STRESS IN PARENTS OF CHILDREN
WITH ADHD VS DEPRESSION:
A MULTICULTURAL
ANALYSIS

DISSERTATION

Presented to the Graduate Council of the
University of North Texas in Partial
Fulfillment of the Requirements

For the Degree of

DOCTOR OF PHILOSOPHY

By

Cyndi D. Walker, B.B.A., M.S.
Denton, Texas
August, 1998

Parents of children with Attention Deficit Hyperactivity Disorder (ADHD) are often reported as experiencing more stress than parents of normal children. The bulk of this research has been conducted primarily on a Caucasian population, however, providing little information regarding multicultural aspects of parenting stress. Research has also been lacking in attention given to the stress related to parenting a child with internalizing disorders.

The purpose of this study was 1) to compare parenting stress reported by mothers of children with ADHD to parenting stress reported by mothers of children with depressive disorders, and 2) to compare parenting stress as reported by Caucasian, African American, and Hispanic mothers. The Parenting Stress Index was used to analyze parenting stress differences between groups. Subjects were 81 mothers of children who were receiving psychological services through Dallas County MHMR. Fifty-seven children were diagnosed with ADHD, and 24 children were diagnosed with a depressive disorder. Forty subjects were Caucasian, 31 were African American, and 10 were Hispanic.

Based on the different outward behavioral manifestations of ADHD vs depression, it was hypothesized that mothers of children with ADHD would report
greater overall parenting stress than mothers of children with depressive disorders. It was speculated that mothers of ADHD children would report significantly more child-related stress than mothers of depressed children, and that mothers of depressed children would report significantly more parent-related stress than mothers of ADHD children. Based on the findings of previous research, it was further hypothesized that African American and Hispanic mothers would report greater parenting stress than Caucasian mothers. Results indicated that mothers of ADHD children experienced more parenting stress related only to their children's hyperactive and distracting behaviors. Contrary to previous research, Caucasian mothers reported significantly more overall and parent-related parenting stress than African American mothers.
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Numerous causes and effects of stress have been researched and documented over the past several decades. Recently, parenting has received research attention as a potential stress-producing factor. In her book, Satir (1972) describes parents as "people-makers", a role which is inherently stress producing. Indeed, pregnancy and a child leaving home were ranked respectively as the 12th and 23rd most stressful life events on Holmes and Rahe’s Social Readjustment Rating Scale (1967). But developmental milestones are not the only aspects of child-rearing found to be stressful. By exploring various child, parent, family, and environmental characteristics, researchers have found stress to also be related to many of the everyday aspects of raising a child.

This literature review will focus on various childhood disorders which are found to be related to parenting stress. This is not to imply a causal relationship, or to say that parenting stress is a uni-directional construct. According to Lazarus and Folkman (1984), stress is a “particular relationship between the person and the environment that is appraised by the person as taxing or exceeding their resources and endangering their well-being.” Responses to stress often include asserting against and/or withdrawing from the perceived threatening environmental factor, known as the “fight or flight response.” In the case of parenting stress, the perceived threat is related to the child. Such a stress
response is likely to have negative effects on the behavior and affect of the child, heighten parent-child conflicts, and typically result in increased stress for both the parent and the child. Parenting stress therefore appears to be a bi-directional construct that has complex cognitive, behavioral and affective components.

Throughout this review, mention will be frequently made of child-related and parent-related parenting stress. Child-related parenting stress refers to characteristics of the child which the parent finds stressful. These can include hyperactive or aggressive behaviors, rigid, demanding and rejecting qualities, and any other aspect of the child which does not meet the parents expectations. Parent-related parenting stress refers to characteristics of the parent which result in feelings of stress. These can include lack of spousal support, poor health, and feelings of isolation, incompetence, or depression.

Stress in Parents of Children with Medical Disabilities

Parenting stress has been studied in relation to numerous childhood medical disorders. Carson and Schauer (1992) examined perceived stress levels in 41 Caucasian mothers of children with asthma. Subjects completed the Mother-Child Relationship Evaluation and the Parenting Stress Index (PSI). Compared to a normative group of mothers of healthy children, mothers of asthmatic children reported greater parenting stress and more problematic mother-child relationships. The children in this study were perceived by the mother as less adaptable and acceptable, and as more demanding and moody. Interestingly, maternal overindulgence and rejection were higher in these asthmatic families than in the comparison group. The authors suggest that such
contradictory maternal behaviors are confusing to children and have the potential for influencing the child’s behaviors. These findings are in keeping with the bi-directional theory of parenting stress, and indicate that mothers and their asthmatic offspring may be at risk for a variety of individual and relational problems.

Parenting stress was also studied in mothers of failure-to-thrive (FTT) children (Singer et al, 1990). Thirty mothers whose children were hospitalized for FTT were compared to the PSI normative group. FTT diagnoses were made by referring physicians, and confirmed during the hospitalizations. Diagnostic criteria were either weight for age under the 10th percentile, or deceleration in weight across two major centile lines. As hypothesized by the researchers, these mothers reported their children to be more stressful, less adaptable, more inconsolable, and more unhappy compared to reports on healthy children. A surprising result was that mothers of FTT children who had been full-term at birth, had higher IQ’s, and were without behavioral feeding problems reported the greatest levels of parenting stress. The authors suggest that these mothers, as compared to those mothers of FTT children with preexisting medical conditions or biologic vulnerabilities, experienced more stress because of beliefs that their parental deficiencies had lead to their children’s growth difficulties. These results further document the complexities inherent in the construct of parenting stress.

Susan Frank and her colleagues (1991) also studied parenting stress and childhood medical illnesses. Their research assessed the relationship between acute, minor children’s illnesses experienced during their first 3 years of life, and stress
experienced by the parents in the children's 4th year of life. Research participants were parents of 56 children ages 3 to 4 who were seen at a university-based pediatric clinic. The study design required that both parents be living in the home and both participate in the study. Parents were primarily middle SES and Caucasian. Parenting stress was measured by the PSI and child illness was derived from medical records. A Total Illness score was obtained by summing illness severity scores for each illness diagnosed during the child's first 3 years of life. Illness severity scores ranged from 0 (health maintenance visits, or follow-up visits for a prior, resolved illness) to 3 (illnesses such as meningitis or dehydration requiring hospitalization). Raw Total Illness scores ranged from 3 to 74.

Results of the study suggest that mothers of children with a more severe history of minor acute illnesses during the first 3 years of life reported significantly more parenting stress than mothers of healthier children. No significant differences were found with fathers. The authors point out that in the absence of pre-child illness parental stress levels, their data can not be used to distinguish conclusively between cause and effect. They concede that maternal stress could contribute to, as well as result from, child morbidity.

The importance of studying parenting stress as it relates to childhood illnesses was further documented in a study comparing physically disabled and nondisabled children (Miller et al, 1992). There were a total of 132 participants: 69 mothers of disabled children and 63 mothers of nondisabled children. Disabilities included spina bifida, paraplegia/hemiparesis, quadriplegia, orthopedic, cerebral palsy, developmental delay, and brain damage. The purpose of the study was two-fold. First, the researchers
tested for differences between the two groups of mothers in responses to stressful parenting events. As hypothesized, mothers of disabled children reported significantly higher levels of depression. Although deemed not statistically significant by the researchers, \( p = .055 \), mothers of disabled children also reported greater psychological distress than their counterparts. The second aim of the study was to examine the coping strategies incorporated by mothers experiencing high and low levels of parenting stress. As predicted, emotion-focused coping strategies were employed by the more highly distressed mothers, whereas problem-focused coping strategies were used by the less psychologically distressed mothers. The authors suggest that providing mothers of disabled children with a comprehensive cognitive-behaviorally based intervention program could be beneficial in reducing levels of parenting stress.

The bi-directional influence of parenting stress was clearly documented in a study of children with congenital heart disease (DeMaso et al., 1991). The researchers hypothesized that maternal perceptions would be more significant predictors of the child’s emotional adjustment than the actual medical severity of the child’s heart lesion. Maternal perceptions were assessed through the mothers’ responses to the Child Behavior Checklist (CBCL), the PSI, the Parental Locus of Control Scale, and a measure of perception of medical severity. The child’s emotional adjustment was measured from the mother’s responses on the CBCL. Actual medical severity was assessed from medical chart review by the cardiology clinic’s nurse clinician. As hypothesized, the severity of the heart lesion had no significant relationship to the quality of the child’s
emotional wellbeing. Rather, quality of the mother-child relationship, as indicated by the Parenting Stress Index, had the strongest relationship with the child’s emotional adjustment.

Stress in Parents of Children with Psychological Disorders

As seen in parents of children with medical disorders, stress has also been found to be a factor in parents of children with psychological disorders. Stress as it related to parenting was examined in 150 families who had children with autism, behavior disorders, Down syndrome, and normal development (Dumas et al, 1991). Parents were administered the PSI, the Eyberg Child Behavior Inventory (ECBI), and the Beck Depression Inventory. SES was controlled across groups. Results revealed that both mothers and fathers of children with autism and behavior disorders experience greater stress along the child domain of the PSI than parents of normal children or children with Down syndrome. Mothers, but not fathers, of autistic and behavior disordered children reported greater depression than mothers in the other two groups. An analysis of group differences suggests that these elevated levels of dysphoria reflect children’s behavioral characteristics rather than a constellation of truly depressive symptoms. It therefore appears that the dysphoria reported by these mothers is directly associated with the stresses of parenting a difficult child rather than reflecting the presence of an actual depressive disorder.

The ECBI and the PSI were also used to study the relationships between parenting stress and child disruptive behavior (Eyberg, Boggs & Rodriguez, 1992). Data was
collected on 165 mothers of children evaluated at a university psychology clinic. Results suggest that childhood disruptive behavior is significantly positively correlated with maternal stress arising from parent and, more strongly, child characteristics. No significant differences were found between single- and two-parent families for reported stress. This suggests that spousal support may be less effective as a buffer against maternal parenting stress as the frequency of children's disruptive behaviors increase.

Donenberg and Baker (1993) expanded the parenting stress literature by focusing a study on families of preschool-aged children with externalizing disorders. Subjects were sixty-four families of a child between the ages of 3.5 and 6 years. These children had been diagnosed with externalizing behaviors (e.g. hyperactive, aggressive; \( n = 22 \)), autism (\( n = 20 \)), or no significant problem (\( n = 22 \)). The authors selected the normal and autistic groups to serve as polar control groups to anchor the behavioral continuum. They expected dependent measure scores of stress and impact for the externalizing group to fall somewhere in between these anchors. Results revealed, however, that parents of children with externalizing behaviors reported comparable levels of stress and impact as parents of children with autism. The researchers speculate that the high levels of stress reported by parents of externalizing children could be a result of more than the child's behavior. Externalizing preschoolers rarely receive a definitive diagnosis. Compared to families with autistic children, these families have no socially acceptable diagnostic label on which to base their children's behaviors. Therefore, disruptive behaviors are often attributed to the child's bad intentions and/or the parents' child-rearing deficiencies.
Parents of these children are also missing the mutual support being offered to autistic families through support groups. Results of this study suggest that parenting stress should be routinely assessed in parents of children who are preschool-age, at a time when interventions may be most effective.

Child age was also considered in a study of stress in families of children with developmental delays (Orr et al, 1993). Mothers of 112 children with developmental delays were assigned to three groups according to their child’s age. Mothers of children 2 to 5 years were assigned to the preschool childhood group, mothers of children 6 to 12 were in the middle childhood group, and mothers of children 13 to 18 made up the adolescent group. Mothers completed the PSI, and answered questions regarding their child’s behaviors and handicapping conditions. The hypothesis that parents would report increasing levels of stress as the child with developmental delays grows older was tested. Results revealed that parenting stress associated with child characteristics was high for all groups, but stress related to parent characteristics was within normal limits. Unexpectedly, mothers in the middle childhood group reported greater levels of stress than mothers in either the preschool or adolescent groups. One possible explanation offered by the researchers is that children with the most severe, and seemingly most stressful, handicapping conditions have higher infant and childhood mortality rates, and thus may not be represented in the current study. It is also plausible that families may learn to adapt to their child’s disabilities such that, by adolescence, the problems are no longer major sources of stress. Regardless of the reason, results of this study suggest that
the middle childhood period, when children first enter the school system, appears to be
the most difficult for mothers of children with developmental delays.

Parenting stress as reported by mothers of children in regular education and
special education classes has also been studied (Fuller & Rankin, 1994). The PSI was
administered to mothers of children in special education classes classified as emotionally
impaired (n = 25), as learning disabled (n = 25), and mothers of children in normal
education classes with no handicapping condition (n = 25). Child-related parenting
stress was higher for mothers of children in both special education groups than mother of
children in normal education classes. These mothers perceived their children as
displaying behaviors which they found difficult to cope with as parents. Parents of
emotionally disabled and learning disabled children also felt their children did not meet
their expectations in terms of physical, intellectual, and emotional characteristics.
Although not significantly so, Total Parenting Stress scores were higher for parents of
children with emotional impairment than for parents of children with learning
disabilities. An interesting note made by the authors is that the profile of the emotionally
impaired children presented in the PSI manual is very similar to the characteristics of
Attention-deficit Disorder as reported in the DSM-III (American Psychiatric Association,
1980).

Parenting Stress and ADHD

Within the psychiatric literature, one of the premier areas of interest regarding
parenting stress has been its relationship to parents of children diagnosed with Attention-
Deficit Hyperactivity Disorder (ADHD). ADHD is one of the most common childhood psychiatric disorders in this country. According to the DSM-IV, ADHD affects approximately 3-5% of school age children, and is characterized by a persistent pattern of developmentally inappropriate levels of inattention and/or hyperactivity-impulsivity (American Psychiatric Association, 1994). Inattentive behaviors often include failure to give close attention to details, difficulty in sustaining attention, and inability to remain on-task throughout completion. Hyperactivity manifests itself as fidgeting, squirming, and excessive talking. Impulsive behaviors include difficulty in delaying responses and frequent interrupting.

The significant numbers of children with ADHD who present at outpatient clinics suggest that factors associated with ADHD are related to problems in family functioning. In a study designed to distinguish which factors contributed to parenting stress in parents of children with ADHD, Anastopoulos, Guevremont, Shelton and DuPaul (1992) examined various parent, child, and environmental variables. The PSI was administered to mothers of 104 clinic-referred children with ADHD. Results showed that child characteristics (ADHD symptom severity, aggressive/ oppositional-defiant behaviors, child health status) accounted for 43% of the variance, parent characteristics (maternal psychopathology, maternal health status) accounted for 41% of the variance, and environmental factors accounted for 4% of the variance.

Predictors of parenting stress in caregivers of ADHD children were also examined by Baldwin, Brown and Milan (1995). Primary caregivers of 30 children diagnosed with
ADHD participated in their study. All of the children were of low SES and were being treated with stimulant medication for symptoms associated with ADHD. Parents were administered the CBCL and the Questionnaire on Resources and Stress. Findings suggest that family income and financial stressors accounted for the largest percentage of variance (42%), and that frequency of ADHD symptomatic behaviors accounted for up to 18% of the variance in overall stress reported by caregivers. The authors conclude that low SES parents appear to be at high risk for increased stress, which in turn may exacerbate the symptoms displayed in their ADHD children.

To examine whether differences exist in maternal versus paternal reports of parenting stress, Baker (1994) administered the CBCL and the PSI to 20 sets of parents of children diagnosed with ADHD. Results found a small but significant difference between mothers’ and fathers’ reports on the Child Domain of the PSI, indicating that mothers of children with ADHD perceived their children to be more stressful than did fathers. The author notes that the sample population used in this study was predominantly white, married, and middle-to-upper class in terms of socioeconomic status. Therefore, it may not be appropriate to generalize results of this study to all parents of children with ADHD.

In 1982, Mash and Johnston conducted a study which suggested that mother-child interactions with younger hyperactive children are more negative than those with older hyperactives. Based on these results, the authors hypothesized that more stress would be related to parenting younger children with hyperactivity than older children with
hyperactivity (Mash & Johnston, 1983). Compared to mothers of normal children, mothers of hyperactive children reported themselves to be more severely stressed on virtually all dimensions assessed by the PSI. As hypothesized, mothers of younger hyperactives reported greater parenting stress than mothers of older hyperactives. Parenting stress differences between age groups were particularly evident along the parent domain, with parents of younger hyperactives reporting higher levels of self-blame, depression, social isolation, and role restriction.

As these studies indicate, there is significant stress related to parenting children diagnosed with ADHD. Research designs have often excluded control groups, however, or have relied heavily on comparisons of ADHD subjects to non-referred subjects. Therefore, they do not distinguish whether the stress experienced by parents of children with ADHD is unique to ADHD, or whether increased parenting stress is an associated feature of caring for any child with a handicapping condition.

In one of few studies to address this issue, Baker and McCall (1995) compared reports of parenting stress in mothers of children with ADHD, mothers of children with learning disabilities, and mothers of non-referred children. Mothers of 16 children in each diagnostic category combined for a total N of 48. Each mother completed the CBCL and the PSI. Results revealed that mothers of children with ADHD reported significantly more externalizing child behavior problems than mothers in the learning disabled group, and more internalizing and externalizing child behavior problems than mothers of children in the non-referred group. Mothers of children with learning
disabilities reported significantly more externalizing behavior problems than mothers in the non-referred group. Regarding parenting stress, results showed that reports of parenting stress were highest for mothers of children with ADHD. Increased parenting stress was found to relate to child characteristics, particularly externalizing behavior problems.

Breen and Barkley (1988) examined reports of parenting stress by parents of ADHD boys, ADHD girls, non-ADHD clinic-referred girls, and normal, non-referred girls. Parents of these 52 children completed the PSI, the Beck Depression Inventory, and child behavior rating scales. Although ADHD girls were rated by their mothers as more hyperactive and more depressed than ADHD boys, no significant differences in parenting stress were reported by parents of these two groups.

When the 3 groups of girls were compared, results indicated that mothers of non-ADHD clinic referred girls were more depressed than mothers of ADHD or normal girls. Compared to the normal group of girls, ADHD and non-ADHD clinic referred girls were rated as more deviant by their mothers. Compared to the normal group, parents of ADHD girls reported significantly greater stress on 14 of the 17 PSI scales, and parents of non-ADHD clinic referred girls reported greater parenting stress across all scales. Differences were along the parent domain, with non-ADHD clinic referred parents (but not ADHD parents) reporting significantly greater depression, health problems, and spousal relationship problems. Due to the small sample size of each group and the heterogeneity of the non-ADHD clinic referred group, Breen and Barkley suggest that
these results be viewed with caution. With these limitations in mind, however, the study confirms that stress is related to parenting children with ADHD, as well as parenting children with other psychological disorders.

Determinants of parenting stress in parents of children with hyperactivity were compared to determinants of parenting stress in parents of physically abused children in a literature review by Mash and Johnston (1990). The primary factors found to be associated with stress in parents of hyperactive children were child characteristics such as impulsivity, overactivity, and defiance. Parental and environmental characteristics were found to play an important, but secondary role. In contrast, the primary contributors to parent-child interactive stress in physically abusive families were environmental and parental characteristics. These include poverty, social isolation and life stressors, and parental perceptions, cognitions, attributions and personality types. Childhood characteristics have been found to play only a secondary role with these families.

In summary, parenting stress has been studied in relation to numerous childhood medical and psychological disorders. Results confirm not only that parents of children with these disorders report greater levels of stress than parents of normal children, but also suggest a bi-directional influence of parenting stress. That is, increased levels of parenting stress reported by these parents are often found to have negative emotional and behavioral effects on their children.
Stress and Culture

Historically, multicultural aspects of parenting stress have been neglected in the literature, with subject populations consisting primarily of Caucasian parents. This is unfortunate given the numerous cultural factors which have been reported to relate to both parenting and stress. This section will address some of these stress-related factors, which include immigration, socioeconomic status, and culture-specific values. A review of the limited research conducted in this area will then be provided. Because of their dominant mix within the American population, the Mexican American and African American cultures will be the focus of this review.

Mexican Americans

One factor found to be associated with stress in individuals of different cultures living in America is migration. According to the 1997 Census Bureau, 28.3 million persons of Mexican descent now live in the United States. The Bureau estimates that 5 million undocumented immigrants live in America. Because of their continuing influx from Mexico, Puerto Rico, and Cuba, immigration is particularly relevant to individuals of Hispanic heritage. Espin (1987) describes migration as a three stage process: (a) the decision to migrate, (b) the actual move, and (c) the adaptation process to the new environment. The amount of stress experienced throughout the migration process depends on the circumstances surrounding each stage. The decision to migrate to America is usually made out of a desire to better one's current living situation. Regardless of the motive, however, the decision to separate from one's family, friends,
familiar environment, and dominant culture is a stressful one. Once the move has taken
place, additional stressors may be encountered. Not having a job and having
undocumented status have been two of the highest ranking stressors reported by Central
American and Mexican immigrants (Padilla et al, 1988). Other stressors include locating
shelter and learning a new language. In addition, a new social network must be formed,
and new norms, values and attitudes must be assimilated.

In a study conducted in northern California on immigration and mental health,
Warheit and his colleagues (1985) researched the stressful effects of immigration. Two-
hundred-one Mexican Americans who were born in Mexico and 342 Mexican Americans
born in the U.S. were surveyed to determine differences in mental health patterns.
Results suggested that Mexican Americans born in Mexico experienced significantly
greater depression and psychosocial dysfunction than respondents who were born in
America.

Increased stress due to immigration can be expected to detrimentally effect many
areas of a person’s life, including family life and parenting (Belsky, 1984). It would not
be surprising, then, for Mexican American parents to be at risk for dysfunctional
parenting behaviors due to the increase in stressors related to immigration. This would
be particularly relevant to 1st and 2nd generation Hispanics who have nuclear and/or
first-degree family members who were born in Mexico.

Hispanics and Latinos have been found to have culture-specific attitudes and
values regarding family roles and child-rearing which could also effect parenting and
influence parenting stress. It should be noted, however, that the cultural values addressed here are generalizations, and may not apply to all members of the Hispanic culture.

Familism is perhaps the backbone of all values held by the Hispanic culture. Familism emphasizes interdependence over independence, affiliation over confrontation, and cooperation over competition (Falicov, 1982). This was confirmed in a study of family attitudes in Mexican Americans (Ramirez, 1985). Results showed that Mexican Americans emphasized close family ties, obedience, respect, and family solidarity over individualism. The concept of familism extends beyond the immediate/nuclear family (“la casa”), to include an extended group (“la familia”) comprised of aunts, uncles, grandparents, cousins, godparents, and close friends (Sena-Rivera, 1979). Marin and Triandis (1985) found that Anglo Americans were willing to sacrifice only for the well-being of the nuclear family, whereas Hispanics reported willingness to sacrifice for members of both the extended and nuclear families. Although extended family members do not generally live in the same household with the nuclear family, they often live close by and are active participants in family life.

The Hispanic culture has often been described in terms of the dominance of males and submission of females. According to some researchers, the Hispanic family is patriarchal, with the father prevailing as the provider and protector. The wife usually assumes a more submissive role, putting her husband’s needs, wants and desires ahead of her own (Ho, 1987). Others dispute this stereotype, however, arguing that what is
frequently a public front is not what occurs privately within a relationship (Falicov & Karrer, 1980).

With the birth of children, the mother becomes the primary caregiver. Initially, the father is not involved in childcare tasks. As the child grows older, however, the Hispanic father assumes the role of disciplinarian. The mother continues to provide nurturance and support, and often takes on the role of mediator between father and child. Hispanic children are expected to obey and respect their parents and elders (Ramos-McKay et al, 1988). This appears to be emphasized more in the Hispanic culture than the Anglo American culture. In a study comparing third and fourth grade Mexican-American and Caucasian children, Hoppe, Kagan, and Zahn (1977) found that Caucasian children were three times as likely to say no to their mothers as their Mexican counterparts. Overall, Caucasian children more frequently expressed their will and engaged in direct conflict with their mothers.

As caretakers, Mexican American parents have been found to be more protective of their children than are Anglo American parents. According to Kagan (1977), Mexican American parents reported that they required their children to play closer to home, worried more when their children were not at home, and less often allowed their children to bring friends home to play than Caucasian parents. While older children are expected to help with errands, babysitting, and household tasks, they are rarely encouraged to seek responsibilities outside the home that may foster a sense of independence from the family.
A final factor found to be related to parenting stress in the Hispanic culture is socioeconomic status (SES). In general, Mexicans living in America have faced oppression, racism, and discrimination. Such attitudes lead to unemployment, worker alienation, and poverty. According to the Census Bureau (1997), 30.3 percent of Hispanics live below the poverty level, compared to 11.2 percent of Caucasians. The median income of Hispanics in the United States is $22,800, nearly $13,000 a year less than that of Caucasians. Research has suggested an inverse relationship between socioeconomic status and mental health problems (Hollingshead & Redlich, 1958). It is therefore indicated that Mexican Americans as a culture are likely to experience stress-related mental illness as a result of their low SES level.

African Americans

Culture-related attitudes and beliefs may also contribute to parenting stress experienced by African Americans. A history of slavery is an example of a significant stressor that continues to impact the lives of African Americans. While other cultural groups, such as Hispanics, often migrated to America in search of a better life, history reminds us that Africans were systematically captured and transported to America as slaves. Defined as property rather than people, slaves had no legal rights and suffered constant abuse. Slave owners purposely tried to destroy the African culture by robbing their slaves of their family ties, language, spiritual rituals, and other traditions (Cheatham, 1990). Most slaves resisted these attempts, however, and were able to maintain deep cultural roots despite the oppression.
The legacy of Black slavery continues in America today, despite laws and other actions taken to eliminate it. The interaction of Blacks and Whites is often guarded, conflictual, and suspicious. African Americans continue to face inequality of opportunity in employment and education. They must face constant prejudice and discrimination in job applications, in obtaining loans for beginning small businesses, and in housing.

African American child-rearing attitudes and expectations are also culturally driven. Since many Black families are headed by two working parents or a single parent, offspring are encouraged to become independent and autonomous at an early age (Peters, 1988). Compared to middle-class White parents, low-income Black parents have been found to be less likely to understand and support their child’s need for play and fantasy, less receptive to the noise and messiness of their child’s play, less accepting of their child’s expressions of individual ideas and feelings, and more requiring of obedience (Alvy, 1987). Black parents were, however, more accepting of their children’s requests to be observed during play, and more likely to feel that they could give their children proper at-home pre-school experiences than White parents. Alvy noted that many of the less supportive attitudes reported by the Black parents may have been related to constraints imposed by limited housing space, limited resources, and large family size.

Cultural values have also been a factor in African American child management and discipline styles. Traditional Black discipline emphasizes parental power and control through corporal punishment (Alvy, 1991). This style of discipline could likely be another legacy of slavery, which equated discipline with punishment, spanking,
whipping, and obedience. Research has shown that the use of physical punishment is related to relatively low rates of child compliance (Maccoby & Martin, 1983). Non-compliance, in turn, fosters further frustration and stress in parents.

As with Hispanics, African Americans are likely to experience stress related to their living environment and life-style. According to the 1997 Bureau of the Census, Black Americans earn a median income 36 percent less than whites. Black males aged 24 to 44 suffer from a 30 percent unemployment rate, compared to approximately 15 percent of white men the same age. In terms of family, the census data indicate that only 53 percent of Black Americans live as married couples.

**Cross-Cultural Research on Parenting Stress**

Solis (1990) conducted a cross-cultural comparison of parenting stress as reported by Hispanic and Caucasian parents. The Hispanic sample consisted of 223 maternal figures recruited from the pediatric department of a New York hospital. Nearly 80% of the Hispanic mothers were born outside of the United States (Mexico, Spain, Central and South America, Caribbean Islands), while just over 20% were second generation Hispanics born in America. All Hispanic mothers were fluent in Spanish. The sample used for comparison was the original norming sample of the PSI, 92% of whom were Caucasian and 6% of whom were African American.

Hispanic mothers were administered a measure of acculturation and a Spanish version of the PSI which had been translated by the researcher. Compared to the results of the original normative sample, Hispanic mothers reported significantly greater child
related, parent related, and total parenting stress. Compared to higher acculturated Hispanics, the less acculturated group experienced more depression, less attachment to their child, and less parental competence. While the less acculturated Hispanics reported experiencing the greatest amount of parenting stress, the higher acculturated Hispanics were similar to the Caucasian sample in their perceptions of parenting stress.

Stress and the Hispanic culture was also studied by Borrero (1992). This exploratory study examined the variables of stress (immigrant stress and parenting stress), social support, and acculturation as they related to 120 Hispanic immigrant mothers. One-hundred seven of the mothers were from El Salvador, 7 were from Guatemala, 5 were from Honduras, and 1 had immigrated from Nicaragua. The study defined immigrant stress as the degree of stress experienced from being separated from one's country, family, and culture. Research questions included the following:

1) Is there a relationship between acculturation and stress?
2) Is there a relationship between social supports and stress?
3) Is there a difference in levels of stress reported by mothers with family support and mothers without family support?
4) Is there a relationship between immigrant stress and parenting stress?

Most of these research participants were poorly educated, low SES illegal residents of the United States who did not speak English. Subjects completed the PSI Short Form, the Immigrant Stress Scale, and measures of acculturation, familism, and social support. Results indicate the following:
1) Language acculturation, or the degree to which the individual uses the language of the host country in comparison to their native language, was related to immigrant, but not parenting, stress. That is, increased knowledge and use of English was associated with lower levels of immigrant stress.

2) A lack of social support was associated with increased reports of parenting stress, but not immigrant stress.

3) Mothers with family support reported lower levels of parent-related parenting stress. There was no relationship between family support and immigrant stress.

4) There appears to be an overall direct relationship between immigrant stress and parenting stress.

In addition, Borrero found that this group of Hispanic mothers experienced extremely high levels of both immigrant stress and parenting stress. Compared to the original PSI normative sample, the research sample reported significantly greater parenting stress across all domains. High immigrant stress was associated with low language acculturation, fewer number of years in the United States, difficulty visiting the country of origin, and high frequency of basic needs. High immigrant stress and low social support were found to predict parental distress. This suggests that sources of stress and support may influence a parent’s ability to cope with parenting tasks.

A comparison of parenting stress as reported by African American mothers and Caucasian mothers has also been conducted (Hastings-Storer, 1991). In this study, 85 low-income African American mothers from rural Mississippi were administered the PSI.
Compared to the original PSI normative sample, these subjects reported significantly greater parenting stress on all Child Domain subscales, and on 4 of the 7 Parent Domain subscales. Based on their PSI scores, subjects were then characterized into High, Borderline, and Normal parenting stress groups. Demographic data was used to determine significant relationships between level of parent stress and the variables of marital status, education, employment, and income; lower-income, unmarried, less educated, and/or unemployed mothers were represented significantly more often in the higher stress groups.

McDowell and colleagues further tested the hypothesis that stress is related to social support and family resources (McDowell et al, 1995). Mothers of 105 premature infants with intraventricular hemorrhage (IVH) participated in the study. Sixty percent of the mothers were Caucasian, and 40% were nonwhite (37 African-American, 1 Hispanic, 1 “other”). Family income levels ranged from less than $5,000 yearly to $50,000+. The study took place in the context of a 2-year, early intervention program. Mothers were assessed at both the beginning and end of the program to determine differences in levels of parenting stress, child’s developmental progress, social support (from friends, family, professionals etc.), and resources (income, time availability, physical resources etc.). Data analyses of the full sample revealed that parents who perceived increases in social support, increases in resources, and increases in child’s developmental progress during the 2-year intervention program reported decreases in parenting stress. When the data was analyzed according to ethnic group, results suggested that these findings were true.
only for white respondents. The only variable found to correlate with a decrease in parenting stress among non-white subjects was income. That is, non-white parents who entered the intervention period with lower incomes were more likely to report increases in child-related parenting stress than non-white parents with higher incomes. Income level was not found to be a factor with white parents in this sample.

The researchers caution against making conclusions based totally on race, as these groups differed on factors other than ethnicity. They note that the non-white participants tended to have fewer resources and greater parenting stress prior to intervention. They conclude “it may be that regardless of race, families who begin intervention with greater stresses and/or fewer resources have different needs, expectations, and criteria for success.”

Bendell et al. (1989) used data collected in a recent study to provide initial normative data and standardization of the PSI with a low income, minority population. Sixty-six black urban women who had delivered their first child during adolescence participated in the study. Subject demographics reflected many of the African American characteristics previously discussed. The average SES was low (M = 4.5 on the Hollingshead index), 53% were not working or were on welfare, 58% had boyfriends but were not married, 47% lived in extended family units, and 29% lived alone with their child(ren). PSI responses revealed that child-related parenting stress was greater for this sample than for the original PSI standardization sample. Interestingly, parent-related
stress was not significantly higher for the current sample as compared to the original normative sample.

Teenage minority mothers were also the subject of study by East, Matthews, and Felice (1994). Age and ethnic background were independent variables in a study of adolescent mothers’ parenting attitudes, parenting confidence, and parenting stress. Subjects were Hispanic, African-American, and Caucasian former adolescent mothers. Mean age of subjects at the time of the study was 20.2 years. Mean age at time of delivery was 17.2 years. Participants completed questionnaires to assess favorable and unfavorable parenting attitudes, confidence in mothering and caretaking abilities, acceptance of the child, expected relationship with the child, and stressful everyday events in parenting and parent-child interactions. Low maternal age at both the time of the study and the time of delivery was associated with low child acceptance. Mothers who reported high parenting stress also had low confidence in the mothering role, low acceptance of their children, and low empathy for the needs of their children. Compared to African American and Hispanic mothers, Caucasian mothers had significantly more favorable parenting values. In addition, African American mothers reported significantly greater confidence in the mothering role than Hispanic mothers. No racial differences were found in relation to parenting stress as it was measured in this study. Because the subsample of White mothers in this study was particularly small, the researchers caution against forming conclusions regarding Caucasian parents based on these results.
In summary, the few studies that have directly assessed the relationship between culture and stress suggest that Hispanic and African American parents are at risk of significant parenting stress. This appears to be especially true when the parents are of low SES and/or low acculturation level. Studies indicate that parenting stress is significantly related to parent and, more strongly, child characteristics.

Statement of the Problem

Many studies have been conducted on parenting stress. These have included the relationship between parenting stress and medical disorders such as asthma (Carson & Schauer, 1992), failure-to-thrive (Singer et al, 1990), physical disabilities (Miller et al, 1992), and congenital heart disease (DeMaso et al, 1991). In addition, stress of parenting has been studied in relationship to childhood psychiatric disorders. Much of this research has focused on developmental delays (Orr et al, 1993; Kobe & Hammer, 1994; Dumas et al, 1991) and externalizing disorders (Eyberg, Boggs & Rodriguez, 1992; Dumas et al, 1991; Donenberg & Baker, 1993).

Within the parenting stress literature, one of the most predominantly studied psychiatric disorders is attention-deficit hyperactivity disorder. Criticisms of this research are that it often incorporated no control groups (Anastopoulous et al, 1992; Baldwin, Brown & Milan, 1995; Baker, 1994), or compared parents of children with ADHD to parents of normal children (Mash & Johnston, 1983). Results consistently suggest that parents of ADHD children report significant parenting stress. These studies fail to distinguish, however, whether the stress experienced by these parents is unique to
ADHD, or whether it is associated with caring for psychologically impaired children in general.

Of the few studies which have attempted to make this distinction, results have been inconsistent. Baker and McCall (1995) found that parents of ADHD children reported significantly greater parenting stress than parents of learning disabled children. In contrast, results of a study by Breen and Barkley (1988) indicate that parenting stress is related more generally to parenting children with psychological disorders. While a direct comparison of these two studies is obviously inappropriate, it does suggest that further research comparing parents of children diagnosed with ADHD to parents of children with other psychological disorders is needed.

While externalizing disorders have been the focus of numerous studies, internalizing disorders, such as depression, have been neglected in the parenting stress literature. Prevalence rates for depression in children in the general population range from 2% to 5% (Walker & Roberts, 1992). In clinical populations, the rate is estimated to be considerably higher, approximating 20%. According to the DSM-IV (American Psychiatric Association, 1994), the predominant features of depression in children are dysphoric and/or irritable mood, and a pervasive loss of interest or pleasure. There are usually changes in the amount of sleep the child seems to need, manifested by insomnia of hypersomnia. The child may complain about an inability to think or concentrate, and poor school performance and social withdrawal may be noted. Feelings of worthlessness
or inappropriate guilt may also be experienced. These may occur in conjunction with obsessions about death or suicidal ideations and/or attempts.

Several theories exist regarding the etiology of depression. The psychodynamic theory suggests that depression is likely to occur in individuals with strong dependency needs which resulted from unconscious conflicts originated during the oral stage of development. These dependency needs cause the person to incorporate significant others into their own identity, leaving them vulnerable to exaggerated grief should the significant other die, leave, or otherwise reject them. Feelings of anger and resentment over being abandoned are targeted toward the self, thus resulting in feelings associated with depression.

The behavioral theory of depression suggests that people become depressed when they lose important sources of reward. Life events such as losing one's spouse or job, which provide rewards such as money, sex, and friendship, result in depression. Depression may lead others to offer sympathy and attention, which then becomes a reward or reinforcement for the depressive behavior.

A cognitive-behavioral model of depression is based on the theory of learned helplessness (Seligman, 1975). When people believe that nothing they can do will change their lives or control their destiny, they generally give up. This is especially true in individuals whose attributional style leads them to focus blame for negative events on themselves and their general lack of competence (Miller & Norman, 1979). This pervasive, learned feeling of helplessness is often a factor in depression.
Physiological theories suggest that depression can result from chemical imbalances in the brain. Abnormal levels of neuro-transmitters such as norepinephrine and serotonin have been found in some depressed individuals. The possibility exists, however, that neurotransmitter differences are an effect, rather than a cause, of depression. Other theories suggest that the brains of depressed individuals do not regulate the levels of the neurotransmitters in response to environmental changes as well as the brains of normals do (Siever & Davis, 1985). Twin and adoption studies also exist which provide evidence for inheritability of depressive disorders (Andreasen et al., 1987; Wender, et al, 1986).

The complexities associated with the etiology of depression have lead to growing support for the diathesis-stress model (Peterson & Seligman, 1984). This theory suggests that it is the interaction of a biological predisposition and life stresses which lead to symptoms of depression.

As previously discussed, the relationship between parenting stress and depression has been neglected in the psychological literature. In the only such study found to date, Kobe and Hammer (1994) explored the relationships among symptoms of depression, behavioral characteristics, and parenting stress in a sample of 29 developmentally delayed children. Data from this study suggest that depression in children with developmental delays manifests similarly with regard to symptom pattern and associated features as depression in children with normal IQ’s. Results also revealed that as child depression ratings increased, mothers reported increased levels of parenting stress along
both the child and parent domains. Specifically, mothers of depressed children reported more depression, more marital problems, less competence in their role as a parent, and less attachment to their child. Along the child domain, mothers reported their depressed children to be less adaptable to family routine, to be more demanding of parents, and to provide low levels of reinforcement to the parent. The authors note that such a situation is likely to negatively impact both family functioning and the child's emotional development.

In a study designed to examine the relationship between parenting stress and the early behavioral organization of nonclinical 2-year-olds, Creasey and Jarvis (1994) found that parents reported relatively equal numbers of both internalizing and externalizing behaviors in their toddlers. Parents reported that their stress, however, was only related to their children's externalizing behaviors. Similarly, Breen & Barkley (1988) found no difference on PSI scores between mothers of hyperactive girls and mothers of clinical control girls with mixed psychopathology. Breen and Barkley felt these results suggested that parenting stress may be a general feature of parents of psychopathological children, particularly those with externalizing disorders. The authors suggested that had they compared their group of hyperactive girls to a clinical control group with internalizing symptomology (i.e., depression or anxiety), the ratings of parenting stress may have been different (i.e., lower).

The assumption that clinically significant child externalizing behaviors are more stressful to parents than clinically significant child internalizing behaviors is
understandable. Compared to more active children, those who are quiet and withdrawn may often be viewed as the “good” child, simply because they are less problematic for parents. This is concerning, however, particularly when one is armed with the understanding of the problematic adaptational course that depressive symptoms can pave. If physiological and/or cognitive-behavioral theories are to be believed, that is that depression may be inherited and/or learned, then the relationship between parenting stress and depression becomes an important one. If the child is reporting or exhibiting symptoms of depression, could this be the result of living with a depressed parent? Given the bi-directionality of parenting stress, it is likely that depressive symptomology will escalate in both the mother and child, putting each at risk.

One purpose of this study, therefore, is to compare parenting stress reported by mothers of children diagnosed with ADHD to parenting stress reported by mothers of children who are diagnosed with disorders for which internalizing behaviors are a hallmark feature. These will include Major Depressive Disorder, Dysthymic Disorder, and Depressive Disorder NOS, as described in the DSM-IV. For the purpose of this study, the ADHD diagnostic group will include children diagnosed with predominantly inattentive type, predominantly hyperactive-impulsive type, and combined type. Based on the results of the ADHD/parenting stress literature, it is hypothesized that mothers of children with ADHD will report significantly greater parenting stress than mothers of children with depressive disorders. Due to the externalizing behaviors common in ADHD children, it is further hypothesized that mothers of ADHD children will report
significantly greater child-related stress than mothers of children with depressive disorders.

Based upon the theories of depression, it is realistic to speculate that the parents of children diagnosed with depression are themselves at risk of depressive symptomology. These symptoms can manifest in feelings of incompetence, withdrawal, and health problems, all of which are measured on scales within the Parent Domain. It is therefore hypothesized that mothers of children with depression will report significantly greater parent-related stress than mothers of children with ADHD.

To date, most ADHD/parenting stress research has focused on the experiences of Caucasian parents. The second purpose of this study, therefore, is to examine Black and Hispanic cross-cultural differences related to parenting stress. As previously discussed in this review, there are many attitudes and beliefs held by Mexican Americans and African Americans which could interact with both parenting behaviors and stress levels. These include child rearing practices, family values, SES levels, and factors related to immigration. It is therefore hypothesized that Mexican American and African American mothers will report significantly greater parenting stress than Caucasian mothers.

Hypotheses

1) Mothers of children diagnosed with ADHD will report greater overall parenting stress than mothers of children diagnosed with depressive disorders.

2) Mothers of children with ADHD will report more child-related stress than mothers of children with depressive disorders.
3) Mothers of children with depression will report more parent-related stress than mothers of children with ADHD.

4) Hispanic and African American mothers will report more overall parenting stress than Caucasian mothers.
CHAPTER 2

METHOD

Subjects

The study sample consisted of 81 mothers of children under the age of 13 who were receiving psychological services through an outpatient mental health agency. The mean age of the mothers was 32.35, and the mean age of the target child was 8.8 years. The mothers’ marital status was as follows: 34.2% were married to the target child’s father, 49.3% were single (either divorced from the target child’s father, or they had never married), 9.6% were re-married, 6.8% were living with another individual (either a family member, friend, or significant-other). With regard to income, thirty-four percent of the subjects earned between $0 and $10,000, 44.3% earned between $10,000 and $20,000, and 21.5% earned over $20,000. Eight subjects reported earning “$0.00”, indicating that they were on welfare or some other subsidized income. When these eight responses were excluded, the average income was $13,634, and there were no significant income differences between ethnic groups. Eleven percent of the families consisted of 2 people (the mother and the target child), 24.7% consisted of 3 people, 29.6% consisted of 4 people, 24.7% consisted of 5 people, and 9.8% of the families consisted of 6 or more people. The mothers’ education level was as follows: 14.8% were college graduates, 34.6% had some college, 44.4% had at least some high school education, and 6.2% had
no high school training. With regard to birth order of the target child, 23.6% were only-children, 29.2% were first-born, 34.7% were second born, and 12.5% were born third of later.

Table 1 depicts the number of target children by race, gender, and diagnosis. Fifty-seven (70.4%) of the children were diagnosed with ADHD, compared to 24 (29.6%) diagnosed with depressive disorders. Forty (49.4%) children where Caucasian, 31 (38.3%) were African American, and 10 (12.3%) were Hispanic. The small number of Hispanic participants is not reflective of the mental health agency population. Numerous Hispanic mothers were contacted by telephone who reported speaking only Spanish, although the information in their chart indicated otherwise. Children with bi-racial parents were excluded from the study, as were children who were given multiple diagnoses. With regard to gender, 59 (72.8%) were males and 22 (27.2%) were females.

Materials

The Parenting Stress Index

The Parenting Stress Index - Form 6 (PSI) was developed by Abidin (1995) to provide a measure of the relative magnitude of stress in the parent-child system, and to identify the sources of this parenting stress. The instrument was standardized for use on parents of children ranging from 1 month to 12 years in age. The normative sample was 2,633 mothers ranging in age from 16 to 61 (mean age = 30.9). Ethnic group composition was approximately 76% White, 11% African American, 10% Hispanic, and 2% Asian. Test-retest reliability and internal consistency were established through
acceptable coefficient levels. Researchers have also provided evidence for the construct and predictive validity of the PSI (Cameron & Orr, 1989; Jarvis & Creasey, 1991; Zakreski, 1983).

The PSI is a self-report instrument which takes approximately 20 minutes to complete. There are 120 items which are responded to on a five point Likert scale (strongly agree, agree, not sure, disagree, strongly disagree). The instrument is designed to measure three source domains of stress: child characteristics (Child Domain; 47 items), parent characteristics (Parent Domain; 54 items), and situational/demographic characteristics (Life Stress Domain; 19 items).

The Child Domain is divided into six subscales which identify child qualities that make it difficult for parents to fulfill their parenting roles. These are 1) hyperactive and distractible qualities, 2) a child’s inability to adjust to changes in his or her social environment, 3) qualities which make the parent feel rejected by the child, 4) demanding qualities, 5) qualities associated with negative mood, and 6) child qualities which do not match the expectations of the parent.

The Parent Domain contains seven subscales which identify sources of stress related to dimensions of the parent’s functioning. There are 1) perceived levels of competence, 2) isolation from emotional support systems, 3) emotional attachment to the child, 4) paternal health, 5) feelings of depression, 6) spousal support, and 7) perceptions that the parenting role is restricting their personal identity.
The Life Stress Domain identifies stressful situational circumstances outside of the parent-child relationship which are often beyond the control of the parents. These include the death of a relative, loss of a job, death, legal problems, etc.

**The Child Behavior Checklist - Parent Form**

The Child Behavior Checklist (CBCL; Achenbach & Edelbrock, 1983) is a parent-completed child behavior rating scale. One version of the CBCL covers children ages 2 to 3 (100 items), and another covers children ages 4 to 18 (113 items). The items combine to create a profile of behavioral deviance and social competence. The CBCL profile yields eight empirically derived scales which are grouped into two broad-band factors: Internalizing and Externalizing. Internalizing behaviors include sadness, shyness, feelings of worthlessness, withdrawal, worry, and frequent crying. Behaviors found within the externalizing broad-band include lying, stealing, truancy and disobedience. A T score of > 70 is indicative of clinically significant levels of psychopathology. The CBCL has been used extensively in child psychopathology research, and displays good psychometric properties (Achenbach & Edelbrock, 1991).

**Procedure**

Subjects were recruited from an outpatient mental health agency which offers mental health services to children and adolescents living in the local community. Before clients can obtain services at the agency, they must first go through an intake process. During the intake, parents of all prospective clients are required to complete an intake packet containing various forms and questionnaires. Included among these are the
CBCL, and general information questionnaires which ask for demographic data. A psychosocial evaluation by means of an intake interview is conducted on each family by an intake worker. Following the intake interview, each child is seen by a staff psychiatrist who performs a psychiatric evaluation and assigns a diagnosis when appropriate.

Attempts were made to recruit subjects within the first month of receiving psychological services. This was done in an effort to control for treatment effects. Whenever possible, subjects were recruited for the current study by means of a one-on-one meeting between the researcher and the perspective subject. Mothers of children under 13 years of age who were diagnosed by the staff psychiatrist as having either ADHD or a depressive disorder were asked to participate in the study. As detailed in the Narrative for Parents (Appendix A), potential subjects were informed that their participation consisted solely of completing questionnaires. Mothers were assured that their responses to the questionnaires would remain confidential, and were only for the purpose of the study. Mothers who agreed to participate in the study signed informed consent forms (Appendix B). One copy of the informed consent was kept on file by the researcher, and another copy was given to the research participant. The subject then completed the PSI. Forty-one of the 81 subjects were recruited in this manner.

When in-person recruitment was not possible, subjects were recruited over the telephone. Attempts were made to contact 183 potential subjects by phone. Of these potential subjects, 138 were diagnosed with ADHD, and 45 were diagnosed with
depressive disorders. Contact was frequently unsuccessful due to inaccurate telephone numbers and unreturned messages. Several clients who were contacted were subsequently deemed inappropriate for the study. Reasons included mothers who were actually 'adoptive' mothers, Hispanic mothers who did not speak English, and target children who had been hospitalized. Eighty-six mothers who were deemed appropriate for the study agreed to participate. Each was mailed a research packet containing a cover letter further explaining the study, informed consent forms, the PSI, and a stamped, self-addressed return envelope. Of the 86 packages mailed, 40 were completed and returned (47% rate of return).

The CBCL was used to measure the degree to which the mothers in the study perceived internalizing and externalizing behaviors in the target child. Current research suggests that maternal reports are extremely accurate means of assessing childhood psychopathology (Faraone et al., 1995; Boyle et al., 1997). Although it is required by the agency that CBCLs be completed by all clients, they were located in only 50 of the target children's charts. CBCLs were available on 61% of the ADHD children (n = 35), and on 63% of the depressed children (n = 15). The PSI, which was used to measure parenting stress, was collected on the entire sample of 81 subjects. For all statistical analyses, significance was defined as \( p \leq .05 \).
CHAPTER 3

RESULTS

Hypotheses 1 and 2 predicted that mothers of children diagnosed with ADHD would report greater overall parenting stress and child-related parenting stress, respectively, than mothers of children diagnosed with depressive disorders. Because the groups did not include the same number of participants, the Levene test for homogeneity of variances was conducted. This test indicated that the variances were, indeed, homogeneous. One-way ANOVAs were then conducted to determine differences between diagnostic groups on the dependent measures of parenting stress. Table 2 lists the mean PSI scores of the two diagnostic groups. Results indicate no significant difference between groups on the total Parenting Stress Domain or on the Child Domain. Hypothesis 3, which stated that mothers of children with depressive disorders would report more parent-related stress than mothers of children with ADHD, was also unfounded. A significant difference was noted, however, within the Child Domain on the Hyperactivity/Distractibility subscale of the PSI, F(1, 79) = 5.84, p < .05, suggesting that mothers of ADHD children experience more parenting stress as a result of their children's overactive, restless, and distractible behaviors than do mothers of depressed children.

Hypothesis 4 stated that Hispanic and African American mothers would report more overall parenting stress than Caucasian mothers. After successfully testing for homogeneity of variances using Leven's test, data were analyzed in one-way ANOVAs to
establish overall significance. When significance was found, post hoc comparisons were made with Tukey's Honestly Significant Differences (HSD) test. Table 3 lists the mean PSI scores for subjects by ethnicity. Significant differences were found between ethnic groups on the Total Stress Domain, $F(2, 78) = 3.9, p < .05$, and the Parent Domain, $F(2, 78) = 3.04, p < .05$. Contrary to hypothesis 4, post hoc comparisons revealed that Caucasian mothers reported significantly more stress on both domains than African American mothers. There was no significant difference between Hispanic mothers and the other two ethnic groups. Within the Parent Domain, two subscales revealed significant differences between groups. Compared to African American mothers, both Caucasian and Hispanic mothers reported significantly more stress related to their perceived competence as a mother, $F(2, 78) = 5.94, p < .05$. On the Depression subscale of the PSI, results were not significant when all three ethnic groups were compared. A subsequent Tukey HSD test revealed significant findings, however, when only comparing African Americans and Caucasians. Caucasian mothers reported significantly more stress related to feelings of depression than African American mothers, $F(2, 78) = 2.74, p < .05$. As Table 3 also indicates, there were no significant differences between ethnic groups on the Life Stress Domain.

Although no significant differences were found between Child Domain scores for the different ethnic groups, three Child Domain subscales revealed significant differences. An $F$ ratio of 2.93 ($p < .05$) indicates that Caucasian mothers reported significantly more parenting stress due to their child's lack of adaptability than African American mothers (Adaptability Subscale). Compared to African American mothers, Caucasian mothers also
reported significantly more stress related to their child's mood (Mood Subscale), $F(2, 78) = 3.49$, $p < .05$. Compared to African American mothers, Hispanic mothers reported significantly more stress related to their child's lack of reinforcing behaviors (Reinforces Parent Subscale) $F(2, 78) = 3.45$, $p < .05$.

Research has shown that factors such as income level and education level can affect the amount of stress reported by parents (Borrero, 1992; Hastings-Storer, 1991; McDowell et al., 1995). To test the possibility that ethnic differences were being subsumed by these factors, chi-square analyses were conducted. Results revealed no significant differences between the three ethnic groups on the factors of income level and education level. A one-way ANOVA was also used to determine if the child's gender was a significant factor with regard to parenting stress. No significant differences were found, indicating that this group found it no more stressful to parent boys than girls.

Responses on the CBCL were analyzed using a one-way ANOVA to determine differences between behaviors reported by mothers of ADHD children and behaviors reported by mothers of depressed children. Mean scores and F-tests results are shown in Table 4. Mothers of both ADHD and depressed children reported externalizing behaviors to be in the clinically significant range ($T > .70$) as measured on the CBCL, with no significant differences between groups. Mothers of children diagnosed with depressive disorders reported significantly more pathological internalizing behaviors than mothers of children diagnosed with ADHD, $F(1, 48) = 15.23$, $p < .05$. 
CHAPTER 4

DISCUSSION

The participants in this study were primarily Caucasian and African American low income, high-school educated individuals. Regardless of their ethnicity, or of their child's psychopathology, the mothers in this study reported considerably higher than average levels of parenting stress. Abidin (1995) suggested that parents who earn raw Total Stress scores on the PSI at or above 260 should be referred for professional consultation. Given that the mothers in this study earned an average PSI Total Stress score of 282, it is not surprising that they were presenting to a mental health agency requesting psychological services for their children. The focus of this study was to examine parenting stress along the dimensions of the target child's diagnosis, and the ethnicity of the family. Each of these dimensions will be discussed separately, followed by conclusions and implications for treatment.

Parenting Stress Associated with ADHD and Depression

Based on earlier research, it was expected that mothers of children diagnosed with Attention Deficit Hyperactivity Disorder (ADHD) would report significant levels of parenting stress, particularly related to characteristics of the child (Marsh & Johnston, 1983; Breen & Barkley, 1988; Baker & McCall, 1995). The data in this study confirmed these expectations. Compared to the normative sample, Total Parenting Stress of ADHD...
mothers approached the 93rd percentile, with the Child Domain nearing the 99th percentile and the Parent Domain nearing the 75th percentile. What was not expected, however, were the results obtained from mothers of children with depression. Research is lacking in the area of the stress experienced by parents of depressed children, but theory predicts the type of parent stress that these mothers would experience. The biological theory of depression suggests that the disorder has physiological underpinnings which are likely genetic. Thus, it would not be surprising to find that a depressed child has a mother who also suffers from an affective disorder. If so, these mothers could likely feel incompetent, isolated, and experience somatic complaints, all of which are measured on the Parent Domain of the PSI. Cognitive and behavioral theories suggest that a lack of environmental enrichment and reinforcement can lead to depression in children. Family structures in which the parental relationship is generally negative and lacking in mutual support could understandably foster the type of environment which could lead to depression in a child. This type of environment is measured on the Spouse subscale of the Parent Domain.

It was therefore predicted that a significant amount of the stress reported by mothers of depressed children would be associated more with characteristics within themselves than with characteristics within the child. It was expected that this would be especially true when compared to mothers of children with ADHD. This was not the case, however. Mothers of depressed children reported stress levels essentially equal to mothers of ADHD children on 15 of the 16 PSI scales. The only subscale that differed
between groups was Distractibility/Hyperactivity. According to Abidin (1995), elevated scores on this subscale appear to be associated with children who display behaviors associated with ADHD. Understandably, mothers of depressed children reported less stress related to these child-characteristics than mothers of ADHD children.

These results indicate that ADHD children and depressed children appear to be equally distressing to their mothers, particularly with regard to the child’s behaviors. To better understand this finding, the behavioral measure which the mothers completed on their children was examined. On the CBCL, mothers of both groups of children reported equal levels of pathological behavior in their children (as reflected by the Total T score). Mothers of children diagnosed with ADHD reported a significant level of externalizing behaviors, and an insignificant level of internalizing behaviors. These findings were to be expected. Also expected, mothers of children with depressive disorders reported significant levels of internalizing symptoms on the CBCL. Interestingly, however, they also reported pathological levels of externalizing behaviors. According to published criteria for childhood depression (American Psychiatric Association, 1994; Weinberg et al., 1973), externalizing symptoms are to be expected. These could include irritable mood, excessive fighting, sudden anger, and hostility. Arieti and Wilson (1978) consider associated symptoms of childhood depression to be reflections of the child’s developmental stage. They point out that the child’s expression of emotions attributable to depression is determined by the child’s level of cognitive development. According to these researchers, due to their limited cognitive abilities, young children may not exhibit
the classical symptoms or affect of depression until later in childhood. In early childhood, depression may take on symptoms such as agitation or separation anxiety. In middle childhood, temper tantrum, running away from home, and truancy may be manifestations of depression. As adolescence approaches, depression may manifest as restlessness or grouchiness, or in the form of negativistic, antisocial, or aggressive behaviors. Given the developmental levels of the target children in this study who were diagnosed with depressive disorders, it is understandable that their mothers would report various externalizing behaviors. What is surprising, however, is that the externalizing behaviors in depressed children appear to be as severe as the externalizing behaviors in ADHD children.

Breen & Barkley (1988) suggest that parenting stress may be a general feature of parents of psychopathological children. Results of this study are in agreement with their suggestion. They further speculate, however, that this would particularly be the case with externalizing disorders. On this point, the current study disagrees. According to this study, parents of children with depressive disorders experience the same degree of parenting stress as parents of children with ADHD. Although the experience of stress is typically wished upon no one, this finding is somewhat comforting; it seems nothing but appropriate for mothers of children presenting with symptoms such as withdrawal, sleep difficulties, appetite problems, and feelings of worthlessness to feel significant stress. The fact that the type of stress that these mothers experienced was related more to child-characteristics than parent-characteristics can also be viewed positively. Although the
Parent Domain for mothers with depressed children was higher than average, it was less of a contributing factor to their overall levels of stress than the Child Domain. This suggests that these mothers are not feeling significant levels of depression, incompetence and health problems which could impede their abilities to care for their children in a functional manner.

Parenting Stress Associated with Ethnicity

Other studies that have used the PSI have consistently reported that Caucasian mothers report less stress related to parenting than mothers of minority races (Solis, 1990; Borrero, 1992; Hastings-Storer, 1991; Bendell et al, 1989). This was not confirmed in the current study, however. On the Total Stress Domain and the Parent Domain of the PSI, Caucasian mothers reported more parenting stress than African American mothers. Within the Parent Domain, two subscales were significant; the Competence subscale and the Depression subscale. To identify issues specific to each of these subscales, they will be examined separately. It is beyond the scope of this paper to explain these findings with any degree of certainty. Speculations will be made, however, more in an effort to foster discussion and challenge beliefs than to provide absolute conclusions.

Parent Domain

Results of the Competence subscale of the Parent Domain suggest that African American mothers feel more competent as parents than do either Hispanic or Caucasian mothers. With regard to the two minority groups, these findings are consistent with East
et al. (1994). These researchers found African American mothers to have greater confidence in the mothering role than Hispanic mothers. High scores on the Competence subscale can be produced by a number of factors. For example, it is expected that younger, less experienced parents will earn a higher score than relatively older parents. In the current study, however, there were no significant differences between the ages of the mothers in the different racial categories. High Competence scores can also result from parents who are limited in their knowledge of child development, or who lack sufficient child management skills. In addition, elevated scores on this scale can be indicative of a parent who is feeling overwhelmed, and who does not find the role of parenting to be what they expected.

It is likely that African American mothers' higher level of perceived competence as parents, as compared to Caucasian and Hispanic mothers, is related to the Black familial network. Demographic data has suggested that living arrangements among African Americans often involve multigenerational and collateral relatives (Beck & Beck, 1989). Other studies have indicated that Black mothers who are single parents often live within an extended family context, and that the detrimental effects of rearing children alone are minimized by support from the extended family (Savage et al, 1978; Tolson & Wilson, 1990). Giving advice and guidance to adults occurs frequently in African American families, and family members often turn to their elders for counsel on decisions concerning their children (Martin & Martin, 1978). Empirical research on the extended family also indicates that grandmothers appear to model effective caregiving to
their granddaughters, and that young mothers feel very supported by their own mother in their role as parent (Stevens, 1984). Given these facts, it is not surprising that African American females feel competent as mothers.

Conversely, the relative lack of perceived competence felt by Hispanic mothers may be explained in a similar way. Unlike African Americans, who have a common African heritage, Hispanics are a multiracial ethnic group, which includes a large number of recent immigrants. Most Hispanics in the United States are of Mexican, Puerto Rican, Cuban, Central American, or South American descent. Many immigrate to the United States from their native country every year, leaving behind their family and social support. Although the immigration backgrounds of the Hispanic mothers in this study are not known, it is possible that some may not have had the luxury of developing the perceived competencies of parenting gained through contact with extended family members.

Language differences may also be related to levels of perceived competency among Hispanics. That is, if some of the parents speak Spanish as their primary language, they may not feel adequate to converse with teachers, or to help their children with some homework assignments which rely primarily on a good understanding of the English language. Due to cultural differences, it is also possible that Hispanic mothers do not feel comfortable seeking help from Caucasian professionals in the area of parenting. In fact, a degree of caution and suspiciousness was noted on the part of some
of the Hispanic mothers during the collection of data for this study. This may be an example of the level of trust which these mothers feel for the majority ethnic group.

Compared to Caucasian mothers, African American mothers scored significantly lower on the Depression subscale of the Parent Domain. High scores on this subscale suggest that the parent is experiencing a significant level of depression. Parents with elevations on this scale often find it difficult to come up with the physical and emotional energy needed to fulfill their duties as a parent. As it relates to parenting, a behavioral manifestation is often withdrawal and an inability to respond with authority and assertiveness to the child. According to the National Women's Health Information Center (1998), overall rates of depression are lower among African American and Hispanic women than among Caucasian women. The current study appears to support such a trend. Research has also shown that higher levels of depression are associated with lower levels of self-esteem (Munford, 1994). It is therefore understandable that depression, accompanied by possible low self-esteem, could contribute to feelings of stress in parents.

**Child Domain**

Although the Child Domain scores of the three ethnic groups were not significantly different, an examination of the subscales revealed several significant findings. On the measures of Adaptability and Mood, African American mothers reported significantly less stress than Caucasian mothers. High scores on the Adaptability subscale indicate that the job of parenting is being made difficult by virtue
of the child’s inability to adjust to social or environmental changes. Behaviorally, these children overreact to changes in routine, avoid strangers, have difficulty changing from one task to another, and are difficult to calm once upset. The Mood subscale is elevated when children are exhibiting negative mood states such as unhappiness and depression. According to Abidin (1995), when Mood scores are extreme, impairment in maternal attachment to the child should be investigated.

The differences reported by Black and White mothers on the above two subscales are difficult to explain. Based on the bi-directional theory of parenting stress, however, it is very likely that the relatively high levels of parent-related stress being experienced by Caucasian mothers are exacerbating negative symptoms in the child, and vice versa.

Significant differences were also found on the Reinforces Parent subscale, where Hispanic mothers reported significantly higher levels of stress than African American mothers. Elevated scores on this subscale indicate that parents do not perceive their child as a source of positive reinforcement. The parent-child interactions are not rewarding to the parent, and the parent often feels rejected by the child. As a result, the parent-child bond is threatened. It is possible that differences on this subscale could be due to acculturation issues. That is, these Hispanic children may be rejecting some traditional Hispanic values in favor of more “American” traditions. As a result, these Hispanic mothers may be feeling rejected, not only personally, but culturally. Because levels of acculturation were not established for the current Hispanic population, however, these conclusions are speculative.
Implications for Treatment

The results of this study give rise to several important treatment considerations. The first involves the treatment of children with internalizing disorders. Just as it is often stressful to parent depressed children, it can also be stressful to treat these children. While parents may sometimes be primarily invested in getting help to change their child’s externalizing behaviors, it is important not to lose focus of the motivation behind these childhood behaviors. The parents may need help understanding that their child isn’t a ‘bad’ kid, but rather a ‘sad’ kid. Rather than focus solely on changing the child’s behavior, there may be environmental aspects which should be addressed. A good history, which includes behavioral reports from the mother, should be obtained.

A second treatment consideration involves therapy for parents. Raising any child can be stressful. To do the job adequately, support is vital. This is particularly the case when the child is experiencing psychological difficulties. Support groups are commonplace for parents of children with ADHD. One such group, Children with Attention Deficit Disorder (C.H.A.D.D.), has nearly 300 chapters around the country. Results of the current study suggest that parents of children with other psychological disorders, including depressive disorders, could also benefit from support groups. Groups for parents of children with depression should always focus on educational aspects of the disorder, such as the signs of suicide. Discussion groups also provide excellent venues from which to gather suggestions on effective child management techniques. In addition, the group format allows parents the opportunity for emotional support from peers. For
some parents, structured parent training classes may be beneficial. When depression in
the mother is an issue, individual psychotherapy would be warranted.

The current study suggests that multicultural issues should also be considered
when treating these families. Many minority individuals have responded to racism,
oppression, and discrimination by refusing to trust persons differing from them in color,
life-style, and class values (Boyd-Franklin, 1989). Because most mental health agencies
are considered "White institutions," minorities may be reluctant to seek services. If the
psychological needs of minority populations are to be met, therapists and mental health
workers must take responsibility for the development of culturally sensitive attitudes and
skills.

The fact that the hypothesis regarding ethnic groups was not confirmed suggests
that ethnic groups are not discrete categories to which people belong that can fully
explain aspects of psychological functioning. According to Jean Phinney (1996), culture
and ethnicity are "best understood in terms of dimensions along which individuals and
samples vary, rather than as categories into which individuals can be classified."
Phinney goes on to suggest that, even if certain subcultures can be described with any
accuracy, they are "not static, but continually evolving and changing." Therefore, while
it is important to consider groups of people in accord with their history and cultural
backgrounds, it is imperative to also consider the individual aspects of clients and
patients.
Study Limitations

The relatively small sample sizes limit the generalizability of the current study findings. This is particularly true with regard to the Hispanic sample. The small n prohibited any conclusions be made with any degree of statistical confidence. The data collected suggested a trend, however, for Hispanic mothers to report parenting stress at levels even higher than those reported by Caucasian mothers. Given this trend, future research should focus on parenting stress in the Hispanic population. The heterogeneity of the Hispanic culture makes it difficult to generalize research conclusions. It is therefore recommended that future research address the issue of acculturation.

Based on the experience of data collection for this study, the following suggestions are offered to help improve sample size:

1) Data appeared to be more easily obtained when Hispanics were recruited in-person rather than over the telephone. For the current study, the telephone response rate was 38% for Hispanics, compared to 47% for the entire sample.

2) Given the large number of Spanish speaking-only clients, the Spanish version of the PSI may be indicated (Solis, 1990).

3) When possible, the assistance of a bilingual researcher or research assistant would be helpful to ensure no communication difficulties.
APPENDIX A

NARRATIVE FOR PARENTS
Appendix A

Narrative for Parents

This mental health agency, in association with the University of North Texas, is conducting a volunteer research project. The purpose of the study is to examine how parents are effected by the different problems experienced by their children. It is hoped that the information we get from this study will help us learn how to provide better treatment for children and their families.

Should you decide to participate, your role in the study would consist solely of completing 2 questionnaires regarding yourself and your child. To insure confidentiality, we ask that you not put your name on either of these questionnaires. All information obtained for the purpose of the study will be recorded with a code number so that the identity of you and your child will be protected.

You may withdraw your consent and discontinue participation in the study at any time. A decision not to participate in the study, or to withdraw after agreeing to participate, will not affect the services that are available to you or your child from this agency.
APPENDIX B

INFORMED CONSENT
Appendix B

INFORMED CONSENT

As the parent(s) of a child or adolescent consumer of services at Dallas County Mental Health Mental Retardation (DCMHMR), I, ________________, agree to participate in a research project being conducted in conjunction with the Department of Psychology of the University of North Texas. The purpose of the project is to study how parents are being affected by the various behavioral and emotional problems experienced by their children. It is anticipated that the information obtained from this study will provide a better understanding of the unique characteristics and stressors related to different childhood problems. Such an understanding will assist in providing the most effective treatment possible to children and their families.

As a participant, I understand that my involvement will consist solely of completing two or three questionnaires regarding myself and my child. To insure confidentiality, all information obtained for the purpose of the study will be recorded with a code number that will protect the identity of myself and my child.

I understand that no personal risk or discomfort is anticipated as a result of my participation in this study. Should I experience any psychological discomfort as a result of completing the necessary forms, I understand that I can contact the investigator at the number below, and an appropriate therapy referral will be made.

I further understand that I am free to withdraw my consent and discontinue participation in this study at any time. A decision to withdraw from the study will not affect the services available to me or my child from DCMHMR.

I understand that at the conclusion of the study, a summary of results will be made available to all interested parents. If I have any questions or problems that arise in connection with my participation in this study, I should contact Cyndi Walker, M.S., research investigator at 333-7030 (work) or 817/461-9393 (home), or Randy Smith, Ph.D., project director at 333-7030.

______________________________________       _____________________________
Participant (parent)                        Date

______________________________________       _____________________________
Researcher                                 Date

THIS PROJECT HAS BEEN REVIEWED BY THE UNIVERSITY OF NORTH TEXAS COMMITTEE FOR THE PROTECTION OF HUMAN SUBJECTS.
APPENDIX C

TABLES
<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Group 1</th>
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<th></th>
<th>Group 2</th>
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<th>Group 3</th>
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<tr>
<td></td>
<td>males</td>
<td>females</td>
<td>males</td>
<td>females</td>
<td>males</td>
<td>females</td>
<td>males</td>
<td>females</td>
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<td>6</td>
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<td>4</td>
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Table 2

PSI Means, Standard Deviations, and Statistical Tests for Diagnostic Groups

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<thead>
<tr>
<th>Measure</th>
<th>ADHD (n=57)</th>
<th>Dep. (n=24)</th>
<th>F-test</th>
<th>results</th>
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<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
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<td>43.99</td>
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<td>Child domain</td>
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<td>21.96</td>
<td>142.7</td>
<td>22.44</td>
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<td>Distractability/Hyperactivity</td>
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<td>Reinforces parent</td>
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<td>4.64</td>
<td>14.0</td>
<td>5.36</td>
</tr>
<tr>
<td>Demandingness</td>
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<td>5.64</td>
<td>29.2</td>
<td>6.60</td>
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<tr>
<td>Mood</td>
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<td>3.47</td>
<td>16.2</td>
<td>3.46</td>
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<tr>
<td>Acceptability</td>
<td>19.4</td>
<td>4.78</td>
<td>19.6</td>
<td>4.74</td>
</tr>
<tr>
<td>Parent domain</td>
<td>135.7</td>
<td>27.48</td>
<td>144.9</td>
<td>33.18</td>
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<tr>
<td>Competence</td>
<td>31.5</td>
<td>6.25</td>
<td>34.8</td>
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<tr>
<td>Isolation</td>
<td>15.8</td>
<td>5.02</td>
<td>16.4</td>
<td>5.13</td>
</tr>
<tr>
<td>Attachment</td>
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<td>3.22</td>
<td>14.3</td>
<td>3.51</td>
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<td>Health</td>
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<td>4.54</td>
<td>13.8</td>
<td>3.93</td>
</tr>
<tr>
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<tr>
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<td>20.5</td>
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Note: *p < .05
Table 3

PSI Means, Standard Deviations, and Statistical Tests for Racial Groups

<table>
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<tr>
<th>Measure</th>
<th>Group 1 (n=40)</th>
<th>Group 2 (n=31)</th>
<th>Group 3 (n=10)</th>
<th>F-test results</th>
<th>Pairwise Comparisonsa</th>
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<tbody>
<tr>
<td>Total stress domain</td>
<td>M  291.1</td>
<td>M  265.5</td>
<td>M  298.4</td>
<td>3.90^b</td>
<td>1 &gt; 2, 1 = 3, 2 = 1</td>
</tr>
<tr>
<td>Child domain</td>
<td>SD 45.62</td>
<td>SD 41.81</td>
<td>SD 34.11</td>
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<tr>
<td>Distract/Hyperactive</td>
<td>147.6</td>
<td>136.9</td>
<td>150.5</td>
<td>2.70</td>
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<tr>
<td>Adaptability</td>
<td>32.6</td>
<td>32.0</td>
<td>33.0</td>
<td>.324</td>
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</tr>
<tr>
<td></td>
<td>6.91</td>
<td>4.98</td>
<td>5.72</td>
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<tr>
<td>Reinforces parent</td>
<td>16.4</td>
<td>12.7</td>
<td>16.9</td>
<td>3.44^b</td>
<td>1 = 2, 1 = 3, 2 &lt; 3</td>
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<tr>
<td></td>
<td>4.53</td>
<td>4.80</td>
<td>5.02</td>
<td></td>
<td></td>
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<tr>
<td>Demandingness</td>
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<td>26.1</td>
<td>29.6</td>
<td>2.68</td>
<td>1 = 2, 1 = 3, 2 = 3</td>
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<td>5.86</td>
<td>5.54</td>
<td>6.54</td>
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<td></td>
</tr>
<tr>
<td>Mood</td>
<td>16.4</td>
<td>14.3</td>
<td>15.7</td>
<td>3.48^b</td>
<td>1 &gt; 2, 1 = 3, 2 = 3</td>
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<td></td>
<td>3.26</td>
<td>3.53</td>
<td>3.30</td>
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<tr>
<td>Acceptability</td>
<td>18.9</td>
<td>19.7</td>
<td>20.7</td>
<td>.634</td>
<td>1 = 2, 1 = 3, 2 = 3</td>
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<td>4.55</td>
<td>4.98</td>
<td>4.90</td>
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<tr>
<td>Parent domain</td>
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<td>147.9</td>
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<td>31.39</td>
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Table 3 continued

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<tr>
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<th>Group 2 (n = 31)</th>
<th>Group 3 (n = 10)</th>
<th>F-test results</th>
<th>Pairwise Comparisons a</th>
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<tbody>
<tr>
<td>Competence (Caucasian)</td>
<td>33.7 7.93</td>
<td>29.4 6.34</td>
<td>37.4 4.81</td>
<td>5.94 c</td>
<td>1 &gt; 2, 1 = 3, 2 &lt; 3</td>
</tr>
<tr>
<td>Isolation</td>
<td>16.4 5.19</td>
<td>15.4 5.10</td>
<td>16.2 4.39</td>
<td>.366</td>
<td>1 = 2, 1 = 3, 2 = 3</td>
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<td>Attachment</td>
<td>15.1 3.33</td>
<td>14.5 3.14</td>
<td>14.9 3.96</td>
<td>.238</td>
<td>1 = 2, 1 = 3, 2 = 3</td>
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<tr>
<td>Health</td>
<td>13.4 4.28</td>
<td>12.7 4.72</td>
<td>14.1 3.67</td>
<td>.489</td>
<td>1 = 2, 1 = 3, 2 = 3</td>
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<tr>
<td>Role restriction (n = 32)</td>
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<td>18.6 5.44</td>
<td>22.0 4.78</td>
<td>2.01</td>
<td>1 = 2, 1 = 3, 2 = 3</td>
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<tr>
<td>Depression</td>
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<td>19.8 6.24</td>
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<tr>
<td>Spouse</td>
<td>21.1 6.19</td>
<td>18.3 5.82</td>
<td>19.6 6.38</td>
<td>1.81</td>
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<td>Life Stress Domain</td>
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<td>13.9 9.35</td>
<td>15.9 10.28</td>
<td>.319</td>
<td>1 = 2, 1 = 3, 2 = 3</td>
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a All pairwise analyses were based upon an alpha level of .05.
b Alpha level of .05.
c Alpha level of .01.
Table 4

**Means, Standard Deviations, and Statistical Tests for Behavioral Measures**

<table>
<thead>
<tr>
<th>Measure</th>
<th>Group 1</th>
<th>Group 2</th>
<th>F-test results</th>
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<td>SD</td>
<td>M</td>
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<td>(n = 57)</td>
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<td>(n = 24)</td>
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<td>CBCL</td>
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<td>Total</td>
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<tr>
<td>Internal</td>
<td>63.3</td>
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<tr>
<td>External</td>
<td>70.6</td>
<td>6.96</td>
<td>70.0</td>
</tr>
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Note: *p < .001
REFERENCES


National Women's Health Information Center. (1998). Public-use data file and documentation. 4women@osophs.dhhs.gov.


