

DIFFERENCES BETWEEN AFRICAN AMERICAN AND CAUCASIAN PARENT-CHILD  
INTERACTIONS IN A CLINICAL SAMPLE OF CHILDREN WITH DISRUPTIVE  
BEHAVIOR DISORDERS

By

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To my parents and friends who taught me to trust in God  
Without His immeasurable strength and grace, this would not have been possible.  
Philippians 4:13.

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# TABLE OF CONTENTS

	<u>page</u>
ACKNOWLEDGMENTS.....	4
LIST OF TABLES.....	7
LIST OF ABBREVIATIONS.....	8
ABSTRACT.....	9
CHAPTERS	
1 INTRODUCTION.....	11
Parenting Styles and Child Outcomes.....	11
Cultural Influences on Parenting Style.....	12
Specific Aims.....	19
Aim I.....	19
Aim II.....	20
Aim III.....	20
2 METHODS.....	21
Participants.....	21
Measures.....	22
Demographic Questionnaire.....	22
Dyadic Parent-Child Interaction Coding System (DPICS; Eyberg, Nelson, Duke, & Boggs, 2005).....	22
Diagnostic Interview Schedule for Young Children (YC-DISC; Strong, Lucas, & Lucas, 2006). ....	24
Eyberg Child Behavior Inventory (ECBI; Eyberg & Pincus, 1999).....	25
Peabody Picture Vocabulary Test - Third Edition (PPVT-III; Dunn & Dunn, 1997).....	25
Wonderlic Personnel Test (WPT; Dodrill, 1981).....	25
Procedure.....	26
3 RESULTS.....	30
Descriptive Data.....	30
Analysis of Primary Aims.....	31
Aim I.....	31
Aim II.....	32
Aim III.....	33
Post-Hoc Analyses.....	34
Power Analysis.....	34
Direct, Indirect, and Total Command Analyses.....	34

4 DISCUSSION.....	38
Interpretation of Findings.....	38
Study Limitations .....	46
Strengths and Future Directions .....	47
LIST OF REFERENCES.....	50
BIOGRAPHICAL SKETCH.....	60

## LIST OF TABLES

<u>Table</u>		<u>Page</u>
2-1	Participant demographic characteristics by self-identified race of mother .....	27
2-2	Individual DPICS category definitions.....	28
2-3	DPICS Composite Categories .....	29
3-1	Primary analyses of differences in Demandingness, Warmth and Noncompliance.....	36
3-2	Composite variables for post-hoc analyses .....	37
3-3	Post-Hoc analyses of Indirect Command Ratio and Total Command Ratio .....	37

## LIST OF ABBREVIATIONS

ADHD	Attention Deficit/Hyperactivity Disorder
CD	Conduct Disorder
CLP	Child-Led Play
CU	Clean- Up
DBD	Disruptive Behavior Disorder
DPICS	Dyadic Parent-Child Interaction Coding System
ECBI	Eyberg Child Behavior Inventory
ODD	Oppositional Defiant Disorder
PCIT	Parent-Child Interaction Therapy
PLP	Parent-Led Play
PPVT	Peabody Picture Vocabulary Test
SD	Standard deviation
SES	Socioeconomic status
WPT	Wonderlic Personnel Test

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African American cultural background has been found to influence parenting style and its effect on child behavioral outcomes such as the development of disruptive behavior disorders (DBDs). As compared to Caucasian mothers, African American mothers place a greater emphasis on respect and compliance, and this authoritarian parenting style has been shown to produce positive outcomes for children. However, very few studies have analyzed cultural differences within a clinical sample of children with DBDs, or employed an observational measure such as the Dyadic Parent-Child Interaction Coding System (DPICS) to study such differences. The DPICS examines parenting-style constructs during three play situations: Child-Led play, Parent-Led play, and Clean-Up, which represent increasing demands on the child. This study compares African American and Caucasian mothers on observational measures of warmth and demandingness, and their preschool children on an observational measure of compliance. It was hypothesized that African American mothers would display higher demandingness across situations, and lower warmth in the Parent-Led play and Clean-Up situations. It was further hypothesized that African American children would display

lower rates of non-compliance than Caucasian children. Results with 26 African American and 123 Caucasian mothers found no significant differences in maternal warmth. However, African American mothers were significantly more demanding than Caucasian mothers. Child noncompliance was not found to differ significantly between groups.

These findings provide evidence that African American mothers of children with clinically significant behavior problems express higher demandingness but equal warmth as compared to Caucasian mothers. The results represent a valuable addition to the literature on African American parenting in clinical samples and on the acceptability of parent-training programs for minority families. Additionally, these findings support a re-examination of categorical parenting style definitions, considering ecological and cultural influences on the practice and interpretation of parenting.

## CHAPTER 1 INTRODUCTION

### **Parenting Styles and Child Outcomes**

Research examining the influence of parenting practices on child outcomes has produced strong associations between parenting behaviors and academic achievement (Steinberg et al. 1989), socioemotional functioning (Dornbusch, Ritter, Liederman, Roberts, & Fraleigh, 1987; Steinberg, Elmen, & Mounts, 1989), and the development of internalizing (Rapee, 1997) and externalizing (Baumrind, 1991) disorders from young childhood into adolescence. The work of Diana Baumrind, who developed one of the most influential typologies of parenting to date, is central to the study of parenting effects on child outcomes (1967, 1991). Baumrind defined three typologies of parenting (authoritarian, authoritative, and permissive), by rating caregiving behaviors on two dimensions, warmth and control. In Baumrind's model, authoritarian parents exhibited low warmth and high control over their children, employing punitive disciplinary strategies which required obedience without explanation. Authoritative parents exhibited high warmth and high control, characterized by responsiveness, reasoning, and limit-setting strategies. In contrast, permissive parents placed few limits on the child, instead exhibiting high warmth and low control, allowing their children significantly more self-regulation. While Baumrind concluded that authoritative parenting was associated with positive outcomes including academic and social competence (Maccoby & Martin, 1983; Steinberg, 1990), her research suggested that authoritarian and permissive parenting negatively impacted child development, limiting the child's independence, social competence, and creativity (Baumrind, 1967, 1971). Baumrind's research introduced

the conceptualization of authoritative parenting as most beneficial for healthy child development.

### **Cultural Influences on Parenting Style**

Though the three prototypic patterns of parenting identified by Baumrind are the foundation for much of the literature on caregiving, the majority of the research on the influence of parenting styles on child outcomes was conducted with European American populations (Lin & Fu, 1990). The generalizability of these effects in diverse populations has been challenged, as cross-cultural differences in parenting have been found. Culture, the shared attitudes, beliefs and values transmitted among members of a society, influences the way in which parenting is conceptualized and performed among members of that society (Harrison, Wilson, Pine, Chan, & Buriel, 1990). Furthermore, culture determines the manner in which parenting practices are interpreted and internalized by children, moderating their effect on child outcomes. Other variables inherent in the relationship between culture and parenting behaviors are contextual influences often shared by members of the same cultural background such as prejudice, discrimination, social status, acculturation, family structure, and cultural history (García Coll et al., 1996). These variables and others comprise the meaning system from which parents and children interpret parenting styles and practices (Kagitçibasi, 1996). For instance, Baumrind noted that African American girls with authoritarian parents exhibited the highest self-confidence and independence (1972). In African American culture, parenting characterized by high control and harsh discipline is not necessarily interpreted by children as a lack of warmth and concern from their parents (Hill & Bush, 2001). In contrast, physical discipline and control may be associated with parental responsibility and involvement. Brody and colleagues defined this “no nonsense” style

of parenting, and found it to be predictive of positive child outcomes (Brody, Flor & Gibson, 1999).

African American culture maintains many traditional African ideas and values concerning child-rearing practices, such as respect of elders, and strict behavioral control (Lambert, Weisz, & Knight, 1989). It follows that behaviors such as defiance, disobedience, and lying are rarely abided and strictly punished by parents. In addition, physical and restrictive discipline is more conventional and not generally associated with negative social-emotional outcomes or high levels of aggression and externalizing behavior (Deater-Deckard et al., 1996). The interaction between culture and parenting and the influence of this interaction on child outcomes has been well-documented in African American samples. Literature in this area has cautioned investigators against ignoring cultural influences which often moderate the effect of parenting on child behavior (Tamis-LeMonda, Briggs, McClowry, & Snow, 2008). Though authoritarian parenting has been consistently associated with negative outcomes in Caucasian children, the relationship in African American families is less clear. To illustrate further, in a longitudinal study by Lanford et al. (2004), parent's physical disciplinary practices were found to predict young children's externalizing behaviors as rated by teachers and peers. However, when analyzed separately, physical discipline predicted higher externalizing behavior only in Caucasian children. For African American children there was a trend in the reverse direction such that higher levels of physical discipline were associated with lower ratings of aggression and behavior problems.

In general, African American parents tend to rate their caregiving higher on measures of control or harshness and lower on measures of sensitivity as compared to

Caucasian parents (Berlin et al., 1995; McLoyd & Smith, 2002). These ratings reflect not only the parenting behaviors exhibited by African American parents, but also hegemonic cultural beliefs about acceptable parenting (Shumow et al., 1998). Similarly, a study examining maternal control or intrusiveness, found that increasing control was associated with lower child engagement for Caucasian but not African American children (Ispa et al., 2004). Other investigators have found that higher levels of control in African American parents do not have negative consequences in the context of high warmth (Brody, Flor, & Gibson, 1999; Darling & Steinberg, 1993; McLoyd & Smith, 2002; Spieker, Larson, Lewis, Keller, & Gilchrist, 1990). Ispa et al. also found that though increasing parental intrusiveness (a measure of control) was associated with child negativity in both groups, the relationship diminished when examining African American parents who also exhibited high levels of warmth.

In contrast, there is some support in the literature for similar trends in the positive effects of authoritative parenting style for both African American and Caucasian parents. Though the average level of control reported by African American parents may be higher than Caucasian parents, the relationship between authoritarian parenting style and negative child outcomes persists (Shumow, Vandell, & Posner, 1998). In a study of three year old children and their parents participating in the National Institute of Child Health and Human Development Study of Early Child Care, responsive parenting was associated with increased compliance and decreased behavior problems in both African American and Caucasian children (Whiteside-Mansell, Bradley, Tresch Owen, Randolph, & Cauce, 2003).

In sum, the literature concerning the influence of African American culture on parenting and child outcomes is mixed, and many investigators point to variation in factors such as the SES of the sample studied, and the operationalization of control and warmth variables to explain these divergent results (Tamis-LeMonda, Briggs, McClowry, & Snow, 2008). More recently, researchers have questioned the description of behaviors more often employed by minority parents (such as authoritarian parenting style and physical discipline) as limited or deficient, instead seeking to understand the adaptability of parenting practices within a socio-environmental framework (Bernstein et al., 2005, Tamis-LeMonda, Briggs, McClowry, & Snow, 2008). For African American families living in dangerous communities, “no nonsense” parenting can serve as a protective factor, preventing young children from being negatively influenced by delinquent peers or becoming involved in anti-social activities (Mandara & Murray, 2000; Mason et al., 1996; Whaley, 2000). In a study of low-income African American preschoolers in urban Georgia, McGroder (2000) found that mothers living in stressful environments demanded high levels of maturity from their preschoolers and employed relatively strict disciplinary strategies. Within this cultural framework, African American families may perceive that authoritarian parenting will prepare African American children for the challenges of living in a Eurocentric society, and the possibility of facing prejudice and injustice (Jarrett, 1999).

Much progress has been made in the understanding of cultural differences in caregiving, and recent literature has increasingly challenged the generalizability of one model of parenting style across ethnic groups. However, of equal importance is the development and study of valid and culturally sensitive measurement instruments which

examine parenting behaviors (Tamis-LeMonda, Briggs, McClowry, & Snow, 2008). Most of the studies to date have used parent-report or child-report measures to analyze parenting style (Tamis-LeMonda, Briggs, McClowry, & Snow, 2008). Parent-report measures are generally reliable and correlated with child outcomes, though it is difficult to determine their ecological validity in quantifying parenting behaviors. Observational data on parent-child interactions could be a more accurate measure of parenting style, more closely approximating real-world parenting behaviors. Bernstein and colleagues (Bernstein et al., 2005) developed the Parent-Child Observation Guide (PCOG), a parent-child interaction assessment instrument to exhibit construct validity and reliability among different cultural/ethnic groups. The PCOG rated parent behaviors and verbalizations in everyday situations based on the degree of sensitivity and effective discipline displayed. In addition, Bernstein and colleagues found some differences between parent and child behaviors across ethnic groups. For instance, African American mothers were seen as less sensitive towards their children than Caucasian and Latin American mothers. On a measure of effective discipline, African American mother obtained the highest rating, significantly higher than Latin American and Chinese mothers. African American children also exhibited lower levels of noncompliance than Caucasian and Chinese children.

Cultural differences in parenting practices, such as those observed by Bernstein and colleagues, can influence the acceptability of parent-training programs and behavioral interventions for minority families. It is important to examine treatment acceptability in minority populations because of mounting research indicating that it significantly predicts behavioral treatment utility and adherence (Cross Calvert &

McMahon, 1987; Phelps, Brown & Pwer, 2002; Reimers, Waker & Koepl, 1987; Witt & Elliot, 1985). Minority families face many barriers to enrolling in and adhering to evidence-based treatments, not all of which are limited to financial and need factors (USDHHS, 2001; Garland et al., 2005). There is additional evidence to suggest that factors such as the acceptability of behavioral therapy may result in underutilization of these treatments among minority families (Yeh et al., 2005). For African American families, who often place a greater emphasis on respect and compliance, behavioral interventions such as Parent-Child Interaction Therapy that focus singularly on increasing maternal warmth for the first phase of treatment, may be less acceptable. In providing treatment to diverse populations, it is critical to consider the values, ideas and traditions which shape the needs of families from different cultural backgrounds (Weisz et al., 1998). Understanding differences in parenting styles and behaviors may allow clinicians to provide behavioral treatments for African American families in a culturally sensitive manner. In virtue of the clinical utility of such information, it is important to examine the influence of culture on parenting style using a measure which has been utilized in clinical populations.

The Parent-Child Observation Guide, developed by Bernstein and colleagues effectively measured maternal sensitivity and control as well as child noncompliance in order to make cross-cultural comparisons. However, this measure was limited in that it was not intended to be of use in clinical populations. The Dyadic Parent-Child Interaction Coding System (DPICS; Eyberg, Nelson, Duke & Boggs, 2005) is a behavioral observation system designed to assess the quality of parent-child social interactions within the framework of Parent Child Interaction Therapy and other parent

training interventions for young children. The DPICS codes parent and child verbalizations and behaviors within three five minute play situations, and assesses parenting style by measuring the degree of reciprocity, nurturance and control exhibited by the parent. The DPICS has exhibited strong inter-observer reliability (Brinkmeyer, 2005), test-retest reliability (Bessmer, Brestan, and Eyberg, 2005), discriminative validity (Kelley, Reitman, & Noell, 2003; Bessmer, Brestan, & Eyberg, 2005), and treatment sensitivity (Schuhmann, Foote, Eyberg, Boggs, & Algina, 1998). Though research examining composite categories such as warmth and control variables evidence similar psychometric properties (Bessmer, Brestan, and Eyberg, 2005), the DPICS has not yet been utilized to examine cultural differences in parenting styles.

This study examined African American and Caucasian parent-child interactions, in order to compare parenting styles across cultures. We analyzed parenting behaviors in a clinical sample of preschool children with disruptive behavior disorders (DBDs) and their female primary caregiver, utilizing the Dyadic Parent Child Interactive Coding System. In doing so, this study aimed to provide information on cultural differences in warmth and demandingness (control) variables observed among parents seeking a parent-training intervention (PCIT). By understanding differences that exist within such a population, clinicians may develop culturally sensitive methods of delivering interventions like PCIT. We analyzed parent-child interactions in three standardized play situations requiring increased levels of parental control: Child-Led Play, Parent-Led Play, and Clean-Up. In the Child-Led Play situation, parents were instructed to follow the child's lead, while in the Parent-Led Play situation parents must encourage the child to follow their lead. Finally, in Clean-Up, the parent is instructed to direct the child to

Clean-Up several toys by him or herself. In each situation, maternal warmth and demandingness (control) were measured by coding and categorizing all verbalizations expressed by the parent using the Dyadic Parent-Child Interaction Coding System.

### **Specific Aims**

The purpose of the current study was to examine cultural differences in parenting styles in a clinical sample of children with Disruptive Behavior Disorders and their mothers. Specifically, the parenting styles of African American and Caucasian mothers were compared during three standardized observations, Child-Led Play, Parent-Led Play and Clean-Up. Parenting style was measured using the Dyadic Parent-Child Interaction Coding System (DPICS) and operationalized as the degree of warmth and demandingness exhibited by the mother during each play situation.

#### **Aim I**

Specific Aim I was to examine maternal warmth and demandingness in the Parent-Led Play and Clean-Up situations, which require the parent to exhibit greater control over the child's behavior. We hypothesized that African American mothers would display higher demandingness and lower warmth than Caucasian mothers in these situations. This hypothesis is based on support in the literature for the "no nonsense" method of parenting exhibited by African American mothers in order to train children to meet environmental challenges (Brody, Flor & Gibson, 1999; McGroder, 2000). In addition, results from the PCOG in a similar play situation indicated that African American mothers were rated lower on measures of sensitivity (Bernstein et al., 2005).

## **Aim II**

Specific Aim II was to investigate cultural differences in warmth and demandingness in the Child-Led Play situation. We hypothesized that African American mothers would exhibit higher demandingness than Caucasian mothers, but equal warmth. In Child-Led Play, the mother is not prompted to exhibit any control over the child. However, cultural values impressing firm authority and discipline may lead African American mothers to exhibit greater demandingness in this situation. In agreement with the findings of Brody and Flor (1998), African American mothers may express higher levels of demandingness in the context of also demonstrating warmth with their children.

## **Aim III**

Specific Aim III was to examine child noncompliance during the Parent-Led Play and Clean-Up situations. In past research using an observational measure, African American mothers were rated as more effective disciplinarians, while their children showed high rates of compliance (Bernstein et al., 2005). African American children may internalize cultural values that children should obey and respect adult authority figures. Based on this evidence, we hypothesized that African American children would demonstrate lower rates of noncompliance to commands than Caucasian children.

## CHAPTER 2 METHODS

### **Participants**

Participants were 149 Caucasian and African American mother-child dyads. These families were drawn from two larger studies for the treatment of childhood disruptive behavior disorders. All families met the following inclusion and exclusion criteria: (a) children were between 3 and 6 years of age, (b) children met diagnostic criteria for ADHD, Oppositional Defiant Disorder, or both (c) mothers achieved a standard score equivalent of 70 or higher on a cognitive screening measure, (d) children achieved a standard score equivalent of 70 or higher on a cognitive screening measure, (e) children did not have a history of major sensory impairment or pervasive developmental disorder. Diagnosis was confirmed using the Diagnostic Interview Schedule for Children (Shaffer et al., 2000). In addition, ADHD diagnosis was supported by both parent and teacher report measures. Families were referred for treatment by pediatricians, teachers, school counselors, psychologists, and daycare providers.

Mothers reported race and ethnicity data on a demographic questionnaire administered at pre-treatment assessment. Of the 149 participants 17.4% ( $n = 26$ ) of mothers self-identified as African American or Black, while 82.6% ( $n = 123$ ) of mothers self-identified as Caucasian. Families had a mean score of 40.09 on the Hollingshead measure of Social Economic Status (Hollingshead, 1975), placing them on average in the middle range of SES. African American families had a slightly lower mean SES (mean = 35.65, SD = 10.8) compared to Caucasian families (mean = 40.97, SD = 13.19), though this difference was not statistically significant,  $t(147) = 1.69$ ,  $p > .05$ . Participant children were 79% male, and had a mean age of 4.74 (SD = 0.99). Mothers

identified the race of their children as 18.1% (n = 27) African American, 75.8% (n = 113) Caucasian, 1.3% (n = 2) Biracial, and 4.7% (n = 7) Other. On the Eyberg Child Behavior Inventory (ECBI) children achieved a mean score of 164.31 (SD = 24.40) placing them in the clinically significant range of behavioral problems. There was no significant difference in behavior severity between African American (mean = 165.67, SD = 25.41) and Caucasian (mean = 164.04, SD = 24.29) children as measured on the ECBI (see Table 2-1).

## **Measures**

### **Demographic Questionnaire**

A demographic questionnaire was administered to all families at pre-treatment assessment. On this form mothers indicated parent and child race/ethnicity data, as well as information necessary to compute Hollingshead SES. The Hollingshead Four Factor Index of Social Position (Hollingshead, 1975) is an index of socioeconomic status comprised of education, occupation, sex, and marital status.

### **Dyadic Parent-Child Interaction Coding System (DPICS; Eyberg, Nelson, Duke, & Boggs, 2005)**

The DPICS is a behavioral observation system which assesses the quality of parent-child interactions by coding the frequency of verbalizations and behaviors. At pre-treatment, mother-child dyads completed two DPICS observation sessions one week apart. Each observation was 15 minutes in length and consisted of three standard 5-minute situations, Child-Led Play (CLP), Parent-Led Play (PLP) and Clean-Up (CU). These situations represent increasing control required by the mother. For both the Child-Led Play and Parent-Led Play situations a 5-minute warm-up period was allowed before the 5-minute coding period such that the each complete DPICS session required

25 minutes. Observations were recorded at each assessment of the two pre-treatment assessments, totaling 30 minutes of parent-child interaction data. Recorded sessions were later coded by two independent, trained, observers; one third of these sessions were randomly selected for reliability coding,

Parent verbalizations were coded by type (e.g., praise, negative talk, command) and frequency using the DPICS system. The DPICS includes twelve verbalization categories (e.g., praise, reflection), and six response categories (e.g., comply, answer). Composite categories were created by combining several individual verbalization categories to represent a more general construct (e.g., warmth, demandingness) as validated in previous research (Alcona & Eyberg, 1981; Brestan, Foote, & Eyberg, 2005). In order to examine parenting style (as defined by Baumrind's two-factor model), two composite categories were calculated and used in this study, Warmth, and Demandingness (maternal control). Other categories examined were: child non-compliance, and total verbalizations. Individual category definitions are presented in Table 2-2, and composite category definitions are presented in Table 2-3.

The two observations were coded for the frequency of each verbalization category. The frequency counts in each category were then averaged and divided by the averaged Total Verbalizations score. This produced a percentage score which controlled for maternal verbosity. Maternal Warmth was calculated in CLP, PLP, and CU. Only positive verbalizations such as praise and reflections were included in the warmth composite category. Commands (direct or indirect) were coded as non-compliant if their timing or phrasing prevented child compliance. For instance, a parent may issue a new command too quickly for the child to complete the previous instruction.

Only commands to which the child could comply were included in the calculation of child Noncompliance. Child Noncompliance was calculated only in PLP and CU. Both compliant and non-compliant commands were included in calculating the Demandingness composite which was analyzed for CLP, PLP, and CU.

Reliability and validity of the DPICS measures are summarized in the DPICS manual (Eyberg, Nelson, Duke, &, 2005). Coders were highly trained student research assistants in Psychology. Training in the DPICS manual and coding system and demonstration of 80% accuracy in coding criterion tapes was required before research assistants began coding parent-child interaction data. In addition, coders attended weekly training meetings throughout the study period to prevent coder drift. They were not informed of the study hypotheses concerning cultural differences in parenting behaviors. After their initial coding, 33% of all DPICS observations were later recoded by a different observer to assess inter-rater reliability. Kappa statistics for the individual DPICS categories examined in this study are as follows: Labeled Praise .68, Unlabeled Praise .81, Parent Reflection .52, Behavior Descriptions .50, Direct Commands .84, Indirect Commands .71, Parent Negative Talk .70, and Non-Compliance to Commands .67. These values indicate moderate (.40-.61), substantial (.61 - .80), to almost perfect agreement (> .81; Landis & Koch, 1977).

### **Diagnostic Interview Schedule for Young Children (YC-DISC; Strong, Lucas, & Lucas, 2006)**

The YC-DISC is a computer-assisted diagnostic interview for preschool-aged children, used for diagnosis. It was developed as a downward extension of the DISC-IV-P (Shaffer, Fisher, Lucas, Dulcan, & Schwab-Stone, 2000), and was chosen as a more appropriate measure for pre-school age children. Though psychometric properties of

the YC-DISC have not yet been established, it is highly similar to the DISC-IV-P which has strong reliability. One-week test-retest reliabilities of the DISC-IV-P with parents of 9- to 17-year-old children have been reported at .79 for ADHD, .54 for ODD, .54 for CD, (Shaffer, Fisher, & Lucas, 1998). At pre-treatment assessment children were required to meet diagnostic criteria for ADHD (Hyperactive or Combined type) on this measure.

### **Eyberg Child Behavior Inventory (ECBI; Eyberg & Pincus, 1999)**

The ECBI is a 36-item parent rating scale of disruptive behavior in children between the ages of 2 and 16 which contains an intensity and a problem scale. The ECBI Intensity Scale, which measures the frequency of children's behaviors on a 7-point scale from never (1) to always (7) was used in this study. The Intensity Scale yields an internal consistency coefficient of .95; inter-rater (mother-father) reliability coefficient of .69; and test-retest reliability coefficients of .80 across 12 weeks and .75 across 10 months. Adequate internal consistency and convergent validity with African American preschoolers has been demonstrated (Gross, et al., 2007).

### **Peabody Picture Vocabulary Test - Third Edition (PPVT-III; Dunn & Dunn, 1997)**

The PPVT-III is a well-standardized measure of receptive language in individuals age 2.6 years and older. Split-half reliability coefficients for children have ranged from .86 to .97, with a median of .94, and test-retest reliabilities have ranged from .91 to .94. The PPVT-III was the cognitive screening measure for inclusion of children in this study.

### **Wonderlic Personnel Test (WPT; Dodrill, 1981)**

The WPT is a 50-item screening scale of adults' intellectual abilities. In a sample of 120 normal adults, the WPT score was highly correlated ( $r = .93$ ) with the WAIS Full Scale IQ score and was within 10 points. The WPT was the cognitive screening measure used for inclusion of mothers in this study.

## **Procedure**

Families attended two 3-hour assessment sessions, scheduled one week apart. Assessments were conducted by graduate trainees. At Assessment 1, the parents completed the informed consent process, and if eligible completed measures addressing child behavior and family demographic information. This assessment also included the YC-DISC and one DPICS observation. Families returned one week later for Assessment 2. At this time they participated in a semi-structured clinical interview and another DPICS observation. Two DPICS observations were conducted for each family in order to ensure stability of the observational scores. Each observation session was conducted as follows: (1) 5 minute warm up for CLP, (2) 5 minute coding of CLP, (3) 5 minute warm up for PLP, (4) 5 minute coding of PLP (5) 5 minute coding of CU. All observations sessions were recorded for later coding.

Table 2-1. Participant demographic characteristics by self-identified race of mother

	Total Sample (n=149)		African American (n=26)		Caucasian (n=123)		t(147)	p
	M/%	SD	M/%	SD	M/%	SD		
Child Age (years)	4.73	0.99	4.74	1.02	4.71	0.82	0.16	0.87
Child sex (%male)	78.5	-	84.6	-	77.2	-	0.70	0.48
Child race/ethnicity (%)								
Caucasian	75.8		0	-	91.8	-	-	-
African American	18.1		96.2	-	1.6	-	-	-
Biracial	1.3		3.8	-	1.6	-	-	-
Other	4.7		7.6	-	4.1	-	-	-
Family SES (raw score)	40.09	12.94	35.65	25.41	40.97	13.19	1.69	0.09
ECBI Intensity Score (raw score)	164.31	24.40	165.67	25.41	164.04	24.29	-0.30	0.77

Table 2-2. Individual DPICS category definitions

Category	Abbreviated Definition
Behavior Description (BD)	A non-evaluative vocalization describing the child's activity.
Reflective Statement (RF)	A declarative verbalization with the same meaning as the child's previous verbalization.
Labeled Praise (LP)	A positive evaluation of a specific behavior, activity or product of the child.
Unlabeled Praise (UP)	A positive evaluation of the child or a nonspecific activity, behavior or product of the child.
Indirect Command (IC)	A suggestion for a vocal or motor behavior to be performed that is implied or in question form.
Direct Command (DC)	A declarative statement that contains an order for a vocal/ motor behavior, identifying the child as subject.
Child Noncompliance (NC)	The child does not perform or attempt the requested behavior within 5 seconds following the command.
No Opportunity to Comply (NOC)	The child is not given an adequate chance to comply with a command within five seconds (e.g. the command calls for vague, unobservable, or future behavior).
Neutral Talk (TA)	A statement that introduces information about people, objects, or events, or that indicates attention to the child without evaluating or describing his/her behavior.
Negative Talk (NTA)	A verbal expression of disapproval of the child or the child's attributes, activities, products, or choices; sassy, rude or impudent speech.
Information Question (IQ)	A question that requests specific information from the child other than a brief response (e.g., yes, no, maybe).
Descriptive Question (DQ)	A descriptive or reflective statement expressed in question form which requires no more than a brief affirmative or negative response.

Note: All category definitions are summarized from DPICS 3rd Edition Manual (Eyberg, Nelson, Duke, & Boggs, 2005)

Table 2-3. DPICS Composite Categories

Category	Equation
Total Verbalizations	$pNTA + pDC + pIC + pLP + pUP + pIQ + pDQ + pRF + pBD + pTA.$
Warmth	$(pBD + pRF + pLP + pUP) \div \text{Total Parent Verbalizations}$
Demandingness	$pDC \div \text{Total Commands}$
Child Noncompliance	$cNC \div (pDC + pIC - cNOC)$

Note: In category equations, p= parent verbalization/behavior and c=child verbalization/behavior. The Total Verbalizations, Warmth, and Noncompliance Composite Category definitions are taken from Eyberg, Nelson, Duke, & Boggs, 2005. The Demandingness category definition was taken from Algona & Eyberg, 1981.

## CHAPTER 3 RESULTS

The IBM Statistical Package for Social Sciences (SPSS) was used to conduct descriptive analyses and hypothesis testing for this research. Post-hoc power analyses were conducted using G-Power software. Data were analyzed using an alpha criterion level of .05. Normality was assessed for all variables evaluated by calculating skewness and kurtosis. Variables were considered normally distributed if the absolute value of skewness and kurtosis did not exceed 1.5. Based on this criterion and examination of normality plots, all variables met normality requirements with the exception of Warmth in PLP (skewness = 1.18, kurtosis = 2.33) and Warmth in CU (skewness = 1.32, kurtosis = 1.57). For these two variables, inverse transformations were performed to obtain acceptable skewness (inverse PLP Warmth = -0.92; inverse CU Warmth = -1.06) and kurtosis (inverse PLP Warmth = 1.28, inverse CU Warmth = 0.69) values prior to data analysis (Stevens, 1951).

### **Descriptive Data**

Preliminary statistical comparisons were conducted to assess for significant differences in other demographic variables between the two samples. The analyses were non-significant for differences in family Social Economic Status as well as for differences in child age, gender, or behavior problem severity between African American and Caucasian dyads. T-test statistics, means, standard deviations and probability values for the variables analyzed are presented in Table 2-1. In addition, total maternal verbalizations during the three play situations were compared across groups. African American and Caucasian mothers did not significantly differ in verbosity during the Child-Led play and Parent-Led play situations. However, African American

mothers exhibited significantly fewer verbalizations during CU than Caucasian mothers,  $t(147) = 2.52, p = .013$ .

Maternal warmth in CLP, measured by the percentage of verbalizations which were behavioral descriptions, reflections, or praises, ranged from 0% to 24%, with a mean of 6.8% (SD = 5.3%). Both African American and Caucasian mothers exhibited a lower percentage of warmth verbalizations during Parent-Led Play and Clean-Up with an overall mean of 4.7% (SD = 3.6%) during PLP and a mean of 6.0% (SD = 5.7%) during CU. Demandingness was measured by the percentage of maternal commands which were direct commands and ranged from 0% to 100% in CLP and CU, and ranged from 13% to 100% in PLP. On average, mothers exhibited 58% (SD = 21.8%) demandingness during CLP, 58% (SD = 18.1%) demandingness during PLP, and 63% (SD = 18.0%) demandingness during CU. Child percent noncompliance was measured by the percentage of compliant commands for which a child does not comply. On average, rates of noncompliance were 36% (SD = 23.22%) in PLP, and 38% (SD = 26.31%) in CU. Table 3-1 presents means, standard errors, and range of scores for all DPICS categories analyzed.

### **Analysis of Primary Aims**

#### **Aim I**

The average percent of demandingness for Caucasian mothers was 55.5% (SD = 17.2%) in PLP and 60.0% (SD = 17.1%) in CU. Similarly, African American mothers exhibited mean rates of demandingness that were lower in PLP (71.0%, SD = 17.2%) than in CU (76.7%, SD = 16.0%). Independent sample t-tests were conducted to determine whether African American and Caucasian mothers differed significantly in demandingness in PLP or CU. African American mothers were found to have

significantly higher rates of demandingness in both PLP  $t(147) = -4.17, p < .001$ , and in CU  $t(147) = -4.57, p < .001$ . On average, African American mothers exhibited 4.3% (SD = 3.0%) warmth statements during PLP, and 5.0% (SD = 4.8%) warmth statements during CU. Similarly Caucasian mothers averaged 4.8% (SD = 3.7%) and 6.2% (SD = 5.8%) warmth statements during PLP and CU. Examination of maternal warmth in PLP,  $t(147) = -0.58, p = .56$ , and CU,  $t(147) = -0.90, p = .37$ , using independent sample t-tests, did not reveal significant differences between the two samples in either situation. These analyses were conducted using inverse transformed variables, to meet normality assumptions. The results suggest that compared to Caucasian mothers, African American mothers display significantly higher levels of demandingness in the Parent-Led Play and Clean-Up situations, but similar levels of warmth.

## **Aim II**

Differences in demandingness and warmth were also examined during Child-Led Play. On average, Caucasian mothers expressed 55.62% (SD = 21.2%) demandingness during Child-Led play, while African American mothers expressed 71.26% (SD = 20.3%). When an independent samples t-test was conducted, African American mothers were found to be significantly more demanding than Caucasian mothers in CLP,  $t(147) = -3.43, p = .001$ . In addition, African American mothers demonstrated a mean of 7.47% (SD = 5.9%) warmth verbalizations during Child-Led Play, while Caucasian mothers demonstrated 6.63% (SD = 5.2%). In order to test the null hypothesis of nonequivalence between samples, an equivalency test was conducted. An equivalency standard of .10 was used to determine whether the African American mean warmth fell within  $\pm 10\%$  of the level of warmth exhibited by Caucasian mothers in CLP (Rogers, Howard & Vessey, 1992). Thus the equivalence interval was

defined as  $\pm .10(6.63)$ , or  $\delta = \pm 0.63$ . African American and Caucasian mother did not demonstrate equivalent warmth based on this criteria,  $z(147) = -0.18$ ,  $p = 0.427$ . As the null hypothesis of nonequivalence was confirmed, a follow-up independent samples t-test was conducted to test for significant difference. Warmth in CLP was not significantly different between groups,  $t(147) = -0.73$ ,  $p = 0.47$ . Hence, neither significant equivalence, nor significant difference was confirmed. These results may indicate that the variability in warmth was too great to detect statistical equivalence given the sample size used (particularly in the African American sample). Furthermore, though the groups were not equivalent in warmth, the 0.84% difference in warmth statements was not statistically significant.

### **Aim III**

Children in both samples were examined for mean differences in noncompliance. Children of African American mothers exhibited average rates of noncompliance of 32% (SD = 23.5%) during PLP and 30% (SD = 29.9%), during CU. Children of Caucasian mothers demonstrated 37 % (SD = 23.2%) and 40% (SD = 25.2%) noncompliance rates on average. Group differences in non-compliance rates did not reach statistical difference for the PLP,  $t(147) = .94$ ,  $p = 0.35$ , or CU situation  $t(147) = 1.86$ ,  $p = 0.06$ . However, in the more demanding CU situation, children of Caucasian mothers complied 10.5% less frequently on average, a difference which approached significance  $t(147) = 1.86$ ,  $p = 0.06$ . T-test statistics, means, standard deviations and probability values for the variables analyzed are presented in Table 3-1.

## **Post-Hoc Analyses**

### **Power Analysis**

The small sample of African American mothers ( $n = 26$ ) may have limited the power to detect significant difference in the above analyses. Concerns regarding power were particularly salient when results approached statistical significance, as did the difference in non-compliance rates during CU. To determine whether this analysis had sufficient power to detect significance given the sample size used, a post-hoc power analysis was conducted (Cohen, 1988; Faul, Erdfelder, Lang, Buchner, 2007). Given the limited research examining cultural differences in parenting using observational variables, the population effect size was estimated based on a comparison of noncompliance rates for African American and Caucasian children presented by Bernstein and colleagues (2005). Based on mean levels of non-compliance, standard deviations, and sample size (African American:  $n = 158$ ; Caucasian:  $n = 290$ ), an effect size (Cohen's  $d$ ) of .51 was entered. The power analysis indicated that the current project achieved a power ( $1-\beta$ ) of 0.66, which represents a .44 Type II error probability. Thus, comparison of non-compliance rates in this analysis was likely underpowered to detect moderate effects.

### **Direct, Indirect, and Total Command Analyses**

The current project sought to determine whether African American mothers used a higher percentage of direct commands than Caucasian mothers. This definition of demandingness best reflected the control construct suggested by parenting style literature while using existing DPICS variables. It is also the demandingness definition first employed to analyze parenting differences in a DPICs standardization study (Algona & Eyberg, 1981). However, the analysis of demandingness thus defined, may

have ignored other significant differences in maternal leading. For this reason, the investigator examined differences in indirect commands, and total commands (direct + indirect), between groups. Definitions of post-hoc composite categories used for these analyses are listed in Table 3-2. Caucasian mothers were hypothesized to give more indirect commands than African American mothers. Because indirect commands are less effective at eliciting child compliance (Shriver & Allen, 1997; Wruble et al., 1991), Caucasian mothers were hypothesized to give more total commands as well. Independent sample t-tests revealed that significantly more of the commands given by Caucasian mothers were indirect commands during CLP ( $t[147] = 3.43, p = .001$ ), PLP ( $t[147] = 4.17, p < .001$ ) and CU ( $t[147] = 4.57, p < .001$ ). When analyzing total commands given, Caucasian mothers were found to give more commands during CLP,  $t(83.3) = 2.30, p = .02$ ). However there were no significant differences found during the PLP ( $t[147] = -1.20, p = 0.23$ ) or CU ( $t[147] = -1.43, p = .16$ ) situations. T-test statistics, means, standard deviations and probability values for the post-hoc analyses are presented in Table 3-2.

Table 3-1. Primary analyses of differences in Demandingness, Warmth and Noncompliance

Composite Variable / Situation	Total Sample (n = 149)		African American (n = 26)		Caucasian (n = 123)		t(147)	p
	Mean	SD	Mean	SD	Mean	SD		
<b>Demandedness</b>								
Child-Led Play	58.39	21.8	71.26	20.27	55.62	21.22	-3.43	0.001
Parent-Led Play	58.20	18.1	70.95	17.17	55.49	17.19	-4.17	< .001
Clean Up	62.92	18	76.71	16.00	60.01	17.10	-4.57	< .001
<b>Warmth</b>								
Child-Led Play	6.78	5.30	7.47	5.91	6.63	5.18	-0.73	0.465
Parent-Led Play	4.67	3.58	4.28	2.96	4.76	3.70	-0.58 <sup>a</sup>	0.561
Clean Up	5.96	5.62	5.04	4.75	6.15	5.79	-0.90 <sup>a</sup>	0.369
<b>Noncompliance</b>								
Parent-Led Play	35.69	23.22	31.81	23.50	36.51	23.18	0.94	0.350
Clean Up	38.23	26.31	29.59	29.91	40.06	25.24	1.86	0.065

Note: For analyses marked a, inverse transformed variables were used to test for mean differences.

Table 3-2. Composite variables for post-hoc analyses

Category	Equation
Indirect Command Ratio	$pIC \div \text{Total Commands}$
Total Command Ratio	$(pIC + pDC) \div \text{Total Parent Verbalizations}$

Note: The notation p= parent verbalization.

Table 3-3. Post-Hoc analyses of Indirect Command Ratio and Total Command Ratio

Variable / Situation	African American (n = 26)		Caucasian (n = 123)		t(147)	p
	Mean	SD	Mean	SD		
Indirect Command Ratio						
Child-Led Play	28.74	20.27	44.38	21.22	3.43	< 0.001
Parent-Led Play	29.05	17.17	44.51	17.19	4.17	< 0.001
Clean Up	23.29	16.00	40.00	17.10	4.57	< 0.001
Total Command Ratio						
Child-Led Play	17.19	10.77	24.08	23.42	2.30	0.02
Parent-Led Play	29.02	12.31	26.32	10.00	-1.20	0.23
Clean Up	39.54	14.48	35.20	14.02	-1.43	0.16

## CHAPTER 4 DISCUSSION

### **Interpretation of Findings**

The purpose of this project was to examine cultural differences in parenting style in a sample of clinically referred mother-child dyads. To objectively analyze parenting style, an observational measure of warmth and demandingness was employed. African American and Caucasian mothers were compared in three play situations which increased in their demand to elicit child compliance. In this way, parenting style was assessed across a range of circumstances (child-leading, parent-leading and Clean-Up), requiring different parenting behaviors. Analyzing each separately provided valuable information on the expression of parenting styles in situations representing changing daily circumstances.

When parenting behaviors were analyzed during the Child-Led Play, Parent-Led Play, and Clean-Up situations, no significant differences in warmth verbalizations were observed between groups. In the Child-Led Play situation, African American and Caucasian mothers did not exhibit significantly equivalent levels of warmth as hypothesized. It is likely that there was too much variability in warmth to detect equivalence given the small African American sample. The mean difference (0.84 %) is not likely to be clinically meaningful; however, these findings merit further investigation with a larger African American clinical sample. Similarly, when warmth was examined in the PLP and CU situations, the results did not align with literature suggesting that African American parents are less warm or less sensitive towards children (Berlin et al., 1995; McLoyd & Smith, 2002; Bernstein et al., 2005). Instead, data from the current study reflected that in both child-directed and higher demand, parent-directed situations,

African American mothers and Caucasian mothers demonstrate similar levels of warmth towards young children. Another finding of interest was that both groups expressed more warmth verbalizations on average in the Child-Led Play, than in the Parent-Led Play and Clean-Up situations. Mean values across situations suggest that with the additional demand to elicit compliance, mothers may give less positive attention to children with behavioral problems.

The absence of cross-cultural differences in warmth represents an important finding because of the measure used and the sample studied. Previous research suggesting African American parents are less warm towards children employed parent-report, child-report, or qualitative observer ratings (i.e. Likert-scale) of parenting style (Tamis-LeMonda, Briggs, McClowry, & Snow, 2008). Data from self-report and observer ratings are highly influenced by cultural ideals and expectations (Krause & Jay, 1994; Leung, Lau & Lam 1998), such as African American parents value respect and obedience over warmth and sensitivity (Thomas, 2000). It is possible that systematically categorizing and quantifying parent verbalizations is a more objective method of measuring the warmth behaviors actually exhibited moment by moment (Caldwell & Bradley, 1984; Tamis-LeMonda, Briggs, McClowry, & Snow, 2008). Questionnaire and observer ratings may miss warm behaviors demonstrated by African Americans when emphasizing higher levels of discipline or control. In fact, much of the research employing questionnaire data with African American parents has emphasized discipline, parental monitoring, or “control” over warmth variables (Bluestone, & Tamis-LeMonda, 1999; Jones et al., 2003; Kelley, Sanchez-Hucles, & Wimbush, 1992; Taylor, 2000). That mothers of both ethnic/cultural groups did not differ significantly in maternal

warmth during parent-directed situations, adds valuable information to the existing literature on maternal discipline and control.

This study also differed by sampling clinic-referred children with behavioral disorders and their mothers. Some literature suggests that parents of children with behavioral disorders are more likely to exhibit higher levels of conflict and lower levels of warmth than parents of children without clinically significant behavioral problems (Campbell, 1995, 2000). There is little research using the DPICS to quantify maternal warmth in non-clinical samples; no study to date has examined the warmth composite variable with normal children. However, while standardizing this measure Aragona and Eyberg (1981), reported 7% (SD = 6) of the statements made by non-referred mothers during PLP were praise statements. In a recent standardization study by Bessmer and colleagues (2005), clinic-referred mothers demonstrated fewer prosocial behaviors than nonreferred mothers. The current project found that overall about 5% of the statements mothers made during Parent-Led Play, and 6% of the statements mothers made during Clean-Up were reflections, behavior descriptions, and praise (warmth statements). Mothers in this study also exhibited 3.17% (SD = 3.07) praise statements during PLP, compared to the 7.00% (SD = 6.00) praise statements found for non-clinical samples (Aragona and Eyberg, 1981). Based on this evidence, mothers in this clinical sample appeared to exhibit fewer warmth behaviors compared to non-clinically referred mothers. There is no evidence to indicate whether this difference holds for both African American and Caucasian mothers.

African American mothers exhibited higher levels of demandingness than Caucasian mothers in PLP and CU. In these situations, 70% and 76% of the commands

given by African American mothers were direct commands. This finding aligns with the majority of research on African American parenting behaviors in non-clinical samples (Berlin, Brady-Smith & Brooks-Gunn, 2002; Bradley, Corwyn, Pipes McAdoo, & Garcia Coll, 2001; McLoyd & Smith, 2002). Cultural values emphasizing parental control and child obedience influence African American mothers to frequently give clear, direct orders to children (i.e. "You need to sit down."). In contrast, significantly more of the direction given by Caucasian mothers was in the form of indirect questions, requests, or suggestions for compliance (i.e. "Maybe we should sit down?"). Interestingly, African American and Caucasian mothers did not differ in the frequency that they directed their child's behavior during PLP and CU. Mothers in both samples had a high frequency of commands (direct plus indirect), which accounted for about one third of their total verbalizations. While African American mothers generally had a more demanding style, Caucasian mothers were more suggestive.

Much of the research examining parental control and limit-setting supports the effectiveness of giving firm, clear commands to increase child compliance (Eisenstadt, Eyberg, Newcomb & Funderburk, 1993). For instance, increasing the ratio of direct commands used in concert with consistent follow-through has been shown to reduce child disruptive behavior problems in parent-training treatments (Boggs et al., 2005; Brestan & Eyberg, 1998; Eisenstadt, Eyberg, Newcomb & Funderburk, 1993). Prior studies may have found African American mothers to be more effective at discipline and limit-setting in part because they more frequently used direct commands (Bernstein et al., 2005). The employment of clear declarative orders to direct an interaction is a strength which reflects African American cultural values and results in positive

outcomes for young children. For instance, there is evidence to support that children of African American parents who demonstrate firm, directive parenting are less likely to exhibit externalizing disorders or aggression (Baumrind, 1972; Deater-Deckard, Dodge, Bates, and Pettit, 1996). However, while some research supports that a high level of maternal control and discipline has been associated with positive outcomes for African American children (Deckerd et al., 1986), other evidence suggests authoritarian parenting negatively effects children (Hall and Bracken, 1996; Querido, Warner & Eyberg, 2002).

This contradiction is due in part to shifting definitions of authoritarian parenting style across studies. When examining the parenting-style literature, it is important to consider the definition and measurement of the “control” variable analyzed in each study. Much of the literature has defined authoritarian control as harsh, punitive, intrusive behaviors (Tamis-LeMonda, Briggs, McClowry, & Snow, 2008). Therefore authoritarian style has been measured as the degree that punitive discipline, critical and harsh responses, or even corporal punishment is reported. In contrast, this project defined control as the percentage of times that a mother gave direct commands to elicit compliance (demandingness). As such, both authoritarian and authoritative styles, which are distinguished by high control, denote parents who employ firm, clear limits and direction. Parents with lower levels of control (demandingness) instead directed their children with more suggestions, requests, and reasoning. This theoretical premise contrasts with more negative definitions of authoritarian parenting and elucidates research promoting this style as adaptive for African American mothers within a socio-cultural framework.

Although more frequently using direct commands was a positive response in parent-directed situations, African American mothers also demonstrated more demandiness during Child-Led play. The CLP situation discouraged maternal direction; however, African American mothers exhibited rates of demandiness almost equivalent to those expressed during PLP. This finding likely reflects African American cultural ideals and values which persist across circumstances and environments. The expectation that African American mothers should command respect and obedience continues to influence parenting behavior, despite instructions to follow the child's lead in CLP. Interestingly, African American mothers exhibited more commands total (direct + indirect) during CLP, directing children's behavior more often than Caucasian mothers.

It appeared that across situations, African American mothers exhibited significantly higher demandingness but did not significantly differ in warmth when compared to Caucasian mothers. This style most closely resembled "no nonsense" parenting discussed by Brody, Flor & Gibson (1999). Other researchers have determined that African American mothers exhibit higher levels of control and discipline which occur in the context of warmth (McLoyd & Smith, 2002; Spieker, et al., 1999). These studies suggest that "no nonsense parenting," though defined by high control, can have positive effects on young children. This study did not align with many others in which African American mothers rate their parenting as lower in warmth or sensitivity. This may have been because a more objective measure was employed to quantify parenting behaviors. It is also possible that in a clinical sample lower levels of warmth overall masked cultural differences. In either case, these results warrant a

reconsideration of Baumrind's traditional definitions of parenting style. Though characterized by higher levels of control, the behaviors exhibited by African American mothers in this study do not fit within the conceptualization of authoritarian parenting as critical, harsh, or punitive. By instead regarding parenting styles as continuous categories, African American mothers who are higher on levels of control, but exhibit adequate warmth may still be considered authoritative. Furthermore, this subtype of authoritative parenting may be more environmentally adaptive and culturally acceptable for African American families.

Finally, child noncompliance was analyzed in Parent-Led play and Clean-Up. Noncompliance is conceptualized as a negative response to parenting behaviors. Higher rates of noncompliance reflect less effective parental control or discipline. In addition, noncompliance may vary depending on the degree that parental control and child obedience is valued by one's culture. Cultural expectations regarding the parent-child relationship are likely to influence both parenting practices and child behaviors. Research on cultural differences in noncompliance in non-clinical samples suggests that African American mothers are seen as as having more compliant children than Caucasian mothers (Bernstein et al., 2005). In addition, because African American mothers employed more direct commands, it follows that their children would demonstrate lower rates of noncompliance (Shriver & Allen, 1997; Wruble et al., 1991). In this study, African American and Caucasian children did not differ significantly in their rates of non-compliance to commands in PLP or CU. However, post-hoc power analysis results suggested that the analysis of mean differences in CU may have been underpowered.

In addition, this study examined children with DBDs, a sample likely to exhibit high rates of noncompliance overall. On average, children in this sample did not comply with 36% (PLP) and 38% (CU) of the compliant commands given. In comparison, Thornberry and Brestan-Knight (2011) reported 26% noncompliance (PLP) for a community sample of preschoolers. A number of studies examining parent-child interactions have indicated higher rates of noncompliance for children with hyperactivity (i.e., Cunningham & Barkley, 1979, Mash & Johnson, 1982) and conduct problems (i.e., Gomez & Sanson, 1994; Shriver & Allen, 1997). This literature indicates that behavior disorder diagnosis strongly predicts child noncompliance. The influence of cultural factors may have been limited by the analysis of a clinical sample. No studies to date have examined cultural differences in DPICS noncompliance for nonclinical samples.

It is difficult to interpret these findings in the absence comparative data from non-clinical dyads using the DPICS composite categories. Very little normative data exists for the DPICS, and no study to date has examined the composite categories represented here in a non-clinical sample. Some evidence indicates that clinic-referred mothers exhibit lower levels of warmth behaviors than mothers in non-clinical samples, while clinic-referred children exhibit higher rates of non-compliance. The current findings may reflect that cultural differences in warmth and non-compliance are minimized when mothers interact with behavior-disordered children. Clinically significant levels of negative child behavior and interactional conflict may be more salient influences on parenting behavior than cultural ideals. However, standardization studies using the DPICS analyzed samples with little to no diversity (Aragona & Eyberg, 1981; Bessmer et al., 2005). Though there is a growing body of research on culture and parenting,

warmth and control variables are defined and measured in vastly different methods across studies. More research is necessary to compare clinic and non-clinic referred mother-child dyads using the DPICS composite categories. Additional research using a quantitative observational measure will reduce ratings biased by expectations about African American parenting, and balance the measurement of warmth and control variables. At present, there is no supporting evidence that maternal warmth (as measured by the DPICS) is lower in clinical versus non-clinical samples of African American mothers. However it is possible that cultural differences in maternal warmth may emerge in non-clinical samples. Future studies should examine whether child behavior problem severity is a significant predictor of maternal warmth for both African American and Caucasian mothers. Another important direction of future research will be the analysis of these variables in diverse normative and clinical samples using a quantitative observational measure like the DPICS.

### **Study Limitations**

Several limitations should be considered when interpreting this study's results. Secondary analyses were conducted on data collected from two previous studies of children with disruptive behavior disorders. Cultural and ethnic information was limited to race of the mother and child as self-reported on a demographic questionnaire. Additional data on heritage, country of origin (e.g. Caribbean, Africanese), and cultural affiliation would have been particularly informative for the African American sample in which homogeneity of cultural values and ideals cannot be assumed. Literature on African American parenting cautions against ignoring the cultural, political and social differences of Black American subgroups (Tamis-LeMonda et al., 2008). Furthermore parenting practices and values differ for African American families from different SES

classes (Tamis-Lemonda et al., 2008). Future research should include questionnaire and qualitative data on ethnic background, immigration status, acculturation, and cultural values/beliefs as predictors of parenting style differences. Careful sampling and collection of data will allow within-group analyses, lending depth to the depiction of African American parents.

An additional limitation was the small sample of African American mother-child dyads, and the unequal sample sizes between groups. Larger studies will have more power to detect cross-cultural differences, particularly for noncompliance. Furthermore, this study examined a sample of clinic-referred mother-child dyads limiting the generalizability of findings. A study examining observed cultural differences in parenting style using a larger community sample would greatly increase the interpretive value of the current findings. Finally, due to very small sample sizes of participants identifying with other racial/ethnic groups (e.g., Asian American, Hispanic), parenting styles could only be analyzed for African American and Caucasian samples. Future studies using the DPICS observational measure should examine parenting style in a more diverse sample in order to make additional cross-cultural comparisons.

### **Strengths and Future Directions**

Despite the above limitations, the findings from the current project represent an important addition to the cross-cultural parenting literature by examining parenting styles in a clinical sample. It is vital to understanding the relationship between cultural values and parenting practices employed by African American mothers presenting for parent-training to provide culturally-sensitive and acceptable services. For instance, African American mothers may relate well to treatments which acknowledge the importance of firm limit-setting. It is also clear that they would benefit from a focus on

increasing maternal warmth and sensitivity. Mounting evidence suggests that African American children benefit from both higher levels of control in the context of high levels of warmth. Care should be taken to make parent-training interventions which focus on warmth skills understandable and relevant to African American parents. In addition, it is important to recognize that all parenting occurs within a socio-cultural framework.

African American parents and children face unique challenges which influence parenting behaviors and strategies. African American mothers living in poverty, may employ high control and strict discipline to protect young children (Murry, Bynum, Brody, Willert, & Stephens, 2001). Furthermore, cultural norms increase the acceptability of strict discipline and control for African American children. Future research should combine quantitative observational data with qualitative parent-report. Qualitative information on the motivations and contextual factors that influence parenting behaviors would further elucidate cultural differences.

Strengths of the current project included the use of a quantitative observational measure in three standardized situations. Observational methods of measuring parenting styles have been found to be most predictive of child outcomes (Caldwell & Bradley, 1984; Zaslow, et al., 2006). Future research should examine the relationship between parent-report, child report and observational measures of parent-child interactions. There is little information on the predictive validity of self-report versus observational measures of parenting. Despite the small African American sample, mothers in this group represented a wide range of socio-economic backgrounds. In light of recent concerns that literature on African American parents predominately focuses on impoverished or at risk families (Davis, Nakayam, & Martin, 2000; McLoyd et al. 2000),

the current study included mothers from both lower and middle class backgrounds. Research on African American parents which reflects inter-group demographic variability will increase generalizability of findings and avoid the danger of reinforcing one-dimensional stereotypes and prejudices. Finally, this study conceptualized control as an adaptive response to circumstances requiring child-compliance, thus moving beyond a negative view of African American parenting as harsh and punitive. Study findings challenged a purely categorical view of parenting styles. As the literature on culture and parenting advances, investigators should focus on providing clear definitions of parenting behaviors that go beyond parenting categories and broad constructs and consider ecological and cultural influences on the practice and interpretation of parenting style.

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