring outside the 5% of conflict periods influence the nature, likelihood, and timing of conflict" (p. 284). Specifically, she proposed that parents and children learn positive interacting skills (e.g., cooperation, mutual reinforcement) during play or conversation, which may contribute to "breaking the cycle of irritable exchanges" within families (p. 285).

Gardner (1987) conducted home observations of two groups of mothers and their preschool children: mothers and children who exhibited significant conduct

problems and mothers and children not exhibiting significant conduct problems. She reported that mothers and children within the conduct problem subsample spent half as much time or less engaged in joint activity or conversation than mothers and children in the control group. Gardner noted that, even when children in the conduct problem group were alone, they were less likely than their control group counterparts to engage in purposeful activity. Rather, children with conduct problems tended to watch television, wander, or do nothing during their solitary time. In a similar study, observer impressions of parent-child interactions indicated that parents of children with conduct problems appeared to enjoy their children less, even when parents and children were not engaged in conflict episodes (Reid, 1987).

Studies have begun to document the beneficial influence of positive interactions on parent-child relationships. In a sample of nonclinical mothers and their preschool children, Dunn and Kendrick (1982) reported that mothers and children who played together more were less likely to fight, whereas mothers and children who seldom played together spent more time fighting. Pettit and Bates (1989) conducted an observational study of family relationship quality in a nonclinical, middle-class sample of 4-year-old children and their mothers. They reported that "proactive maternal involvement" (i.e., positive and educational exchanges) during mother-child interactions was strongly related to the absence of behavior problems in children. Of greatest concern, Pettit et al. (1993) noted that negative interaction patterns between parents and children were much more stable than positive interactions. Overall, the body of literature examining positive discipline techniques and children's behavior

suggests that the use of positive techniques can have great benefit for parent-child relationships. The research findings suggesting that children with conduct problems share fewer positive interactions with parents are of particular significance.

Behavior Problems and Specific Discipline Techniques

Four studies (Chapman & Zahn-Waxler, 1982; Gardner et al., 1999; Larzelere et al., 1996; Reid et al., 1994) have examined the relationship between child behavior problems and the use of specific discipline techniques. Chapman and Zahn-Waxler (1982) examined the effectiveness of maternal discipline techniques on toddlers' compliance in a nine-month longitudinal study. Mothers were asked to describe their children's responses in discipline situations, which were later coded as compliance (i.e., obedience to parent directives), noncompliance (i.e., disobedience; verbal or physical defiance), or avoidance (i.e., fleeing from the parent). The authors specifically focused on mothers' use of reasoning (e.g., explanation, teaching), verbal prohibition (e.g., "Stop it!"), physical coercion (e.g., spanking, physical restraint), and love withdrawal (e.g., ignoring or otherwise withdrawing attention). The authors noted that love withdrawal was rarely used alone, and was thus not considered a discipline technique on its own. Results of the study indicated that love withdrawal in combination with any other discipline technique was most effective in securing children's compliance, while reasoning used alone was least effective in securing compliance. Overall, however, children were more likely to comply with parental directives than not, no matter what discipline technique was used.

In a similarly designed study, Larzelere et al. (1996) asked a nonclinical sample of mothers of toddlers to record their responses toward their toddlers' fighting and disobedience over a period of 4 weeks. The authors examined the effectiveness of punishment (e.g., spanking, time-out), reasoning, and a combination of the two in delaying misbehavior recurrences. Results of the study indicated that mild punishment (e.g., time-out, mild spanking) and reasoning combined in response to children's misbehavior were more effective in delaying misbehavior recurrence than either punishment or reasoning alone.

In a home observational study, Gardner et al. (1999) examined the strategies mothers of 3-year-old children used to prevent conflict. Specifically, they observed mothers' use of reasoning (i.e., persuading children to comply by offering an explanation or justification for the behavior required), bargaining (i.e., offering the child a positive incentive to comply), compromising (i.e., parent attempts to persuade children to comply by offering to help or reduce the scope of the task), and imaginative strategies (i.e., use of humor or imaginative games to persuade children to comply) in response to children's noncompliant or coercive (e.g., aggression, whining, yelling) behaviors. The authors were most interested in examining the timing of mothers' strategies; that is, whether mothers employed the strategies preemptively (i.e., prior to child misbehavior) or reactively (i.e., following child misbehavior). The results of the study indicated that most mothers used strategies reactively rather than preemptively. However, mothers of children without significant behavior problems were more likely than mothers of children with significant behavior problems to use strategies pre-

emptively. Further, Gardner et al. (1999) reported that the use of pre-emptive strategies was associated with fewer conduct problems at age five, even after controlling for children's behavior at age three. As such, the authors suggested that children's externalizing behavior problems may be associated more with the timing of discipline strategies, rather than their content.

Reid et al. (1994) compared the effectiveness of distraction (i.e., diverting a child's attention from an undesirable activity by suggesting an appropriate activity) and reprimands (i.e., expressing disapproval with a child's behavior and commanding him or her to cease the behavior) via observations of interactions between a nonclinical sample of mothers and toddlers. During the observations, mothers were instructed via a bug-in-the-ear device to respond to children's misbehavior using either distraction or reprimands. Mothers were instructed to avoid attending to their children unless misbehavior occurred. The results of the study indicated that reprimands were more effective than distraction in suppressing misbehavior when the two strategies were considered individually. When the efficacy of the two techniques was examined in succession, distraction was more effective following a period of reprimand use, whereas the effectiveness of reprimands following a period of distraction did not change. The authors suggested that the superior effectiveness of reprimands may be due to their greater aversiveness, or the fact that reprimands contain more information about what constitutes misbehavior than distractions.

The studies by Chapman and Zahn-Waxler (1982), Larzelere et al. (1996), Reid et al. (1994), and Gardner et al. (1999) are important, in that they are among the first to

examine the relationship between parent use of specific discipline techniques and young children's behavior. However, all of the studies are limited in the number of child behaviors and discipline techniques that were examined. In each study, the authors inquired about a limited number of discipline techniques, all of which mothers reported using or were observed to use throughout, at most, a period of nine months. As such, no studies have addressed the relationship between a wide range of child behavior problems and specific discipline techniques. Further, no studies have examined how the frequency with which parents use specific discipline techniques might impact child behavior. As Chamberlain and Patterson (1995) noted, "Given the apparent importance discipline plays in family life, there are surprisingly few empirical studies on the effectiveness of specific discipline techniques" (p. 217). Therefore, an important next step within the literature examining factors related to young children's behavior is the identification of specific discipline techniques related to problem behaviors.

Parent Stress

Parent Stress and Child Behavior Problems

While negative, lax, and inconsistent discipline practices constitute significant risk factors in the development and maintenance of children's disruptive behaviors, a growing body of research has begun to examine other parental factors that contribute to these behaviors. Parent stress has emerged as an especially important factor related to children's disruptive behavior. As Mash and Johnston (1983) noted, "parenting itself can be a generally stressful life event," and the parenting role can be especially stressful

for parents who have “difficult” children (p. 86). Mash and Johnston (1983) cited studies reporting a greater number of less rewarding and more stressful transactions among parents of children with behavior disorders, physical handicaps, and developmental delays than parents of “normal” children. Moreover, Crnic and Greenberg (1990) noted that “parents are routinely challenged by child-rearing and caregiving demands” within any family, and the cumulative effect of annoying or frustrating child behaviors can, by themselves, constitute significant sources of stress over time (p. 1628).

In general, studies examining the relationship between parent stress and children’s disruptive behavior have shown that rates of children’s problematic behaviors increase as the number of stressful life events and everyday hassles experienced by parents increase (Beautrais, Fergusson, & Shannon, 1982). Beautrais et al. examined the relationship between mothers’ experience of stressful life events (e.g., life-altering events, such as a death in the family, marriage, or a new job) and their children’s behavior. Their results indicated that mothers who experienced five or more stressful life events within the period of one year reported more than 2½ times as many child behavior problems as mothers who experienced no stressful life events. The authors noted that these results were relatively independent of families’ socioeconomic status.

Hall and Farel (1988) examined mothers’ experience of both stressful life events and everyday stressors (i.e., minor stressors encountered on a daily basis, such as financial concerns and role overload) in relation to children’s disruptive behavior. They noted that both stressful life events and everyday stressors were individually associated

with child behavior problems. However, a stronger association was found between everyday stressors and behavior problems. Similarly, Ralph et al. (1999) noted a significant association between parents' experience of everyday stressors and a greater number and intensity of children's problem behaviors.

Other researchers have examined the stress parents experience specifically within the parent-child relationship (i.e., parenting stress). Crnic and Greenberg (1990) observed interactions between dyads of mothers and their 5-year-old children. Their results indicated that children who exhibited less responsive and more controlling behavior during the interactions were more likely to have mothers who reported experiencing a greater number of minor parenting hassles (e.g., sibling arguments, cleaning up after children) on a daily basis. Creasey and Jarvis (1994) found that parents who reported that their children exhibited more behavior problems, particularly externalizing behaviors, also reported experiencing more stress related to their parenting role.

It might be argued that parent report of children's behavior problems is colored by parent distress, which calls into question the accuracy of parents' perceptions of their children's behaviors. However, Creasey and Reese (1996) included both parent and teacher report of children's behavior in their study. Their results indicated that teacher report of child behavior was associated with maternal and paternal parenting hassles, suggesting a relationship between parenting stress and realistic perceptions of children's behavior. What is most striking about each of the studies previously mentioned is that their subjects consisted of nonclinical samples of children and families. This suggests

that a link exists between parent stress and children's disruptive behaviors even within families who may be functioning quite well on a daily basis.

Other researchers have examined parent stress within clinic and nonclinic samples of children and families. Mouton and Tuma (1988) found that clinic mothers (i.e., mothers of children diagnosed with conduct disorder, oppositional behavior, ADHD, or other disruptive behaviors) reported experiencing significantly more stress than nonclinic mothers (i.e., mothers who had never sought psychological services for their children). In fact, Webster-Stratton (1990) reported that clinic families reported experiencing twice as many negative life stressors as nonclinic families (Whipple & Webster-Stratton, 1989, cited in Webster-Stratton, 1990). DeKlyen et al. (1998) examined interactions between fathers and their preschool-age sons. Within a clinical group of fathers and sons, fathers who reported greater life stress were more likely to have sons who exhibited clinically significant disruptive behaviors. In a study specifically examining parent stress reported by parents of children exhibiting hyperactivity and parents of "normal" children, Mash and Johnston (1983) reported elevated levels of maternal stress within parents of children exhibiting hyperactive behaviors. Additionally, these parents perceived their children as more problematic than parents of "normal" children.

In summary, the existing research pertaining to parent stress and children's disruptive behaviors suggests that the family environment has great influence on children's functioning. Children raised by parents who have experienced a significant number of stressful life events, or are experiencing a large number of everyday stressors

or parenting hassles are more likely to exhibit behaviors that are both observed and perceived by parents to be problematic.

Parent Stress and Parent Discipline

A significant body of research has also demonstrated a relationship between parent stress and parents' responses toward their children. It seems logical that parents who experience a great deal of stress may not function effectively in their parenting role. Parents encounter a variety of stressors, not only within the parenting role, but also within marital relationships, social relationships, and the work environment (Belsky, 1984). Studies have suggested that, whatever the source, stress disrupts and diminishes appropriate parenting skills through parents focusing greater attention on the stressor at hand rather than devoting adequate time and attention to their children. Moreover, parent stress can disrupt positive parent-child interaction by increasing parents' irritability, which may result in negative reactions toward their children (Capaldi & Eddy, 2000).

Campbell, March, Pierce, Ewing, and Szumowski (1991) observed mother-child interactions in both laboratory and home environments. Mother-child dyads of one cohort within the study were observed during a toy clean-up procedure, which was designed specifically to assess both maternal control and child compliance. Results of the study indicated that mothers reporting more stress were more impatient with their children and insistent upon setting limits, even after controlling for the effects of child misbehavior. In a community sample of mother-child dyads, Dumas and Wekerle (1995) found that mothers' parenting behavior was best predicted by their reports of

personal distress. Specifically, mothers reporting greater personal distress tended to discipline their children through the use of negative techniques (e.g., disapproval, physical aggression). However, the authors noted that this effect was most noticeable within more economically disadvantaged families. In research examining paternal stress relating to parent-child interaction, Patterson (1983) reported that stress resulting from major life stressors was associated with less nurturing and more irritable and punitive father-child interactions.

Wahler (1980) examined the relationship between stressors originating in mothers' social environments and their subsequent interactions with their children, noting that "certain extra-family contacts are associated with a mother's child-rearing strategy" (p. 217). Specifically, results indicated that mothers whose daily social contacts were few and/or aversive were more likely to subsequently experience negative interactions with their children. Similarly, in an observational study of mother-child interactions, Dumas (1986) reported that mothers within the mother-child dyads who exhibited severe interaction problems (i.e., relationships characterized by child coercive and oppositional behavior and maternal harsh discipline practices) tended to behave more negatively toward their children on days in which they reported having engaged in a high number of aversive social interactions. Dumas suggested that aversive social contacts "exercised a facilitating effect" on maternal aversive behavior, while positive social contacts "exercised an inhibitory effect" upon maternal aversive behavior (p. 213). Patterson (1983) noted that mothers tend to engage in more aversive, irritable, or coercive interactions with their children on days in which they experience high rates of

minor stressors, no matter the source of the stressor. As such, when distressed mothers respond to their children, their responses are influenced not only by the behavior of the child, but by other individuals or situations with which they may have shared aversive interactions (Dumas).

While parents' experiences of daily hassles may seem temporary and relatively minor in the context of the entire parent-child relationship, researchers have cautioned that the cumulative impact of parent stress can have an adverse and far-reaching effect on parents' interactions with their children (Crnic & Acevedo, 1995). Patterson (1983) noted that lack of effective coping with stressors on a long-term basis has especially troubling effects on parent-child interactions, yet daily crises can still impact the parent-child relationship on a short-term basis. Taken together, research on parent stress and child behavior and parent stress and parent-child interactions indicates that stress can have great impact on the entire family system.

The Relationship Between Parent Stress, Child Behavior Problems, and Parent Discipline

Though much of the research has examined parent stress exclusively with either child behavior or parenting behavior, studies have begun to examine the relationship between parent stress and both variables. Researchers have suggested that parent stress has an indirect influence on the development and maintenance of children's disruptive behavior (Rodgers, 1998; Snyder, 1991). Indeed, Patterson (1983) and Webster-Stratton (1990) noted that stressors experienced by parents disrupt parenting practices. In turn, negative and inconsistent discipline practices increase the likelihood that

children will demonstrate problem behaviors, which may then activate a cycle of negative parent-child interactions.

In their observational study of mother-child interactions, Campbell, Pierce, March, and Ewing (1991) determined that mothers who reported greater stress and had children who exhibited significant behavior problems used more negative discipline practices than either mothers with high stress levels but children exhibiting no significant problem behaviors or mothers with low stress levels but children exhibiting significant behavior problems. Specifically, Campbell, Pierce, et al. (1991) noted that mothers coping with a greater number of external stressors were especially impatient when their children failed to comply quickly and willingly with their instructions.

Campbell, Pierce, Moore, Marakovitz, and Newby (1996) conducted a longitudinal study examining the stability of externalizing behaviors within a sample of "hard-to-manage" preschool boys. They noted that both higher levels of stressful life events and negative discipline practices placed boys on a troublesome pathway, as boys living in high-risk families were more likely to demonstrate externalizing behavior problems by middle childhood than boys living in stable families. Patterson (1983) and Snyder (1991) examined parent experience of daily hassles in relation to discipline practices and subsequent child behavior. Both studies reported that mothers were more likely to respond to child misbehavior in a negative manner on days in which they experienced more hassles, and children's behavior in turn demonstrated an increase in aggressiveness.

Patterson (1983, 1997) suggested that coercive parent-child interactions are

strongly associated with context variables, such as parent stress. He asserted that stress is an interaction effect produced by unskilled parents raising difficult children and being unable to cope with a multitude of external crises. Such parents experience an extended series of defeats with regard to the behavior management of their children, which typically results in increasing parent irritability during parent-child interactions. Patterson (1997) noted that a large number of coercive behaviors on the part of both parents and children take place within the context of stress. Additionally, nearly twice as many conflict episodes have been shown to occur within distressed families, in comparison with nondistressed families (Patterson, 1997).

In summary, previous research has clearly documented a relationship between parent stress, child behavior problems, and parental discipline. Parent stress may directly contribute to externalizing behaviors in children, or indirectly influence child behaviors through the disruptions stressors likely cause on parenting practices. As such, it is important that studies examining parent discipline in response to problem behaviors also examine parent stress. However, relatively few studies have examined parent stress in this context as it pertains specifically to parents of toddler and preschool-age children.

Summary

Research conducted within the past two decades has contributed considerable knowledge to our understanding of the etiology and stability of externalizing behaviors in young children and their potential outcome as children age. Parent discipline

practices have emerged as a consistent factor in research examining correlates of stable externalizing behaviors. Specifically, a large body of research has indicated that negative, lax, and inconsistent discipline patterns are associated with externalizing behaviors that continue over time and increase in severity. However, few researchers have examined the specific discipline techniques that are used by parents of toddler and preschool-age children in relation to children's disruptive behaviors, and no research has identified the wide range of techniques these parents use in response to any misbehavior exhibited by their children. Thus, research examining specific parental discipline techniques in this population is an important next step within the body of literature. Additionally, parent stress has consistently emerged as a factor related to both child behavior and parenting behavior. Accordingly, it is important that research examining the relationship between child problem behaviors and parent discipline consider the potential influence of parent stress.

The purpose of this study was to identify the specific discipline techniques parents have ever used and have used within the last month with their 2- to 5-year-old children, and the frequency with which parents use each technique. This population of children was chosen as the focus of this study in order to examine potential "risk factors" in the development and maintenance of problem behaviors from an early age. Additionally, this study examined the relationship between child behavior problems and parent discipline. As such, the present study expands on previous studies, which have examined a limited number of specific discipline techniques used in response to certain child behaviors, by identifying all of the discipline techniques parents use in response to

a wide range of child behaviors. Finally, parent stress was examined in relationship to both child behavior and parenting behavior.

The specific research questions addressed in this study were as follows:

1. What discipline techniques do parents of 2- to 5-year-old children report using, and how often do parents report using each technique?
2. How are the discipline techniques parents report using and the frequency with which they report using them associated with parents' reports of child behavior problems?
3. What are the relationships among child behavior, parenting behavior, and parent stress? Are parent discipline and parent stress significant predictors of child behavior problems?

CHAPTER III

METHODS

Participants

The participants in the study were the parents or caregivers of 87 children between the ages of 2 and 5. Participants were recruited from 16 daycare and preschool sites and one psychologist's office in northern Utah and southern Idaho.

The majority of parent/caregiver respondents were female ($n = 81$; 93.1%) and the biological parent of the child being rated ($n = 85$, 97.8%). The mean age of respondents was 31.26 years. Most respondents were married ($n = 80$; 92.0%) and fairly well educated, with the majority having attended either some college ($n = 33$; 37.9%) or having earned their bachelor's degree ($n = 27$; 31.0%). The majority of parents reported working as homemakers ($n = 29$; 34.1%) or in professional ($n = 21$; 24.7%) or service-oriented ($n = 17$; 20.0%) professions. The mean monthly family income was \$4,256, while the median monthly income was \$3,050. According to the Utah Department of Workforce Services, the mean household income in northern Utah for 1999 was \$3,527 (personal communication, October 15, 2001). Most respondents reported that they had not taken a parenting class ($n = 54$; 62.1%) and that they shared discipline responsibilities equally with their spouse/partner ($n = 58$; 66.7%). The mean number of children living in the house (including the child being rated) was 2.48.

Children ranged in age from 2 to 5 ($M = 3.74$, $SD = 0.97$), with more males ($n = 48$; 55.2%) than females ($n = 34$; 39.1%) being rated. Though parent/caregiver

respondents were not asked to report the ethnicity of their children, data provided by the facilities from which subjects were sampled indicates that over 90% of children potentially being rated were Caucasian.

Participants were divided into behavior problem and no behavior problem groups based on their responses on one of the measures. In order to assess for the possible contribution of family income to group scores, an independent t-test was conducted. Family income did not significantly differ between the behavior problem (BP) and no behavior problem (NBP) groups ($t = -.581, p > .05$). Additional differences between the two groups are apparent with regard to occupation and number of children living in the household. More parents from the NBP are employed as homemakers (44.6% in the NBP group versus 13.8% in the BP group), and parents in the NBP group reported a fewer number (i.e., one or two) of children living in the household. Complete demographic information is presented in Table 1.

Instruments

Parent Questionnaire

This questionnaire (developed by the author) asked parents/caregivers to indicate the type and frequency of discipline techniques they use with their young children. First, parents were asked to indicate which of 14 listed discipline techniques they had used with their child. Parents indicated if they had used each technique within the past month as well as if they had ever used each technique with their child. Parents were also asked to record additional techniques used but not listed. Next, parents were

Table 1

Demographic Characteristics of Parents/Caregivers and Children

Demographic characteristics	Total sample (N = 87)		BP sample (n = 30)		NBP sample (n = 57)	
	n	%	n	%	n	%
Parent characteristics						
Gender						
Male	6	6.9	1	3.3	5	8.8
Female	81	93.1	29	96.7	52	91.2
Marital status						
Married	80	92.0	25	83.4	55	96.6
Not married, living w/partner	1	1.1	11	3.3	0	0
Single, never married	1	1.1	0	0	1	1.7
Single, divorced	5	5.8	4	13.3	1	1.7
Education						
Less than high school	2	2.3	1	3.3	1	1.8
High school graduate	13	14.9	4	13.3	9	15.8
Some college education	33	37.9	14	46.7	19	33.3
Bachelor's degree	27	31.0	6	20.0	21	36.8
Above bachelor's degree	12	13.9	5	16.7	7	12.3
Occupation						
Homemaker	29	34.1	4	13.8	25	44.6
Professional	21	24.7	7	24.1	14	25.0
Service oriented	17	20.0	7	24.1	10	17.9
Office manager	7	8.2	6	20.7	1	1.7
Teacher/childcare	6	7.1	3	10.4	3	5.4
Production	5	5.9	2	6.9	3	5.4
Number of children in household						
1	16	18.4	3	10.0	13	22.8
2	35	40.2	9	30.0	26	45.6
3	22	25.3	12	40.0	10	17.5
4	9	10.3	3	10.0	6	10.5
5	4	4.7	3	10.0	1	1.8
> 5	1	1.1	0	0	1	1.8
Relationship to child						
Mother/father	85	97.8	30	100.0	55	96.4
Legal guardian	1	1.1	0	0	1	1.8
Foster parent	1	1.1	0	0	1	1.8

(table continues)

Demographic characteristics	Total sample (<u>N</u> = 87)		BP sample (<u>n</u> = 30)		NBP sample (<u>n</u> = 57)	
	<u>n</u>	%	<u>n</u>	%	<u>n</u>	%
Taken a parenting class						
Yes	33	37.9	13	43.3	20	35.1
No	54	62.1	17	56.7	37	64.9
Discipline responsibilities						
One parent	29	33.3	8	26.7	21	36.8
Shared equally	58	66.7	22	73.3	36	63.2
Age--Mean (<u>SD</u>)	31.26	(5.88)	32.07	(4.57)	30.84	(6.45)
Monthly income level						
Mean (<u>SD</u>)	\$4,256	(\$5,204)	\$3,778	(\$2,081)	\$4,491	(\$6,194)
Median	\$3,050		\$3,200		\$3,000	
Child characteristics						
Age						
2	11	12.6	3	10.0	8	14.0
3	22	25.3	7	23.4	15	26.3
4	33	37.9	10	33.3	23	40.4
5	21	24.2	10	33.3	11	19.3
Gender						
Male	48	58.5	20	66.7	28	49.1
Female	34	41.5	10	33.3	24	42.1

asked to indicate the frequency with which they use each discipline technique by circling one of seven responses (less than once a month; a few times per month; once a week; a few times per week; once a day; a few times per day; many times per day). Finally, parents were asked to provide demographic information, including: their age, gender, marital status, occupation, educational attainment, the monetary income level of their family, the number and ages of their children, and their relationship to the child being rated. Additionally, parents were asked to identify any parenting class they had taken and the person or persons who typically disciplines their child. This information was collected to adequately describe the sample and for exploratory purposes. See the

Appendix for the measures used.

The 14 discipline techniques listed on the questionnaire (i.e., corrective feedback, grounding, ignoring, incentives/rewards, lecturing, redirection, removal of privileges, scolding/verbal reprimands, spanking, telling the child “no,” telling the child that he/she will be disciplined but failing to follow through, time-out in the child’s bedroom, time-out in a chair, yelling) were formulated via parent and professional input. Specifically, the author asked approximately 20 parents of preschool and younger school-age children both what discipline techniques they had ever used and those that they most commonly use with their children. The author then asked approximately 10 psychology graduate students, all of whom had provided therapeutic services to young children and families, for their input regarding common discipline techniques. The 14 discipline techniques were identified based upon combined parent and student response.

Eyberg Child Behavior Inventory

The Eyberg Child Behavior Inventory (ECBI; Eyberg & Ross, 1978; Robinson, Eyberg, & Ross, 1980) includes 36 items describing common child behaviors that may be perceived as problems by parents. According to the authors, the behaviors included on the scale consist of the most typical problem behaviors reported by parents of conduct problem children and were taken from case record data over a 2-year period. For each item, parents are asked to indicate how often their child exhibits each behavior according to a 7-point Likert scale ranging from 1 (never) to 7 (always). In addition, parents are asked to indicate whether the behavior is a problem for them (yes/no). Two

scores are derived: an intensity score and a problem score. The intensity score is obtained by summing the numbers on the Likert scales. Intensity scores range from 36 to 262, with a recommended clinical cutoff of 127. The problem score is obtained by counting the number of “yes” responses. Problem scores range from 0 to 36, with a recommended clinical cut-off of 11. Higher scores are indicative of greater intensity and frequency of behavior problems.

According to the authors, the ECBI has demonstrated good internal consistency reliability (.98 for both the total intensity and total problem scales) and test-retest reliability over a 3-week period (.86 for the intensity score and .88 for the problem score). Robinson et al. (1980) reported that the intensity score and problem score of the ECBI are correlated (.75), suggesting that they measure related, but not identical, dimensions of behavior. According to a study conducted by Robinson et al. (1980), ECBI intensity scores differed between children identified as “normal” ($M = 99.2$; $SD = 31.2$) and children identified as exhibiting conduct problems ($M = 137.2$; $SD = 38.8$). Likewise, ECBI problem scores differed between children identified as “normal” ($M = 5.8$; $SD = 7.0$) and children identified as exhibiting conduct problems ($M = 15.0$; $SD = 9.6$). In a study examining the concurrent validity of the ECBI, Boggs, Eyberg, and Reynolds (1990) reported that the ECBI intensity and problem scales correlate significantly with the externalizing scale of the Child Behavior Checklist (.75 for the intensity score and .67 for the problem score).

Perceived Stress Scale

The Perceived Stress Scale (PSS; Cohen, Kamarck, & Mermelstein, 1983)

consists of 14 items that describe life events that may be perceived as stressful. According to the authors, PSS items were designed to tap the degree to which respondents find their lives “unpredictable, uncontrollable, and overloading,” as these three qualities have been identified as central components of stress (p. 387). For each item, parents are asked to indicate how often they have felt or thought a certain way during the past month. Parents are to respond according to a 5-point Likert scale ranging from never to very often. A total score is obtained by adding the scores from the individual items, reversing the scores on the seven positive items. The minimum score is 14, while the maximum score is 70. Higher scores are indicative of greater appraised stress. According to the authors, the PSS has demonstrated good internal consistency reliability (.84 to .86) and correlates in the expected manner with self-reports of number (.17 to .39) and impact (.24 to .49) of stressful life events. The test-retest correlations obtained by the authors range from .55 for a 6-week time interval to .85 for a 2-day time interval.

Marlowe-Crowne Social Desirability Scale

The Marlowe-Crowne Social Desirability Scale (MCSDS; Crowne & Marlowe, 1960) was designed to be a measure of a socially desirable response style, independent of psychopathology. The MCSDS consists of 33 items that describe behaviors that are culturally sanctioned and approved, but improbable of occurrence. Individuals are asked to read each item and decide whether the statement is true or false as it pertains to them. Respondents can obtain scores ranging from 0 to 33, with higher scores more indicative of a socially desirable response style. No clinical cutoff scores were reported

by the authors, though a mean score of 13.72 was obtained from a study conducted by the authors (undergraduate students between the ages of 19 and 46 served as subjects). According to the authors, the MCSDS has demonstrated good internal consistency reliability (.88) and correlates with both the Defensiveness (K; .40) and Lie (L; .54) validity scales on the Minnesota Multiphasic Personality Inventory. The MCSDS was included as a measure in this study due to concerns about the validity of parent self-report data. This measure provided a means of gaining information on parents' response style when completing the parent questionnaire, ECBI, and PSS.

Procedures

Per agreement with daycare and preschool facilities and one clinician, packets consisting of the four instruments (Parent Questionnaire, ECBI, PSS, MCSDS) were provided to these facilities and given to parents to complete. Included with the packet was a letter to parents explaining the study (see Appendix). At most facilities, the packets were placed in children's boxes or handed directly to parents. Packets were located on a counter at the remaining facilities. All parents interested in participating in the study were asked to take the packet with them and complete the instruments. Parents who had more than one child in the 2- to 5-year-old range were instructed to complete the instruments according to how they pertained to either the oldest child or youngest child within that range (i.e., half of the letters instructed parents to complete the forms as they pertained to the oldest child, while the other half instructed parents to complete the forms as they pertained to the youngest child). Upon completing the

instruments, parents were instructed to mail the surveys to the researcher in an envelope provided to them.

In total, 550 packets were brought to the participating facilities, with the number of packets located at each facility ranging from 10 to 120. Eighty-nine of these packets were completed and returned. Two packets were deemed invalid, as the children being rated were not between the ages of 2 and 5. Therefore, the total number of participants included in the data analysis was 87. The total response rate was 16%, with response rates from individual facilities ranging from 0% to 40%. Participants were assigned to one of two groups based upon their scores on the ECBI. The BP group consisted of parents/caregivers with children earning ECBI intensity scores at or above 127, ECBI problem behavior scores at or above 11, or both. The NBP group consisted of parents/caregivers with children earning ECBI scores below 127 and problem behavior scores below 11.

CHAPTER IV
RESULTS

Descriptive Statistics

Means, standard deviations, ranges, and effect sizes for the Eyberg Child Behavior Inventory (ECBI) scores, perceived stress scores, and social desirability scores appear in Table 2. As expected, children in the behavior problem (BP) group scored significantly higher on both the ECBI problem score ($t = 7.42, p < .001$) and intensity score ($t = 8.49, p < .001$) than children in the no behavior problem (NBP) group. Social desirability scores did not significantly differ between the two groups ($t = -.729, p > .05$). Perceived stress scores of the BP group were statistically significantly higher than those of the NBP group ($t = 2.34, p < .05$). This difference is consistent with

Table 2

Means, Standard Deviations, Ranges, and Effect Sizes for All Measured Variables

Variable	Total sample ($N = 87$) M (SD) Range	BP sample ($n = 30$) M (SD) Range	NBP sample ($n = 57$) M (SD) Range	Effect size BP v. NBP
ECBI problem score	7.74 (6.54) 0-33	13.97 (6.57) 0-33	4.46 (3.40) 0-10	2.01
ECBI intensity score	105.20 (26.15) 54-170	129.47 (19.75) 91-170	92.42 (19.14) 54-126	1.91
Perceived stress	38.14 (7.81) 22-58	40.77 (8.23) 24-56	36.75 (7.27) 22-58	0.53
Social desirability	17.60 (5.22) 1-29	17.03 (6.10) 1-29	17.89 (4.72) 9-28	-0.16

previous research, which has documented a significant relationship between child behavior problems and parent stress.

Discipline Techniques Used by Parents/Caregivers

The first objective of this study was to examine the specific discipline techniques parents/caregivers have ever used with their 2- to 5-year-old children, the techniques they have used within the last month, and the frequency with which they use each technique. Tables 3 and 4 present frequency counts of each discipline technique ever used and used within the last month for the total sample, the BP sample, and the NBP sample. Table 5 presents means and standard deviations for the frequency with which parents/caregivers reported using each discipline technique.

Similar trends are shown for the discipline techniques parents/caregivers reported ever using and those they reported using in the last month. Specifically, telling the child “no,” using corrective feedback, lecturing/talking to the child about his/her behavior, scolding, using rewards, and redirection were the most common techniques the total sample of parents/caregivers reported using with their young children, both within the last month and total use. At least 80% of the total sample of parents/caregivers reported using each of these techniques in the last month, and at least 90% of the total sample reported ever using each of these techniques. Grounding was the least common technique used by parents/caregivers; 26.4% of the total sample of parents/caregivers reported using grounding within the last month, while approximately 40% reported that they have ever used grounding.

Table 3

Discipline Techniques Used in the Last Month

Discipline technique	Total sample (<u>N</u> = 87)		BP sample (<u>n</u> = 30)		NBP sample (<u>n</u> = 57)	
	<u>n</u>	%	<u>n</u>	%	<u>n</u>	%
Telling child "no"						
Yes	84	96.6	29	96.7	55	96.5
No	3	3.4	1	3.3	2	3.5
Corrective feedback						
Yes	83	95.4	30	100.0	53	93.0
No	4	4.6	0	0	4	7.0
Lecturing/talking to child						
Yes	74	85.1	27	90.0	47	82.5
No	13	14.9	3	10.0	10	17.5
Scolding/verbal reprimands						
Yes	74	85.1	28	93.3	46	80.7
No	13	14.9	2	6.7	11	19.3
Incentives/rewards						
Yes	73	83.9	25	83.3	48	84.2
No	14	16.1	5	16.7	9	15.8
Redirection						
Yes	73	83.9	27	90.0	46	80.7
No	14	16.1	3	10.0	11	19.3
Removal of privileges						
Yes	64	73.6	21	70.0	43	75.4
No	23	26.4	9	30.0	14	24.6
Time-out in bedroom						
Yes	64	73.6	22	73.3	42	73.7
No	23	26.4	8	26.7	15	26.3
Yelling						
Yes	59	67.8	24	80.0	35	61.4
No	28	32.2	6	20.0	22	38.6
Ignoring						
Yes	50	57.5	21	70.0	29	50.9
No	37	42.5	9	30.0	28	49.1
Threats						
Yes	44	50.6	23	76.7	21	36.8
No	43	49.4	7	23.3	36	63.2
Spanking						
Yes	40	46.0	19	63.3	21	36.8
No	47	54.0	11	36.7	36	63.2
Time-out in chair						
Yes	37	42.5	14	46.7	23	40.4
No	50	57.5	16	53.3	34	59.6
Grounding						
Yes	23	26.4	12	40.0	11	19.3
No	64	73.6	18	60.0	46	80.7

Table 4

Discipline Techniques Ever Used

Discipline technique	Total sample (N = 87)		BP sample (n = 30)		NBP sample (n = 57)	
	n	%	n	%	n	%
Telling child "no"						
Yes	87	100.0	30	100.0	57	100.0
No	0	0	0	0	0	0
Corrective feedback						
Yes	85	97.7	30	100.0	55	96.5
No	2	2.3	0	0	2	3.5
Lecturing/talking to child						
Yes	82	94.3	29	96.7	53	93.0
No	5	5.7	1	3.3	4	7.0
Scolding/verbal reprimands						
Yes	82	94.3	29	96.7	53	93.0
No	5	5.7	1	3.3	4	7.0
Incentives/rewards						
Yes	86	98.9	29	96.7	57	100.0
No	1	1.1	1	3.3	0	0
Redirection						
Yes	82	94.3	30	100.0	52	91.2
No	5	5.7	0	0	5	8.8
Removal of privileges						
Yes	76	87.4	26	86.7	50	87.7
No	11	12.6	4	13.3	7	12.3
Time-out in bedroom						
Yes	75	86.2	24	80.0	51	89.5
No	12	13.8	6	20.0	6	10.5
Yelling						
Yes	77	88.5	28	93.3	49	86.0
No	10	11.5	2	6.7	8	14.0
Ignoring						
Yes	62	71.3	24	80.0	38	66.7
No	25	28.7	6	20.0	19	33.3
Threats						
Yes	66	75.9	27	90.0	39	68.4
No	21	24.1	3	10.0	18	31.6
Spanking						
Yes	66	75.9	25	83.3	41	71.9
No	21	24.1	5	16.7	16	28.1
Time-out in chair						
Yes	64	73.6	22	73.3	42	73.7
No	23	26.4	8	26.7	15	26.3
Grounding						
Yes	34	39.1	15	50.0	19	33.3
No	53	60.9	15	50.0	38	66.7

Table 5

Frequency of Use for Discipline Techniques

Discipline technique	Total sample ($N = 87$)		BP sample ($n = 30$)		NBP sample ($n = 57$)		Effect size BP vs. NBP
	<u>M</u>	<u>(SD)</u>	<u>M</u>	<u>(SD)</u>	<u>M</u>	<u>(SD)</u>	
Telling child "no"	5.43	1.36	5.68	1.22	5.30	1.41	0.28
Corrective feedback	4.89	1.28	5.27	1.31	4.69	1.23	0.46
Redirection	4.29	1.67	4.47	1.66	4.20	1.69	0.16
Lecturing/talking to child	4.06	1.63	4.72	1.51	3.69	1.59	0.66
Scolding/verbal reprimands	3.94	1.75	4.39	1.85	3.68	1.66	0.41
Incentives/rewards	3.86	1.68	4.04	1.74	3.77	1.65	0.16
Ignoring	3.38	1.80	3.52	1.81	3.29	1.82	0.13
Yelling	3.26	1.85	3.59	1.99	3.07	1.76	0.28
Time-out in bedroom	2.94	1.54	3.68	1.39	2.61	1.50	0.73
Removal of privileges	2.91	1.45	3.15	1.35	2.78	1.50	0.26
Threats	2.55	1.54	2.63	1.42	2.49	1.65	0.09
Time-out in chair	2.41	1.40	2.50	1.36	2.37	1.44	0.09
Spanking	1.74	1.18	1.83	1.23	1.69	1.16	0.12
Grounding	1.56	0.80	1.67	0.82	1.47	0.80	0.25

Note. Scale: 1 = less than once a month
 2 = a few times per month
 3 = once a week
 4 = a few times per week
 5 = once a day
 6 = a few times per day
 7 = many times per day

Some differences can be noted between the discipline techniques parents/caregivers reported that they have ever used and those they reported using within the last month. A greater number of parents within the total sample reported ever using rewards, yelling, ignoring, threats, spanking, and time-out in a chair than using these techniques within the last month. Within the NBP group specifically, a greater number

of parents reported ever using yelling, threats, spanking, and time-out in a chair than using the techniques within the last month. Within the BP group specifically, a greater number of parents reported ever using time-out in a chair than using the technique within the last month.

Parents/caregivers reported the highest frequency of discipline use for telling the child “no,” corrective feedback, redirection, and lecturing. Each of these techniques is reportedly used by parents/caregivers at least a few times per week. Conversely, parents/caregivers reported the lowest frequency of use for grounding and spanking. These techniques are reportedly used a few times per month.

Eight parents/caregivers from the BP group and 14 parents/caregivers from the NBP group identified additional discipline techniques they use, other than the 14 listed. In the BP group, the following additional techniques were identified: giving the child choices; counting to three; using a job chart; implementing regular family meetings; time-out facing a wall; removing the child from a conflict situation; and helping the child complete a task. The frequency with which each technique was reported being used ranged from once a week to a few times per day. In the NBP group, the following additional techniques were identified: praise, hugs, or compliments for good behavior; if-then statements (i.e., “If you do this, then you will receive the following consequence”); teaching the child that he or she is making choices through his/her behavior and will receive consequences for these choices; telling the child what behavior is expected rather than what he/she did wrong; having many positive interactions for one negative interaction; removing an object from the child (i.e., placing

an object in “time-out”); self-directed time-out (i.e., child can come out of time-out when he/she is ready to apologize); time-out on a rug; and using a timer. The frequency with which each technique was reported being used ranged from once a week to many times per day.

Differences in Discipline Techniques Used Between Groups

The second objective of this study was to examine differences in the discipline techniques parents/caregivers reported ever having used and using within the last month between the BP and NBP groups. Additionally, differences in the frequency with which parents/caregivers reported using each discipline technique were examined. Chi square analyses were used to evaluate differences in the discipline techniques parents/caregivers reported ever using and using in the last month, and independent *t* tests were used to evaluate differences in the frequency with which parents/caregivers reported using each discipline technique.

With regard to discipline techniques parents/caregivers reported ever having used with their 2- to 5-year-old children, one statistically significant difference emerged. Significantly more parents in the BP group reported ever having used threats (i.e., telling the child that he/she would be disciplined, but failing to follow through with disciplining the child) in discipline situations ($\chi^2 = 5.00, p < .05$). With regard to discipline techniques parents/caregivers reported using in the last month, three statistically significant differences emerged. Significantly more parents in the BP group reported using grounding ($\chi^2 = 4.33, p < .05$), spanking ($\chi^2 = 5.55, p < .05$), and threats

($\chi^2 = 12.47, p < .001$). The differences between the BP and NBP groups with regard to spanking and threats are especially striking. Approximately 77% of the BP group versus 37% of the NBP group reported using threats within the last month, and 63% of the BP group versus 37% of the NBP group reported using spanking within the last month. There was one trend toward statistical significance with regard to the discipline techniques parents/caregivers reported ever using, and two trends toward statistical significance with regard to the discipline techniques parents/caregivers report using in the last month. Specifically, a greater number of BP parents reported ever using redirection, and a greater number of BP parents reported using ignoring and yelling in the last month. Results of the chi-square analyses are presented in Table 6.

Table 6

Chi-Square Analyses Comparing Discipline Technique Use Between BP and NBP

Groups

Discipline techniques	Used in the last month		Ever used	
	χ^2	p value	χ^2	p value
Corrective feedback	2.21	.137	1.08	.299
Grounding	4.33	.037*	2.29	.130
Ignoring	2.94	.086	1.71	.191
Incentives/rewards	.011	.916	1.92	.166
Lecturing	.880	.348	.493	.483
Redirection	1.26	.262	2.79	.095
Removal of privileges	.299	.585	.020	.888
Scolding/verbal reprimands	2.47	.116	.493	.483
Spanking	5.55	.018*	1.40	.237
Telling child "no"	.002	.966	---	---
Threats	12.47	.000***	5.00	.025*
Time-out in bedroom	.001	.972	1.48	.223
Time-out in chair	.321	.571	.001	.972
Yelling	3.11	.078	1.05	.306

* p < .05

*** p < .001

Independent sample t tests were conducted to determine if there were significant differences between the BP and NBP groups regarding the frequency with which parents/caregivers reported using each discipline technique. Three statistically significant differences emerged. Corrective feedback ($t = 2.03, p < .05$), lecturing ($t = 2.85, p < .01$), and time-out in the child's bedroom ($t = 2.84, p < .001$) were reported being used with significantly greater frequency by parents/caregivers in the BP group (see Table 7 for t -test results).

Table 7

Analyses of t Tests Comparing Frequency of Discipline Between BP and NBP Groups

Discipline techniques	t	p value
Corrective feedback	2.03	.045*
Grounding	.685	.498
Ignoring	.484	.630
Incentives/rewards	.683	.496
Lecturing	2.85	.006**
Redirection	.702	.485
Removal of privileges	1.07	.290
Scolding/verbal reprimands	1.74	.086
Spanking	.441	.661
Telling child "no"	1.20	.234
Threats	.361	.719
Time-out in bedroom	2.84	.006**
Time-out in chair	.337	.737
Yelling	1.18	.242

* $p < .05$

** $p < .01$

Effect sizes were calculated to determine if meaningful differences exist between the BP and NBP groups with regard to frequency of discipline use. An additional rationale for calculating effect sizes is the likelihood of type I error resulting from multiple t-test analyses. Meaningful differences (i.e., large or moderate effect sizes) were found for the following discipline techniques: lecturing, time-out in the child's bedroom, corrective feedback, and scolding. Cohen (1988, as cited in Pedhazur & Schmelkin, 1991) considers effect sizes of .20 small, .50 as moderate, and .80 as large. Effect size results are included in Table 5.

Prediction of Problem Behaviors and Behavior Severity

The third objective of this study was to evaluate how well parent discipline and parent stress predict child behavior problems and behavior severity. First, Pearson correlations were conducted to determine if there were significant relationships between child behavior, parenting behavior, and parent stress. Statistically significant correlations were found between child behavior problems and the following discipline techniques: corrective feedback, lecturing, grounding in the last month, and threats in the last month. A significantly greater number of behavior problems were associated with more frequent use of these techniques. Statistically significant correlations were found between child behavior intensity and the following discipline techniques: corrective feedback, lecturing, threats ever used, threats used in the last month, and spanking used in the last month. Significantly greater intensity of child behaviors was associated with more frequent use of these techniques. Statistically significant

correlations were found between parent stress and the following discipline techniques: lecturing, threats ever used, threats used in the last month, and spanking used in the last month. A higher level of parent-reported stress was associated with more frequent use of these techniques. Parent stress and child behavior problems and parent stress and child behavior intensity were statistically significantly correlated. Higher levels of parent-reported stress were associated with a greater number and intensity of child behavior problems. Social desirability was negatively correlated with parent stress and behavior intensity. Lower social desirability scores were associated with higher reported stress levels and higher child behavior problem intensity. Results are presented in Table 8.

Table 8

Correlations Between Parent Discipline, Parent Stress, Social Desirability, and Child Behavior

Parent variables	Stress r	ECBI problem r	ECBI intensity r	Social desirability r
Corrective feedback	.118	.317**	.435**	-.278**
Lecturing	.262*	.250	.372**	-.197
Time-out in child's bedroom	.063	.066	.138	-.004
Threats ever used	.238*	.188	.286**	-.235*
Threats used in last month	.255*	.317**	.396**	-.072
Grounding used in last month	.174	.233*	.059	-.084
Spanking used in last month	.361**	.204	.340**	-.377**
Stress	---	.283**	.338**	-.485**
ECBI Problem	.283**	---	.552**	-.094
ECBI Intensity	.338**	.552**	---	-.300**

* $p < .05$

** $p < .01$

Two stepwise multiple regressions were conducted, one predicting behavior problems and one predicting behavior intensity. The following independent variables were entered into both regression analyses: parent stress, threats ever used, grounding used in the last month, spanking used in the last month, threats used in the last month, frequency of corrective feedback use, frequency of lecturing use, and frequency of use of time-out in the child's bedroom. Social desirability was also included as a predictor variable in order to account for any significant effects of the relationship between parents' response style and child behavior problems and behavior intensity. Only the discipline techniques found to be significantly different in frequency or use between the BP and NBP groups in previous analyses were entered into the regression analyses.

Two variables emerged as significant predictors of behavior problems: frequency of corrective feedback use and threats used in the last month. Approximately 9% of the variance in child behavior problems can be accounted for by frequency of corrective feedback ($F = 9.51, p < .01$), while approximately 14% of the variance in child behavior problems can be accounted for by frequency of corrective feedback and threats used in the last month ($F = 8.12, p < .01$). No other predictors made significant additional contributions to the prediction of behavior problems. Results are presented in Table 9.

Three variables emerged as significant predictors of behavior intensity: frequency of corrective feedback use, threats used in the last month, and parent stress. Approximately 18% of the variance in behavior severity can be accounted for by frequency of corrective feedback use ($F = 19.81, p < .001$), approximately 26% of the

variance can be accounted for by frequency of corrective feedback use and threats used in the last month ($F = 16.23, p < .001$), and approximately 31% of the variance can be accounted for by all three variables ($F = 13.59, p < .001$). No other predictors made significant additional contributions to the prediction of behavior intensity. Results are presented in Table 10.

Table 9

Summary of Stepwise Regression Analysis for Parent Discipline, Parent Stress, and Social Desirability Predicting Child Behavior Problems

Variable	\underline{R}	\underline{R}^2	Adj. \underline{R}^2	\underline{F}	\underline{p} value
Model 1 ^a	.317	.101	.090	9.510	.003
Model 2 ^b	.402	.162	.142	8.118	.001

^a Predictors: Corrective feedback

^b Predictors: Corrective feedback, threats

Table 10

Summary of Stepwise Regression Analysis for Parent Discipline, Parent Stress, and Social Desirability Predicting Child Behavior Intensity

Variable	\underline{R}	\underline{R}^2	Adj. \underline{R}^2	\underline{F}	\underline{p} value
Model 1 ^a	.435	.189	.179	19.805	.000
Model 2 ^b	.528	.279	.262	16.227	.000
Model 3 ^c	.574	.329	.305	13.588	.000

^a Predictors: Corrective feedback

^b Predictors: Corrective feedback, threats

^c Predictors: Corrective feedback, threats, parent stress

CHAPTER V

DISCUSSION

Overview

Findings from this study provide valuable exploratory information regarding the discipline techniques parents of 2- to 5-year-old children report ever using and using within the last month. Self-report data from parents suggest that differences exist between the discipline techniques used by parents of children with behavior problems and parents of children without behavior problems. Both parent discipline and parent stress are implicated in child behavior problems and behavior intensity.

Demographic Characteristics and Children's Disruptive Behaviors

Family income was the only demographic characteristic that was statistically examined between the behavior problem (BP) and no behavior problem (NBP) groups. The monthly family income reported by parents/caregivers did not statistically significantly differ between groups. It should be noted that the mean monthly income of families included in this study was higher than the mean household income for northern Utah residents. Though statistical analyses were not conducted to examine differences between the BP and NBP groups on the other demographic characteristics, there are apparent differences between the two groups with regard to parent occupation and number of children living in the household. Specifically, more parents from the NBP group reported their employment as homemakers, and parents in the NBP group

reported that a fewer number of children are currently living in their home. Within this study, positive relationships were found between parent stress and the number and intensity of child behavior problems. As such, it is possible that parent stress level serves as a moderating variable within these apparent relationships. For instance, parent stress may be higher for parents who work outside of the home because stressors related to the work environment augment those stressors associated with household and parenting responsibilities. Likewise, it is highly possible that stress related to the parenting role increases with more children residing in the home. Additionally, parents who do not work outside of the home and have fewer children living within the home may be able to devote more individual attention to each of their children. Research in the area of parent-child relationships (e.g., Hembree-Kigin & McNeil, 1995) indicates that positive, one-on-one interactions between parents and children are related to fewer disruptive behavior problems.

Discipline Techniques Used by Parents of Young Children

According to parent report, the discipline techniques used most often with toddler and preschool-age children involve talking with the child or otherwise providing some form of verbal feedback. Parents in this study were most likely to have used telling the child "no," corrective feedback, lecturing or talking to the child about his or her misbehavior, and scolding in discipline situations, both with regard to total use and use within the last month. Rewards and redirection were also common techniques parents reported using. In comparison, grounding was the least common technique

parents reported ever using and using within the last month. Perhaps grounding is not a commonly used technique with young children because it is not deemed developmentally appropriate for this age group. In fact, some parents indicated on the survey that they did not use grounding because their child is “too young.”

While the discipline techniques parents reported having ever used and those they reported using in the last month were fairly consistent, parents reported not using some techniques within the last month that they had previously used at some point during their child’s lifetime. Specifically, more parents reported ever using rewards, yelling, ignoring, threats, spanking, and time-out in a chair than using these techniques within the last month. It is encouraging that parents seem to be using less yelling, threats, and spanking over time, as these techniques are typically considered to be aversive and have been linked to various negative long-term outcomes for children (e.g., potential exposure to physical abuse, displays of aggression toward peers, coercive-parent child relationships; Patterson, 1982; Strassberg, Dodge, Pettit, & Bates, 1994; Whipple & Richey, 1997).

It is uncertain why fewer parents have used rewards, ignoring, and time-out in a chair in the last month than they have ever used these techniques, as these techniques are generally considered to be efficacious by clinicians and have been viewed as acceptable discipline methods by parents (Hembree-Kigin & McNeil, 1995; Reimers, Wacker, & Cooper, 1991; Tarnowski, Simonian, Park, & Bekeny, 1992). Perhaps these techniques, as implemented by parents, have not been effective methods of decreasing misbehavior and increasing prosocial behavior, causing parents to

discontinue their use. Indeed, a few parents indicated on their surveys that time-out in a chair “doesn’t work.” Parents may not have adequate knowledge of behavioral principles to implement these techniques effectively. This is a likely assumption with regard to this study’s sample of parents, as the majority of parents reported that they had not taken a parenting class.

With regard to time-out in a chair, literature on parent-child interaction therapy (e.g., Hembree-Kigin & McNeil, 1995) emphasizes that time-out is a condition where the child is removed from parental attention and other positive reinforcers. Parents are instructed to avoid attending to the child while he or she is in time-out as a means of avoiding inadvertent reinforcement of inappropriate behavior. Parent behaviors such as talking with the child while he or she is in time-out, maintaining eye contact, and commanding the child to “sit in the chair” provide children with attention (which will likely serve to maintain misbehavior). As such, teaching parents how to use rewards, ignoring, and time-out in a chair more effectively may increase their use and overall satisfaction with these techniques.

With regard to the frequency of use with which parents reported using each discipline technique, most parents again seemed to favor the use of “talking” methods. Specifically, telling the child “no,” corrective feedback, and lecturing were among the most frequently used techniques. Parents reported the lowest frequencies of use for grounding and spanking. As such, while parents report having used spanking to some degree, it appears that overall spanking is used to a lesser extent than other discipline techniques. Perhaps the debate regarding the efficacy of spanking and its potential

long-term negative effects on children has influenced parents to curtail the use of spanking, except in more extreme occurrences of child misbehavior (Holden, Coleman, & Schmidt, 1995).

A small group of parents within the total sample identified additional techniques other than the 14 listed on the survey. Interestingly, parents in the NBP group more often mentioned positive reinforcement techniques (e.g., providing praise, compliments, or hugs in response to positive behavior) and noted that they used these techniques at high rates of frequency (i.e., a few times per day to many times per day). In comparison, no parents in the BP group spontaneously reported using similar positive reinforcement techniques. Despite that a relatively equal percentage of parents in the BP and NBP groups reported having taken a parenting class, it appears that there are differences in viewpoint with regard to what constitutes discipline between groups. Parents in the NBP group seem to view both positive and negative interventions as part of discipline.

Relationship Between Child Behaviors and Parent Discipline Behavior

Differences in the use of discipline techniques between the BP and NBP groups were examined via chi-square analyses and independent *t*-test analyses. With regard to the discipline techniques parents reported ever having used and those they reported using in the last month, four statistically significant differences were found. More parents in the BP group reported using threats in their child's lifetime, using threats in the last month, using grounding in the last month, and using spanking in the last month.

The greater use of threats by parents in the BP group is consistent with previous research (Gardner, 1987; Patterson, 1982, 1997). These findings provide additional support for Patterson's Social Interactional Model, which proposed that parents of children exhibiting significant problem behaviors are less likely to follow through with commands and implementing discipline for misbehavior.

The greater likelihood of using spanking by parents in the BP group is consistent with previous studies, which have documented a relationship between child externalizing behaviors and aversive discipline strategies (e.g., DeKlyen et al., 1998; Gross et al., 1999; Whipple & Richey, 1997). In contrast, it is unclear why parents in the BP were more likely to use grounding with their children. It is possible that parents in the BP group use grounding more, but implement the technique ineffectively. For instance, parents may be inconsistent in the enforcement of grounding (e.g., tell the child that he or she will be grounded for one week, but later decrease the length of the grounding period). Additionally, it is impossible to know what parents considered to be "grounding" because a detailed explanation of the technique was not provided on the survey. Some parents may consider grounding as sending the child to his or her room for a specified period of time, while other parents may consider grounding as the removal of various privileges.

Three statistically significant differences emerged in regard to the frequency of discipline use reported by parents in the BP group and parents in the NBP group. Parents in the BP group reported significantly greater frequency of use of corrective feedback, lecturing, and time-out in the child's bedroom. Corrective feedback and

lecturing seem to be fairly innocuous methods of disciplining young children, particularly when used in combination with more positive discipline methods (e.g., praising or otherwise rewarding positive behaviors). However, these techniques can become rather aversive should parents use them at high levels of frequency and in relative isolation. By doing so, parents continually point out to children what they are doing wrong, and at the same time fail to attend to positive behaviors that children exhibit. Additionally, corrective feedback and lecturing might be likened to Patterson's concept of "nattering." According to Patterson (1982), nattering is a response to child misbehavior whereby parents continually voice their irritation, with no intent to follow through with consequences for the child's behavior. Patterson reported that nattering serves the purpose of "meddling" in children's coercive behaviors, while avoiding major conflict by not intervening more firmly.

With regard to time-out in the child's bedroom, it is likely that parents are not implementing the time-out procedure in the most efficacious manner. As previously noted, parent-child interaction therapy literature (e.g., Hembree-Kigin & McNeil, 1995) describes time-out as a condition where the child is removed from parental attention and other positive reinforcers. By placing the child in his or her bedroom for time-out, parents are likely not ensuring that various reinforcers (e.g., toys, interaction with siblings) are out of the child's reach. When implemented in this manner, time-out cannot be considered as a punishment for misbehavior.

There was no overlap in the statistically significant differences emerging from the discipline techniques ever used and used in the last month and those emerging in the

frequency of discipline techniques. In fact, the discipline techniques parents in the BP group were significantly more likely to ever use and use in the last month (e.g., threats, grounding, spanking) were among those reported to be used least frequently by all parents. The discipline survey used in this study did not specify whether parents should report the frequency with which they used each discipline technique within the last month, or the frequency with which they have ever used each technique. Therefore, some parents may have reported the frequency with which they generally use the discipline techniques, while others may have reported how frequently they currently use each technique.

Two cautions in interpreting the relationship between child behavior and parenting behavior should be noted. First, parents in the BP group reported that their children exhibited statistically significantly more problem behaviors and at statistically significantly greater levels of intensity than children of parents in the NBP group. Because children of BP group parents are exhibiting more disruptive behaviors, one would expect that parents would need to use discipline more. Therefore, the differences with regard to discipline frequency between the groups may be necessitated by differences in child behavior. However, as noted above, only three significant differences with regard to discipline frequency were found. Accordingly, it appears that parents in the BP group are using only some discipline techniques at a greater frequency than parents in the NBP group. Second, it should be emphasized that a causal relationship concerning child behavior and parenting behavior cannot be inferred from the findings of this study. In other words, one cannot say that certain discipline

techniques “cause” children’s disruptive behaviors. Rather, it appears that certain discipline techniques are related to problem behaviors. It is likely that a combination of parenting factors, child factors, and environmental influences impact the development of disruptive behaviors in early childhood.

Parenting Behavior, Parent Stress, and Child Behavior Problems

Results of the regression analyses used to examine parenting behavior and parent stress as predictors of children’s behavior problems and intensity of behavior problems revealed some statistically significant connections. Only the discipline techniques found to be significant between the BP and NBP groups in previous analyses (i.e., threats ever used; grounding, spanking, and threats used in the last month; frequency of use of corrective feedback, lecturing, and time-out in the child’s bedroom), in addition to parent stress and social desirability, were entered into the regression analyses. Corrective feedback was the most predictive of both behavior problems and intensity of behavior problems. Threats used in the last month accounted for additional variance to behavior problems, and threats used in the last month and parent stress contributed further predictive validity to intensity of behavior problems.

The potential role of corrective feedback and threats in children’s externalizing behaviors has previously been discussed. Parent stress emerging as a significant predictor of behavior intensity is a finding of particular significance. This suggests that parent stress is not directly related to the number of problem behaviors children exhibit, but rather the intensity at which the behaviors are demonstrated. It should be noted,

however, that parent stress was a less significant predictor of child behavior intensity than corrective feedback and threats. As such, parenting behaviors appeared to be the best predictors of both child behavior problems and behavior intensity. It must be emphasized that it is impossible to speculate from the data that parent stress fuels the intensity of children's behaviors, or, conversely, that high intensity levels of disruptive behaviors cause increases in parent stress.

This study did not examine bidirectional relationships between variables. That is, parent stress was examined individually with child behavior and parenting behavior. Parent stress was found to share statistically significant relationships with both child behavior problems and behavior intensity. Additionally, parent stress was significantly correlated with lecturing, threats ever used and used in the last month, and spanking used in the last month. Parent stress appears to be directly related with child behavior problems, and it may have an indirect influence on child behavior through its relationship with parenting behavior.

Limitations and Future Directions

There are several limitations to consider when interpreting the findings of this study. First, participants of the study were sampled from a limited number of childcare facilities and one psychologist's office in one geographic area. Aside from the parents receiving services at the psychologist's office, no attempts were made to sample parents of children who did not attend daycare or preschool facilities or children living in other areas of the country. As such, participants included in the study represent

predominantly Caucasian parents of toddler and preschool-age children residing in northern Utah and southern Idaho. Additionally, it should be noted that participants were those parents who were willing to take the time to complete the surveys and mail them back to the researcher. Therefore, the sample likely consists of fairly motivated, and perhaps higher-functioning, parents.

Second, the sample overwhelmingly consists of female parents/caregivers; only six fathers completed surveys. Because this was an exploratory study of the discipline practices used by parents of young children, few attempts were made to actively recruit male participants. Previous research (e.g., DeKlyen et al., 1998) has noted that father perceptions of children's behavior are relatively unknown, as mothers are generally the focus of research attention. It is suggested that future research examine father perceptions of young children's behavior, and potential differences between discipline strategies implemented by fathers and mothers. Some existing research has suggested that mothers may perceive and subsequently report more child behavior problems than fathers (e.g., Baker & Heller, 1996). Similarly, researchers have suggested that fathers interact differently with their children than mothers (Buss, 1981). For instance, Arnold and O'Leary (1997) observed interactions between both mothers and fathers and their "hard-to-manage" toddlers. They noted that only mothers were observed to exhibit overreactive discipline with their children. Overall, it is clear that gathering father input is an essential next step within the literature on young children's behavior.

Third, an obvious limitation of the study is the reliance on parent self-report data. While a social desirability measure was included among the measures as a means

of gaining information on parents' response style when completing each of the measures, self-report remains a fairly unreliable method of gaining parent data regarding discipline techniques. Researchers have noted that parent adjustment (e.g., parent stress) and negative child behaviors may color parents' perceptions of their children's behavior as well as their own behavior (Griest, Forehand, Wells, & McMahon, 1980; Nix et al., 1999; Webster-Stratton, 1988). However, Kochanska, Kuczynski, and Radke-Yarrow (1989) reported a substantial relationship between mothers' child-rearing attitudes and their observed behavior. Nevertheless, observations or interviews with parents are clearly more efficacious methods of obtaining information regarding parent-child interaction patterns.

Fourth, parent expectations regarding their children's behavior was not examined as part of this study. As previously discussed, the Eyberg Child Behavior Inventory (ECBI) contains both a problem behavior section and a behavior intensity section. For inclusion in the BP group of this study, it was necessary that children earn either problem behavior scores or intensity scores within the clinical range. On the problem behavior section of the ECBI, parents were simply asked if each of the behaviors listed were problems for them. As such, parents with high expectations for their children's behavior may have reported that a high number of behaviors were problems for them, despite the behaviors occurring at a relatively low intensity. Ten participants in the BP group (i.e., one third of the total BP group) of this study consisted of parents whose children earned behavior problem scores within the clinical range, but intensity scores within the normal range. Therefore, it is unclear whether the BP sample

can be considered a “pure” sample of children who exhibit significant conduct problems. A related factor that should be noted is that children rated by parents consisted of a nonclinical sample of toddlers and preschoolers. Because it was the intent of this study to examine discipline techniques used with a “normal” sample of young children, findings may not generalize to clinic-referred samples of children exhibiting externalizing behavior problems.

An additional limitation of this study is the failure to provide specific definitions for discipline techniques. Discipline techniques were listed simply by name (e.g., ignoring, spanking), or with a brief description (e.g., “telling the child what he/she did wrong” as a definition for corrective feedback). It is unclear how parents interpreted the discipline techniques and how their individual interpretations may have impacted their responses. For example, some parents may have defined “ignoring” as ignoring their child, while others may have defined “ignoring” as ignoring the child’s misbehavior. It is recommended that future studies better clarify how both parents and researchers interpret individual discipline techniques.

Finally, this study did not examine the combination of discipline techniques parents commonly use with their children, and the relative proportion of negative and positive techniques parents implement on a daily basis. Negative discipline techniques (e.g., spanking, lecturing, yelling) may not be as aversive if they are used relatively infrequently and in combination with positive discipline techniques (e.g., rewards, positive attention). For instance, in a review of literature examining child outcomes of physical punishment, Larzelere (2000) reported that five longitudinal studies found

negative outcomes for children were associated with the use of spanking. However, he noted that the negative outcomes found were primarily due to parents' overly frequent use of spanking (as opposed to occasional use). Researchers (e.g., Gardner, 1989; Reid, 1987) have suggested that the lack of positive parent-child interaction may have equally important implications for children's behavior as negative-coercive interactions. Future research endeavors might seek to examine the role of both positive and negative discipline practice in children's disruptive behaviors.

Conclusions

This study is among few that have examined the specific discipline techniques parents use with their toddler and preschool-age children. The majority of parents reported using discipline that involves talking with the child or providing some sort of verbal feedback, including lecturing and scolding. In contrast, grounding, spanking, and time-out in a chair are used the least by parents of young children in this study.

The results of this study provide support for a relationship between parenting behavior and children's disruptive behavior. Threats and more aversive discipline techniques (e.g., spanking, lecturing) were associated with problem behaviors in children, a finding that is consistent with previous literature (DeKlyen et al., 1998; Patterson, 1982). Additional techniques found to be linked with behavior problems are those that have the potential to be used inconsistently or ineffectively by parents (e.g., grounding, corrective feedback, time-out in the child's bedroom). Parenting behavior is certainly not the sole variable related to children's disruptive behaviors. However, with

early identification of “at-risk” families, parent discipline can more easily be modified than other correlates of child behavior (e.g., gender of child, socioeconomic status). Further, by identifying specific discipline techniques related to disruptive behaviors, clinicians have better knowledge regarding where direct modifications to parental discipline might be made.

The specific parenting techniques of corrective feedback and threats and parent stress were found to be significant predictors of children’s problem behaviors. Consistent with previous research, children who exhibit disruptive behaviors were more likely to have parents who experience higher levels of stress. While treatment programs that focus on modifying negative parental behaviors and increasing positive parent-child interaction are often associated with both improved outcomes in children’s behavior and parents’ well-being (Webster-Stratton & Hammond, 1990), intervention programs focused directly on parenting behavior and the well-being of the entire family system are needed. Webster-Stratton is among few clinicians who have begun to implement a parent treatment component as a regular part of her parenting program. The ADVANCE program is designed to train parents to cope with interpersonal distress via discussion of communication and problem-solving skills. According to Webster-Stratton, the ADVANCE program has produced additional improvements in parents’ behavior and satisfaction, above those associated with the parent-training program alone (Webster-Stratton, 1994). Family treatment programs of this nature are clearly essential, for the benefit of both parents and children. Additionally, further research examining parent stress in relation to children’s behavior is needed, particularly in the

area of identifying which environmental stressors (e.g., life stressors, daily hassles related to the parent-child relationship, work, social, or marriage-related stressors) are especially salient for parent-child interactions.

Overall, the findings of this study suggest the need for universal prevention efforts, whereby parents acquire effective behavior management strategies and skills to cope with interpersonal distress. As this study has demonstrated, parent discipline strategies are among the best predictors of disruptive behaviors in early childhood. Should less efficacious discipline strategies not be modified early within a child's lifetime, research has indicated that child behavior problems will persist and increase in severity for a substantial number of children. It is essential that clinicians impart knowledge regarding "risk factors" for externalizing behavior problems to parents and professionals who routinely provide services to families (e.g., medical providers, childcare providers). Further, an increasing emphasis on early intervention is necessary. Comprehensive parenting programs may be of most benefit to families of children exhibiting significant problem behaviors, yet all families stand to gain from such programs.

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APPENDIX

(Parent Letter)

Dear Parent:

We are writing this letter to ask for your help in a research study examining parent discipline strategies and parent concerns about the behavior of their toddlers and preschoolers. The purpose of this project is to gather information about the discipline strategies parents use and how these relate to children's behaviors. This information will help us better serve children and families.

If you would like to participate, please complete the enclosed forms and mail them back in the self-addressed, stamped envelope. Please be sure to respond to each of the items as they pertain to your two- to five-year old child. If you have more than one child in this age range, respond to the forms as they pertain to your youngest child within that range. Please complete the forms independently (i.e., do not ask your spouse or other adults how they would answer each of the items).

It will take approximately 10-20 minutes to complete these forms. You are under no obligation to complete the forms, and whether or not you do so will in no way affect you or your child.

All results from this study will be anonymous so please do not put your name or your child's name on the forms.

If you have any questions about the study, please contact one of us at the phone numbers listed below. If you would like results of this study when it is completed, please let us know. We will not be able to inform you of any information specifically about your child because names will not be used.

Thank you for your time and assistance.

Sincerely,

Angela Ehrlick, B.A.
USU Doctoral Student
(435) 797-1986

Gretchen A. Gimpel, Ph.D.
Associate Professor
(435) 797-0721

PARENT QUESTIONNAIRE

Your gender: M F Your age: _____

Marital status:

- _____ Married
 _____ Not married; living with a partner or other family member(s)
 _____ Single; never married
 _____ Single; divorced
 _____ Single; widowed

Occupation: _____

Your educational attainment:

- | | |
|---------------------------------------|-------------------------------|
| _____ Less than high school education | _____ Bachelor's degree |
| _____ High school education | _____ Above bachelor's degree |
| _____ Some college education | |

Approximate take home monthly income of your family: _____

Number of children currently living in your household: _____

Age and gender of the child (within the 2-5 year age range) to whom these forms pertain (Remember – if you have more than one child within that range, fill out these forms as they pertain to the oldest child):

Your relationship to the child being rated:

- | | |
|----------------------|---------------------|
| _____ Mother/father | _____ Foster parent |
| _____ Step-parent | _____ Other: _____ |
| _____ Legal guardian | |

Age and gender of each of your children: _____

Have you ever taken a parenting class? Yes No

If yes, what parenting classes have you taken? _____

Who typically disciplines your child (i.e., the child to whom these forms pertain)?

- _____ I do
- _____ My spouse/partner does
- _____ Child's siblings/other family members do
- _____ Discipline responsibilities are shared equally between parents/caregivers

- Listed below are techniques parents often use when disciplining their young children.
- On the first line, please place a check mark by all of the techniques that you have used with your **2-5 year old child** within the last month. On the second line, please place a check mark by all of the techniques that you have ever used with your **2-5 year old child**.
- A space is provided at the end of the survey for you to indicate additional discipline techniques you have used that are not listed.
- Please also indicate how often you typically use each discipline technique by circling the appropriate number below each technique you checked according to the key listed below.
- If you did not check a technique, you do not need to rate it on the 1-7 scale.

- 1 = Less than once a month
- 2 = A few times per month
- 3 = Once a week
- 4 = A few times per week
- 5 = Once a day
- 6 = A few times per day
- 7 = Many times per day

Used within last month	Ever used	Frequency of use (complete if technique is checked as used)
_____	_____	Corrective Feedback (i.e., telling child what he/she did wrong)
		1 2 3 4 5 6 7
_____	_____	Grounding
		1 2 3 4 5 6 7
_____	_____	Ignoring
		1 2 3 4 5 6 7
_____	_____	Incentives/rewards for positive behaviors (e.g., money, stickers, candy)
		1 2 3 4 5 6 7

_____	_____	Lecturing/talking to child about what he/she did wrong	1	2	3	4	5	6	7
_____	_____	Redirection (i.e., directing child to an appropriate activity when he/she misbehaves)	1	2	3	4	5	6	7
_____	_____	Removal of privileges (e.g., no TV)	1	2	3	4	5	6	7
Used within last month	Ever used	Frequency of use (complete if technique is checked as used)							
_____	_____	Scolding/verbal reprimands	1	2	3	4	5	6	7
_____	_____	Spanking	1	2	3	4	5	6	7
_____	_____	Telling child "no"	1	2	3	4	5	6	7
_____	_____	Telling child he/she will be disciplined (e.g., privilege removed), but not following through	1	2	3	4	5	6	7
_____	_____	Time-out in bedroom	1	2	3	4	5	6	7
_____	_____	Time-out in chair	1	2	3	4	5	6	7
_____	_____	Yelling	1	2	3	4	5	6	7

Other discipline techniques used (please specify technique on blank line):

Used within last month	Ever used	Frequency of use						
_____	_____	_____						
		1	2	3	4	5	6	7
_____	_____	_____						
		1	2	3	4	5	6	7
_____	_____	_____						
		1	2	3	4	5	6	7

You may write additional techniques or comments on the back of this survey.

EYBERG CHILD BEHAVIOR INVENTORY

Directions: Below are a series of phases that describe children's behavior. Please (1) circle the number describing how often the behavior occurs with your child and (2) circle "Yes" or "No" to indicate whether the behavior is currently a problem.

	How often does this occur with your child?					Is this a problem for you?			
	Never	Seldom	Sometimes	Often	Always	Yes	No		
1. Dawdles in getting dressed	1	2	3	4	5	6	7	Yes	No
2. Dawdles or lingers at mealtime	1	2	3	4	5	6	7	Yes	No
3. Has poor table manners	1	2	3	4	5	6	7	Yes	No
4. Refuses to eat foods presented	1	2	3	4	5	6	7	Yes	No
5. Refuses to do chores when asked	1	2	3	4	5	6	7	Yes	No
6. Slow in getting ready for bed	1	2	3	4	5	6	7	Yes	No
7. Refuses to go to bed on time	1	2	3	4	5	6	7	Yes	No
8. Does not obey house rules on his/her own	1	2	3	4	5	6	7	Yes	No
9. Refuses to obey unless threatened with punishment	1	2	3	4	5	6	7	Yes	No
10. Acts defiant when told to do something	1	2	3	4	5	6	7	Yes	No
11. Argues with adults about rules	1	2	3	4	5	6	7	Yes	No
12. Gets angry when doesn't get own way	1	2	3	4	5	6	7	Yes	No
13. Has temper tantrums	1	2	3	4	5	6	7	Yes	No
14. Sassses adults	1	2	3	4	5	6	7	Yes	No
15. Whines	1	2	3	4	5	6	7	Yes	No
16. Cries easily	1	2	3	4	5	6	7	Yes	No
17. Yells or screams	1	2	3	4	5	6	7	Yes	No
18. Hits parents	1	2	3	4	5	6	7	Yes	No
19. Destroys toys and other objects	1	2	3	4	5	6	7	Yes	No
20. Is careless with toys and other objects	1	2	3	4	5	6	7	Yes	No
21. Steals	1	2	3	4	5	6	7	Yes	No
22. Lies	1	2	3	4	5	6	7	Yes	No
23. Teases or provokes other children	1	2	3	4	5	6	7	Yes	No
24. Verbally fights with friends his/her age	1	2	3	4	5	6	7	Yes	No
25. Verbally fights with sisters/brothers	1	2	3	4	5	6	7	Yes	No
26. Physically fights with friends his/her age	1	2	3	4	5	6	7	Yes	No
27. Physically fights with sisters/brothers	1	2	3	4	5	6	7	Yes	No
28. Constantly seeks attention	1	2	3	4	5	6	7	Yes	No
29. Interrupts	1	2	3	4	5	6	7	Yes	No
30. Is easily distracted	1	2	3	4	5	6	7	Yes	No
31. Has short attention span	1	2	3	4	5	6	7	Yes	No
32. Fails to finish tasks or projects	1	2	3	4	5	6	7	Yes	No
33. Has difficulty entertaining self alone	1	2	3	4	5	6	7	Yes	No
34. Has difficulty concentrating on one thing	1	2	3	4	5	6	7	Yes	No
35. Is overactive and restless	1	2	3	4	5	6	7	Yes	No
36. Wets the bed	1	2	3	4	5	6	7	Yes	No

Perceived Stress Scale

The questions in this scale ask you about your feelings and thoughts during the last month. In each case, you will be asked to indicate how often you felt or thought a certain way. Although some of the questions are similar, there are differences between them, and you should treat each one as a separate question. The best approach is to answer each question fairly quickly. That is, don't try to count up the number of times you felt a particular way, but rather indicate the alternative that seems like a reasonable estimate.

- | | | | | | | |
|-----|--|-------|--------------|-----------|--------------|------------|
| 1) | In the last month, how often have you been upset because of something that happened unexpectedly? | Never | Almost Never | Sometimes | Fairly Often | Very Often |
| 2) | In the last month, how often have you felt that you were unable to control the important things in your life? | Never | Almost Never | Sometimes | Fairly Often | Very Often |
| 3) | In the last month, how often have you felt nervous and "stressed"? | Never | Almost Never | Sometimes | Fairly Often | Very Often |
| 4) | In the last month, how often have you dealt successfully with irritating life hassles? | Never | Almost Never | Sometimes | Fairly Often | Very Often |
| 5) | In the last month, how often have you felt that you were effectively coping with important changes that were occurring in your life? | Never | Almost Never | Sometimes | Fairly Often | Very Often |
| 6) | In the last month, how often have you felt confident about your ability to handle your personal problems? | Never | Almost Never | Sometimes | Fairly Often | Very Often |
| 7) | In the last month, how often have you felt that things were going your way? | Never | Almost Never | Sometimes | Fairly Often | Very Often |
| 8) | In the last month, how often have you found that you could not cope with? | Never | Almost Never | Sometimes | Fairly Often | Very Often |
| 9) | In the last month, how often have you been able to control irritations in your life? | Never | Almost Never | Sometimes | Fairly Often | Very Often |
| 10) | In the last month, how often have you felt that you were on top of things? | Never | Almost Never | Sometimes | Fairly Often | Very Often |
| 11) | In the last month, how often have you been angered because of things that happened that were outside of your control? | Never | Almost Never | Sometimes | Fairly Often | Very Often |
| 12) | In the last month, how often have you found yourself thinking about things that you have to accomplish? | Never | Almost Never | Sometimes | Fairly Often | Very Often |
| 13) | In the last month, how often have you been able to control the way you spend your time? | Never | Almost Never | Sometimes | Fairly Often | Very Often |
| 14) | In the last month, how often have you felt difficulties were piling up so high that you could not overcome them? | Never | Almost Never | Sometimes | Fairly Often | Very Often |

Personal Reaction Inventory

Listed below are a number of statements concerning personal attitudes and traits. Read each item and decide whether the statement is true or false as it pertains to you personally.

- | | | |
|---|---|--|
| T | F | 1. Before voting, I thoroughly investigate the qualifications of all the candidates. |
| T | F | 2. I never hesitate to go out of my way to help someone in trouble. |
| T | F | 3. It is sometimes hard for me to go on with my work if I am not encouraged. |
| T | F | 4. I have never intensely disliked someone. |
| T | F | 5. On occasion I have had doubts about my ability to succeed in life. |
| T | F | 6. I sometimes feel resentful when I don't get my way. |
| T | F | 7. I am always careful about my manner of dress. |
| T | F | 8. My table manners at home are as good as when I eat out in a restaurant. |
| T | F | 9. If I could get into a movie without paying and be sure I was not seen, I would probably do it. |
| T | F | 10. On a few occasions, I have given up doing something because I thought too little of my ability. |
| T | F | 11. I like to gossip at times. |
| T | F | 12. There are times when I felt like rebelling against people in authority even though I knew they were right. |
| T | F | 13. No matter who I'm talking to, I'm always a good listener. |
| T | F | 14. I can remember "playing sick" to get out of something. |
| T | F | 15. There have been occasions when I took advantage of someone. |
| T | F | 16. I'm always willing to admit it when I make a mistake. |
| T | F | 17. I always try to practice what I preach. |
| T | F | 18. I don't find it particularly difficult to get along with loud-mouthed, obnoxious people. |
| T | F | 19. I sometimes try to get even rather than forgive and forget. |
| T | F | 20. When I don't know something I don't at all mind admitting it. |

- T F 21. I am always courteous, even to people who are disagreeable.
- T F 22. At times I have really insisted on having things my own way.
- T F 23. There have been occasions when I felt like smashing things.
- T F 24. I would never think of letting someone else be punished for my wrongdoings.
- T F 25. I never resent being asked to return a favor.
- T F 26. I have never been irked when people expressed ideas very different from my own.
- T F 27. I never make a long trip without checking the safety of my car.
- T F 28. There have been times when I was quite jealous of the good fortune of others.
- T F 29. I have almost never felt the urge to tell someone off.
- T F 30. I am sometimes irritated by people who ask favors of me.
- T F 31. I have never felt that I was punished without cause.
- T F 32. I sometimes think when people have a misfortune they only got what they deserved.
- T F 33. I have never deliberately said something that hurt someone's feelings.