

5-27-2009

Acceptability of Parent-Child Interaction Therapy

Jacqueline Mezza Titus
Eastern Michigan University

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Acceptability of Parent-Child Interaction Therapy

by

Jacqueline Mezza Titus

Dissertation

Submitted to the Department of Psychology

Eastern Michigan University

in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

Clinical Psychology

Dissertation Committee:

Carol R. Freedman-Doan, Ph.D., Chair

Alida Westman, Ph.D.

Alissa Huth-Bocks, Ph.D.

Sylvia Norris Jones, Ph.D.

May 27, 2009

Ypsilanti, Michigan

DEDICATION

To my husband, Brian.

ACKNOWLEDGEMENTS

I am very thankful to my advisor and dissertation chair, Keti Freedman-Doan, for her guidance. She has a special talent for reining in my ideas, which frequently grew too big for any one dissertation. I am most appreciative of her dedication to mentoring me, which is exemplified in the patience with which she has guided me and her encouragement to challenge myself in all domains of my burgeoning career. She has served as a role model for me as a clinician, an educator, and a scientist-practitioner.

I am also thankful for my committee of Alissa Huth-Bocks, Sylvia Norris Jones, and Alida Westman. Their advice and suggestions have helped to form this research question and final product. I also thank Erin Henshaw and Michelle Byrd for their support, without which this dissertation could not have been completed. Erin has a knack for putting things in perspective and knowing just the right encouraging words. To Michelle I am grateful for her generous sharing of resources, but more importantly words of wisdom, with me.

I would like to thank the Blue Cross Blue Shield of Michigan Foundation and the EMU Graduate School for so generously funding this research.

Several dedicated research assistants deserve credit for their contributions to this project. I appreciate Stuart Segal, Emily Kavanagh, Vashaun Baber, Laura Richardson, and Ambreen Shahabuddin, for their help in recruiting subjects, coding, and managing data.

I am grateful to my parents, Livio and Loretta Mezza, for their unwavering support of me. They have always believed that there is no limit to what I can do, a belief I drew upon frequently to complete this work. I am thankful for my sisters and my “sisters” for their patience and much needed distraction. Finally, I am thankful for my husband Brian. Words are inadequate to describe the joy he brings and how much I appreciate his support and love.

ABSTRACT

The behaviors associated with Oppositional Defiant Disorder and other disruptive behavior disorders constitute the most common reason for referral of young children to mental health services (Schuhmann, Durning, Eyberg, & Boggs, 1996). Parent-Child Interaction Therapy is an empirically supported treatment for such disorders. However, families are frequently unable to maximize their use of such treatments. Barriers to treatment participation prevent families from entering or staying in treatment. While most of the treatment effectiveness research has been conducted with Caucasian families, African American families and Caucasian families experience these barriers to different degrees, resulting in varying treatment adherence and unclear treatment effects for these populations. Cultural differences in parenting beliefs and behaviors may translate to differing perceptions of treatment relevance and therefore lower acceptability for African American families. This study contributes to the literature by investigating the acceptability of a specific, efficacious treatment for disruptive behavior in children and by qualitatively exploring mothers' expectations, perceptions of barriers, and judgments of this treatment. Ninety-two participants were recruited from southeast and mid-Michigan. It was hypothesized that African American mothers would perceive CDI as less effective for their own and other children, have more negative judgments of CDI, and be less willing to participate in CDI than would Caucasian mothers, but that these relationships would be mediated by parenting styles. It was also hypothesized that parenting sense of competence and perceived influence over behavior would predict mothers' willingness to participate in CDI and their expectations about the effectiveness of CDI in helping their own and other children, but that this relationship would be moderated by mothers' parenting style.

Associations between parenting practices, parenting sense of competence, perceived influence, barriers to participation, and judgments of CDI were assessed through multiple regression analyses. Results indicate that annual income may be a better predictor of differences in parenting practices and that there were no differences between groups with regard to willingness to participate. Qualitative analyses identified threats to acceptability and potential facilitators of PCIT.

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CHAPTER 1: INTRODUCTION AND BACKGROUND

Oppositional Defiant Disorder (ODD) and other disruptive behavior disorders are a growing problem for families. Childhood psychological disorders are often categorized as either internalizing disorders, in which there are disturbances in the child's internal thoughts and feelings, or externalizing disorders, in which the symptoms are manifested in the child's outward behavior (Achenbach, 1966). Attention Deficit-Hyperactivity Disorder (ADHD), Conduct Disorder (CD), and Oppositional Defiant Disorder (ODD) are considered externalizing disorders or disruptive behavior disorders (DSM-IV-TR; American Psychiatric Association, 2000). The behaviors associated with externalizing disorders constitute the most common reason for referral of young children to mental health services (Schuhmann, Durning, Eyberg, & Boggs, 1996).

Etiological factors for externalizing disorders include biology, social skills deficits, and parent-child relationship factors, such as attachment and parenting practices. Most interventions for disruptive behavior disorders address parent-child relationship factors, as these are likely to be the most effective targets of change. Parent-Child Interaction Therapy (PCIT) is a commonly used, efficacious treatment for ODD and other disruptive behavior disorders. It works by improving the parent-child relationship and by teaching parents more effective discipline strategies.

However, families are frequently unable to maximize their use of such treatments. The experience of barriers to treatment participation or anticipated perception of barriers prevents families from entering or staying in treatment. While most of the treatment effectiveness research has been conducted with Caucasian families, African American families and Caucasian families experience these barriers to different degrees, resulting in

varying treatment adherence and unclear treatment effects for these populations. These barriers range from practical obstacles, like acquiring transportation or child care, to perceived relevance of treatment. African American parents tend to use more authoritarian parenting practices than do Caucasian parents. As such, cultural differences in parenting beliefs and behaviors may translate to differing perceptions of treatment relevance and lower acceptability of treatment for African American families.

The purpose of this study is to investigate the parenting styles, behaviors, and perception of barriers of African American and Caucasian mothers and to determine what effect they have on their expectations for the Child Directed Interaction (CDI) portion of PCIT, their judgments of the parenting behaviors required by CDI, and, ultimately, their willingness to participate in CDI if their children were experiencing behavioral problems. This study contributes to the literature by addressing the acceptability of a specific, efficacious treatment for problem behaviors in children and by qualitatively exploring the expectations, perceptions of barriers, and judgments of this treatment by African American mothers.

Diagnostic Features of Children with Externalizing Disorders

Childhood psychological disorders are typically classified as either internalizing disorders, in which there are disturbances in the child's internal thoughts and feelings, or externalizing disorders, in which the symptoms are manifested in the child's outward behavior (Achenbach, 1966). Depression and anxiety are considered internalizing disorders, and ADHD, CD, and ODD are considered externalizing disorders or disruptive behavior disorders (DSM-IV-TR; American Psychiatric Association, 2000). The focus of this research is on oppositional and noncompliant behavior in children. Although these behaviors are most

commonly evidenced in ODD, it should be noted that some of these behaviors are also evident in ADHD and CD. For example, the criteria for ADHD include forgetting things, not following through, and avoiding work that requires sustained effort (APA, 2000). Children with ODD and children with ADHD both exhibit problems controlling impulses. However, ODD is distinguished from ADHD by the absence of attentional and hyperactive criteria.

The diagnostic criteria for ODD are presented in Table 1.

Table 1. *Diagnostic Criteria for Oppositional Defiant Disorder*

<p>A. A pattern of negativistic, hostile, and defiant behavior lasting at least 6 months, during which four (or more) of the following are present:</p> <ul style="list-style-type: none"> (1) often loses temper (2) often argues with adults (3) often actively defies or refuses to comply with adults' requests or rules (4) often deliberately annoys people (5) often blames others for his or her mistakes or misbehavior (6) is often touchy or easily annoyed by others (7) is often angry or resentful (8) is often spiteful or vindictive <p>Note: Consider a criterion met only if the behavior occurs more frequently than is typically observed in individuals of comparable age and developmental level.</p> <p>B. The disturbance in behavior causes clinically significant impairment in social, academic, or occupational functioning.</p> <p>C. The behaviors do not occur exclusively during the course of a Psychotic or Mood Disorder.</p> <p>D. Criteria are not met for Conduct Disorder, and, if the individual is age 18 years or older, criteria are not met for Antisocial Personality Disorder.</p>
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Note. From DSM – IV – TR (APA, 2000, p. 102)

The diagnosis of ODD is somewhat controversial. It was initially conceptualized as a variant of CD (APA, 1980) because researchers believed it captured the early signs of aggression that were present in early and middle childhood (Hinshaw & Lee, 2003). Some have proposed combining ODD with CD because of the high comorbidity rate between CD and ODD, leading many to believe that ODD is more accurately viewed as a variant of CD (Eaves et al., 2000; Hinshaw et al., 1993; Lahey, et al. 1994; Schachar & Wachsuth, 1990).

Others argue that this is an incorrect assumption because while many children with CD have at some time met criteria for ODD, two thirds of children with ODD do not develop CD (Biederman et al., 1996; Hinshaw, 1993; Lahey et al., 1994). More recently, studies have shown that ODD, while similar to and predictive of CD (Whittenger et al., 2007), is not a lesser variant (Biederman et al., 1996; Frick et al., 1994; Mannuzza et al., 2004). Factor analytic studies have shown that symptoms of CD and ODD reliably separate into two clusters of intercorrelated behaviors (Frick et al., 1994). Critics note that combining ODD and CD would be arbitrary and may be unnecessarily stigmatizing for children with ODD (Schaffer, Widiger, & Pincus, 1994).

Defiant behaviors are often expressed through stubbornness, refusal to comply with direction, and unwillingness to compromise or negotiate with adults or peers (APA, 2000) in excess of developmentally appropriate advances in independence and assertiveness (Crockenberg & Litman, 1990). They often emerge gradually over the course of months or years (Miller, Koplewicz, & Klein, 1997). While parents are often the first to notice these behaviors at home (APA, 2000), they may not necessarily be seen in other settings, like school, because children with ODD are most often defiant with people they know well. Children with ODD often test limits by ignoring instructions or externalizing blame. They also show hostility by deliberately annoying others and engaging in verbal aggression, such as threats and profanity. They typically believe they are responding appropriately to unreasonable demands (Christophersen & Moretweet, 2002). Campbell (1995), in a review of the literature on disruptive behavior disorders, noted that behavior problems in preschool years often persist and that children identified as showing serious behavior problems in adolescence often have a history of problems that began in the preschool years. Based on

several prospective studies of problem preschoolers (Campbell, 1994; Campbell et al., 1986), Campbell (1997) suggested that about half of the children identified with problems by preschool age will improve with development.

Many have suggested that conduct problems have a developmental pathway (Kazdin, 1985; Loeber, 1991; Patterson, DeBaryshe, & Ramsey, 1989). Early-starters progress from signs of ODD in early preschool years, to overt and covert aggression in middle childhood, to severe symptoms, like violence, by adolescence. Late starters show normal development until early school years but exhibit symptoms of CD during adolescence. The prognosis for late starters is favorable because the primary developmental pathway for serious conduct disorders in adolescence and adulthood is established during preschool years (Brennan et al., 2003; Campbell & Ewing, 1990; Lahey, McBurnett, & Loeber, 2000; Loeber, 1991). For these reasons, ODD is considered to be a predictor of CD.

The prevalence rate for all externalizing disorders is estimated at 12% of children in the general population (Dumas, 1992). According to the DSM-IV-TR (APA, 2000), prevalence rates of CD, ADHD, and ODD in the general population may be as high as 10%, 7%, and 20%, respectively. Many studies have found different prevalence rates due to the use of different samples and different instrumentation. Lahey and colleagues (1999), reviewing epidemiology studies, found the prevalence of ODD to range from 0.3% to 22.5%, with the median of all estimates being 3.2%. Achenbach and colleagues (2003) examined prevalence rates of childhood disorders from 1976 to 1999 based on Child Behavior Checklist (Achenbach, 1991) scores. When they compared 1989 and 1999 national samples quantitatively, Oppositional Defiant Problems scale scores indicated more problems in 1999

than 1989. This suggests either that the prevalence of ODD is increasing or that the diagnostic procedures used to identify ODD in the population have improved.

Several factors have been found to be associated with the prevalence of externalizing disorders, including family environment, gender, and possibly race. Prevalence rates of ODD are related to family environment. For example, ODD is more prevalent in children raised in families in which caregivers are not a consistent presence (APA, 2000). This may include circumstances in which the child has been placed in multiple foster care facilities or residential treatment facilities, families in which the mother or father is absent for long periods of time, or families in which the child is raised by someone other than the parent because the parent is a transient figure in the child's life. As will be discussed in more detail in subsequent sections, ODD is also more prevalent in children who are raised in an environment in which child-rearing practices are harsh, inconsistent, or neglectful and in families that experience severe marital discord. Finally, ODD is more prevalent among children whose mothers have been diagnosed with a depressive disorder (APA, 2000).

Additionally, prevalence rates vary by gender. In CD, ADHD, and ODD, boys are more likely to receive a diagnosis than girls are (APA, 2000). Boys are twice as likely as girls to develop ODD (Hinshaw & Lee, 2003; Maughan, Rowe, Messer, Goodman & Meltzer, 2004). Maughan et al. (2004), in a study of 10,438 children, found rates of ODD to be 4.6% for boys and 1.8% for girls. Some authors have found that the gender disparity changes over time. Richman and colleagues (1982), in a study of nonclinical children, found that the rates of oppositional behavior at 3 years old were nearly equal for boys and girls. However, oppositionality was more likely to persist in boys than girls; at 8 years old, 73% of boys versus 48% of girls continued to have difficulties (Richman, Stevenson, & Graham,

1982). Others have found that before puberty, ODD is more prevalent in males than females, but after puberty the rates equalize (APA, 1994). These studies suggest that there is a developmental trajectory in early and middle childhood during which boys and girls display equal rates of oppositional behavior in early childhood, then males exceed females in middle childhood, and then after puberty, these rates balance between groups and decrease for most children (Maughan et al., 2004).

Studies have found inconsistent results regarding ethnic discrepancies in prevalence rates by race. Cuffe, Moore, and McKeown (2005), using a national sample, found that while ADHD appeared more prevalent for African Americans than Caucasians, these results did not reach significance. However, some researchers have found rates of ODD among preschool African American children to be more than twice that of European American children (21% and 9%, respectively; Nolan, Gadow, & Sprafkin, 2001). This may be due to a greater likelihood of exposure to risk factors. However, there may be cultural diagnostic issues that presently are not adequately addressed (Cicchetti & Nurcombe, 1993; Loeber et al., 2000). For example, some have suggested that the language used in the criteria for ODD in the DSM-IV-TR (APA, 2000 p. 100) regarding children's attempts "to justify their behavior as a response to unreasonable demands or circumstances" allows for culturally insensitive clinicians to minimize environmental stressors in the child's life (Fisher, 2002). African American children may have different experiences, such as ethnic oppression and economic discrimination, which impacts their development in different ways, particularly if experienced in the first few years of life (Parham, White, & Ajamu, 2000). For example, an African American child expressing the cultural views of his family and offering a legitimate alternative viewpoint may come into conflict with teachers or other authority figures. In such

instances his opposition may inaccurately be viewed as pathology. For these reasons, ODD in African American children needs further study.

Comorbidity

Externalizing disorders are highly comorbid with internalizing disorders (e.g., depression, and anxiety). For example, Angold and Costello (1993) examined comorbid conditions of depression in children by reviewing epidemiological studies using DSM-III and DSM-III-R criteria. They found that comorbidity with conduct problems ranged from 21-83%. Additionally, Greene et al. (2002) found that more than 60% of children diagnosed with ODD also had a comorbid anxiety disorder and that in a sample of children diagnosed with severe major depression, 70% exhibited ODD. Burke et al. (2005), in a longitudinal study using a sample of 177 clinic-referred boys, found that ODD predicted future anxiety and depression. Vance, Sanders, and Arduca (2005) studied the relationships between ODD, ADHD, dysthymic disorder, and anxiety symptoms in clinic-referred children. They found that the symptoms of ADHD and dysthymic disorder independently predicted ODD symptoms. Together, these studies illustrate the influence of comorbid internalizing and externalizing disorders.

Etiology of Externalizing Disorders

Understanding the development of psychopathology is imperative because it drives treatment strategies. Researchers agree that multiple risk factors, including biological vulnerabilities, parent-child relationship problems, and family and community adversity interact to produce disruptive behaviors (McMahon & Estes, 1997; Prinz & Miller, 1991; Speltz et al., 1999). These risk factors will be discussed from an ecological perspective and in

terms of their impact on parent-child interactions because these interactions are most often the target of interventions.

Microsystem–Child Factors

Biology

Neurobiology. There is some evidence of underactivity in the areas of the brain responsible for inhibition, attention, and sensitivity to reinforcement in children with ADHD (Brown, 2000). Investigators researching cerebral blood flow in children with ADHD conclude that there is significantly less blood flow to the areas of the brain responsible for the regulation of attention. After these children receive stimulant medication, the blood flow to the previously underactive areas increased to near normal levels (Barkley, 1993; Teeter & Semrud-Clikeman, 1995). Additionally, in a review of recent literature, Pliszka (2005) indicates that pharmacological treatments of ADHD focus on the noradrenergic and dopaminergic systems.

CD is also thought to have a biological basis in addition to the etiological factors it shares with ODD. For example, some studies show that children with CD have differently functioning autonomic nervous systems as evidenced by heart rate or electric skin conductance responding less strongly to intense and punishing stimuli than those of normal populations. Children with CD are thought to have weaker Behavioral Inhibition Systems than expected (Fowles, 1980). For example, Hughes (2000) and others investigated the sociocognitive ability and executive function of 40 preschool-aged disruptive children and 40 control children by having them play with a best friend chosen by their teacher. Compared with controls, the disruptive children showed significantly higher rates of both antisocial behavior and displays of negative emotion, as well as significantly lower rates of empathic or

prosocial responses toward their friends. For all children, angry and antisocial behavior was related to poor executive control. Mental-state understanding was not significantly correlated with antisocial behavior, displays of negative emotion, or empathy. These findings suggest that behavioral regulation deficits likely contribute more to the interpersonal problems of disruptive children than do social understanding deficits.

There are also structural differences in the brains of children with CD. Kruesi and others (2004) investigated magnetic resonance images of children with early onset conduct disorder. Compared with nonclinical controls, those with early onset conduct disorder showed reduced right temporal lobe volume and gray matter. Herpetz and colleagues (2008), using functional magnetic resonance imaging, investigated the emotional processing centers of adolescents who had been diagnosed with comorbid conduct disorder and ADHD. They found that these boys, in comparison with control boys, had stronger left-sided amygdale activation in response to negative, as opposed to neutral, pictures, even after controlling for anxious or depressed psychopathology. Both CD/ADHD boys' and control boys' amygdalas were activated when shown negative pictures. Increased amygdala activation suggests greater response to environmental cues, which could lead to reactive aggression.

Valera and colleagues (2007) conducted a meta-analysis of structural imaging findings in ADHD. They found that the regions of the brain most often assessed and demonstrating the largest and most significant reductions compared to controls include cerebellar regions of interest, specifically the posterior inferior vermis, the splenium of the corpus callosum, total and right cerebral volume, and right caudate. Others have compared brain scans of children with ADHD with children with conduct disorder. Rubia and others (2008) found that children with ADHD had brain abnormalities in the inhibition mediating

prefrontal regions, whereas children with conduct disorder had brain abnormalities in the performance-monitoring networks of the posterior temporal parietal region.

Heritability. There is also evidence that ADHD, CD, and ODD are genetically inherited. For example, ADHD is more common in the first-degree biological relatives of children with ADHD than in the general population (APA, 2000). Biederman et al. (1990) compared the family members of children with ADHD with family members of children with other psychiatric disorders and children with no evident mental health problems. They found that 25% of the first-degree relatives of children with ADHD also had the disorder, compared with only 5% of first-degree relatives of the children diagnosed with other psychiatric disorders. Additionally, there are strong genetic links for hyperactivity, impulsivity, and inattention (APA, 2000). Furthermore, twin and adoption studies indicate that CD is more prevalent in children with a biological parent who has Antisocial Personality Disorder (APD), alcohol dependence, mood disorders, schizophrenia, ADHD, or CD (APA, 2000). Children with ODD tend to be from families in which at least one parent has a Mood Disorder, ODD, CD, ADHD, APD, or a Substance-Related Disorder. However, the evidence for the heritability of ODD is weaker than CD or ADHD.

Temperament. Temperament refers to individual differences in behavioral style or reactivity to internal and external stimulation and patterns of motor and attentional self-regulation, present from very early in development (Thomas & Chess, 1977). Thomas and Chess (1977) have identified three primary temperaments including easy, slow-to-warm up, and difficult. The mechanism by which temperament acts on behavior is unclear at present. For example, certain temperamental styles could impair a child's ability to develop emotional self-regulation, as Eisenberg and colleagues (2001) suggest. Temperamental style could

impair the development of planning and behavioral self-control cognitive skills (Giancola et al., 1998). It may impact the development of guilt and empathy (Kochanska, 1993) or the ability to interpret and respond to information in peer interactions (Dodge & Pettit, 2003).

Some examples illustrate the relationship between temperament and ODD. Ward (2006), in a dissertation examining the relationship between temperament and oppositional behavior, found that difficult temperament in infancy was related to oppositionality in toddlerhood and accounted for a significant amount of the variance in oppositional behavioral style. Guerin and colleagues (1997) examined the relationship between temperament and behavior problems longitudinally over 10 years and found that difficult temperament was related to externalizing behavior problems (Guerin, Gottfried, & Thomas, 1997).

Buss and Plomin (1975) conceptualize temperament differently. They view children as either temperamentally difficult or temperamentally compatible. Webster-Stratton and Eyberg (1982) explained the relationship between child temperament, child behavior problems, and parent-child interactions using Buss and Plomin's model. They found correlations between temperamental difficulty and more frequent behavior problems and determined that those children with more frequent and intense behavior problems showed more negative, nonaccepting, and dominant behaviors with their mothers. Children who were more temperamentally difficult were more likely to have mothers who were more negative in affect, less accepting, and more submissive with their children. Belsky and others (1984), in a longitudinal study following 74 mother-infant dyads over 9 months, found that mother-child interactions are a fluctuating reciprocal interaction. As mothers exert control over the level of reciprocal interaction, they allow for the infant's developing ability to participate in social

exchanges. This enables the infant to contribute to the interaction, though mothers remain responsible for whether any interactions occur. These findings indicate that child temperament has an effect on the parent-child relationship, but also that this relationship is bidirectional rather than unidirectional (Belsky et al., 1984). It may be that temperamentally difficult children early in development impact their parents' affect, acceptance, and parenting style which, in turn, may lead to noncompliance from their children later on.

Social Skills Deficits

Crick and Dodge (1994) propose that children with behavior problems have difficulties at six different stages of social information problem-solving: (1) encoding social cues, (2) making interpretations and attributions about social information, (3) identifying goals to be addressed in the social situation, (4) generating possible solutions to interpersonal problems, (5) deciding which plan to enact based on the perceived consequences, and (6) enacting the chosen plan.

Children with ODD/CD tend to encode fewer social cues and come up with fewer solutions to problems than control children (Matthys et al., 1999). Children with ODD/CD display fewer positive social skills and use aggression as a solution more often than control children (Webster-Stratton & Lindsay, 1999). They are more confident in their ability to act aggressively across a variety of problematic social situations compared to controls (Matthys et al., 1999). Coy et al. (2001) found that clinic-referred boys were more likely than control boys to show hostile attributions in their response to a peer-oriented social problem-solving task. Dunn and colleagues (1997), in a study comparing boys with ODD and CD, found that boys with ODD were more likely to choose aggressive solutions to resolve problems with peers, but not with parents or teachers, unlike boys with CD who chose aggressive solutions

to resolve problems with everyone. Intuitively, the behavior of children who experience these social skills deficits may elicit combative responses from siblings and frustration from parents, which could strain the parent-child relationship.

Mesosystem – Parent-Child Relationship Factors

Parent-child relationship factors include attachment relationships, parenting styles, and parenting behaviors. Each of these contributes to the quality of the parent-child relationship, which, in turn, contributes to the etiology of disruptive behavior disorders.

Attachment Relationships and Oppositionality

Attachment theory provides a descriptive and explanatory framework for discussion of affectionate relationships between human beings. It is derived from the work of Bowlby (1977) and Ainsworth (1970) and stresses the attitudes and behaviors of young children toward their parents. Attachment is thought to develop during infancy and to impact parent-child relationships throughout childhood and adolescence. Children can be either securely attached, insecurely avoidant, insecurely resistant, or disorganized (Ainsworth, 1970; Main & Solomon, 1986).

Attachment processes influence behavior in several ways. Young children who experience an insecure relationship with an unresponsive or unpredictable parent develop internal representations of relationships that bias future social perceptions (Sroufe & Fleeson, 1986). These negative biases may contribute to future hostile attributions of intent that are seen in older children with conduct problems (Dodge, 1991). In contrast, attachment quality may motivate children to comply with parents and other caregivers (Maccoby & Martin, 1983). Gilliom, Shaw, Beck, Schonber, and Lukom (2002) investigated the developmental antecedents of anger regulation and self-control in young boys from low-income families.

They found that securely attached children were more likely to engage in effective anger regulation strategies, like disengaging from frustrating stimuli and seeking information regarding when and how obstacles would be removed, than insecurely attached children. Moreover, oppositional behaviors may function like attachment behaviors for children by way of encouraging otherwise unresponsive parents to be more available, even if it is in the form of negative attention (Greeneberg & Speltz, 1988).

Also, the child's ability to manage strong affect may be impaired by changes in the brain circuitry and conditioning processes caused by attachment and disorders arising from poor attachment (Greeneberg & Snell, 1997). Because they experience positive encounters with their parents, securely attached children feel better prepared to cope with most situations and trust their parents to soothe them if the environment becomes overwhelming (Carlson & Sroufe, 1995). Later, securely attached children will likely be better prepared to cope with stress and to seek the help of others when they are unable. Conversely, children with insecure or disorganized attachment styles have experienced inconsistent or insensitive responses from their caregivers when they have experienced distress and so they are not confident in their own or their caregivers' regulatory abilities. These children will likely respond to stressors rigidly and ineffectively.

Finally, parents' internal representations from their own parents can have an effect on children's behavior problems as well. Insecure representations of the emotional demands of the environment and the availability of emotional support (Bowlby, 1969) may lead to biased perceptions and expectations of the child as well as decreased tolerance for the child's minor misbehaviors (DeKlyen, 1996).

Researchers have investigated the effects of attachment as assessed in infancy and preschool with later disruptive behaviors. Several correlational studies have demonstrated the relationship between attachment and externalizing problems. For example Speltz, Greeneberg, and DeKlyen (1990) compared attachment behaviors in clinic-referred preschool children with ODD with a matched comparison group. They found that only 16% of the clinic-referred group as opposed to 72% of the comparison group was classified as securely attached. They also found that clinic children showed more separation protest and distress than did comparison children.

Longitudinal studies have also demonstrated the impact of attachment on disruptive behaviors. Speltz, DeKlyen, and Greeneberg (1999) examined the effect of attachment on psychopathology over two years among clinic-referred boys diagnosed with ODD and matched samples and found that over half of the boys in the clinic-referred group exhibited insecure attachment behaviors while only 18% of comparison boys did. Boys diagnosed with comorbid disorders were more securely attached than were boys diagnosed with ODD alone, suggesting that parent-child relationship problems account for problems in children with ODD alone while greater biological vulnerabilities account for problems in children with comorbid conditions. Additionally, Lyons-Ruth et al. (1993) found that the strongest single predictor of significant levels of hostile behavior toward peers in the classroom was earlier disorganized/disoriented attachment status at 18 months. Similarly, Stormshak and colleagues (2000) found that a lack of warmth/involvement was a predictor of oppositional behavior.

Shaw has researched attachment and childhood behavior extensively. For example, Shaw, Keenan, and Vondra (1994) found that, for boys, maternal unresponsiveness was one

predictor of externalizing problems at ages 2 and 3. Additionally, Shaw and Vondra (1995) examined the relationship between attachment insecurity and behavior problems in 100 mother-child dyads from low SES backgrounds. They found that attachment insecurity was related to behavior problems at age 3 years when insecurity was maintained at 12 and 18 months. In 1996, Shaw, Owens, Vondra, and Keenan examined child, parent, and sociodemographic risk factors from infancy associated with the development of preschool disruptive behavior problems. Disorganized attachment classification at age 1 year predicted disruptive behavior at age 5 years. Furthermore, infants with disorganized attachment status at 1 year whose mothers perceived them as difficult in the second year showed significantly higher aggressive problems at age 5 years than those who did not. Later, Shaw, Owens, Giovannelli, and Winslow (2001) longitudinally studied pathways leading to early externalizing disorders in 310 low SES, male children from infancy until age 6 years. They found that the pathway for children with ODD was characterized by family risk factors, like rejecting parenting. Results from maternal report suggest that children with comorbid ADHD and ODD or CD experience severe psychosocial risk beginning in infancy compared to children without psychiatric diagnoses. For children with ODD, maternal adjustment and quality of caregiving appear to be the primary influences. The sum of Shaw's and others' work has demonstrated the importance of the attachment relationship on later childhood behaviors.

The results of these studies suggest that attachment status impacts later behaviors. It is possible that attachment exerts its influence through parent-child interactions because attachment and parent-child interactions are closely linked and because parent-child interactions are predictive of children's behaviors. This is notable because many

interventions, several of which will be discussed in detail in later sections, focus on strengthening the parent-child relationship and repairing the effects of earlier insecure attachment relationships.

Parenting Practices and Oppositionality

Undoubtedly, parenting practices contribute to the development of disruptive behaviors. Baumrind conducted some of the earliest work on parenting styles and child outcomes, dating back to 1966, and found that authoritative parenting fosters child compliance (1967) and that parental warmth and acceptance is related to high self-esteem in the child and social and academic competence (1989). Since then, several researchers have continued to examine the effect of parenting on parent-child relationships and child behaviors.

Baumrind's (1971) parenting typologies are considered the most widely accepted (Smetana, 1994). Baumrind identifies three parenting styles: authoritative, authoritarian, and permissive. These styles are based on different combinations of warmth versus control or demandingness versus responsiveness (Smetana, 1994). Authoritative parents are both responsive and demanding, setting boundaries with their children but allowing autonomy within those limits. Authoritarian parents are demanding but not responsive. They require and value obedience. Permissive parents are the counter of authoritarian parents. That is, they are responsive but not demanding. They are seen as nurturing but provide little direction and set few limits. These conceptualizations of parenting styles will be utilized to describe parent practices and beliefs in this study.

While very few studies have examined the relationship between parenting style and ODD specifically, several have examined parenting behaviors associated with particular

parenting styles and the outcomes (Baumrind, 1991; Devito & Hopkins, 2001; Gray & Steinberg, 1999; Harwood, 2003; Lamborn, Mounts, Steinberg, & Dornbusch, 1991; Perkins, 2004; Steinberg, Elmen, & Mounts, 1989; Steinberg, Lamborn, Dornbusch, & Darling, 1992; Steinberg, Mounts, Lamborn, & Dornbusch, 1991). For example, the use of corporal punishment occurs more frequently in families that utilize a more authoritarian parenting style (Bogacki, Armstrong, & Weiss, 2005; Forbes, 2006). The use of corporal punishment has been found to be associated with greater levels of conduct problems (Bender, Allen, McElhaney, Antonishak, Moore, Kelly, & Davis, 2007). Additionally, the use of more inductive, democratic parenting behaviors typifies authoritative parenting. This type of parenting is associated with less oppositionality in children (Maccoby & Martin, 1983). Finally, lower levels of monitoring, supervision, and limit setting have been found in permissive households (Roche, Ensminger, & Cherlin, 2007). This type of parenting is associated with disruptive behavior problems (Coolahan, 1997). For example, Stanger, Dumenci, Kamon, and Burstein (2004) conducted a study testing associations in path models among positive and negative parenting and children's externalizing behaviors for families with a drug-dependent parent. Participants were 251 families with 399 children between the ages of 6 and 18. After controlling parenting and externalizing problems for the effects of the moderators (child age, gender, and ethnicity, caregiver gender), they found that caregiver ratings of monitoring predicted rule-breaking behavior, and use of inconsistent discipline predicted ratings of all externalizing behaviors (rule-breaking behavior, aggressive and oppositional behavior, and attention problems). This suggests that more permissive parenting may be linked with behavioral problems.

Additionally, several authors have found that particular parenting styles contribute to the development of disruptive behavior problems (Maccoby & Martin, 1983; Querido, Warner, & Eyberg, 2002; Scarr & Deater-Deckard, 1997). For example, in a study using a national sample and both a cross-sectional and longitudinal design, Thompson, Hollis, and Richards (2003) found a linear relationship between the degree of maternal approval of authoritarian child-rearing attitudes and the rates of conduct problems at age 5 and age 10. This was after controlling for SES and maternal psychological distress. Maternal authoritarian attitudes independently predicted the development of behavioral problems 5 years later at age 10.

Although there is strong evidence for a transactional model of problems in the parent-child relationship, many theorists continue to explain these problems using the Coercion Model (Patterson & Gullion, 1968; Patterson, Reid, & Dishion, 1992). The Coercion Model conceptualizes the development of the child's problematic behaviors as a mutual process between the parent and the child. The child may exhibit unwanted behaviors to which the parents respond harshly. This leads to increasingly aversive parental interactions. The parents' negative responses intensify the child's unwanted behavior, and the child's unwanted behaviors increase the parents' hostility and nonresponsive behavior. The parent attempts to stop the child's behavior by giving in to his demands, thereby positively reinforcing the child. The child learns to avoid his parents' criticism by increasing the frequency, intensity, and/or duration of his negative behaviors. The child also negatively reinforces the parent when he stops behaving negatively. In addition, the parents are modeling noncompliance and aggression while reinforcing it daily.

Chamberlain and Patterson (1995) identified four subtypes of inadequate parent discipline. The first is Inconsistent Discipline, in which parents respond indiscriminately to both positive and negative behaviors, fail to follow through consistently with commands, give in to the child's arguments, and change expectations and consequences for rule violations. The second is Irritable Explosive Discipline, which is characterized by parents who frequently make derogatory statements about the child, use direct commands with their children, and use extreme discipline strategies like hitting, yelling, and threatening. The third is Low Supervision and Involvement, in which parents are unaware of their child's activities, seldom engage in activities with their child, and do not supervise their child. The fourth is Inflexible Rigid Discipline. These are parents who rely on a restricted range of discipline strategies for all types of rule violations. They do not take into account extenuating circumstances. They do not provide rationale to their children, and they do not match the severity of the punishment to the misbehavior. These four types of inadequate discipline are thought to contribute to the coercive process, leading to disruptive behavior. For this reason, several parent training programs target the coercive process for intervention.

Some studies have investigated ineffective parenting as a precursor to child behavior problems and parent-child conflict. Kochanska and Aksan (1995) found that positive, gentler control strategies (e.g., reasoning, compromise, and polite request) were positively correlated with child compliance and negatively correlated with noncompliance and resistance. Shaw, Keenan, and Vondra (1994) examined the relationship between parent-child interactions in infancy and later behavior problems. They found that, for boys, maternal unresponsiveness, infant attention-seeking behaviors, aggression, and noncompliance predicted externalizing problems at ages 2 and 3. Pettit and Bates (1989) found that parents who initiated more

positive verbal communication and physical proximity had children with lower aggression and that disruptive behavior was associated with ignored child initiations. They also suggest that a lack of frequent playful interactions in the second year of life is a better predictor of later behavior problems than the number of conflictual interactions. Gardner (1989) found that mothers of children with behavior problems were less consistent in follow-through of their commands than were mothers of children without behavior problems. Similarly, Gardner (1987) found that parents of preschoolers with behavior problems spent half as much time in joint play and positive conversation at home.

Conversely, parent negativity, as characterized by critical and negative behaviors, has been found to affect externalizing problems. Webster-Stratton (1996), in a study examining child, parenting, and family variables in the development of ODD in boys compared to girls, found that maternal negative parenting behaviors were correlated with externalizing problems in the home in both boys and girls and that father negativity was related to externalizing problems in the home for boys but not girls. These studies suggest that greater frequency and quality of attention from the parent may serve as a protective factor against ODD.

Others have focused on parents' reactions to conflict after it has occurred (Danforth, Barkley, & Stokes, 1991; DeKlyen et al., 1998; Dumas & Wahler, 1985; McMahon & Forehand, 1988). Children whose parents exhibit poor supervision and ineffective and harsh parenting practices, and who model antisocial behavior, are at risk for developing conduct problems (Campbell, 1991; Danforth, Barkley, & Stokes, 1991; Patterson, Reid, & Dishion, 1992). Stormshak et al. (2000) found that oppositional behavior was related to elevated levels of punitive discipline and spanking. Patterson (1982) found that parents of children with

conduct disorders, compared to parents of children without a diagnosis, exhibit fewer positive behaviors, use more severe physical disciplinary techniques, are more critical and permissive, monitor their children's behaviors less, and are more likely to reinforce inappropriate behaviors while ignoring prosocial behaviors. Rey and Plapp (1990) found that adolescents diagnosed with ODD reported higher levels of authoritarian parenting and lower levels of parental warmth than control children. However, the extent to which such parental behaviors are the cause or the result of difficult child behavior remains unclear (Anderson, Lytton, & Romney, 1986; Stoolmiller & Snyder, 2004). Although most of these studies do not investigate ODD per se, it is likely that the findings are generalizable to children diagnosed with ODD.

The presence of anger when physically disciplining seems to be an important factor. McLoyd and Smith (2002) found that spanking was related to increased behavioral problems if parents were cold and rejecting, but not if they were warm and supportive. Dodge, McLoyd and Lansford (2005) found that European American parents were more likely to use physical discipline when they were highly agitated and rejecting of the child. However, Durrant (2008) reported that physical discipline was correlated with weaker internalization of moral values, increased levels of antisocial behavior against siblings and peers, and more frequent dating violence. In longitudinal studies, spanking predicted higher levels of antisocial behavior two years later. Even when controlling for parental warmth toward the child, this finding was the same across ethnic groups. Thus, this issue remains undecided in the literature.

Parent-child interactions differ by ethnicity. Sargeant (1997), in dissertation research, examined the impact of racial ethnicity, socioeconomic status (SES), and child diagnostic

status of ODD on observed mother-child interactions. The largest finding was that when SES was controlled, African American mothers used significantly more direct commands and fewer questions than did European American mothers, and African American children displayed higher levels of activity and lower levels of affective sharing than did European American children. Baumrind (1972) found that while an authoritarian parenting style was associated with hostility and resistance in European American children, this was not true for African American families. Interestingly, Querido, Warner, and Eyberg (2002), using a sample of 108 African American women, found that an authoritative parenting style, as measured by self-report, was associated with fewer behavior problems for children aged 3-6, suggesting that both authoritative and authoritarian parenting have appropriate uses for African American families. Another difference is discipline strategy. While both African American and European American parents spank, African American parents do so more frequently (Deater-Deckard et al., 1996). In fact, spanking on the buttocks is the most common form of punishment in African American families (Deater-Deckard & Dodge, 1997; Flynn, 1998; Korbin, Coulton, Lindstrom-Ufuti, & Spilsbury, 2000).

There may be several reasons for the greater use of physical discipline in African American families. Gunnoe and Mariner (1997) suggest that while European American families may interpret spanking as an act of parental aggression, African American families interpret it as an expression of their parental authority. Young (1970) concluded that for African Americans, the control of child aggression, even if by coercive means, signals love for the child. Mosby and colleagues (1999), in a qualitative analysis of African American parents' and elders' narratives, found that they believe physical discipline is more effective

than reasoning alone but that teaching must accompany the discipline and it must be done without anger.

An alternative explanation may be that African American parents apply different attributions to their children's behaviors. For example, Pinderhughes and colleagues (2000) examined parental attributions of intent for child behavior and beliefs about child behavior. They found that African American parents, compared to Caucasian parents, were more likely to attribute hostile intent to their child for his misbehavior, to rate their child's behavior as problematic, and to feel worried about their child's future. They also found that these beliefs and concerns were significantly correlated with the use of physical punishment and accounted for 50% of the total effect of ethnicity on discipline responses. Thus, the beliefs that physical discipline is more effective, that children act out because of hostility, and that children will grow up to have dismal futures lead many African American families to use physical discipline.

Ogbu (1981), in writing on how children grow up to become competent adults, applies the cultural-ecological model to the study of Black urban communities. He describes how "urban ghetto blacks" maintain a symbiotic relationship with the White majority population, having little economic resources, which are acquired through typically menial or irregular jobs. He describes the strategies by which this population survives economically, including "hustling, pimping, preaching-hustling, entertainment, sports," and similar activities (Ogbu, 1981, p. 424). Because of the importance of these strategies, competencies in these areas fall under the category of "success" for this population. Further, he notes that because urban African American males are so economically disadvantaged, they are less able to participate in husband or father roles in the family. Economic disadvantage also results in

families relying on friends or relatives for child care. For these reasons, Ogbu notes that child-rearing techniques in these communities focus on development of competencies that will ensure survival in marginalizing environments, like self-reliance, resourcefulness, facility with manipulation, cynicism and mistrust of people and authority, and an ability to defend oneself against attacks. Such child-rearing techniques can include limited warmth and affection after infancy, inconsistent demands for obedience, and use of physical punishment (Ogbu, 1981).

Several researchers have investigated the role of culture in the relationship between physical punishment and later problem behaviors (American Academy of Pediatrics, 1998; Deater-Deckard et al., 1996; Eron et al., 1991; Farrington & Hawkins, 1991; Gunnoe & Mariner, 1997; Lansford et al., 2004; McLeod et al., 1994; Spieker et al., 1999; Stormshak et al., 2000). The correlation between physical punishment and problem behaviors that is significant for European American children does not exist for African American children (Deater-Deckard et al., 1996; Lansford et al., 2004); in fact, the significant relationship between physical punishment in grades 6 and 8 and externalizing behaviors for European American children was significantly negative for African American children. In other words, the use of mild physical punishment appeared to be a protective factor against later disruptive behavior problems for African American children, perhaps because of the cultural meaning associated with physical punishment. As mentioned previously, African American children may understand that their parents' use of physical discipline signifies concern and love for them. Taken together, it may be difficult to persuade African American parents to forsake physical discipline in favor of the more positive parenting techniques that are prescribed in most interventions for ODD.

Macrosystem - Social-Contextual Factors

Not only do child characteristics and parent-child relationship characteristics contribute to the development of ODD, but social-contextual factors also play a role. Some of these factors include low income, low education, teenage pregnancy, isolation, high levels of stress, and high levels of marital discord (Boyle & Pickes, 1998). The neighborhood in which a child is raised contributes to behaviors that typify ODD and later CD because of economic decline, tensions between majority and minority residents, instability, and decreased family resources (Beyers et al., 2003; Chase-Lansdale et al., 1997; Furstenberg, 1993, Gorman-Smith et al., 2000; McLanahan, 1997). The family's stress reactions to life events affects parenting techniques and child behaviors (Abidin, 1992; Burden, 1986; Erel & Kissil, 2003; Mash & Johnston, 1990). For example, ODD is diagnosed more often in children from families of low SES (Loeber et al., 2000). Conversely, ODD behaviors can create stress within the family (Barkley et al., 1991). In addition, the risk of children developing ODD increases exponentially with each additional risk factor (Webster-Stratton, 1998).

Additionally, some argue that the lack of a male figure in children's lives contributes to development of disruptive behaviors (Marshall et al., 2001). This is particularly problematic for African American communities, in which only 38% of African American children are living in 2-parent families compared to 69% of all children in the U.S, and 92% of African American children in single parent homes are living with their mothers (U.S. Census Bureau, 2001). There may be multiple mechanisms by which the lack of a father figure affects child behavior. A child having one parent absent has one less model of appropriate behavior. In general, the absence of a father translates to fewer financial resources (McLoyd & Wilson, 1991), and the problems associated with low SES contribute

to and confound the effects of an absent father figure. It may be that the absence of a father figure denies children a strong male model with whom to identify. Often in single parent households, the parent must work long hours or multiple jobs, which increases stress levels, limits the amount of time to model appropriate behavior, and limits ability to monitor children's behavior (McLanahan & Sandefur, 1994; Molina, 2000). However, social support has been found to mediate the effects of stress on parenting (Webster-Stratton, 1990). Thus, social support is likely to be crucial for single mothers.

Early onset conduct problems, including oppositional defiant and noncompliant behaviors, are fairly stable and predict a variety of problems. These include health problems, problems in school, and later adolescent behavioral problems, such as drug use, depression, delinquency, and school dropout (Farrington & Hawkins, 1991; Webster-Stratton, 1998). This is disconcerting because childhood behavior problems are the most frequently occurring disorder in both clinical and general populations (Kazdin, Mazurick, & Siegel, 1994; Offord, Boyle, & Racine, 1991; Quay, 1986). Urban African American children may be particularly vulnerable to the development of ODD because they are more likely to be exposed to risk factors (Canino, Canino, & Arroyo, 1994). As mentioned previously, it is likely that conduct problems follow a developmental pathway (Kazdin, 1985; Loeber et al., 1991; Patterson, DeBaryshe, & Ramsey, 1989), with early-starters displaying oppositionality in early preschool years, progressing to aggression in middle childhood, and ending with severe symptoms, like violence, by adolescence, and late starters showing normal development until early school years but exhibiting behaviors consistent with a diagnosis of CD during adolescence. Furthermore, the prognosis for early starters is poorer because the primary developmental pathway for serious conduct disorders is established during preschool years

(Brennan et al., 2003; Campbell & Ewing, 1990; Lahey, McBurnett, & Loeber, 2000; Loeber, 1991). Thus, ODD is considered to be a predictor of CD, and it is clear that intervening early is a child's best chance for impeding this developmental trajectory.

Interventions

Because there are several factors contributing to the etiology of ODD, the clinician must assess which area presents the greatest challenge and make that the focus of intervention. The etiological focus for the following interventions will be the parent-child interaction. This section will review family interventions for ODD as they are the most empirically sound treatments to date (APA Division 53 Task Force, 2009).

Living with Children

Living with Children (Patterson & Guillion, 1968) is based on operant principles of behavior change. Parents are the principal agents of change, and they are required to monitor specific undesirable behaviors, monitor and reward desirable behaviors, and ignore or punish the child's deviant behaviors. Initially, parents identify and track the child's behaviors that they want to increase or decrease. To increase behaviors, parents develop positive reinforcers. To decrease negative behaviors, parents learn to utilize a 5-minute time out procedure, a response cost system, and extra chores for punishment. Therapists then teach problem-solving and negotiation to parents.

Living with Children has been found to decrease disruptive behaviors using a between-groups design. It has been found to be superior to control groups (Alexander & Parsons, 1973; Bernal, Klinnert, & Schultz, 1980; Firestone et al., 1980; Wiltz & Patterson, 1974) and an attention placebo (Walter & Gilmore, 1973). Forgatch and DeGarmo (1999) found that parent training reduced observed coercive parenting, maintained positive

parenting, and increased effective parenting for mothers and sons when compared to a no-treatment control group. The improved parenting practices were significantly related to improvements in school adjustment and child- and parent-reported maladjustment. The age of the child is important for treatment outcomes. Dishion and Patterson (1992) found that post-treatment, after controlling for pre-treatment levels, younger children exhibited fewer disruptive behaviors than older children. Additionally, families of older children were less likely than families of younger children to complete training. These cross-sectional studies have shown the effectiveness of Living with Children.

Living with Children also has been found to decrease disruptive behaviors using a within-groups design. Treatment gains have been found to generalize across settings, time, behavior, and siblings (Arnold, Levine, & Patterson, 1975; Horne & Van Dyke, 1983; Patterson, 1974; Patterson & Forgatch, 1995). Martinez and Forgatch (2001) found that mothers in the parent training group demonstrated significant reductions in coercive discipline than mothers in the control group. Also, boys' demonstration of noncompliance was significantly reduced. Positive parenting was strongly associated with reductions in noncompliance. Patterson, Cobb, and Ray (1973) took baseline levels of observed deviant behavior in children referred for conduct problems. They found that 9 of 13 families demonstrated improvements of at least 30% reduction of deviant behaviors from baseline. These longitudinal studies have shown the effectiveness of Living with Children.

Incredible Years

Incredible Years (IY; Webster-Stratton & Reid, 2003) has gone through several renditions since the original videotape modeling program in 1980. It includes three complementary components for use by parents, teachers, and children aged 2-8. The goals of

the parent program are to improve parental competencies and family functioning by increasing positive parenting; replacing critical and physical discipline with positive strategies; improving parents' problem-solving skills; anger management, and communication skills; increasing family support networks; helping parents and teachers work collaboratively; and increasing parents' involvement in children's academic activities at home (Webster-Stratton & Reid, 2003). The earlier renditions, BASIC, ADVANCE, and SCHOOL, all became subsumed within what is now known as the parent component. The BASIC program uses videotaped vignettes of modeled parenting skills and group discussion to teach effective parenting and help parents understand normal developmental variations. The foci of BASIC are to enhance the parent-child relationship, teach nonviolent discipline techniques, and teach parents how to teach their children problem-solving skills. The ADVANCE program helps parents cope with conflict management issues after the completion of BASIC. The SCHOOL program emphasizes collaboration with teachers and promotion of children's academic success through parental involvement in school activities, homework, and peer monitoring.

Webster-Stratton (1981, 1982, 1984, 1990a, 1994, 1998) and others (Webster-Stratton & Hammond, 1997; Webster-Stratton et al., 1989; Webster-Stratton et al., 1988) have extensively studied the effectiveness of BASIC. All of these studies have shown that BASIC significantly improves parental attitudes, parent-child interactions, parent discipline strategies, and child conduct problems when compared to wait-list controls. Webster-Stratton and others (1988, 1989) conducted a dismantling study in which they compared using any one component against using all components. They found that the combination of group discussion, a trained therapist, and videotaped modeling produced the most lasting results.

These results have been replicated by many (Scott, 2005; Scott et al., 2001; Taylor et al., 1998). Webster-Stratton (1994) compared BASIC alone with BASIC plus ADVANCE and found that both groups displayed significant improvements in child adjustment, parent child interactions, parent distress, and child behavior problems that were maintained at follow-up. Mothers and fathers in the combined program reported increased consumer satisfaction in terms of usefulness and ease of implementation of the parenting skills.

Several studies have also found IY to be effective as a preventative intervention with preschoolers from diverse ethnic and cultural backgrounds who are enrolled in Head Start (Webster-Stratton, 1998; Webster-Stratton et al., 2001). Gardner et al. (2006) investigated the effectiveness of IY with clinic-referred, primarily low income participants who were randomly assigned to the treatment group or to a 6 month wait-list control group. They found that the behavior of the children in the treatment group improved per parent report and direct observation. Parenting skills and confidence also improved, and treatment gains were maintained at 18 months post-treatment. Scott (2005) followed families who had received BASIC and found that treatment gains lasted at 1 year follow-up. He also found that the children who showed the most change were those with the most severe problems at the outset and that risk factors (low SES, single parent status, minority status) did not reduce treatment effectiveness.

However, IY does not produce clinically significant improvements for everyone. Webster-Stratton (1990b) found that of families who had received IY, those who at 3-year follow-up continued to exhibit behavior problems were characterized by maritally distressed or single parent status, increased maternal depression, lower SES, higher levels of negative life stressors, and family histories of substance abuse and spousal abuse.

Helping the Noncompliant Child

Helping the Noncompliant Child (HNC; McMahon & Forehand, 1981; 2003) was developed for use by parents of children aged 3-8 who exhibit disruptive behaviors. It utilizes many of the same techniques as other parent training interventions. HNC consists of two phases. The first is Differential Attention in which parents are taught to attend to and describe the child's appropriate behavior and to eliminate commands, questions, and criticisms. Parents learn to reward compliance and other appropriate behaviors with verbal and physical attention. They use labeled praise profusely to reward children. Parents also learn to actively ignore minor inappropriate behavior. The goal is to interrupt the coercive cycle of interaction by establishing a mutually reinforcing parent-child relationship. The second phase, Compliance Training, consists of teaching the parent to use the clear instructions sequence (see Figure 1).

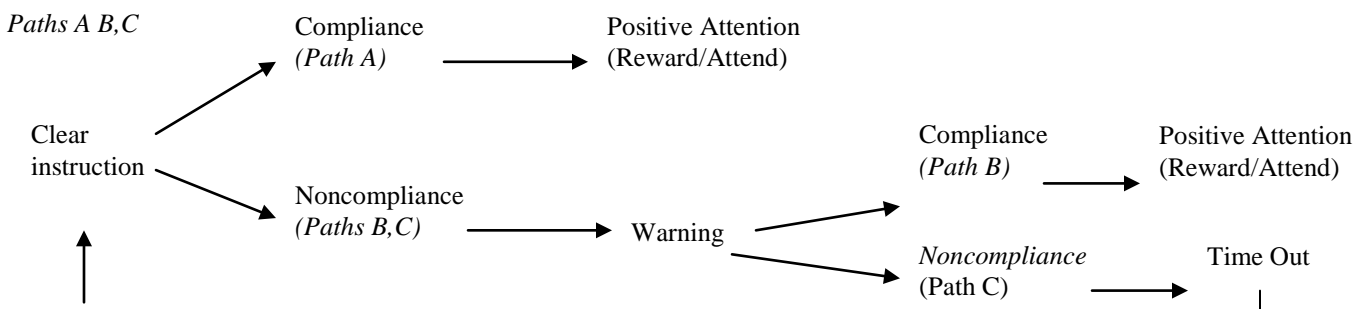


Figure 1. The clear instructions sequence. (McMahon & Forehand, 2003, p. 33).

Laboratory studies have identified the components of HNC that make it efficacious. These components include labeled verbal rewards (Bernhardt & Forehand, 1975), parent training in attending and rewards (Kotler & McMahon, 2004), 4-minute time out (Hobbs et al., 1978), clear instruction and time out training (Scarboro & Forehand, 1975), contingent release from time out (Bean & Roberts, 1981; Hobbs & Forehand, 1975), physical barrier as

back up to time out (Day & Roberts, 1983; Roberts, 1988; Roberts & Powers, 1990), and use of a warning before time out (Roberts, 1982), consequences for compliance and noncompliance (Roberts & Hatzenbeuhler, 1981), and providing verbal rationale and modeling for ignoring, time out, and contingent positive attention (Davies et al., 1984; McMahon, Tiedemann, & Davies, 1987). Early studies demonstrated that HNC increased mothers' use of rewards, decreased mothers' use of commands and questions, and increased child compliance (Forehand & King, 1974). Additionally, when compared to a non-clinical control group, these children were significantly less compliant pre-treatment and significantly more compliant post-treatment than the control group. Wells and Egan (1988) compared HNC with family systems therapy. HNC was more effective than family systems therapy in reducing the primary symptoms of oppositional disorder.

Treatment effects are generalizable across time, siblings, and behaviors. In terms of time, maintenance of treatment effects of Forehand and McMahon's (1981) parent-training program has been documented in several studies, with follow-up assessments ranging from 6 months to 14 years after treatment (Baum & Forehand, 1981; Forehand & Long, 1988; Forehand et al., 1981; Forehand et al., 1983; Long et al., 1994). Children whose parents participated in the parent training program were indistinguishable from nonreferred "normative" samples on measures of externalizing behaviors and relationship with parents up to 14 years later (Forehand & Long, 1988; Long et al., 1994). Forehand and King (1977) found that mothers who participated in HNC perceived their children as significantly better adjusted post-treatment and at 3-month follow-up than control group mothers. In terms of siblings, Humphreys (1978) found that after treatment, mothers significantly increased their use of positive attention contingent on compliance, rewards, and attention, and decreased

their use of commands toward untreated siblings. These siblings also demonstrated increased compliance. In terms of behavior, Wells, Forehand, and Griest (1980) compared a clinical sample treated with HNC with a nonclinical control sample and found that treated children significantly increased compliance by the end of treatment, whereas the control group did not change significantly. Additionally, untreated inappropriate behaviors exhibited by the treatment group also declined significantly, such that they were indistinguishable from the control group at post-treatment.

Multisystemic Family Therapy

Boyd-Franklin's variation of Multisystemic Family Therapy (1989; Boyd-Franklin & Bry, 2000) is based on the structural family systems (Minuchin, 1974), ecostructural approach (Aponte, 1986; Aponte & DiCesare, 2000), ecological approach (Bronfenbrenner, 1977; Falicov, 1988; Henggeler et al., 1998), and multisystemic models (Borduin & Henggeler, 1990). This particular variation was created specifically for use with African American families. The first component, the treatment process, is composed of joining, engaging, assessing, problem-solving, and other interventions designed to restructure family systems. This focus is derived largely from Minuchin's (1974) structural family therapy. The second component, the multisystems level, is composed of interventions at other levels, such as the individual, family, extended family, unrelated kin, friends, family, church, community, social service agencies, and other outside systems (Gopaul-McNicol, 1997).

In joining with the family, Boyd-Franklin (2003) recommends conveying to each family member that his or her input is valued. Conveying respect is of utmost importance with African American families as they may be sensitive due to prior experiences of disrespect. For example, addressing family members by their first name is ill advised. It is

also incumbent upon the therapist to bring in important family members, particularly fathers, or unrelated kin that may be unwilling or unable to attend. To reach that end, the therapist needs to reach out directly, rather than via other family members, to communicate the importance of their participation as well as respect. She also recommends making home visits to find out the key people in the child's life and to adequately join with those unwilling to enter treatment.

Additional information gathering when working with African American families may need to be postponed until after the therapist has joined with the family and established credibility. This is in part due to the "healthy cultural suspicion" the family may feel toward the therapist if the therapist is not African American and because family privacy, or secrecy, is an African American cultural value. Appropriate questioning leads to identification of important extended family and unrelated kin. Therapists should also familiarize themselves with community supports and church involvement as these can serve as important resources for the family. Furthermore, therapists assist in problem-solving with the family and encouraging enactments, prescriptions, and tasks. Problem-solving is particularly helpful with African American families because it quickly initiates families who are new to therapy, it addresses problems that may not have reached resolution because families feel overwhelmed by multiple problems, and it allows therapists to build credibility by providing a model that is immediately useful in solving the family's problems. The completion of assigned tasks creates a feeling of empowerment in families that they will be able to fix their family's problems, which is particularly salient for African American families who often feel powerless to "change the system" (Boyd-Franklin, 2003).

Many have examined the effects of MFT on conduct problems (Henggeler et al., 1986, 1992, 1993; Borduin & Henggeler, 1990; Henggeler et al., 1998; Mann et al., 1990; Scherer et al., 1994; Borduin et al., 1995). Each of these studies examined the effectiveness of MFT for repeat adolescent offenders from lower SES groups referred by the courts. The comparison groups received routine probation or community services. According to parent reports, the average treated case fared better than 79% of controls. According to self-report, the average treated case fared better than 88% of controls. In terms of recidivism rates 2-4 years after treatment, the average treated case fared better than 88% of controls. Although it may not be the intervention with the most documented effectiveness, MFT may be the most appropriate intervention to use with African American families because of its culturally consistent strategies.

Parent-Child Interaction Therapy

Parent-Child Interaction Therapy (Eyberg & Boggs, 1997) was created for use with oppositional children and addresses noncompliance by improving the parent-child relationship and by teaching parent's consistent, effective discipline strategies. It draws on both attachment and social learning theories (Foote, Eyberg, & Schuhmann, 1998). It has been manualized (Eyberg & Durning, 1994) and is highly structured. The therapist teaches parents skills through didactic presentation, modeling, role-play, and coaching via a "bug in the ear" device during the session (Eyberg & Durning, 1994). Parents practice skills at home and their progress is monitored systematically using the Dyadic Parent-Child Interaction Coding System III (DPICS-III; Eyberg, Nelson, Duke, & Boggs, 2005).

PCIT is composed of two stages. The first is Child-Directed Interaction (CDI), in which parents are taught skills that establish a positive relationship between parents and their

child and decrease the likelihood that disruptive behavior will occur. The first skill is praising appropriate behavior while ignoring minor misbehavior, which uses the operant conditioning principle of differential attention to positively reinforce the child with attention and punish the child for inappropriate behavior by removing attention. The second skill is reflecting the child's words and actions, which lets the child know that the parent is paying close attention to him and understands him. The third skill is imitating the child's play, which conveys acceptance of the child's behaviors without judging or trying to redirect them. The fourth skill is describing the child's activities, which lets the child know that he is receiving undivided attention. The fifth skill is displaying high levels of enthusiasm to convey to the child that the parent is delighted to spend time with the child engaged in an activity of the child's choosing. The parent must also avoid using questions, commands, or criticisms. All of these latter behaviors express judgment and rejection of the child (Hembree & McNeil, 1995).

In theory, this positive interaction influences the child's behaviors in two ways. First, the warmth and acceptance from parents creates a desire in the child to please the parents. Second, parents shape the child's behaviors through social learning by using selective attention, modeling appropriate behavior, and praising desirable behavior. Once the parents have mastered this stage, they may begin Parent Directed Interaction (PDI).

The second stage of PCIT is PDI, during which parents lead play by giving directions to the child and providing consequences to the child for compliance or noncompliance. Parents are taught to give clear, direct commands and to follow through with predictable consequences consistently. There are three levels of consequences for noncompliance: a warning, the time-out chair, and back-up. The theory behind this stage is that the child's

behavior is shaped through operant conditioning. The positive interaction is also maintained because the parent remains calm while delivering negative consequences and immediately returns to warmth and acceptance once the child complies.

Outcome studies have shown that PCIT significantly (statistically and clinically) improves child problem behaviors and parental interactions with the child (Eisenstadt et al., 1993; Eyberg & Robinson, 1982). Families who participated in PCIT showed significant improvement when compared to wait list controls (Eyberg, Boggs, & Algina, 1995; McNeil et al., 1991; McNeil et al., 1999; Schuhmann et al., 1998), classroom comparison groups (McNeil et al., 1991), and group parent training (Eyberg & Matarazzo, 1980). The gains of PCIT generalize to school settings (McNeil et al., 1991) and to other siblings in the home (Brestan et al., 1997). Treatment gains of PCIT have been found at 1-year follow-up for children and parents; however, by 2 years post-treatment, about half of the treated children met diagnostic criteria for a disruptive behavior diagnosis (Newcomb, 1996). These studies show PCIT improves parental interactions with children as evidenced by increased reflective listening, physical proximity, and praise, as well as decreased criticism and sarcasm. In addition, studies have shown significant changes on parents' self-report measures of psychopathology, personal distress, and parenting locus of control (Eyberg et al., 1995; Schuhmann et al., 1998). Parent ratings of child behavior problems, activity level, parent stress, competence, and control indicated maintenance as well (Eisenstadt et al., 1993; Nixon et al., 2003; Querido & Eyberg, 2003). Follow-up studies have demonstrated maintenance of gains in observed parenting skills and child noncompliance toward parents, parent reports of conduct problems, and the absence of a disruptive behavior diagnosis for most children (Eyberg et al., 2001). Boggs and colleagues (2004) reported maintenance of gains up to 3

years later. Hood and Eyberg (2003) found maintenance of treatment gains up to 6 years later. These findings indicate that PCIT reduces ODD symptoms across settings, siblings, and time.

Despite positive results of PCIT, few studies have compared the effects of PCIT with African American and European American participants. Capage, Bennett, and McNeil (2001), studying archival data of 56 children who had received PCIT, found no significant differences between African American and European American children with respect to gender, age, DSM-III-R diagnosis, family structure, income, parenting stress, and severity of dysfunction. No significant differences were found between groups in terms of total number of sessions or treatment dropout. They suggest this may have been because groups were matched on income. Income, severity of disruptive disorder, and parent characteristics (e.g. stress, marital status) were most predictive of treatment dropout. Fernandez (2005) compared African American and European American mother-child dyads (all of the children had been diagnosed with ODD) on maternal symptomatology, parenting stress, maternal report of child disruptive behaviors, treatment dropout, and number of treatment sessions for those who completed treatment. She found that, while European American mothers reported significant decreases in depressive symptomatology and parenting stress after receiving PCIT, African American mothers showed no changes in these domains. Both groups reported significant decreases in child disruptive behavior. There were no differences in attrition, though Fernandez suggested that with more participants, higher attrition rates for African American families might be found. Of the families who completed treatment, African American families remained in treatment significantly longer than did European American families.

Barriers to Treatment

Several researchers have reported that mental health services are underutilized by African American families (Angold et al., 2002; Garland et al., 2000; Hu et al., 1991; Hulbrut et al., 2004; Shaffer et al., 1996; Thornton, 2002). Brestan and Eyberg (1998) reported that approximately 70% of children with conduct problems do not receive any treatment, and even fewer receive empirically supported treatment. Many have suggested that the delivery of mental health services is insufficient for economically distressed urban clients of color (Sue & Zane, 1987). Levin (1996), in a dissertation exploring multicultural attitudes toward family counseling, found that one of the reasons minority families did not seek mental health services when they experienced problems was that they prefer to turn to friends or relatives and that they do not feel comfortable talking about family troubles with someone outside the family. This finding supports the work of others (Boyd-Franklin, 2003) who report that therapy is seen as a “last resort” when family problems cannot be resolved among family members, extended family, and kin.

Another reason for underutilization is the perception of barriers to treatment, such as practical obstacles, treatment demands, parent expectations, the quality of the relationship with the therapist, and stigma. High levels of perceived barriers can lead to several outcomes. The most obvious is treatment dropout. Kazdin et al. (1997) found that experience of barriers predicted treatment dropout, less time in treatment, and higher rates of cancelled or no show appointments. Additionally, families who perceive more barriers are less likely to be involved in and committed to treatment and less likely to engage in or follow through with treatment prescriptions (Kazdin & Wassell, 1999). Furthermore, the perception of barriers predicts treatment acceptability for both parents and children (Kazdin, 2000). Also, many

have found that barriers negatively impact therapeutic change or treatment outcome (Dumas & Wahler, 1983; Armbruster & Kazdin, 1994; Kazdin et al., 1997; Kazdin & Wassell, 1999; Kendall et al., 1991; Wahler & Dumas, 1986; Webster-Stratton, 1985, 1992; Webster-Stratton & Hammond, 1991). Finally, among families who are at risk for numerous factors found to negatively impact therapy (low SES, child dysfunction, parent psychopathology and stress), the perception of fewer barriers acted as a protective factor for outcomes (Kazdin & Wassell, 1999).

In addition to perception of barriers, there are also parent, family, and child characteristics that lead to premature termination of therapy. Parent characteristics negatively associated with dropout include maternal age (Kazdin et al., 1993; Luk et al., 2001) and maternal education (Luk et al., 2001). Characteristics positively correlated with dropout include single parent status (Campbell et al., 2000; Kazdin, 1993), and maternal history of childhood antisocial behavior (Kazdin et al., 1993). Family characteristics positively related to dropout include stress, adverse life events, socioeconomic disadvantage, minority status, and adverse family childrearing practices (Campbell et al., 2000; Kazdin, 1993). Child characteristics that contribute to early termination include symptom severity, breadth of symptoms, history of antisocial behavior, contacts with antisocial peers, academic and educational dysfunction, and comorbid diagnoses (Kazdin, 1993).

Kazdin and colleagues (1994) found that disadvantage and severity of dysfunction had a cumulative effect on the other domains, so any domain coupled with either disadvantage or dysfunction would increase the risk of the family dropping out of treatment. This is consistent with the work of Armbruster and Schwab-Stone (1994) and Kazdin et al. (1997), who found that African American families dropped out at a greater rate than

European American families. Kazdin et al. (1997) concluded that while SES variables like income, family constellation, and occupation all predict drop out, ethnic differences significantly contribute to treatment dropout after controlling for demographic variables.

Practical Obstacles

Practical obstacles to treatment can include expense of treatment, transportation, child care, scheduling, taking time off of work, persuading disinterested but important family members to participate, and many more. Clearly, many of these practical obstacles revolve around having adequate financial resources to afford therapy and all of its indirect costs. Low-income families are more likely to drop out of treatment, to fail to make clinically significant improvements following treatment, and to lose improvements over time (Kazdin, 2000; Kazdin & Wassell, 1999). Levin (1996) found that minority families cited the cost of counseling and difficulty finding the time as reasons for not seeking family therapy. African Americans are largely overrepresented in lower SES levels and are subject to greater levels of violence and distress than other groups (Courtney et al., 1996; Dodge et al., 2005; George, et al., 1994; US Dept. of Health and Human Services, 2001), suggesting they may experience more practical obstacles than European Americans.

Treatment Demands

The demands of most family interventions include attending weekly sessions, accepting responsibility for changing the child's behavior, mastering educational material, practicing techniques at home, and actively responding to therapist feedback. In order to complete many of these tasks, the parents need to have adequate time, motivation to prioritize session attendance and therapy homework over other activities, investment to continue an intervention that requires participation for months, and a level of cognitive

ability and flexibility that not all parents have. Research supports the importance of parent perception of treatment demandingness. Nock (2003) found that parent motivation for therapy predicted subsequent barriers to treatment participation, which then predicted treatment attendance. Kazdin and Wassell (1999) found that the demandingness of treatment, along with perceived relevance of treatment, had the highest correlations with therapeutic change such that the more demands the family perceived, the less therapeutic change they achieved. As one might expect, families that experience greater stressors, like single-parent status or working multiple jobs, may have a lower threshold for treatment demands and find therapy overly taxing (Pavuluri et al., 1996).

Parent Expectations and Beliefs

Parents have a number of expectations about the unknowns of the therapeutic process. These expectations may include their role in the therapy (e.g., their level of involvement, the degree of collaboration they will have with the therapist and whether the therapist will give advice), the treatment modality, the outcome, and the level of helpfulness of the therapy. Further, they have expectations for how long it will take before they notice improvement and how long the therapy will last before termination. Expectations affect treatment acceptability, which is the client's view that treatment is reasonable, justified, fair, and palatable (Kazdin, 2000). For clients, treatments that are acceptable are more likely to be sought and adhered to once clients have entered treatment (Reimers, Wacker, Cooper, & DeRaad, 1992). These and other expectations affect participation in therapy and outcome (Nock et al., 2001).

Clients whose treatment expectations correspond with the characteristics of the intervention and who believe that treatment is worthwhile are more likely to remain in treatment and to achieve greater gains than clients whose expectations and beliefs do not

correspond with the intervention (Garfield, 1994). The same is true for parent expectations of child therapy. Several researchers have explored the effects of parent expectations on treatment outcomes (Armbruster & Kazdin, 1994; Kazdin, Holland, & Crowley, 1997; Nock, Phil, & Kazdin, 2001). Nock and colleagues (2001) assessed parental expectations prior to beginning therapy and explored the impact expectations had on parents' perceived barriers to treatment, parents' treatment attendance, and premature termination. They found that lower parent expectancies for therapy were associated with lower SES, ethnic minority membership, and single-parent family status, more overall child dysfunction, and higher parental stress and depression, and that ethnic minority status and SES actually predicted parent expectancies. They also found that therapy credibility was related to SES and parent depression. Expectancies about child improvement were negatively correlated with parent depression, parenting stress, and levels of child dysfunction. Last, they found that parent expectancies, regardless of family, parent, and child characteristics, predicted experience of barriers, attendance, and premature termination (Nock et al., 2001).

Because parenting practices influence parent expectations, it is important to consider cultural differences in parenting practices that may contribute to cultural differences in parent expectation, treatment participation, and outcome. African American parents, as discussed previously, are more likely to utilize authoritarian strategies and mild physical punishment. There are several reasons for this. For one, African Americans strongly value respect. Hurd and colleagues (1996) suggest that cultural values of respect required of children may be based on religious beliefs. A child questioning his parent's authority would be seen as disrespectful and unacceptable. African American parents may also be trying to prepare their children for the prejudicial society they will encounter. They want their children to learn the

appropriate way to address an authority figure at home because they know how difficult life will be for their children if they respond disrespectfully to authority figures in society. Thus, although others have found no racial differences with regard to treatment completion or outcomes (Capage et al., 2001; Fernandez, 2005), it is possible that African American parents may find the treatment components of PCIT to be less acceptable because the focus is on increasing authoritative practices and decreasing authoritarian practices, which may be uncomfortably different from their parenting traditions and beliefs.

Trust in Mental Health Services

Mistrust of mental health services also affects African American families' participation in therapy. Zahner (1997) found that African Americans had less confidence in mental health treatment for psychological and behavioral problems than did European Americans. African Americans may relate mistrust of European Americans to mental health treatment because most mental health professionals are European American (Nickerson, Helms, & Terrel, 1994). Often families are not self-referred to a mental health agency, but they are referred by government agencies, like the court system, and essentially forced to go (Boyd-Franklin, 2003). The family may have difficulty distinguishing the mental health agency (and clinician) from the referring agency. Furthermore, mental health service delivery systems do not adequately address culturally based perceptions and behaviors (Drachman et al., 1996; Rosado & Elias, 1993), including value orientation, ethnic identity, indigenous supports, biculturalism, SES conditions, religious beliefs, acculturation forces, and family structure. Thus, African American families may mistrust the whole of mental health services because most clinicians are of a different race, because they are forced to go by an agency that likely has given them cause to suspect something bad will happen to them,

such as removal of financial support or removal of children from the home, and because issues particularly salient for them are simply not addressed in treatment.

Other well documented barriers include quality of relationship with the therapist (DeVet et al., 2003; Diamond et al., 2000; Shirk & Karver, 2003; Shirk & Saiz, 1992) and perceived stigma for utilizing mental health services (Anglin et al., 2006; Brown, 2003; Cooper-Patrick et al., 1995; Diala et al., 2000; Faberman, 1997; McCollum, 1997; Nickerson, Helms, & Terrell, 1994; Pavuluri et al., 1996; Sirey et al., 2001). However, an in depth examination of these barriers to treatment participation is beyond the scope of this research.

Parenting Self-Efficacy

Although not typically considered a barrier to treatment, parenting self-efficacy could act as an obstacle to engagement in therapy. Parenting self-efficacy is parents' perception of their competence as a parent, or their expectation about their ability to influence their children's behavior (Grusec, Hastings, & Mammone, 1994) According to Bandura (1977), parents who believe they do not have the ability to parent competently do not use their knowledge of parenting, are preoccupied with themselves, are emotionally aroused, and do not persevere at the task of parenting. This impacts parenting in several important ways.

Parenting self-efficacy is related to warmth and support. Barker and Heller (1996) found that externalizing behaviors in children were negatively related to maternal perceptions of efficacy as a parent and emotional closeness to the children. Parents with high levels of parenting self-efficacy have been described as warm, supportive, and sensitive (e.g., Dekovic & Gerris, 1992; Teti & Gelfand, 1991), whereas parents with low levels of efficacy have been described as abusive or likely to use harsh discipline (e.g., Bugental et al., 1990). Mothers who experience greater self-efficacy were more likely to exhibit optimal parenting

practices and their children exhibited fewer behavioral problems (Warren, 2004). High maternal efficacy has been found to be related to positive parenting behaviors, specifically responsive, stimulating, and nonpunitive caretaking (Elder, Eccles, Ardel, & Lord, 1995). Higher levels of parent self-efficacy have also been found to be positively related to parents' efforts to educate themselves about parenting (Spath & Conroy, 1993). McLaughlin and others (2006), in a study of Australian mothers of children with ADHD, found that lesser severity of child behavior and a higher sense of parenting competence were associated with more effective parenting practices.

Furthermore, parenting self-efficacy affects parents' use of discipline strategies. For example, clinical research has demonstrated that parents with a low sense of parenting competence, or efficacy, are more likely to use coercive discipline strategies than parents high in parenting self-efficacy (Bondy & Mash, 1999; Warren, 2004). Hyde and colleagues (2004) found that preschool-aged children who exhibited more hostile and aggressive temperaments were significantly more likely to have mothers who reported lower levels of parenting competence. Research has shown that problem severity is related to parent self-efficacy and discipline use (Baker & Heller, 1996; Nixon, 2000; Simons et al., 1992). Baden and Howe (1992) found that parents of conduct-disordered children perceived their parenting as less effective and attributed their children's behavior as outside of their control. Bugental (1990) found that mothers who perceived their children having more power relative to themselves were more likely to use more punitive discipline techniques. Additionally, Jones (2007), in dissertation research, found that lower levels of parenting self-efficacy were related to lower levels of parenting competence, higher levels of parental psychological distress, greater early childhood difficult temperament, more child problem behavior, less

parent social support from friends, lower degree of daily parenting success, and higher rates of daily parent stress in caregiving.

Finally, parenting self-efficacy may act as a protective factor against conditions that threaten parental responsiveness (Gondoli & Silverberg, 1997). Morrissey-Kane and Prinz (1999) suggest that attributing the cause of negative behavior as internal to the child may act as a protective mechanism by guarding parents from assuming responsibility for their child's behavior. For example, Spoth and Conroy (1993) demonstrated that parenting self-efficacy is associated with parental efforts to educate themselves about parenting, which could translate to participating in parent training programs. However, little is known about what impact parenting self-efficacy or perceived influence over children's behavior have on a person's willingness to participate in a parenting program.

Beliefs about parenting self-efficacy come from three main sources. These are the experiences parents have with their own children, the culture with which individuals identify, and experiences parents have had interacting with their own parents (Grusec et al., 1994). For the purposes of this paper, the effect of an individual's experiences with her own children and her culture will be explored further.

A parent's own experience with her child may affect her perception of her parenting efficacy. For example, correlational studies demonstrate that mothers of children with externalizing disorders have less confidence in their parenting ability than do mothers of children without such problems, and that mothers of children with ADHD and defiance were more likely to attribute their child's behavior to hostile intent (Barkley, Anastopoulos, Guevremont, & Fletcher, 1992; Mash & Johnston, 1983). Additionally, Mash and Johnston

(1983) found that mothers who had been parents of children with ADHD for longer had lower levels of self-efficacy than did those who had younger children with ADHD.

Culture conveys many messages about parenting, from basic facts like what children are like at various ages, to effective parenting techniques and the parenting goals the culture values. For example, African American families view child-rearing as a community activity (Forehand & Kotchick, 1996). They have flexible family roles that allow for adaptability (Boyd-Franklin, 1989). Children are taught to be respectful and obedient, especially toward elders (Garcia Coll et al., 1995). Children are taught the values of collectivism and the importance of spirituality (Boyd-Franklin, 1989; Forehand & Kotchick, 1996). As noted previously, fears of societal ramifications if their children do not obey authority contribute to African American parents instilling values of respect and parental authority rather than autonomy and independence.

There is some question whether there are differences between African American and Caucasian parents in terms of parenting self-efficacy. Ortega (2001), in a study examining mothers' "cultural connectedness" with parenting self-efficacy, found that parental efficacy was not significantly correlated with the reported ethnic or ethnic identification of the mother. However, parenting self-efficacy was correlated with cultural connectedness such that mothers who reported higher levels of cultural connection also felt more in control of their child's behavior, did not feel as if their child or children dominated their lives, and were less likely to resolve conflicts through the use of violence, including spanking. Ortega defined cultural connectedness as the degree to which someone views her cultural experience as separate from "White" culture, is proud and knowledgeable about her culture, and desires to raise her children with her cultural beliefs. Hill and Bush (2001), in a study comparing

African American and Caucasian mothers' parenting self-efficacy and practices and the impact of those variables on anxiety in children, found no differences between African American and European American parents in terms of parenting self-efficacy. These findings suggest a need for further inquiry into this topic.

Because most interventions for ODD call for authoritative, rather than authoritarian, parenting, some African American parents may be resistant to changing their authoritarian parenting style. They may be expecting the therapist to recommend making slight modifications to their parenting practices. These expectations are likely going to be inaccurate. Because parent expectations for therapy affect their performance and participation in treatment, it is important to assess their expectations and address any misconceptions (Nock et al., 2001). For example, African American parents may interpret the positive parenting techniques of PCIT and others as silly and judge them ineffective before beginning. Boggiano et al. (1987) demonstrated that beliefs about how to influence children's development are highly resistant to disconfirming evidence from outside the family (e.g., a psychologist). Therefore, it is imperative that the therapist know and understand these concerns and select a treatment that will serve the family best, while helping the parents understand how the treatment works and instilling hope.

Summary

The principal limitation of parent training programs, including PCIT, is that there is a substantial population of families for whom it does not work or who drop out of treatment prematurely (Armbruster & Kazdin, 1994). Of parents who received parent training interventions, 30-40% continued to report child problems in the clinical range at follow-up (Kazdin, 1993; Webster-Stratton, 1990). While many studies have shown that parent training

programs produce statistically significant changes, few have reported clinically significant changes (Kazdin, 1997). For example, while PCIT treatment gains have been found to be maintained at 1-year follow-up, the fact that at 2-years follow-up children continue to meet diagnostic criteria for a disruptive behavior disorder implies that although PCIT is initially effective, treatment gains are lost over time, for a myriad of reasons. Parents may utilize the skills they have learned less consistently once the initial treatment phase ends. PCIT may fail to address particular behavioral problems that develop as children grow older, making it less relevant for families, increasing the likelihood that parents do not follow through consistently. These problems must be addressed for PCIT to be an effective treatment for ODD and other disruptive behavior disorders. Few studies have explored the various interactions, such as age, ethnicity, and SES, which may moderate treatment effects. The fact that many authors do not describe their participants adequately, leaving out information like race/ethnicity (Eyberg & Robinson, 1982), SES (Brestan et al., 1997), and inclusion criteria (Wahler & Dumas, 1986), contributes to the lack of information.

A second limitation, along the same vein, is that a substantial number of parents who receive parent training do not fully comply with implementation or drop out (Prinz & Miller, 1994). This suggests that these interventions do not meet the needs of many families. For example, parent training has been found more effective than family therapy. What is clear is that the factor most consistently associated with parent training outcome is the severity of the child's conduct problem, with greater severity of the problem leading to less positive outcome (McMahon & Forehand, 2003). This is unfortunate as these are the children who most need these programs to work, and presently it is uncertain why they fail.

Many components of the interventions reviewed may encourage a different style of parenting than African American parents are accustomed to. For example, all of the interventions utilize an authoritative style of parenting to some degree, providing rationales and praise for behavior, ignoring minor inappropriate behaviors, using time out rather than corporal punishment, and collaborating with the child to resolve factors interfering with meeting expectations. Some of these features may translate into African American parents taking more time to learn the intervention or resisting the intervention. While all of the interventions have some outcome studies that include African American families, most include a small proportion and almost none compare treatment effectiveness between European American and African American families. Therefore, while these parenting features may limit the effectiveness for African American families, the lack of empirical study leaves this an unanswered question.

Despite the findings on ethnic differences in parenting, parent-training programs have been created and assessed almost exclusively with European American families (Hood & Eyberg, 2003). Forehand and Kotchick (1996) conducted a literature review of behavioral parent training programs and found no empirically based studies comparing the effectiveness of parent training in ethnic minorities with the effectiveness obtained by those from the cultural majority of economically advantaged, Caucasian families. Searching the literature available today on this topic, only a few studies are available (Capage, Bennett, & McNeill, 2001; Fernandez, 2006; Reid, Webster-Stratton, & Beauchaine, 2001), and many of these are dissertations. Because PCIT is a commonly used, empirically supported treatment for externalizing behaviors in children, because so few of the efficacy studies focus specifically on African American families, and because the components of PCIT can be found in several

of the interventions discussed, PCIT was chosen as the intervention for study. The present study will explore the acceptability of PCIT, specifically the CDI phase, for African American families as this may be one possible explanation for reluctance to engage in or premature termination of treatment.

CHAPTER 2: RESEARCH DESIGN AND METHODOLOGY

Primary Aims and Hypotheses

The primary goal of this study was to determine whether there are ethnic differences in the treatment acceptability of PCIT and whether these differences are best accounted for by differences in parenting beliefs.

Hypothesis 1 - Racial Differences in Parenting Beliefs and Behaviors

It was hypothesized that after statistically controlling for problem severity and SES, there would be significant differences between groups in terms of parenting behaviors. Specifically, African American mothers' parenting style was hypothesized to be more authoritarian and accepting of physical discipline than that of Caucasian mothers, and they would be less likely to endorse using authoritative parenting practices. Additionally, because little is known about differences in parenting sense of competence and influence among African American and Caucasian parents, this research explored the relationships and group differences between African American and Caucasian mothers in these domains.

Hypothesis 2 – Parenting Competence and Influence and CDI

It was expected that Parenting Sense of Competence and perceived influence over behavior would positively predict mothers' willingness to participate in CDI and their expectancies about the effectiveness of CDI in helping their own and other children but that this relationship would be moderated by mothers' parenting style. Specifically, mothers who experienced higher levels of parenting sense of competence and influence would be more willing to participate and have more positive expectations for CDI, except in cases where these mothers endorsed a more authoritarian style. In those cases, the relationship would

change direction such that mothers who felt highly efficacious and influential and endorsed more authoritarian beliefs would be less willing to participate and have lower expectations for the effectiveness of CDI with their own children. This conceptual model is illustrated in Figure 2. Again, Problem Severity and SES were controlled in the models.

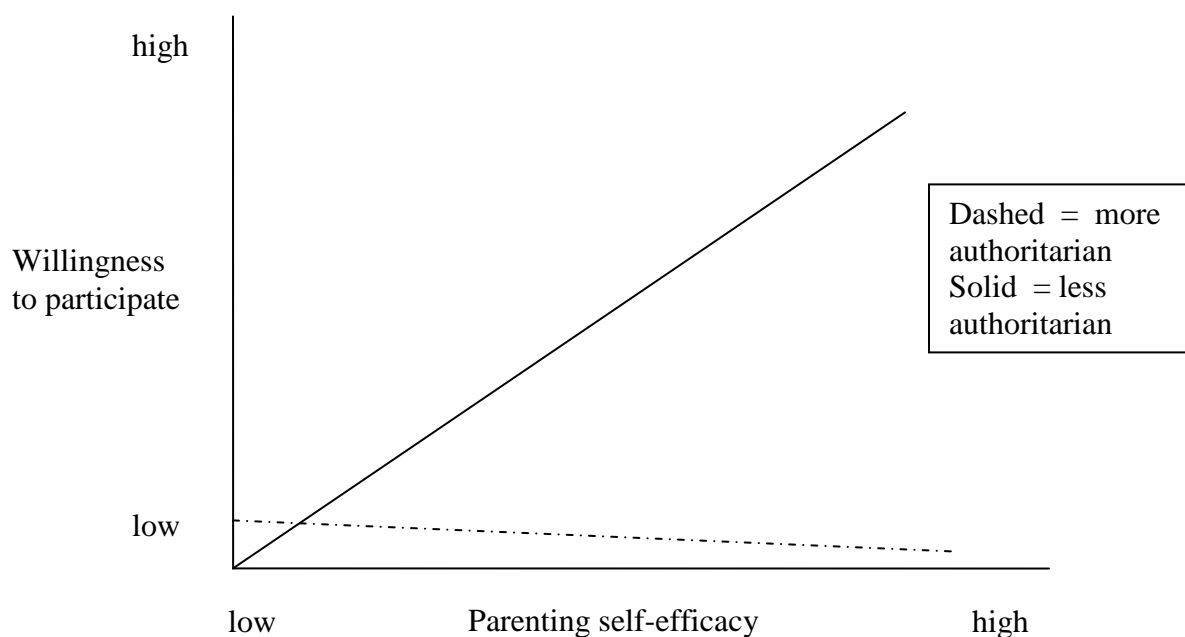


Figure 2. Hypothesized model of parenting self-efficacy and willingness to participate in PCIT

Hypothesis 3 – Predicting CDI Acceptance

PCIT is an intervention that emphasizes positive parenting and de-emphasizes physical punishment. Therefore, it was expected that race would predict judgment of the CDI portion of PCIT such that African American mothers would judge CDI more negatively than would Caucasian mothers, but that this relationship would be mediated by parenting style. That is to say that once authoritarian parenting was accounted for, this relationship would cease to exist. This model is illustrated in Figure 3. Problem Severity and SES were controlled in the models.

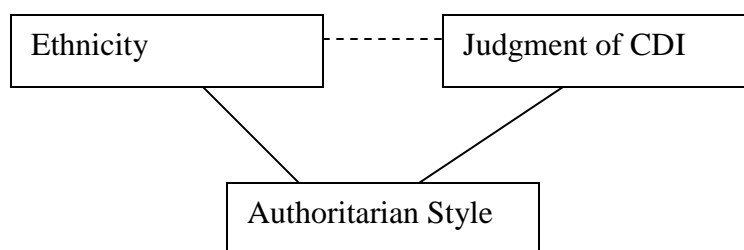


Figure 3. Mediating Model of Judgments of CDI

Exploratory Hypotheses

It was hypothesized that there would be a curvilinear relationship between parenting sense of competence and problem severity such that both very high scores and very low scores would predict greater problem severity. This is because it was expected that mothers with very high parenting self-efficacy could be overconfident or inflexible in their parenting practices, and that mothers with very low parenting self-efficacy may feel that way because they are less effective in their parenting. Both of these perceptions would be reflected in their children's behavior. Additionally, it was expected that perception of barriers, specifically perceived relevance, would predict willingness to participate and that African American mothers would perceive more barriers than Caucasian mothers.

Power Analysis

Assuming a medium effect size, Cohen (1992) suggests that a multiple regression using 4 independent variables will require a sample of at least 90 women. Thus, it was calculated that a sample of 92 participants was sufficient to detect a medium effect.

Design

A quasi-experimental, cross sectional design was utilized to test the above hypotheses.

Participants

Ninety-two mothers (43 African American, 41 Caucasian, 8 other) of children between the ages of 3 and 8 were recruited from day care centers, pediatrician offices, preschool classrooms, laundromats, and OB/GYN offices in Ypsilanti, Ann Arbor, Detroit, Wyandotte, and Flint. Participants were recruited from these locations to capture a wide range of parenting beliefs, behaviors, and problem severities. See Table 2 for frequencies, means, standard deviations, ranges, and percentages for demographic variables.

Table 2.

Frequencies, Percentages, Means, Standard Deviations, and Ranges for Scales.

Demographic Variable	Frequency	Percentage	Mean	(St. Dev)	Range
Age			33.91	(6.96)	19 - 67
Under 20	1	1.1			
21 – 25	5	5.5			
26 – 30	26	28.2			
31 – 35	26	28.1			
36 – 40	24	26.1			
41 – 45	5	5.5			
Over 46	5	5.5			
Years of Education			4.34	(1.20)	1 – 6
1 (grades 7 – 9)	2	2.2			
2 (grades 10 – 11)	4	4.3			
3 (HS graduate)	14	15.2			
4 (partial college)	29	31.5			
5 (4-year college degree)	25	27.2			
6 (graduate degree)	17	18.5			
Missing	1	1.1			
Single Parent Status					0 – 1
0 (no)	52	56.5			
1 (yes)	40	43.5			
Marital Status					0 – 5
0 (single, never married)	26	28.3			
1 (divorced)	10	10.9			
2 (widowed)	1	1.1			
3 (separated)	5	5.4			
4 (live-in partner)	2	2.2			
5 (married)	48	52.2			
Annual Income			9.44	(4.40)	0 – 16
0 – 5 (\$0 – 9,999)	11	12.0			
6 (\$10,000 – 14,999)	12	13.0			
7 (\$20,000 – 29,999)	16	17.4			
8 (\$30,000 – 39,999)	8	8.7			
9 – 10 (\$40,000 – 59,999)	8	8.6			
11 – 12 (\$60,000 – 79,999)	10	10.9			
Over \$80,000	21	22.8			
Missing	2	2.2			
Number of Children			2.60	(1.41)	1 – 7
1	18	19.6			
2	36	39.1			
3	19	20.7			
4	11	12.0			
5 or more	8	8.7			

Chi-square and *t*-test analyses were conducted to examine differences between African American and Caucasian mothers on the demographic variables. Significant differences were found between groups in that Caucasian mothers had a greater annual income and more years of education than did African American mothers, and Caucasian mothers were more likely than African American mothers to be married. No significant differences in mothers' age or number of children were found (see Table 3). Chi-square analyses indicated a significant association between race and single parent status in that African American mothers were more likely to be single than Caucasian mothers $X^2 (1) = 21.40, p = .000$.

Table 3.

T- tests for demographic variables.

Variable	African American (<i>n</i> = 43)		Caucasian (<i>n</i> = 41)		<i>t</i> - score	<i>df</i>	Mean Difference
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
Age	32.70	8.31	34.63	5.12	- 1.28	82	-1.94
Number of Children	2.86	1.68	2.37	1.11	1.58	82	.50
Years of Education	3.67	1.16	4.93	.93	- 5.44***	81	-1.26
Annual Income	6.20	3.36	12.07	3.13	- 8.20***	80	-5.88

Note. *** $p < .001$.

Procedure

Mothers of 3-8-year-old children were invited to participate. Flyers were mailed to day care centers, pediatrician offices, preschool through second grade classrooms, OB/GYN offices, and outpatient psychotherapy clinics in southeast and mid-Michigan. Agencies in

suburban, urban, and rural areas were contacted to recruit parents from a range of SES levels and ethnicities. Flyers contained the study name and description, the amount of reimbursement for participation, and a contact name and phone number. Mothers contacted the PI directly if they were interested in participating. Upon contacting the PI, mothers were prescreened for inclusion. Pre-screening involved the principal investigator informally asking mothers if she may ask them some questions to determine whether they are eligible to participate in a research study. If mothers agreed, they were asked if they have a child who exhibits any behavior problems that cause them concern and to describe those behaviors. They were also asked how old they were when they had their first child. Mothers whose children did not exhibit any externalizing behavior problems and/or who were under the age of 18 when they had their first child were excluded.

Mothers who gave birth as teenagers are more likely to be single parents, to have more children, and to be more economically disadvantaged than women who waited to have children (Astone, 1993; Holz et al., 1997; Moore, Miller, Gleib, & Mordren, 1995). They tend to display poorer parenting skills than women who delay childbearing, being less verbally expressive and sensitive to their babies, expressing less positive and more negative affect, and more frequently endorsing punitive parenting practices, even to the point of abuse or neglect (Avoub et al, 1992; Cowen, 1999; Hann, Osofsky, Barnard, & Leonard, 1994). Also, it is possible that their parenting may be heavily influenced by their own parents, as many teen mothers reside with and share parenting duties with their own parents (Moore & Brooks-Gunn, 2002). For these reasons, teen mothers were excluded as their responses may have been significantly different from mothers who gave birth as adults.

Because research has shown that PCIT is effective for use with children with subclinical levels of symptoms (Hembree & McNeil, 1995), a DSM-IV-TR diagnosis of ODD, CD, or ADHD was not required for inclusion. However, children referred to outpatient clinics for any problem other than an externalizing disorder were excluded. Seventy-six percent of mothers ($n = 70$) indicated that their children's symptoms were subclinical, and 23% ($n = 22$) indicated that their children's symptoms were clinical, as measured by the ECBI. To be included, mothers needed to describe behaviors they would like to change in their children, and those behaviors needed to be externalizing rather than internalizing problems.

Mothers were informed via the informed consent of the PI's legal obligation to report child abuse and/or neglect, and these terms were defined. While no mothers did disclose information regarding child abuse and/or neglect, a procedure was created to address such disclosures. This procedure included a reminder of the PI's legal obligation to report any disclosure regarding abuse and/or neglect, encouragement to seek help, and being informed that the PI is reporting her disclosure to Child Protective Services. The reporting procedure was to be explained to disclosing mothers so they would know what to expect. They would also be provided referrals to local mental health services.

The procedures for questionnaire administration and the informed consent procedures for this study were approved by Eastern Michigan University's Human Subjects Review Committee (HSRC). A copy of the informed consent forms and the EMU HSRC approval form can be found in Appendix A.

Data collection took place either in a separate area of the recruiting facility, on EMU's campus, at a local library or business establishment, or in a residence of the mother's

choosing. Mothers who called because they saw the flyer were presented with options for the participation site, including the EMU campus, a business or library conveniently located for them, their own home, or a friend or relative's home of their choosing. Mothers who were approached at OB/GYN offices were also presented with the option of participating on site in addition to the locations listed above. Each participant received a packet containing the Four Factor Index of Social Status (Hollingshead, 1975), the Eyberg Child Behavior Inventory (ECBI; Eyberg & Pincus, 1999), Maternal Social Support Index (Pascoe, 2000), the Parenting Sense of Competency (PSOC; Johnston & Mash, 1989) Scale, the Perceived Current Influence Scale (Freedman-Doan et al., 1993), the Discipline Beliefs Scale (Simons et al., 1992), the Parenting Practices Questionnaire (Robinson et al., 1995), and the Barriers to Participation Scale (Dumas, 2002). Participants had the option of reading the questionnaires themselves or listening to a recording of a woman of their same race reading the questionnaires, but none of the women chose this option. Participants then viewed a video vignette of a clinician experienced in the use of PCIT demonstrating CDI techniques on a child. After viewing this vignette, a semi-structured interview was conducted in which mothers were asked a series of qualitative questions about their perceptions, expectations, and beliefs about the child in the video, their own child, the clinician in the video, and CDI (a copy of the interview questions is in Appendix B). The principal investigator conducted all interviews.

Measures

Parent Expectations for and Judgments of CDI

A semi-structured interview was created to assess parents' expectations and judgments of CDI. After viewing the vignette of a clinician performing CDI with a child, the

P.I. asked mothers a series of open- and closed-ended questions about their reactions to the tape and what they liked and did not like about CDI. Three closed-ended questions were used to assess mother's perceptions of the effectiveness of CDI and willingness to engage in CDI: a) On a scale of 1-10, how effective do you think this treatment would be for the child you saw on the tape? b) On a scale of 1-10, how effective do you think this treatment would be for your child? and c) On a scale of 1-10, how likely would you be to participate in a treatment like the one you saw to help you with your own child if s/he is having problems now, or hypothetically, if s/he ever had behavioral problems? These three scales were used in the quantitative and qualitative analyses of this study. Negative judgments of CDI were determined by counting the number of distinct negative statements about CDI, potential barriers to participation, and negative emotions when imagining conducting CDI mothers discussed in the interviews.

Negative judgments of CDI were extrapolated from the qualitative interviews. Two research assistants and the PI coded negative statements from the interviews. Inter-rater reliability was determined by having each rater code 10 common interviews, the standard of which had been determined by the PI and the dissertation chair. Once raters achieved 80% accuracy, they continued coding. Inter-rater reliability was good ($\alpha = .84$). Seventeen distinct negative judgments and 15 specific barriers emerged, which will be discussed in later sections. Additionally, mothers described negative emotions about CDI when specifically asked for them and throughout the interview. The number of distinct negative concepts, barriers, and emotions discussed were summed for a "Negative Judgment" score. An explanation of the summed scores is presented in the qualitative data analysis section.

Problem Severity

The Eyberg Child Behavior Inventory (ECBI; Eyberg & Pincus, 1999) is a widely used parent rating scale designed to measure disruptive behavior in children between the ages of 2 and 16 years. The ECBI has 36 items and measures the frequency of disruptive behaviors (Intensity) rated on a 7-point scale, with 1 representing *never* and 7 representing *always*, and the number of behaviors that are a problem for parents (Problem) using a yes-no format. The ECBI consists of statements that describe common child behavior problems, such as “interrupts parent” and “argues with parents about rules.” Research has demonstrated that the ECBI has good reliability and is a valid measure of disruptive behavior in children (Boggs, Eyberg & Reynolds, 1990; Funderburk, Eyberg, Rich, & Behar, 2003; Rich & Eyberg, 2001). These scales were restandardized with 798 children between the ages of 2 and 16 years (Colvin, Eyberg, & Adams, 1996). Cronbach’s alpha was .95 for the Intensity Scale and .93 for the Problem Scale. In this study, Cronbach’s alpha was .92 for the Intensity Scale and .90 for the Problem Scale. The clinical cutoff scores for the Intensity and Problem scales are 132 and 15, respectively. In this sample, 13 (14.1%) scored in the clinical range on the Intensity Scale and 19 (20.7%) scored in the clinical range on the Problem Scale. Of these, 9 were clinical only on the Problem Scale, 3 were clinical only on the Intensity scale, and 10 fell into the clinical ranges on both scales.

Family SES

Initially family SES was to be computed using the Four Factor Index of Social Status (Hollingshead, 1975), which measures family SES on the basis of the education and occupation of the participants (averaged, if both are available). Occupation is classified into one of nine categories. Educational attainment was categorized as less than 7th grade, 8th

through 9th grades, 10th through 11th grades, high school graduate, some college education, college graduate, or some graduate school. The scale value for occupation (multiplied by a factor weight of 5) is added to the scale value for education (multiplied by a factor weight of 3). Scores range from 8 to 66, with higher scores representing higher social status. However, over a third of participants did not disclose their occupation. Thus, annual income was used to determine SES.

Parenting Behaviors and Beliefs.

The Parenting Practices Questionnaire (PPQ; Robinson, Mandleco, Olsen, & Hart, 1995), a 62-item measure, assesses parenting styles based on Baumrind's authoritative, authoritarian, and permissive parenting. From this scale, fourteen continuous variables were derived. These were authoritative, authoritarian, and permissive parenting styles, as well as the eleven parenting behavior subscales that comprise each of these scales, which are described below. Confirmatory factor analyses have shown the validity of these subscales (Robinson et al., 1995) and in this study, internal consistency was adequate for each factor (Authoritarian $\alpha = .85$, Authoritative $\alpha = .89$, Permissive $\alpha = .75$). These reliabilities are comparable to those found by others (Authoritarian $\alpha = .91$, Authoritarian $\alpha = .86$, Permissive $\alpha = .75$; Robinson et al., 1995).

Authoritative parenting was derived from the means of four subscales: Warmth and Involvement, Easy Going, Reasoning/Induction, and Democratic Participation. Authoritarian parenting was derived from the means of four subscales: Verbal Hostility, Corporal Punishment, Non-Reasoning Punitive Strategies, and Directiveness. Permissive parenting was derived from the means of three subscales: Lack of Follow Through, Ignoring Misbehavior, Lack of Parental Self-Confidence. Parents were asked how often they use the

behaviors using a 5-point Likert scale (1= *never*, 5= *always*). Higher scores on any of these subscales indicate greater use of that particular parenting style.

The Discipline Beliefs Scale (Simons et al., 1992) is a six-item measure assessing parental beliefs about the most effective approach to discipline. The items focus on the extent to which respondents are committed to corporal punishment or less punitive alternatives. It uses a 5-point Likert scale, with high scores indicating belief in corporal punishment. However, the internal consistency for this measure was inadequate ($\alpha = .50$). Consequently, this measure was not used in the analyses. Rather, the Corporal Punishment subscale of the PPQ was used to measure these beliefs.

Parenting Sense of Competence and Influence

A modified version of the Parenting Sense of Competence scale (PSOC; Johnston & Mash, 1989) was used to measure how mothers feel about parenting infants and young children. The original instrument is a 17-item measure of parenting self-esteem that contains two factors: satisfaction and efficacy. Satisfaction refers to an affective dimension reflecting parental frustration, anxiety, and motivation. Efficacy is an instrumental dimension reflecting competence, problem-solving ability, and capability in the parenting role. Because the 17th item failed to load above .40 on either of the empirically derived factors, it is frequently omitted from use. Johnston and Mash report internal consistency alpha coefficients of .82 and .70 for the satisfaction and efficacy scales, respectively. For the purposes of this study, an abbreviated version of the PSOC was used to limit the time it would take to complete the questionnaire and reduce participant fatigue. Four of the original 9 satisfaction items and 4 of the original 7 efficacy items were chosen, because they had the highest factor loadings in a validation study involving families of 4 – 9 year old children (Johnston & Mash, 1989).

Nordstrom (2004) used this abbreviated measure in a study investigating engagement and retention in family based preventive interventions and found good reliability for both the satisfaction and efficacy subscales ($\alpha = .75$ and $.76$, respectively). Consistent with this finding, in the present study, the internal consistency of these subscales was good for the satisfaction subscale ($\alpha = .78$) and the efficacy subscale ($\alpha = .82$)

The Perceived Current Influence Scale (PCIS; Freedman-Doan et al., 1993) is an 8-item measure of parents' perceived level of influence they currently have over their children. It asks parents how much they think they can do to influence their child's behavior and interests using a 7-point Likert scale ranging from 1 (*very little*) to 7 (*a great deal*). This scale was developed for use with children in the sixth grade and was constructed by calculating the mean scores of the seven items ($\alpha = .86$). For the purposes of this study, some of the items were modified for use with parents of children aged 3 to 8 because the behaviors and interests queried represented a younger child's activities ($\alpha = .91$).

Perceived Barriers to Participation

The Barriers to Participation Scale (Dumas, 2002) is a 31-item scale designed to measure parental perceived barriers to participating in parenting programs. It is based on Kazdin and others' (1997b) Barriers to Treatment Participation Scale. Parents are asked the degree to which their perceptions of personal and family stressors and barriers to participation, intervention demands, relevance of intervention, and scheduling problems would stop them from attending a parenting program if one was offered to them. It uses a 4-point Likert scale, with 1 representing "*definitely yes*" and 4 representing "*definitely no.*" Thus, lower scores represent greater perception of something being a barrier, and higher scores represent lower perception of something being a barrier. In the present study, in order

to explore whether certain barriers are more salient for different ethnic groups, barriers were categorized into 6 groups, each with good reliability: Personal and Family Obstacles ($\alpha = .79$), Time/Transportation/Money ($\alpha = .71$), Health and Mental Health ($\alpha = .80$), Spousal Support ($\alpha = .81$), Relevance and Trust ($\alpha = .84$), and Treatment Demands ($\alpha = .81$). These categories have been used by the authors of the scale. Reliability analysis for the entire scale indicated that internal consistency was strong ($\alpha = .94$).

CHAPTER 3: RESULTS

Factor Analyses

Factor analyses were conducted on the PSOC and the Perceived Influence Scale as well as the Parenting Practices Questionnaire to ensure that the relevant items clustered around expected constructs. While Tabanachick and Fidell (1996) recommend having a sample size of 300 or greater to conduct a factor analysis, Stevens (1992) recommends applying Bartlett's sphericity test to verify the null hypothesis that the variables in the correlation matrix are uncorrelated. The results of Bartlett's sphericity test for this sample indicate that the Kaiser-Meyer-Olkin Measure of Sampling Adequacy is well within the acceptable range ($KMO = .86, p < .001$). Therefore, factor analysis is appropriate for this sample.

Principal components analysis was conducted utilizing an oblique rotation because it was expected that the PSOC – efficacy and PSOC – satisfaction scales would be related to each other and because this was the method utilized by Johnston and Mash (1989) on their original scale. The initial analysis retained three components. Four criteria were used to determine the appropriate numbers of components to retain: eigenvalue, variance, scree plot, and residuals. Three of these four criteria indicated that retaining three components should be investigated. Using variance as a criterion indicated a possible fourth component; however, the inclusion of a fourth component contradicted the other criteria, as the next component had an eigenvalue less than 1, fell after the scree plot drop, and did not increase the model fit significantly. Thus, principal components analysis was conducted to retain three components and apply the oblique rotation.

After rotation, the first component accounted for 34.78%, the second accounted for 17.8%, and the third accounted for 11.3% of the variance (see Table 4). The three components together accounted for 63.9% of the variance. As expected, component 1 includes each of the items in the Perceived Influence Scale, component 2 includes each of the items in the PSOC – Efficacy Scale, and component 3 includes each of the items on the PSOC – Satisfaction Scale. In sum, these findings, in combination with the results with the reliability analyses, suggest that using an abbreviated version of the PSOC is appropriate and that parenting self-efficacy, satisfaction, and perceived influence are separate constructs.

Table 4.

<i>Component Loadings</i>	Loading
Component 1: Perceived Influence	
Influence 3 (control hands and feet)	.85
Influence 6 (prevent from doing unwanted things outside of home)	.83
Influence 1 (stay out of trouble in preschool or daycare)	.83
Influence 4 (interact positively with family member)	.81
Influence 5 (associate with friends who are good for him/her)	.81
Influence 2 (follow directions)	.80
Influence 8 (manage his/her anger)	.65
Influence 7 (increase interest in educational activities)	.58
Component 2: PSOC – Efficacy	
PSOC 7 (familiar with parenting role)	.84
PSOC 6 (meet personal standards for care)	.80
PSOC 8 (believe have skills necessary)	.78
PSOC 5 (would make good parenting role model)	.77
Component 3: PSOC – Satisfaction (items reverse scored)	
PSOC 4 (tense and anxious)	-.89
PSOC 1 (frustrated with child at present age)	-.82
PSOC 3 (feeling manipulated)	-.74
PSOC 2 (feeling not accomplished much)	-.50

A factor analysis for the Parenting Practices Questionnaire was considered but could not be conducted due the poor ratio of subjects to variables. Henson and Roberts (2006), after a review of 60 factor analyses conducted in four journals, reported that a minimum ratio of

3.25 subjects for each variable is necessary for accuracy in the results. There are 62 items on the PPQ and 92 subjects. Thus, a factor analysis was not conducted. Scales for the PPQ were constructed as designed by the authors. Caution should be used in interpreting the results from these measures as reliability was often unstable in the subscales (see reliability analyses below, Table 5).

Scale Construction

The means and standard deviations of the items comprising all scales were computed. Each measure was tested for internal consistency by calculating Cronbach's alpha. The alphas, along with the means and standard deviations for each scale, are presented in Tables 5 and 6. Most scales had good reliability; however, the Discipline Beliefs Scale had poor reliability ($r = .50$). Therefore, the Corporal Punishment subscale of the Parenting Practices Questionnaire was used as a substitute as it had higher reliability ($r = .70$). As mentioned above, parenting styles were derived from the means of the Parenting Practices Questionnaire subscales.

Missing Data

Following the cleaning of the data, all missing data were identified. Variables missing between 5-10% of data were checked to determine if missing data occurred at random. To do this, dummy variables were created to compare the missing data group to the non-missing data group. These two groups were compared using a t -test for the outcome variables (Willingness to Participate, Belief in Effectiveness for Own Child, Belief in Effectiveness for Tape Child). Within each scale, missing data were addressed by calculating scale means without the missing variable. Eight cases with significant missing data were dropped. The data for the remaining 92 participants were checked for outliers by creating standardized z -

scores for all scales and outcomes variables. Z-scores of 3 or higher were considered outliers (Mertler & Vanatta, 2002). No outliers were found for main variables; therefore, 92 participants were kept. In addition, there were no racial differences in number or types of missing items.

Table 5.

Means, Standard Deviations, Ranges, and Cronbach's Alpha for Scales

Measure	Sample	Mean	(Standard Deviation)	Range of Scales (Sample)	Alpha
Parenting Practices Scale (PPS)	Whole Sample	2.90	.26	1 – 5	.82
	African American	2.97	.30	1 – 5	.82
	Caucasian	2.83	.21	1 – 5	.81
Discipline Beliefs Scale (not used in analysis)	Whole Sample	3.99	.54	1 – 5	.50
	African American	3.86	.57	1 – 5	.48
	Caucasian	4.12	.49	1 – 5	.59
Perceived Sense of Competence Scale (PSOC)	Whole Sample	4.39	.88	1 – 6	.80
	African American	4.37	1.02	1 – 6	.83
	Caucasian	4.38	.60	1 – 6	.61
Perceived Current Influence Scale	Whole Sample	5.76	.96	1 – 7	.91
	African American	5.85	1.02	1 – 7	.90
	Caucasian	5.75	.85	1 – 7	.89
Barriers to Participation Scale	Whole Sample	2.98	.51	1 – 4	.94
	African American	2.93	.58	1 – 4	.96
	Caucasian	3.09	.42	1 – 4	.93
Eyberg Child Behavior Inventory (ECBI)	Whole Sample	2.94	.83	1 – 7	.92
	African American	2.86	.88	1 – 7	.92
	Caucasian	3.07	.77	1 – 7	.93

Table 6.

Means, standard deviations, ranges, and Cronbach's alpha for PPS Subscales

	Mean	(Standard Deviation)	Range of Scales (Sample)	Alpha
Authoritative Style	4.16	(.46)	1 – 5	.89
Warmth and Involvement (WI: 1, 3, 5, 9, 12, 21, 27, 33, 35, 39, 46)	4.51	(.46)	1 – 5	.82
Reasoning & Induction (RI: 16, 25, 29, 42, 53, 58, 62)	4.17	(.57)	1 – 5	.75
Democratic Participation (DP: 22, 31, 48, 55, 60)	3.57	(.63)	1 – 5	.55
Good Natured (GN: 7, 14, 18, 51)	4.11	(.57)	1 – 5	.67
Authoritarian Style	1.91	(.47)	1 – 5	.85
Verbal Hostility (VH: 13, 23, 32, 44)	2.09	(.57)	1 – 5	.61
Corporal Punishment (CP: 2, 6, 19, 37, 43, 61)	1.67	(.49)	1 – 5	.70
Directiveness (D: 17, 40, 50, 59)	2.53	(.66)	1 – 5	.58
Punitive Strategies (PS: 10, 26, 28, 47, 54, 56)	1.73	(.59)	1 – 5	.66
Permissive Style	1.94	(.45)	1 – 5	.75
Lacking Follow Through (FT: 11, 20, 34, 38, 41, 49)	2.19	(.64)	1 – 5	.69
Ignoring Misbehavior (IG: 8, 15, 36, 45)	1.77	(.49)	1 – 5	.29
Lacking Self-Confidence (SC: 4, 24, 30, 52, 57)	1.93	(.53)	1 – 5	.55

Analyses

Chi-squares and *t*-tests were used to assess racial differences on demographic variables (single parent status, age, SES, years of education, number of children). The first hypothesis was addressed using univariate ANOVA to compare differences between groups on parenting styles, beliefs, and the outcome variables developed for this study (Judgments about CDI, Belief in Effectiveness of CDI for Children in General, Belief in Effectiveness of CDI for own child, Willingness to Participate), controlling for SES and problem behavior, and using bivariate relations to examine relationships between race, parenting sense of competence, and perceived influence. The second and third hypotheses regarding moderation and mediation, respectively, were addressed using multiple regression formulas, which included zero-order correlations of the variables involved in the regression equations. The third hypothesis included exploration of the responses to interview questions of African American and Caucasian mothers about their beliefs about CDI's effectiveness in general, the potential effectiveness of CDI for their own child, aspects they liked and disliked about CDI, potential barriers to participating in CDI, and their willingness to participate in CDI. Exploratory hypotheses were addressed utilizing bivariate analyses to investigate relationships between variables and group differences not included in regression analyses.

Hypothesis 1

It was hypothesized that group differences would be present such that African American mothers would report use of Authoritarian parenting practices and physical discipline more often, and Authoritative parenting practices less often than Caucasian mothers. Univariate ANOVAs were conducted to examine these hypothesized differences. After controlling for problem severity and annual income, differences between groups were no longer significant. In addition, comparisons were made to examine group differences in parenting sense of competence and perceived influence. Again, after controlling for problem severity and annual income, any significant differences were no longer significant. As shown on Table 3, groups differed in terms of annual income, but they did not differ in terms of problem severity. Finally, relationships were examined between race and parenting sense of competence and perceived influence using bivariate correlations. The relationships between race and parenting sense of competence, as well as race and perceived influence, were not significant. Thus, the first hypothesis was not supported (see Tables 7 and 8).

Table 7.

Analyses of Variance for Parenting Styles, Parenting Sense of Competence, Perceived Influence, Dependent Variables, and Outcome Variables, Controlling for Problem Severity and Annual Income.

Variable	African American (<i>n</i> = 43)		Caucasian (<i>n</i> = 41)		<i>df</i>	η^2	<i>F</i>	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>				
Authoritative Style	4.15	.54	4.15	.37	1	.00	.02	.89
Authoritarian Style	2.04	.59	1.76	.28	1	.02	1.76	.19
Permissive Style	2.00	.53	1.86	.34	1	.03	2.67	.11
Corporal Punishment	1.79	.57	1.53	.36	1	.03	2.77	.10
Perceived Sense of Competence	4.33	1.02	4.33	.60	1	.00	1.70	.68
Perceived Current Influence Scale	5.85	1.02	5.75	.85	1	.01	.76	.39
Barriers to Participation Scale	2.93	.58	3.09	.42	1	.02	1.78	.19
Effective for Own Child	6.95	2.49	6.63	2.45	1	.01	.51	.47
Effective for Children in General	7.79	2.26	7.26	1.77	1	.00	.05	.82
Negative Judgments of CDI	3.67	3.15	5.95	3.82	1	.00	.29	.60
Willingness to Participate	8.79	2.35	7.95	2.41	1	.00	.32	.57

Bivariate relations for Hypotheses 2 and 3

Zero-order correlations were calculated for all variables involved in the moderating and mediating regression analyses (Race, Annual Income, Problem Severity, Parenting Sense of Competence, Perceived Influence, Barriers to Participation, Authoritarian Parenting, Negative Judgment, Belief that CDI is effective for Tape Child, Belief that CDI is effective for Own Child, Willingness to Participate). These can be found on Table 8.

Table 8.

Correlation Matrix for Predictors and Outcome Variables

	Race	Annual Income	ECBI	Authoritarian	PSOC	Influence
Authoritarian	-.30**	-.36**	.47***	---		
Parenting Sense of Competence	.01	.10	-.42**	-.44***	---	
Influence	-.06	.10	-.46***	-.25*	.29**	---
Effective Own child	-.14	-.15	-.19 [†]	.07	.03	.29**
Effective Tape Child	-.13	-.09	-.31**	-.15	.36***	.16
Judge Negatively	.31**	.35***	.26*	-.03	-.15	-.24*
Willingness to Participate	-.18	-.17	-.22*	-.04	.18	.28**

Notes. African American = 0, Caucasian = 1.

* $p < .05$. ** $p < .01$. *** $p < .001$. [†] $p < .10$.

Partially supporting the second hypothesis, perceived influence was positively associated with willingness to participate and belief that CDI would be effective for one's own child, and negatively associated with negative judgments of CDI. Additionally, parenting sense of competence was strongly associated with the belief that CDI would be effective for the child on the tape. Further, both perceived influence and parenting sense of competence were negatively related to authoritarian parenting such that mothers who reported greater use of authoritarian parenting tended to perceive themselves as less competent and influential. However, parenting sense of competence did not have significant relationships with willingness to participate, belief that CDI would be effective for one's own child, or negative judgments of CDI. Also, perceived influence was not related to belief that CDI would be effective for the child on the tape. Finally, authoritarian parenting was unrelated to any of the outcome variables.

Supporting the third hypothesis, race was significantly related to Authoritarian parenting in that African American mothers were more likely to report using authoritarian practices. Contrary to the third hypothesis, African American mothers were less likely to judge CDI negatively, and authoritarian parenting was unrelated to negative judgments of CDI.

Supporting the need to control for annual income, significant relationships were found between annual income, authoritarian parenting, and negative judgments such that women who reported higher annual incomes were less likely to report using authoritarian practices and more likely to judge CDI negatively. In support of controlling for problem severity, significant relationships were found between problem severity and authoritarian parenting, parenting sense of competence, perceived influence, the belief that CDI would be effective for the child on the tape, negative judgments of CDI, and willingness to participate. In other words, mothers who experienced their children as having more frequent and severe problems were also more likely to

report using authoritarian practices and to judge CDI negatively and less likely to perceive themselves as competent or influential parents, to believe that CDI would be effective for the child on the tape, and to be willing to participate in CDI. Additionally, a trend was found toward higher problem severity scores being related to less belief that CDI would be effective for one's own child.

Regression analyses – Hypothesis 2

Moderation. It was hypothesized that mothers' parenting styles would moderate the relationship between parenting sense of competence, influence, and willingness to participate in CDI, as well as the relationship between parenting sense of competence, perceived influence, and expectations that CDI would help their own child and the child on the tape, and finally the relationship between PSOC, influence, and their judgments of CDI. That is, mothers who experienced higher levels of parenting sense of competence and influence would be more willing to participate, have more positive expectations for CDI, and have less negative judgments of CDI, except in cases where these mothers endorsed more authoritarian styles. In those cases, it was hypothesized that the relationship would change direction such that mothers who felt highly efficacious and influential and endorsed more authoritarian beliefs would be less willing to participate, have lower expectations for the effectiveness of CDI with their own children, and judge CDI more negatively.

A series of 8 multiple regression analyses were conducted to see if authoritarian parenting moderated parenting influence and sense of competence in predicting four outcome variables (Effective for Child on Tape, Effective for Own Child, Negative Judgments of CDI, and Willingness to participate). The moderating terms were calculated by multiplying Influence x Authoritarian Style and PSOC x Authoritarian Style. Moderation was first tested for Perceived

Influence. To control for problem severity and income, ECBI and Annual Income were entered first, followed by the independent variables (Influence, Authoritarian Style, and Influence x Authoritarian) concurrently. The first dependent variable tested was Effective for Own Child. None of the hypothesized predictors predicted this variable. The next dependent variable was Effective for the Child on the Tape. As shown on Table 9, Problem Severity was the only significant predictor of this variable. The third dependent variable was Negative Judgments. Only Problem Severity and Annual Income predicted this variable. Finally, Willingness to Participate was tested. Again, only Problem Severity and Annual Income predicted this variable.

Table 9.

Regression Analysis Testing Moderation of Authoritarian Parenting on Influence Controlling for Problem Severity and Annual Income

	Problem Severity	Annual Income	Authoritarian	Influence	Authoritarian X Influence	R ²
Effective Own child	-.15	-.06	.20	.25	-.04	.10
Effective Tape Child	.32*	-.14	-.46	-.27	.37	.14
Judge Negatively	.28*	.38***	.51	.29	-.58	.24
Willingness to Participate	-.13	-.19	.02	.24	-.04	.12

Note. Numbers represent standardized Beta coefficients.

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

Next, moderation was tested for Parenting Sense of Competence. Again, to control for problem severity and income, ECBI and Annual Income were entered first, followed by the independent variables (PSOC, Authoritarian Style, and PSOC x Authoritarian) concurrently. The first dependent variable was Effective for Own Child. The second dependent variable was Effective for the Child on the Tape. The third dependent variable was Negative Judgments, and the final dependent variable tested was Willingness to Participate. Problem Severity and Annual Income predicted negative judgments (see Table 10). The hypothesized predictors did not significantly predict any outcome variables. Thus, the second hypothesis was not supported.

Table 10.

Regression Analysis Testing Moderation of Authoritarian Parenting on Parenting Sense of Competence Controlling for Problem Severity and Annual Income

	Problem Severity	Annual Income	Authoritarian	PSOC	Authoritarian X PSOC	R ²
Effective Own child	-.25	-.06	.26	-.12	.10	.06
Effective Tape Child	-.21	-.16	-.41	-.04	.39	.21
Judge Negatively	.28*	.37**	.04	-.04	-.09	.23
Willingness to Participate	-.19	-.20	-.10	.03	.13	.11

Note. Numbers represent standardized Beta coefficients.

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

Regression analyses – Hypothesis 3

Mediation. It was also proposed that African American mothers would judge CDI significantly more negatively than would Caucasian mothers, but that this relationship would be mediated by parenting beliefs. As described in the Measures section, Negative Judgments of CDI were determined by counting the number of distinct negative statements about CDI, potential barriers to participation, and negative emotions when imagining conducting CDI that mothers discussed in the interviews. According to Baron and Kenny (1986), to conclude that there is evidence of mediation, the following criteria must be met: (a) there must be a significant correlation between the independent variable of interest and the criterion variable; (b) there must be a significant beta coefficient between the independent variable and the hypothesized mediating variable and between the hypothesized mediating variable and the criterion variable; and (c) the relation between the independent variable and the criterion variable must be significantly reduced when the hypothesized mediating variable is included in the regression equation. Given these criteria, this analysis was not conducted because while race is related to authoritarian parenting, authoritarian parenting is not related to negative judgments of CDI. Additionally, substituting authoritative parenting for authoritarian parenting was not possible because while authoritative parenting is related to negative judgments of CDI, it is not related to race.

Exploratory analyses

Qualitative Analyses.

Mothers' statements about CDI were coded into different categories, including negative statements, specific barriers, negative emotions when imagining participating in CDI, and factors

that would facilitate their use of CDI. These statements were then further classified and code numbers were assigned to each concept within the broader categories.

Negative Statements about CDI.

As previously noted, 17 negative concepts emerged from the interviews. These included developmental level of emotion regulation, not helpful with more severe problems, video is unrealistic, the child does not get a chance to talk, too much praise, insincere, does not generalize to other situations, the mother was too enthusiastic/ “cheesy,” it is “not me,” overly attentive, it would lose effectiveness, seems controlling/overbearing, age/gender restrictions, it should be more corrective, “I’ve done this before [and it didn’t work],” does not fit well with my child/my child would not like it, and it is not enough (see Table 11). Furthermore, mothers elaborated on some of these negative judgments.

Table 11.

Frequency of Negative Comments

	Number Participants Citing
It is not enough	34
Too much praise	28
It is “not me”	27
Does not fit well with my child/my child would not like it	26
Insincere	25
The mother was too enthusiastic/ “cheesy,”	24
Overly attentive	18
Not helpful with more severe problems	14
Developmental level of emotion regulation	10
“I’ve done this before [and it didn’t work],”	9
Video is unrealistic	9
Does not generalize to other situations	9
The child does not get a chance to talk	8
Age/gender restrictions	7
It would lose effectiveness	6
Seems controlling/overbearing	5
Should be more corrective	3

“Too much praise” was the concept most frequently elaborated. One mother seemed to feel that actions speak louder than words, stating that it was inappropriate because, “she could have just enjoyed playing with her...with her body language or just getting into the play instead of just praising her and praising her.” Another mother appeared to believe that praising a child for behaviors that a child would normally do on his/her own could make the child stop responding to praise, stating, “It seemed to me like the mom was... praising too much. It seemed a little artificial. You don’t praise a child for just playing with blocks because that’s just what they do. It will confuse the child to stop doing what you want them to do.” Other mothers worried that too much praise would over inflate a child’s self-esteem: “It could lead a child to believe they are always right and they’re number one against other kids...I don’t want to give them a heightened sense of ego...” Another mother worried that their child would come to always expect praise and then feel let down when they do not get that later for something truly praiseworthy, noting, “They would always expect it and when they really did something wonderful, what’s the difference between that and when you praise me 10 times for a block?” Several women worried that too much praise would be damaging later in life because it would set them up for unrealistic expectations. For example, one mother said, “When I do see people who are like that, it’s a lot of coddling for their child and I think, ‘Oh, that kid is going to have some issues’ because you know the kid has to be faced with ... people in the real world aren’t going to treat her like that.” Other mothers believed that too much praise could positively reinforce behaviors they are trying to extinguish: “If she does throw a temper tantrum because she’s hearing that nice stuff, yeah, I think it could kind of backfire.”

Some mothers also elaborated on their reasons for feeling that CDI was insincere. For example, one mother stated, “I think that enthusiasm can get to a point where it’s like, ok, maybe

it loses some meaning... 'Oh, I love that, I love that, I love that' you know you can hear that so many times and maybe the child starts to think, 'Oh, she says that about everything.'"

A few mothers also commented on why they did not believe CDI would be enough on its own to reduce negative behaviors. For example, one mother stated, "It just didn't seem deep enough, didn't seem to be a connection." This mother also said, "If they made it more of a moment that touching the child, saying, 'You did a really good job about not throwing those pieces across the room, I noticed that it fell apart and you totally could have gotten upset ... There didn't seem to be any 'Wow, this is a great moment, let's just celebrate this moment for a second or nanosecond,' it was just as passing as 'Oh that was pretty' ..."

Barriers

To further understand why mothers might reject CDI or interfere with participation, the barriers they reported in their interviews were examined (see Table 12). The most frequently occurring were time constraints, treatment demands, own or spouse's health or mental health, and problem severity.

Table 12.

Frequency of Specific Barriers

	Number Participants Citing
Time constraints	27
Treatment demands	20
Own or spouse's health/mental health	10
Problem severity	10
Not fitting with parenting style	9
No need	7
Lack of confidence in treatment effectiveness	6
Fear of evaluation	6
Demands from other children	4
Lack of spousal support	3
Distance from home	2
Not having enough information	2
Mistrust in the system	2
Not wanting to be told what to do	1
Not knowing anyone else who parents similarly	1

Many of these barriers, including time constraints and treatment demands, have been identified in the literature as preventing parents from participating in therapy with their child (Armbruster & Kazdin, 1994; Campbell et al., 2000; Dumas & Wahler, 1983; Hines & Boyd-Franklin, 1982; Kazdin, et al., 1997; Kazdin, 2000; Kazdin & Wassell, 1999; Kendall et al., 1991; Levin, 1996; Luk et al., 2001; Nock, 2003; Webster-Stratton, 1985, 1992; Palvuri et al., 1996; Webster-Stratton & Hammond, 1991). Notably, the two most frequently cited barriers to participation were time constraints and treatment demands. Additionally, several of the barriers discussed by mothers in the interviews were also endorsed on the Barriers to Participation Scale. Further, the number of barriers discussed in the interview was related to willingness to participate in CDI ($r = .44, p < .001$) but not belief that CDI would be effective for one's own or other children.

Interestingly, the number of specific barriers listed in interviews was not correlated with scores on the Barriers to Participation Scale. This may have been due to the smaller sample size, which reduces power to detect significance, because there was a trend toward a relationship.

Negative Emotions

Because mothers' emotional reactions to participation in CDI could also impact their willingness to participate, we inquired about the emotions they felt when they imagined participating in CDI. Mothers described feeling uncomfortable, awkward, weird, nervous, resentful, incompetent, having a "hard time," fear, anger, bored, anxious or apprehensive, dread, stress or pressure, doubtful, bad, negative, fake or insincere, drained, worried, silly, not enjoying herself because she's working so hard, humiliated, unable to do exactly as clinician, angst, afraid, repetitive, preoccupied, and impatient. As mentioned earlier, the number of distinct

emotions listed was summed with the number of barriers and negative comments to create the “Negative Judgment” score.

Quantitative Analyses of Qualitative Negative Judgments

As mentioned in earlier sections, the variable “Negative Judgments” was created by summing the number of distinct negative statements, potential barriers, and negative emotions that participants discussed in interviews.

Table 13

Means, Standard Deviations, and Ranges of Negative Judgments

Measure	Sample	Mean	(Standard Deviation)	Range of Scales (Sample)
Number of Negative Statements	Whole Sample	2.99	2.46	0 – 10
	African American	2.02	1.95	0 - 6
	Caucasian	3.80	2.70	0 – 10
Number of Specific Barriers	Whole Sample	1.20	1.31	0 – 4
	African American	0.86	1.13	0 – 4
	Caucasian	1.42	1.16	0 – 3
Number of Negative Emotions	Whole Sample	0.66	1.14	0 – 4
	African American	0.49	0.97	0 – 4
	Caucasian	0.65	0.92	0 – 3
Total Negative Judgments	Whole Sample	4.91	3.74	0 – 15
	African American	3.67	3.15	0 – 11
	Caucasian	5.95	3.82	0 – 15

Pearson Chi-Square analyses were conducted to determine whether there were differences between groups in terms of kinds of negative judgments discussed. Four of the judgments were found significantly more frequently in the interviews of Caucasian mothers than those of African American mothers. These were “too much praise,” ($X^2 = 12.39, p < .001$), “insincere,” ($X^2 = 4.50, p < .05$), “The mother was too enthusiastic/ “cheesy,” ($X^2 = 9.67, p < .01$), and “Overly attentive,” ($X^2 = 6.53, p < .05$).

The relations between demographic variables, other dependent variables, and outcome variables were also investigated. Interestingly, six factors were related to the number of distinct negative statements made by mothers, two of which are contrary to the first hypothesis. These two factors were race and annual income. Both Caucasian mothers and mothers with higher annual incomes tended to list significantly more distinct negative judgments of CDI than did African American mothers and mothers with lower annual incomes. Among parenting styles, only authoritative parenting was negatively correlated with negative judgments. Problem severity was related to judgments such that those who experienced their child as having more severe problems made more negative comments than those who experienced their child as having less severe problems. Perceived influence was related to negative judgments in that mothers who perceived themselves as having more influence over their children were less likely to have negative judgments of CDI than were mothers who felt they had less influence over their child. Mothers who perceived fewer barriers to treatment participation were less likely to make negative statements than were mothers who experienced more barriers.

Bivariate analyses were conducted on the top three negative comments (Not Enough, Too Much Praise, Not Me) and the three outcome variables (Willingness to Participate, Belief in Effectiveness for Own Child, Belief in Effectiveness for Tape Child). The most common

negative judgment, “It’s not enough,” was negatively correlated with belief that CDI is effective for the child on the tape ($r = -.39, p < .001$). The next most common negative judgment, “Too much praise,” was negatively correlated with willingness to participate ($r = -.32, p < .01$). The third most common judgment, “It’s not me,” was negatively related to both the belief that CDI is effective for the child on the tape ($r = -.24, p < .05$) and willingness to participate ($r = -.26, p < .05$).

To better understand these findings, mothers’ ethnicity was examined in relation to these qualitative statements. Caucasian mothers overall had many more negative judgments of CDI than did African American mothers. More specifically, they were significantly more likely than were African American mothers to state that CDI involves too much praise, that it is insincere, that it is overly enthusiastic and too cheesy, and that the mother is overly attentive of the child. Further, the most prevalent negative judgments of African American mothers were, “It is not enough,” “Does not fit well with my child/my child would not like it,” and “It is not me.” The most prevalent negative judgments for Caucasian mothers were, “Too much praise,” “The mother was too enthusiastic/cheesy,” and, similar to African American mothers, “It is not enough,” and “It is not me.”

Factors that facilitate participation in CDI

Mothers also listed circumstances under which they would be more likely to participate in CDI. These included an absence of the barriers listed above, as well as other circumstances listed on Table 14. Additionally, one mother noted she would be more likely to attend if she received a tangible incentive, and one mother noted she would be more likely to participate if she had more information. One mother stated she would be more likely to participate if other children could be involved, and one mother stated she would be more likely to participate if it

took place in different settings or could involve other caregivers. Given that many of these items reflect simply an absence of barriers, it is reasonable to assume that they could be obstacles to mothers seeking help for their children if they felt it was needed.

Table 14.

Frequency of “Would Facilitate” Comments

	Number Participants Citing
Lower severity of child’s problems	24
Confidence in treatment effectiveness	24
Fewer treatment demands	17
Fewer time constraints/ more flexible scheduling	14
Fits well with parenting style	9
Will do anything as “last resort”	8
Belief in parenting programs in general	6
More interaction	5
More educational or corrective	4
Different activity	4
Spousal support	4
Trust in the system	3
Less fear of evaluation	3
Affordable	3
Closer to home	3
More elaboration of mother to child	3
Childcare provided	2
Fewer demands from other children	2
Won’t hurt anything	2

Curvilinear relationships

It was hypothesized that there would be a curvilinear relationship between parenting sense of competence and problem severity such that both very high scores and very low scores would predict greater problem severity. This was addressed by examining the correlations between the problem severity scale (ECBI) squared, parenting sense of competence, and perceived influence. The relationship between problem severity squared and parenting sense of competence was strong ($r = -.42, p < .001$), as was the relationship between problem severity squared and perceived influence ($r = -.44, p < .001$). Thus, the hypothesis was supported.

These relationships were also examined separately by race. For African American mothers, the relationship between problem severity squared and parenting sense of competence was strong ($r = -.47, p < .001$). However, the relationship between problem severity squared and perceived influence was nonsignificant. Conversely, for Caucasian mothers, the relationship between problem severity squared and perceived influence was quite strong ($r = -.62, p < .001$) and the relationship between problem severity squared and parenting sense of competence was nonsignificant.

Specific Barriers

As mentioned previously, the Barriers to Participation Scale had subscales identifying specific types of barriers, including time/transportation/money, personal or family obstacles, health or mental health, spousal support, relevance or trust in the program, and treatment demands. Again, higher scores on the barriers scale indicate that mothers perceive these items as less of a barrier. Relationships between specific barriers, demographic variables, other dependent variables, and outcome variables were investigated (see Table 15). The only relationship found in terms of demographic variables was between race and perception of health or mental health as

a barrier, with Caucasian mothers being less likely than African American mothers to perceive health or mental health as a barrier. Annual income was not related to any barrier. Problem severity was related to time/ transportation/money, personal or family obstacles, health or mental health, and relevance or trust such that those who endorsed greater problem severity were more likely to perceive these as barriers.

Table 15.

Correlation Matrix for Specific Barriers and Predictor and Outcome Variables – Whole Sample

	Time/Transportation/Money	Personal or Family Obstacles	Health or Mental Health	Spousal Support	Relevance or Trust	Treatment Demands	Total Barriers Score
Race	.10	.05	.26**	-.06	.09	.12	.16
Annual Income	.12	.02	.18 [†]	-.03	-.05	.05	.07
Authoritative	.20 [†]	.29**	.26*	.24*	.23*	.31**	.30**
Authoritarian	-.10	-.04	-.04	.03	-.02	-.03	-.04
Permissive	-.07	-.02	-.12	.10	-.01	.01	-.03
Physical Discipline	-.08	-.00	-.08	.07	-.00	-.00	-.03
PSOC	.08	.19 [†]	.10	.08	.18 [†]	.10	.15
Influence	.10	.22*	.19 [†]	.14	.23*	.30**	.24*
ECBI	-.30**	-.26*	-.24*	-.13	-.25*	-.19	-.28**
Effective for Child on Tape	.18 [†]	.23*	.25*	.28**	.26*	.19 [†]	.27**
Effective for Own Child	.27*	.14	.28**	.12	.12	.11	.21 [†]
Willingness to Participate	.41***	.42***	.28**	.39***	.40***	.45***	.45***

Notes. African American = 0, Caucasian = 1

* $p < .05$. ** $p < .01$. *** $p < .001$. [†] $p < .10$.

Regarding specific barriers and parenting variables, perceived influence was related to personal and family obstacles, relevance and trust, and treatment demands such that mothers who perceive themselves as more influential over their children were less likely to perceive these as barriers. There were no significant relationships between parenting sense of competence and any of the specific barriers; however, there were trends toward mothers who felt more efficacious being less likely to perceive personal and family obstacles and relevance or trust in the system as barriers. Authoritative parenting was significantly related to nearly all of the specific barriers with the exception of time/ transportation/money being only a trend. Authoritarian and permissive parenting styles were unrelated to specific barriers.

With regard to outcome variables, each specific barrier was strongly related to willingness to participate, meaning that if a mother did not perceive them as barriers, she was more likely to participate. Specific barriers that were related to how effective a mother thought CDI would be for her own child included time/transportation/money and health and mental health. Specific barriers that were related to how effective a mother thought CDI would be for the child on the tape included personal or family obstacles, health and mental health, spousal support, and relevance and trust.

To determine whether the specific barrier of perceived relevance accounted for the greatest amount of variance of willingness to participate, a regression analysis was conducted. To control for annual income and problem severity, they were entered first, followed by all of the specific barriers concurrently. Along with annual income ($\beta = -.18$, $R^2 = .03$, $p = .08$) and problem severity, ($\beta = -.24$, $R^2 = .05$, $p = .02$), time/transportation/money ($\beta = .26$, $R^2 = .18$, $p = .05$) was the only barrier to predict Willingness to Participate significantly. Thus, this exploratory hypothesis was not supported.

Bivariate relations.

Correlations between all variables were analyzed for significant relationships (see Table 16 in Appendix C). With regard to demographic and control variables, race, annual income, and problem severity were positively related to negative judgments of CDI such that Caucasian mothers, mothers with higher annual incomes, and mothers who perceived their children as having more frequent and severe behavioral problems were more likely to have negative judgments of CDI. Additionally, problem severity was negatively correlated with authoritative parenting, perception of fewer barriers, belief that CDI would be effective for the child on the tape, and willingness to participate. It was strongly positively related to permissive parenting and use of physical discipline. Further, single mothers tended to endorse more authoritarian and permissive parenting items, were more likely to report using physical discipline, and reported feeling less efficacious than did mothers who did not identify as single parents. Race and annual income were both related physical discipline such that White mothers and mothers with higher annual incomes were less likely to report use of corporal punishment than were African American mothers and lower income mothers.

With regard to parenting variables, not surprisingly, there were relationships between parenting styles and use of physical discipline. Authoritarian parenting style and use of physical discipline were strongly positively related, authoritarian and authoritative parenting styles were negatively related, authoritative parenting style and use of physical discipline were negatively related, and permissive and authoritative parenting styles were negatively related. However, there were unexpectedly strong positive correlations between authoritarian and permissive parenting and between permissive parenting and use of physical discipline. This should be interpreted with caution as the reliabilities for permissive parenting and corporal punishment

were merely acceptable. Finally, the perception of fewer barriers was positively correlated with authoritative parenting.

With regard to parenting variables, barriers, and outcome variables, reported use of authoritative parenting practices, perceived influence, and the perception of fewer barriers were all positively correlated with willingness to participate, and negatively associated with negative judgments. As expected, parenting sense of competence was positively correlated with perceived influence. There were strong negative correlations between parenting sense of competence and permissive parenting and reported use of physical discipline. Perceived influence was negatively related to permissive parenting and positively related to authoritative parenting. It was also positively related to the perception of fewer barriers as measured by the Barriers to Participation Scale and negatively correlated with the number of distinct barriers discussed in the interviews ($r = -.29, p < .01$). Further, reported use of authoritative parenting, parenting sense of competence, and perception of fewer barriers were positively correlated with the belief that CDI would be effective for the child on the tape. Only perceived influence was positively related to the belief that CDI would be effective for one's own child.

Next, to obtain a better understanding of relationships by race and to determine whether significantly different relationships existed, bivariate analyses were run for African American mothers and Caucasian mothers separately. Using a Fisher's z transformation to compare correlations and having sample sizes of 41 and 43, there would need to be a correlational difference of approximately .44 between the groups, with one correlation significant and the other not, to report that the correlations are statistically significantly different from each other (Fisher, 1921). As can be seen on Table 17 in Appendix C, few relationships met these criteria. For African American mothers only, permissive parenting was strongly related to physical

discipline, and authoritative parenting was positively related to the perceived effectiveness of CDI for the child on the tape and mothers' willingness to participate in CDI. For Caucasian mothers only, single parent status was positively related to problem severity, and the belief that CDI would be effective for their own child was strongly related to mothers' willingness to participate in CDI.

CHAPTER 4: DISCUSSION

The purpose of this study was to investigate the impact of parenting styles, perceived sense of competence and influence, problem severity, and perception of barriers on mothers' judgments of the parenting behaviors required by CDI, their belief that CDI would be effective for their own and other children, and, ultimately, their willingness to participate in CDI if their children were experiencing behavioral problems.

Cultural Differences in Parenting Practices

The first hypothesis, that African American mothers' parenting styles would be less authoritative, more authoritarian, and more accepting of physical discipline than those of Caucasian mothers, was not supported. This finding contradicts researchers who have found cultural differences in parenting practices, regardless of SES (Deater-Deckard et al., 1996; Deater-Deckard & Dodge, 1997; Flynn, 1998; Korbin, Coulton, Lindstrom-Ufuti, & Spilsbury, 2000). One possible explanation is that African American mothers may have been less willing to report utilizing authoritarian parenting practices, including physical discipline, to a Caucasian researcher. This issue will be further discussed in the limitations section. Another possible explanation may be that annual income contributes more to parenting practices than previously thought. Middlemiss (2003), in a study comparing the parenting practices of low income African American mothers with those of low income Caucasian mothers, found very few differences in the self-reported parenting practices of these groups, suggesting that income may be more important than culture with regard to parenting practices. This finding is consistent with that of the present study. Others have found racial differences in authoritarian parenting to be present but marginal (Odubote, 2008).

Parenting Sense of Competence

The second hypothesis was that parenting sense of competence and perceived influence over behavior would positively predict mothers' willingness to participate in CDI and their expectations about the effectiveness of CDI in helping their own and other children, but that this relationship would be moderated by mothers' parenting style. This hypothesis was not supported.

After controlling for problem severity and annual income, influence did not predict the belief that CDI would be effective for one's own or other children, negative judgments, or willingness to participate. Additionally, authoritarian parenting did not moderate these relationships. Further, after controlling for problem severity and annual income, parenting sense of competence also did not predict the four outcome variables, and authoritarian parenting did not moderate these relationships either. These findings are surprising given that the techniques utilized in CDI contrast so sharply with authoritarian parenting. It also seems counterintuitive that parenting sense of competence and influence would not predict willingness to participate, and it contradicts the research of others (Spoth & Conroy, 1993), who found parenting self-efficacy to be associated with parental efforts to educate themselves about parenting.

Others have found results similar to those of this study, including McCaa (1998), who found that parenting self-efficacy was not related to premature termination from a PCIT group therapy. Possible explanations may be that mothers feel that they would be willing to try anything, even if they do not believe they have much influence over their children or much belief in their own parenting competence. The prevalence of comments stating, "I'd do anything if my child needed it" and "This would be my last resort" support this idea. Mothers may expect that their influence over their children will increase once they learn the skills taught in the program, and so lower levels of influence would not deter them from trying. Previous researchers have

found that participating in treatment programs does, in fact, increase parents' perceived influence over their children (Boggs et al., 2004; Schuhmann et al., 1998). These studies differ from the current study in that they assess parenting sense of competence after treatment completion, not exclusively prior to treatment.

Parenting sense of competence was related to several variables, including perceived influence, as expected. It was also related to problem severity and a belief that CDI would be effective for the child on the tape. However, parenting sense of competence was unrelated to mothers' perceptions that it would be effective for their own child or their willingness to participate in CDI. Perceived influence was related to problem severity, the perception of fewer barriers, fewer distinct barriers discussed in the interview, a belief that CDI would be effective for one's own child, fewer negative judgments, and willingness to participate. The discrepancy between the relationships in which these two constructs are involved support an important distinction between these constructs, which will be discussed in more detail later in this section.

The first exploratory hypothesis investigated perceived parenting sense of competence and influence for African American and Caucasian mothers. It was expected that both very high and very low parenting sense of competence scores would predict problem severity scores. This hypothesis was supported. Interestingly, while no significant differences were found between groups on parenting sense of competence and perceived influence, different relationships were found between parenting sense of competence and problem severity for African American mothers and Caucasian mothers. For African American mothers only, a curvilinear relationship was found between parenting sense of competence and problem severity. For Caucasian mothers only, a curvilinear relationship was found between perceived influence and problem severity. In other words, very high and very low parenting sense of competence scores are related to problem

severity for African American mothers, and very high and very low perceived influence scores are related to problem severity for Caucasian mothers. Furthermore, scores on the Perceived Influence Scale and PSOC are unrelated for African American mothers. These findings further support parenting sense of competence and perceived influence over child's behavior being separate constructs and the hypothesis that they vary in importance for African American and Caucasian mothers.

The different relationships found for parenting sense of competence and perceived influence highlight the distinction between these constructs. Examples of items on the Perceived Influence Scale include, "How much do you think you can do now to get this child to follow directions, to increase this child's interest in educational activities (like reading at home, preschool, etc.)." Examples of items from the PSOC include, "Even though being a parent could be rewarding, you are frustrated now while your child is at his/her present age; Being a parent makes you tense and anxious; and, You meet your own personal standards for the care you think your child should receive." While the Perceived Influence Scale measures a mother's belief in her power over her child's behaviors, the PSOC measures feelings of efficacy and satisfaction. The items on the perceived influence scale pull for more cognitive responses and the items on the PSOC pull for more emotional responses. This explains why parenting sense of competence is not related to the same variables as perceived influence. For example, one possible explanation for the lack of relationship between parenting sense of competence, belief in effectiveness of CDI for one's own child, and willingness to participate is that two different patterns might exist concurrently. Mothers with lower perceptions of parenting sense of competence may recognize that CDI could work for another child, but their own emotional barriers prevent them from seeing how it could be effective for their own child or how they could possibly implement it in

their own families. Simultaneously, mothers with higher perceptions of parenting sense of competence may believe that their parenting methods are best and view any parenting method different from their own to be inferior, leading them to be less willing to participate because they believe that CDI would not be as effective for their child as their own method. If both higher and lower parenting sense of competence lead to willingness to participate, the end result would be that a significant relationship in either direction could not exist, or that a curvilinear relationship between PSOC scores and willingness to participate would be present. While PSOC scores and willingness to participate do not have a significant curvilinear relationship, a greater sample size may have revealed such a relationship.

Additionally, while only anecdotally relevant, when answering questions on the perceived influence scale, several African American mothers made comments such as, “Well, I can’t be with my child all day, some of these are the responsibility of the teacher.” This statement reflects a different understanding of the function of parenting, the process by which parents help children to internalize parental messages of right and wrong such that they generalize across time, place, and in whose company the child is present. The responses to the Perceived Influence scale for these mothers may reflect their delegation of the control of their child to whichever adult is with the child (for example, How much do you think you can do now to get this child to stay out of trouble in preschool or daycare?). However, the items on the PSOC ask directly about emotions related to parenting and beliefs about one’s own abilities to parent. Perhaps the reason for the lesser impact of perceived influence for African American mothers is that African American parents tend to be more authoritarian and often rely on the extended kin and neighborhood “family” (Hurd, Moore, & Rogers, 1995). In other words, because African American mothers tend to have systems of related and unrelated people on whom they can rely to help care for their

children, and because they have imparted to their children the importance of obeying authority through their parenting style, they trust that whichever adult is with the child will be in control of that child's behavior. As such, they may believe it is unnecessary that their children internalize their expectations for appropriate behavior such that it will travel with the child across places and situations. This could explain the differing relationships between perceived influence and problem severity for Caucasian mothers and parenting sense of competence and problem severity for African American mothers.

Overall, it is important for mothers to feel efficacious in their parenting in order to view CDI as effective for children in general. However, and more clinically useful, it is important for mothers to feel influential over their children's behavior in order to perceive CDI to be effective for their own child, to hold fewer negative judgments of CDI, and to be willing to participate.

Parenting Styles

The third hypothesis was that authoritarian parenting would mediate the relationships between race and negative judgments of CDI. This hypothesis was not supported. Although race was related to negative judgments of CDI, authoritarian parenting was not. Again, this is surprising given the discrepancy between the parenting behaviors prescribed by CDI and this parenting style. It appears that annual income was a more powerful factor in predicting many of the outcome variables, including negative judgments of CDI. This issue will be discussed in more detail in the qualitative analyses section.

Additional analyses involving parenting practices were explored. Authoritative parenting was positively associated with willingness to participate in CDI, belief that CDI would be effective for the child on the tape, perception of fewer barriers to treatment, greater perceived influence over children's behaviors, and negatively associated with problem severity, and

negative judgments of CDI. It also predicted willingness to participate. Authoritarian parenting was related to physical discipline and problem severity, and was negatively related to parenting sense of competence and perceived influence. Permissive parenting was related to use of physical discipline as endorsed by mothers and problem severity and was negatively related to sense of competence and perceived influence over child's behaviors.

This is not surprising given that CDI clinicians promote the authoritative practices and advise against authoritarian practices. These findings are consistent with others who have found certain parenting behaviors during parent child interactions to predict treatment drop-out and negative outcomes, such as criticism and sarcasm (Weirba et al., 2006), yelling, saying mean things, giving in, not following through on warnings, coaxing, begging, lecturing, giving multiple warnings or reminders (Hoza et al., 2000), and overall observed parent negativity (Webster-Stratton, 1996).

The parenting styles were related to each other as well. Authoritative parenting scores were negatively related to authoritarian parenting and permissive parenting scores. Surprisingly, authoritarian and permissive parenting scores were positively related to each other. This finding is unexpected given Baumrind's (1966) conceptualization of the different parenting styles, which indicates that authoritarian parenting includes more demands and control and less nurturance, responsiveness, and warmth, and permissive parenting is just the opposite, with more nurturance, responsiveness and warmth, and less demands and control. Again, this finding should be interpreted cautiously given the low reliability of the permissive scale.

However, interestingly, none of the parenting styles were related to mothers' beliefs that CDI would be effective for their own child in this study. This may have been due to mothers feeling that their child was very different from the child on the tape, or it may have been a

byproduct of mothers' feelings of discomfort when imagining performing CDI. For instance, they might believe that CDI could work for that little girl, but because they cannot imagine themselves doing it with their own child, they cannot imagine that it would be very effective. Supporting these suppositions is interview data in which over 25% of the mothers stated that they do not believe that CDI would work because "that child [in the video] is unrealistic," or that they would feel uncomfortable engaging in CDI because it is "not me."

Barriers

Barriers was a very significant factor; in addition to predicting willingness to participate, the perception of barriers predicted the belief that CDI would be effective for the child on the tape, the number of distinct negative judgments discussed in the interview, and perceived influence over the child's behaviors. These are significant findings, as Boggs and others (2004) found that barriers such as being unable to find childcare or transportation, feeling that treatment was not progressing quickly enough, and disliking the treatment approach accounted for much of the attrition in a study comparing PCIT dropouts and treatment completers 1 to 3 years after treatment.

Perceived barriers from the Barriers to Participation scale were divided into different types, and relationships were investigated by type of barrier. These types were time/transportation/money, personal or family obstacles, health or mental health, spousal support, relevance or trust in the program, and treatment demands. It was expected that perceived treatment relevance would best predict willingness to participate of all of the specific barriers from the Barriers to Participation Scale. This was not supported. The perception of fewer barriers predicted willingness to participate; however, time/transportation/money, not perceived relevance, accounted for most of the variance among specific barriers. This makes sense as lack

of time, inability to find transportation, and limited finances could inhibit people from participating, regardless of how much they wanted to participate or how effective they thought treatment might be.

Several additional interesting relationships were found. First, many specific barriers were related to problem severity, including time/transportation/money, personal or family obstacles, health or mental health, and relevance or trust. This is consistent with others who have found barriers related to problem severity (Kazdin, 1993). Second, many barriers were also related to perceived influence over children's behavior. These included personal or family obstacles, relevance or trust, and treatment demands. These relationships are intuitive. For example, if a family is experiencing trouble in many areas, they may feel less influential over their children's behavior. If a parent feels unable to do the work required of a treatment program, he or she may feel unable to do what is necessary to shape his or her children's behaviors. Interestingly, no barriers were significantly related to parenting sense of competence. A larger sample may have revealed a relationship between parenting sense of competence and personal or family obstacles and relevance or trust given that these variables showed trends toward relationships; however, this cannot be concluded with certainty.

Another interesting finding is that the barriers that are related to the belief that CDI would be effective for the child on the tape are not the same as those related to the belief that CDI would be effective for one's own child. In fact, only one barrier, health or mental health, is common between the two. Perhaps if a family is experiencing health or mental health problems, they would find it nearly impossible to perform CDI to the standard required, and, therefore, would be unable to view it as effective for anyone. Another interesting finding was that authoritative parenting was associated with nearly all of the specific barriers in that the more a

mother endorsed use of an authoritative parenting style, the less likely she was to perceive each of the barriers as barriers for her. The least surprising finding of all the specific barriers is that each is strongly related to willingness to participate.

Qualitative Interviews

The third hypothesis proposed that African American mothers would judge CDI more negatively than would Caucasian mothers, but that this relationship would be mediated by parenting style. This hypothesis was rejected and the opposite was true; Caucasian mothers provided significantly more distinct negative judgments about CDI than did African American mothers. However, while this relationship was shown in bivariate correlations, investigation of ANOVAs controlling for annual income and problem severity demonstrated that these factors better explained the differences found. Furthermore, there were no differences between groups in terms of willingness to participate. This finding is similar to those of previous researchers who found that demographic variables did not predict treatment drop out (Boggs et al., 2004; Capage et al., 2001; Fernandez, 2005; Werba, 2006). For example, Fernandez (2006) compared African American and European American mother-child pairs on maternal symptomatology, parenting stress, maternal report of child disruptive behaviors, treatment dropout, and number of treatment sessions for those who completed treatment. Although she found no differences in attrition, she did find that of the families who completed treatment, African American families remained in treatment significantly longer than did European American families. Conversely, the research of others is inconsistent with these findings. For example, Armbruster and Schwab-Stone (1994) found that minority status was related to premature treatment drop-out. Kazdin et al. (1995) found that African American families dropped out of treatment more frequently and earlier than

did Caucasian families and that ethnicity contributed to treatment drop out even after demographic factors were controlled.

Although higher annual income and cultural majority status were strongly correlated with the qualitative negative judgments of CDI, they were not related to willingness to participate. One would expect that given these relationships, cultural majority status would be strongly related to being unwilling to participate. A possible explanation may be that for African American mothers, there are factors outside of income, such as lower relevance of treatment given their different parenting practices, which prevent them from being willing to participate in CDI, and that these factors cloud the strong relationship that would be expected for Caucasian mothers. However, this supposition is speculative and further research is needed to untangle these factors.

It is possible that although African American mothers endorsed fewer distinct negative statements about CDI, the significance of those few statements is unequal. For instance, a Caucasian mother may have listed 6 different reasons why CDI would not work for them and an African American mother may have listed 1 reason, but if that 1 negative judgment is extreme, nonnegotiable, or unmanageable, it may have had equivalent weight to the 6 negative judgments listed by the Caucasian mother. Unfortunately, the strength or importance of these negative judgments was not queried, so mothers' ratings of their beliefs about effectiveness and willingness to participate cannot indicate the strength of their negative judgments.

Further, and unexpectedly, Caucasian mothers overall had many more negative judgments of CDI than did African American mothers. They were significantly more likely than were African American mothers to state that CDI involves too much praise, that it is insincere, that it is overly enthusiastic and too "cheesy," and that the mother is overly attentive to the child.

Additionally, the most prevalent negative judgments of African American mothers were, “It is not enough,” “Does not fit well with my child/my child would not like it,” and “It is not me.” The most prevalent negative judgments for Caucasian mothers were, “Too much praise,” “The mother was too enthusiastic/cheesy,” and, similar to African American mothers, “It is not enough,” and “It is not me.” One explanation for these differences could be that Caucasian mothers may have felt more comfortable giving specific and sometimes quite negative responses, such as “It’s phony and insincere,” whereas African American mothers cautiously tended toward more general responses that do not necessarily carry a negative connotation, such as “my child would not like it.” Social desirability may have been a greater factor for African American mothers, given that the person interviewing them was of a different race. The potential effects of social desirability are further discussed in future sections.

Additionally, mothers listed several things that would facilitate their participation in CDI or that would improve CDI, including a lack of the barriers mentioned above, as well as having a belief that parenting programs generally work, or at least are not harmful, changing the structure of the setting or changing the nature of the activity itself, inclusion of other adults or other children, increased interaction and elaboration between adult and child, and greater educational value. Many of these suggestions are reasonable, and methods of addressing these will be discussed in the next section.

Implications

Based on the survey findings regarding mothers’ perceptions of their ability to influence their child’s behavior, their reported barriers to participation, mothers’ negative judgments, their stated barriers in the interviews, their opinions about what would improve CDI, and their thoughts about what would make them more likely to participate in CDI, several

recommendations can be made. First, because mothers' perception of themselves as influential over their children's behavior was related to the outcome variables most important to increasing treatment acceptability (belief that CDI would be effective for one's own child, fewer negative judgments, and willingness to participate), interventions targeting mothers' perceptions of influence may be introduced early in the CDI phase of treatment, or even before beginning CDI with the child. Although PCIT has been found to improve parental locus of control over the course of treatment (Eisenstadt et al., 1993; Eyberg et al., 1995; Nixon et al., 2003; Querido & Eyberg, 2003; Schuhmann et al., 1998), it may be beneficial to introduce specific interventions early on to increase acceptability, adherence, and ultimately completion. For example, therapists may screen for parental perception of influence early on and recommend individual treatment for parents with particularly low scores, perhaps depressed parents. Additionally, therapists may incorporate the use of video recording in early sessions to point out instances in which she was particularly influential - her child behaved as she requested, she showed assertive, authoritative parenting successfully, she knew better than the therapist what calmed her child, what motivated her child, or any other positive parenting skill. Another idea might be to provide psychoeducation about one of the purposes of parenting being to help children internalize their parents' values and expectations such that they can go from place to place, at different times and with different people, and still behave appropriately, which would ultimately emphasize the great influence parents actually have over their children. Certainly other ideas for increasing parental perceptions of influence can be developed, and this may be an area for future research.

Moreover, as will be discussed in a following section, if future studies determine that CDI is as effective with modified components, it may be helpful to do so in order to retain families in treatment. For example, many mothers indicated that the level of enthusiasm made

them uncomfortable and they did not believe that they would be able to perform CDI as enthusiastically as the mother in the video did. Related to this, many mothers felt that CDI uses too much praise and that it is disingenuous. In a therapy setting, this may eventually lead to parents deciding to drop out of treatment rather than trying it with their own style. While it is unclear whether a more low-key delivery of CDI would be effective because of the lack of research on this topic, it would likely still be more effective than nothing at all. Furthermore, parents may feel better about praising if they do it in a more genuine way and deliver their praise with more enthusiasm and meaning if they are not worried about meeting a quota of statements. A similar argument could be made about eliciting more interaction from the child. While parents are instructed to avoid questions, the lack of questions may not be a key mechanism in the change process; therefore, if it increases parent satisfaction and treatment acceptability, perhaps it can be modified. Again, any modifications of the components of PCIT would require careful study utilizing randomized controlled trials, but it is worth consideration.

Perhaps the most important strategy for increasing treatment acceptability is to address barriers to participation. Many mothers noted barriers to treatment participation in their interviews, and reported barriers were related to and predictive of outcomes such as belief in treatment effectiveness for their own and other children, negative judgments of CDI, and willingness to participate. Several strategies may be employed to address barriers to participation. For example, some have found it beneficial to attend to the parents' motivations and cognitions relevant to the intervention before beginning treatment (Foote et al., 1998; Kazdin, 1990; Kazdin & Mazurick, 1994; Kazdin et al., 1997; Miller & Prinz, 2003; Nock, 2003; Nock & Kazdin, 2001). Because parents' pre-intervention expectations affected their experience of barriers and treatment participation, Nock and colleagues (2001) suggest assessing family,

parent, and child characteristics prior to treatment to gain information about which families may have low expectancies for therapy and may benefit from interventions aimed at modifying their expectancies. Families with severely dysfunctional children may benefit from interventions that provide information about expected rate of change and degree of improvement. Economically disadvantaged families may find the treatment less credible and may benefit from interventions that target treatment credibility.

To address treatment relevance barriers, it may be useful to assess the parents' discipline techniques prior to therapy and to incorporate their concerns into treatment, particularly when working with African Americans. Given the importance of authoritative parenting practices in willingness to participate and many other variables, guiding parents toward more authoritative parenting is paramount. In cases where families utilize physical discipline as their primary strategy, it is recommended that parents be provided with psychoeducation about the advantages and disadvantages of physical discipline. The therapist should validate the parents' reasons for using corporal punishment (Dodge et al., 2005) but encourage them to consider alternative methods. If parents are skeptical of these different disciplining strategies, the therapist may specify a set amount of time for the parents to try it before rejecting it, at which point a different treatment strategy may be selected if the child is not improving or the parents are not satisfied. Above all, it is important to avoid demeaning or derogating the family as this will likely increase suspicion toward the therapist, thwart the joining process, and breach the therapeutic alliance.

Pretreatment assessment of expectations, functioning, and discipline provides the therapist with important information. If problems are present, assessment reveals how they may interfere with the parents' ability to participate in treatment, how to intervene, and whether pretreatment intervention in one or more domains may benefit the family (Foote et al., 1998;

McNeil & Herschell, 1998). Understanding that SES could be more relevant than race is important in that it would suggest that directing pretreatment interventions toward economically disadvantaged families is equally as important as directing them toward cultural minority families. Intervention with parents' problems may be incorporated into the therapy agenda if their difficulties are directly related to the child's behavior problems, or, if parents' difficulties are chronic or severe, the parents should receive treatment before beginning therapy. In this way, they may reduce the impact of health or mental health barriers.

Another strategy to address treatment barriers is to collaborate with the parents throughout the program. Collaboration with the families allows the therapist to help problem solve practical obstacles with the family and also builds a relationship with the family, while avoiding "telling [them] what to do." For example, Prinz and Miller (1994) found that families that were given the opportunity to discuss other life issues outside of parent training dropped out less often than did those who exclusively discussed parent training, suggesting that allowing families to address other issues as they arise promotes greater treatment satisfaction and retention of clients.

Collaboration in treatment is particularly important for African American families. The therapist should not hesitate to address the family's experiences of racism, their concerns about single parenting, their fears about potential substance abuse in their child's future, and their motivation to instill ethnic pride. Therapists who ignore these concerns may be seen by the family as dismissive and not understanding of the family's experiences. As mentioned previously, the father is often important but difficult to engage. Foote et al. (1998) recommends engaging the father by soliciting his perspective, reinforcing his concerns, and emphasizing the importance of his participation, since families are less likely to drop out when both parents

participate. Collaboration with parents during the course of therapy helps parents feel heard and understood, building trust in the relationship, especially when the therapist acts on the family's concerns.

Increasing treatment flexibility may improve treatment compliance (Kendall & Southam-Gerow, 1995). Prinz and Miller (1991) suggest home-based interventions, provision of transportation, flexible hours, and greater sensitivity to cultural variation to keep families in therapy. Treatment flexibility can come in the form of treatment sequence (Eisenstadt et al., 1993), treatment components (Coard et al., 2004), treatment setting (Foote et al., 1998; Henggeler et al., 1996), or treatment modality (McKay et al., 1995, 1999, 2002; Stone et al., 1996). For example, clinicians might alter the sequence of a therapy intervention if, after assessment, they believe the family would benefit more from transposed steps. Greene et al. (2004) compared a highly manualized treatment program with a more flexible, individualized treatment program and found that families' satisfaction with the tailored treatment contributed to treatment gains. Eisenstadt et al. (1993) found that families who received PDI before CDI showed faster behavioral improvements and lower levels of parent reported conduct problems than families who received CDI first. As mentioned previously, PDI is the portion of treatment in which parents are giving commands and delivering consequences. This may be more acceptable to economically disadvantaged families who are struggling to adopt a more authoritative than authoritarian parenting style because it is a smaller departure from their normal style. As mentioned by Boyd-Franklin, rapid success lends credibility to the therapist and promotes participation in treatment. Success early on may instill hope in the treatment, assuage fears about relinquishing power, decrease resistance to participating in CDI, and lead to better outcomes overall for the family. This alternative would likely be beneficial to mothers who stated that a

lack of confidence in the treatment effectiveness would prevent them from attending, as well as those who felt that CDI “is not enough.”

Overall, addressing parents’ perceptions of influence, specific barriers, and initial negative judgments of CDI is clinically useful in that it will likely increase treatment acceptability, treatment adherence, treatment completion, and ultimately, treatment outcomes.

Limitations

Internal validity. This research project was conducted using a correlational design, without variable manipulation. As such, inferences about causality cannot be made, and the results must be interpreted as potential relationships. For example, an interpretation of the results regarding problem severity and physical discipline might indicate that the use of physical discipline leads to more problematic behavior; however, it is also possible that greater problem severity leads to individuals losing their tempers and resorting to physical discipline. Another limitation was the omission of the child’s age. All mothers had children between the ages of 3 and 8 years old; however, 3-year-olds are quite different, developmentally speaking, from 8-year-olds. Many mothers commented on this, noting that the girl in the video was much younger than their child and that it was difficult to imagine how their 7- or 8-year-old child would react to similar circumstances. Because age of the child was not queried, it is impossible to know whether that was a predictor of mother’s willingness to participate in CDI.

Generalizability of sample. This diverse sample was drawn from several suburban cities and two major urban areas. While the sample is demographically representative of the specific areas in which women were recruited, caution should be used in generalizing from beyond these communities in southeastern Michigan. Further, the sample chosen included women who affirmed that they have a child with externalizing behaviors. However, the variance of problem

severity was limited due to the unavailability of an adequate clinical sample to compare with the community sample. It would have been advantageous to make such comparisons given that previous researchers have found that problem severity impacts treatment dropout (Kazdin, 1993) and that it correlates with parenting sense of competence (Barker & Heller, 1996; Jones, 2007). While interesting relationships were found in the present study, without a clinical sample, the variance of problem severity was limited.

Another limitation regarding generalizability was the lack of inquiry regarding mothers' employment. As mentioned previously, a large proportion of women did not disclose their profession. There may be several reasons for this omission, including unemployment, a desire for privacy, embarrassment about their employment, or lack of trust with the investigator. These factors may have contributed to outcomes and would have been useful to investigate.

A final limitation regarding generalizability was the lack of follow-up with mothers who did not attend their appointments for interviews. Although hoped for, this was unfeasible as women frequently provided their address but were unwilling to provide their phone numbers or did not have an operational phone number. Therefore, when the researcher arrived at their address for the study and no one was home or the home appeared vacant, it was impossible to contact the mother by phone to reschedule or to determine her reasons for deciding against participation. In an effort to avoid intrusiveness, the researcher did not return to these women's homes. Finding out these reasons would have been beneficial to determine whether there were any commonalities among women who changed their minds about participating.

Statistical power. Power analysis estimates indicated that the selected sample of 90 women could adequately detect a medium effect size using the hypothesized variables. However, the research could be enhanced by the use of a larger sample size, so that separate analyses of

variables could be completed for African American and Caucasian samples. It is possible that the relationships between perceived influence, parenting sense of competence, and other variables behave differently for these groups; however, there was not an adequate sample size in the current study to feel confident about the results.

Measurement. The use of self-report measures in this study is also a limitation. This research included both a quantitative survey of variables and a face-to-face interview with the participant, often in their homes. This study design was utilized to gather richer, more detailed information about beliefs about CDI, to reduce barriers to participation in the study, and for ease of data collection. However, some limitations are inherent to this type of data collection and should be discussed. First, it is likely that because of social desirability or concerns regarding confidentiality, some women underreported many things, like the number and severity of behavior problems and authoritarian parenting practices like physical discipline, and overreported others, like their perceived influence and parenting sense of competence. Behavioral observations in participants' homes would have afforded more accurate assessments of their parenting practices; however, they may still have behaved differently with an observer present.

Similarly, many women may have felt pressure to report greater acceptability of CDI than they truly felt, especially those who hosted the investigator in their homes, because of social desirability. In terms of the entire sample, it is very likely that use of physical discipline was underreported due to stigma or worry that some action might be taken. Some mothers asked repeatedly what agency the investigator represented and verified that it was not a government agency. The informed consent form explaining the child abuse reporting procedure may have deterred some mothers from fully disclosing their parenting practices.

While these issues are always important to consider, they are particularly important in this study given that the investigator, a female Caucasian graduate student, was from a different racial group than half of the participants and was frequently interviewing women in their homes. African American mothers may have felt uncomfortable disclosing their parenting practices to a Caucasian investigator, especially if they utilized more authoritarian practices and believed that the investigator would judge such practices negatively. Research has shown that expectations can affect behaviors and evaluations during cross cultural conversations (Manusov, Winechatz, & Manning, 1997). Thus, although not feasible in the present study, matching the race of the interviewer with that of the participant may have reduced this effect. For these reasons, the potential impact of social desirability should be considered when interpreting these results.

Future Directions

The initial aim of this study was to investigate the parenting styles, behaviors, and perception of barriers of African American and Caucasian mothers and to determine what effect they have on their expectations for the CDI portion of PCIT, their judgments of the parenting behaviors required by CDI, and, ultimately, their willingness to participate in CDI if their children were experiencing behavioral problems. The results of this study raise a number of important questions to be addressed by future research in this area.

The relationship between race, annual income, and judgments about CDI was contradictory to what was expected and the cause of this relationship is as yet unclear for two major reasons. First, women who have higher annual incomes discussed significantly more negative judgments of CDI than women with lower annual incomes. Additionally, having fewer negative judgments of CDI was strongly related to willingness to participate in CDI. However, annual income was not related to willingness to participate. Second, no research has been found

suggesting that having more money is a barrier to treatment. While income was controlled in many analyses of this study, if participants had been matched on income, more conclusions could be drawn. Thus, research addressing this issue is needed.

Because PCIT incorporates several features of other parenting programs discussed in previous sections, it is supposed that many of the findings of this study would generalize to these treatments as well. However, in order to draw conclusions about the acceptability of other treatment programs, a study similar to this one, but including various other empirically supported treatments, is needed. It may, for example, use the same methodology used in this study, but show participants samples of each of the ESTs described earlier in this paper, followed by interviews asking about judgments and expectations for those interventions. This would allow for defining the most and least acceptable components of treatments and provide recommendations for improving the acceptability of each.

Another question generated by this study is the significance of parenting sense of competence and perception of influence over children's behaviors. Because there is so much overlap and also so much distinction in these variables, future studies should investigate these constructs further. Additionally, as mentioned previously, interventions specifically addressing parents' perceptions of influence over their children's behaviors may be quite successful in improving treatment acceptability, completion, and child outcomes, but further study is necessary to make such conclusions.

Moreover, this study would have been more complete with some methodological changes. For instance, behavioral observations would increase confidence in mothers' reported parenting practices. The qualitative interview could be improved by including questions around the child's age, the strength of the negative judgments, and the significance of the barriers.

Mothers may have responded differently if they had only been told about CDI rather than shown CDI, as viewing a video is not typically included in a PCIT protocol and mothers had such an aversive response to the video. Additionally, if mothers who had endorsed extreme externalizing behaviors in their children were then surveyed and interviewed as in this study, then offered a course of PCIT, their responses to this offer could lend credibility to their statements regarding willingness to participate. It is possible that many who said they certainly would do it, in fact, do not agree to do it. It would also make it possible to determine whether initial treatment acceptability predicts later treatment adherence, treatment completion, and treatment outcomes.

Finally, as previously discussed, dismantling studies targeting each of the behaviors required of CDI, specific praise of desired behaviors, reflection of child's statements, inferred thoughts and emotions, imitation of child's play, description of child's activities, avoidance of commands, criticisms, and questions, all done enthusiastically, are required to determine which are imperative and which are superlative. For example, it may be that enthusiasm, while helpful in that it conveys to the child that the parent enjoys his or her company and strengthens the parent-child bond, is not a primary mechanism of change. Given that too much enthusiasm was one of the more frequently cited complaints about CDI, if it is not imperative and, in fact, decreases treatment acceptability for some families, perhaps it could be modified.

Conclusions

In sum, annual income, rather than cultural differences, explained differences in parenting practices. African American mothers and Caucasian mothers were equally willing to participate in CDI. Further, after controlling for annual income, there were no significant differences between groups in terms of negative judgments of CDI. Factors that predicted willingness to participate included authoritative parenting, problem severity, and perception of

barriers to participation. This study adds to the literature by using mothers' own words to identify threats to treatment acceptability and to recommend ways to facilitate participation. Also, it helps to further differentiate parenting sense of competence from perceptions of influence. These issues require a thorough understanding of barriers to treatment, and potential barriers to use of authoritative parenting. Moreover, further research is needed to investigate the principal mechanisms of change in CDI and the efficacy of modified PCIT that may improve treatment acceptability and, ultimately, outcomes, for all families.

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