

NEIGHBORHOOD CONDITIONS AND PARENTING PRACTICES AS  
EXPLANATIONS FOR RACE DIFFERENCES IN ADOLESCENT  
EXTERNALIZING BEHAVIORS

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NEIGHBORHOOD CONDITIONS AND PARENTING PRACTICES AS  
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Although used widely in psychological research, *race* and *ethnicity* are amorphous and ill-defined constructs, lack adequate reliability and validity, and are rarely suitable as explanatory variables or mechanisms of psychological processes. Existing data regarding the relation of race and ethnicity to youths' externalizing behaviors are inconsistent and conflicting, which highlights their inability to adequately explain or predict human behavior. The variables for which race and ethnicity act as proxies should be tested to identify the mediators directly linking race and ethnicity with developmental outcomes. After reviewing data and ecological theory positing that neighborhood factors may account for group differences, because of vast disparities between the communities in which many Black and White Americans live, I present three hypotheses proposing neighborhood mediation of race and parenting effects on adolescent externalizing behavior. Findings were: (a) there were race differences in externalizing behavior across raters; (b) neighborhood conditions were associated with race but not with externalizing behaviors; and (c) neighborhood factors failed to account for race-moderated relations

between adolescent externalizing problems and parent acceptance of the youth and use of psychological control. Implications of these findings for measuring neighborhood effects on individuals are discussed.

Approved \_\_\_\_\_

Date \_\_\_\_\_

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## CHAPTER I

### INTRODUCTION

It is well documented that racial and ethnic minority youths are overrepresented as both victims of crime and as criminal offenders (Pope, Lovell, & Hsia, 2001; Snyder, 2003). Government data on juvenile offending consistently show higher rates of delinquency for several groups of non-White youths (Matsueda & Heimer, 1987; Peeples & Loeber, 1994). However, in contrast to these large and consistent racial and ethnic differences in juvenile offending found in government data, studies based on psychometric measures have less consistently found significant differences by race and ethnicity for anti-social behavior and other conduct problems. In a review of epidemiological studies of Disruptive Behavior Disorders [DBD], Lahey, Miller, Gordon, & Riley (1999) found “weak and inconsistent evidence on potential racial and ethnic differences in the prevalence of DBD” on both diagnostic / categorical and dimensional measures of DBD. However, a review of 53 published studies containing 95 cross-race comparisons of externalizing behaviors in non-treatment-referred youth found that 57% of those comparisons were statistically significant (Walters, 2004). This inconsistency across studies indicates that there are unassessed variables moderating the relation between race / ethnicity and externalizing problems, and it will be important to identify these variables. In turn, given that race and ethnicity are associated with externalizing problems, it will be important to identify the variables for which race and ethnicity are merely the proxies.

For ease of presentation and comprehension, I will use the term “race / ethnicity”; however, such usage does not imply that the constructs of race and ethnicity are interchangeable. To the contrary, despite overlapping characteristics in some contexts, race and ethnicity are two distinct constructs (Okazaki & Sue, 1995; Senior & Bhopal, 1994), which is why I reference both terms.

### **Limitations of Race and Ethnicity as Explanatory Variables**

To date, most studies of racial / ethnic differences in psychological phenomena have been limited by a number of conceptual problems, the most serious being the questionable utility and validity of “race” and “ethnicity” as research variables. In modern society, race and ethnicity are most salient as socially formed cognitive constructs by which we classify ourselves and others and form representations of the social world (Tate & Audette, 2001). Most individuals consistently identify themselves as being of at least one particular race or ethnicity, and we often associate ourselves with the characteristics and experiences we believe to be associated with those racial and ethnic classifications (e.g., beliefs about child development, mental health, parenting techniques, coping behaviors, views of society and relationships). However, from a scientific point of view, the constructs of race and ethnicity are based on ill-defined parameters and hold meanings that continually change according to the social zeitgeist of the day and with respect to who belongs in which group(s) (American Anthropological Association, 1998; Aspinall, 1997; Hahn & Stroup, 1994; Hoyert, 1994; McKenney and Bennett, 1994; Phinney, 1996; Senior & Bhopal, 1994; Tate & Audette, 2001; Walters, 2004).

Despite the lack of scientific clarity regarding what exactly race and ethnicity are, as social constructs both significantly impact peoples' lives and thus deserve attention as constructs that play important roles in psychological health and social functioning. Walters (2004) reviewed the literature detailing problems with using race and ethnicity as variables in psychological research (Betancourt & Lopez, 1993; Fisher et al., 2002; Gorman-Smith, Tolan, Zelli, & Huesmann, 1996; Hall, Bansal, & Lopez, 1999; Hinshaw & Park, 1999; Illovsky, 1994; Johnson, 1990; Jones, 1991; Myers, Cintron, & Scarborough, 1994; Phinney, 1996; Pope-Davis & Liu, 1998; Sue, 1991; Tate & Audette, 2001; Yee, Fairchild, Weizman, & Wyatt, 1993; Zuckerman, 1990) and highlighted themes upon which these researchers converged, two of which are most applicable to this study:

1. *Race and ethnicity are markers and correlates of variables and processes that influence psychological health and are rarely, if ever, the **direct** cause of it; and*
2. *Analyzing and interpreting data by racial and ethnic group classifications often leads us to ignore important individual differences within these groups, and creates the impression that between-group differences in mental health and psychological processes are more extreme than they actually are.*

The implication of the first theme is that race and ethnicity, while associated with increased risk of DBD, juvenile delinquency, and arrest, are not the causes of between-group discrepancies in such phenomena. Race and ethnicity covary with many other variables, and unless those variables are controlled, differences due to other factors may be mistakenly considered to be due to race (Steinberg & Fletcher, 1998). As Tate and Audette (2001, p. 508) noted, "Using the meaningless concept of 'race' as if it were a useful explanation obscures the valid constructs that can more efficaciously explain the data." In effect, race and ethnicity mask variables, such as culturally linked beliefs about

child development or parenting, that are hypothesized to explain racial / ethnic differences. Van de Vijver & Leung (1997) have suggested that many of the same methods recommended for the collection and analysis of data in cross-cultural research are appropriate for use in research on different racial and ethnic groups within the U.S. They also stated that “culture is too global a concept to be meaningful as an explanatory variable ... and should be replaced by its constituents” which they called “context variables” (van de Vijver & Leung, 1997, pp. 3-4). Likewise, the Study Group on Race, Culture, and Ethnicity, a multidisciplinary group (inclusive of psychology) focused on advancing the use and conceptualization of race and ethnicity, has recommended that researchers move beyond the use of “race” and “ethnicity” as broad categorical variables (Murry, Smith, & Hill, 2001). Therefore, because race and ethnicity are proxy variables for more specific factors influencing outcomes, it will be important to study the actual variables and constructs that we often theorize, yet often fail to measure, to be associated with different ethnic groups. Thus, when designing studies to measure the influence of race and ethnicity on psychological outcomes, it is important to consider *a priori* which variables one might want to analyze or control, and why such variables might explain racial / ethnic differences.

With respect to the aforementioned second theme regarding the use of race and ethnicity as variables in psychological research, dividing participants by race can obscure variability and diversity within racial groups (Myers et al., 1994), thereby increasing the likelihood that researchers will overlook intra-group processes that may explain occurrences of psychopathology more efficiently than group demarcations such as race or ethnicity. For example, although African American male adolescents are more likely

than their male European American peers to be involved in violent offenses, the vast majority of African American adolescents are not involved in violent crimes (Gorman-Smith et al., 1996), so investigating individual and community factors that differentiate violent from nonviolent youths within groups is equally if not more telling than investigating the factors underlying between-group differences. Focusing on between-group differences also masks important individual, family, and community predictors of delinquent behaviors, such as individual physiological arousal, parenting, exposure to violence, and community attitudes about violence and other disruptive behaviors (Markowitz, 2003). The selection of socioeconomically homogenous White and ethnic minority research samples, a result of researchers' tendency to select participants from a limited sample of neighborhoods and social groups, has been a major barrier to producing results that are applicable to the majority of people living in the U.S. (Gorman-Smith et al., 1996; Milburn, Gary, Booth & Brown, 1991; Walters, 2004). Furthermore, excessive use of broad ethnic and racial categories leads to, at best, unintentional misinterpretations of the role of race and ethnicity in psychological health (Hinshaw & Park, 1999), and at worst, to pernicious stereotyping, racism, and treatment protocols based on faulty research.

### **Do Neighborhood Factors Account for Racial and Ethnic Differences in Externalizing Behaviors?**

As previously mentioned, arrest data, and to a lesser degree, psychometric measures of externalizing behaviors have indicated some differences between European American and African American youths. Despite such findings, in a report on youth violence, the U.S. Department of Health and Human Services (2001) concluded that race

is *not* a risk factor for youth violence once other risk factors such as living in disadvantaged violent neighborhoods are accounted for, indicating that race acts as a proxy and a marker of risk factors. Thus, neighborhood factors may be useful in explaining racial / ethnic differences.

Studies and literature reviews suggest that externalizing problems in children and adolescents are related to several specific neighborhood characteristics, including community norms, collective efficacy, and availability of resources (Leventhal & Brooks-Gunn, 2000); neighborhood safety and danger (Greenberg, Lengua, Coie, Pinderhughes, & CPPRG, 1999); community violence (Salzinger et al., 2002); urban versus rural residence (Barnes, Welte, & Hoffman, 2002); social disorganization and residential instability (Beyers, Bates, Pettit, & Dodge, 2003); and having relatively large proportions of single-parent families, unemployed adult males, persons receiving government assistance, and adults with less than a high school education (Chase-Lansdale & Gordon, 1996; Simons, Johnson, Beaman, Conger, & Whitbeck, 1996). These empirical findings support the importance of using contextual frameworks and ecological models when studying child and adolescent development, particularly when the neighborhood is the context (Elliott et al., 1996; Leventhal & Brooks-Gunn, 2000; Sampson, Morenoff, & Gannon-Rowley, 2002; Salzinger et al., 2002). However, because of over-reliance on homogenous samples and other methodological limitations, the extent to which neighborhood conditions currently explain racial and ethnic differences in the prevalence of externalizing behaviors remains largely unknown.

In a review of racial and ethnic differences on ratings of externalizing behaviors, Walters (2004) concluded that macro-demographic variables such as neighborhood



conditions and living within a larger culture of urban poverty and social disorganization are likely to account for racial / ethnic differences in delinquency and externalizing behaviors better than traditional SES variables like family income or single-parent status do (Dornbusch, Erickson, Laird, & Wong, 2001; Greenberg et al., 1999; Group for the Advancement of Psychiatry, Committee on Preventive Psychiatry, 1999; Guerra, Huesmann, Tolan, Van Acker, & Eron, 1995; Maguin, Loeber, & LeMahieu, 1993; Matsueda & Heimer, 1987), because neighborhood factors such as concentrated poverty and cohesion amongst neighbors may be serving as mediators for racial / ethnic effects. However, they may also serve as moderators, in part because African Americans and European Americans faced with similar socioeconomic circumstances (e.g., similar incomes and occupations) often live in very different environments and have different outcomes.

The differences in the types of neighborhoods in which many African Americans and European Americans live are notable (Leventhal & Brooks-Gunn, 2000; Pinderhughes, Nix, Foster, Jones, & CPPRG, 2001). For example, in a study involving participants from severely disadvantaged neighborhoods (defined by proportion of those on public assistance, female-headed families, family poverty, unemployment, and out-of-wedlock births) in Pittsburgh, Peeples & Loeber (1994) were not able to match Black and White participants from similar neighborhoods because in that city, the poor neighborhoods that Whites lived in were not as disadvantaged as the poor neighborhoods where Blacks lived. Likewise, a study that targeted low-income participants in Baltimore, Washington, D.C., and New York City found that even the poorest White schools had lower concentrations of poor students than the predominately Black and

Latino economically disadvantaged schools (Seidman et al., 1998). Furthermore, such disparities are not limited to poor neighborhoods. Middle-class and affluent predominately African American neighborhoods are usually geographically closer to less affluent neighborhoods than equally affluent predominately European American neighborhoods are (Leventhal & Brooks-Gunn, 2000). Therefore, the benefits of high-SES neighborhoods may not be as strong for African American youths living in higher-SES and more affluent neighborhoods since these neighborhoods tend to be geographically close to the urban poverty and social disorganization that are risk factors for cognitive impairment and child maltreatment, which are in turn associated with later adolescent violence and crime (Group for the Advancement of Psychiatry, Committee on Preventive Psychiatry, 1999; Leventhal & Brooks-Gunn, 2000).

Socioeconomic indicators such as poverty (when disregarding chronicity and income-to-needs ratio), family structure, and income have not always provided clear process explanations for racial / ethnic differences in externalizing behaviors because, to some extent, these factors represent different constructs and experiences for different ethnic groups (Hill & Bush, 2001; McLeod & Nonnemaker, 2000; McLoyd, 1998). For example, given the same level of poverty, poor African American children are likely to experience longer periods of poverty than poor European American children do, and timing and duration of poverty have been shown to be of great importance when evaluating poverty's effects on children (McLeod & Shanahan, 1996; McLoyd, 1998). Greenberg et al. (1999) found that after accounting for number of siblings, single-parent status, the mother's age at birth of the child, and head(s) of household education and occupation, race still significantly predicted both parent and teacher reports of

externalizing behaviors at the end of first grade. However, the effect of race became non-significant when neighborhood safety, family risk (e.g., life stress, home environment, marital distress), and mother's depression were added to the model. Neighborhood safety accounted for unique variance above and beyond family risk and mother's depression.

Some of the strongest evidence that neighborhood conditions can account for racial / ethnic differences in delinquency comes from a study by Peeples and Loeber (1994) in which they found that African American youths who did not live in disadvantaged neighborhoods exhibited similar levels and types of delinquency as European American youths who did not live in disadvantaged neighborhoods. Also, Kupersmidt, Griesler, DeRosier, Patterson, & Davis, (1995) found that African American children from middle-SES neighborhoods, even when they lived in single-parent families, had similar levels of aggression as European American children. In another study, Black adolescents living in socioeconomically disadvantaged neighborhoods met more criteria for Conduct Disorder than those living in a working-class Black neighborhood (Aneshensel & Sucoff, 1996). All of these studies emphasize the importance of analyzing neighborhood data in addition to other socioeconomic indicators when attempting to explain racial / ethnic differences in externalizing problems. However, questions remain regarding how neighborhood characteristics are associated with racial / ethnic differences in externalizing problems.

### **Parent-Mediated Effects of Neighborhoods on Externalizing Problems**

In a review of neighborhood effects on parenting, Leventhal & Brooks-Gunn (2000) reported that several ethnographic and empirical studies have suggested that

parents in poor and dangerous neighborhoods are more controlling and less warm. Such parenting may be more adaptive in high-risk neighborhoods where parents may need to adopt harsher strategies in order to prepare their children for the realities of life in a dangerous neighborhood (Markowitz, 2003; Pinderhughes et al., 2001). In an evaluation of this hypothesis of “adaptive” parenting, Simons et al. (1996) tested such a model and found that the effect of community disadvantage on boys’ conduct problems was mediated by quality of parenting. In a sample of African American male adolescents living in a medium-sized southeastern U.S. city, path analyses indicated that neighborhood poverty was associated with increased adolescent propensity for violence via poverty’s association with family stress and conflict (based on mother-report); and these relations were stronger for families who had lived in the neighborhood longer (Paschall & Hubbard, 1998). Social disorganization has also been associated with ineffective parenting (Simons, Johnson, Conger, & Lorenz, 1997).

A recent meta-analysis by Grant et al. (2003) confirmed that negative parenting at least partially mediates the relation between poverty and externalizing problems in children and adolescents. Economic disadvantage can undercut parental efficacy through the creation of stress, tension, and reduction of family attachment (Smith & Krohn, 1995). Studies have suggested that “poverty and economic stress elevate socio-emotional problems in children partly by increasing parents’ tendency to discipline children in a punitive and inconsistent manner and to ignore children’s dependency needs” (McLoyd, 1998, p. 196). Pinderhughes et al. (2001) found that African American parents were lower on warmth than European American parents even when controlling for urban versus rural residency; however, these ethnic differences in warmth became non-

significant after controlling for the more proximal variable of parent-reported neighborhood danger. They found similar results for the relation of appropriate and consistent discipline to neighborhood danger and dissatisfaction with public services; that is, ethnic differences on discipline became non-significant after their neighborhood factors were considered. More studies with additional samples are needed to replicate and further our current empirical knowledge regarding parent mediation of relations between neighborhood characteristics and developmental outcomes.

### **Do Race and Ethnicity Moderate Relations Between Parenting and Externalizing Behaviors?**

Two separate meta-analyses have documented small-to-moderate relations between parenting and externalizing symptoms in children and adolescents, with effect sizes upwards of .45 (Grant et al., 2003; Rothbaum & Weisz, 1994). Using factor analysis, Rothbaum & Weisz (1994) derived an acceptance-responsiveness factor (similar to the construct of *warmth* often used in studies) that was composed of several aspects of approval, guidance, motivational strategies, acceptance, parent-child synchrony, and low scores on coercion. There was a negative relation between parents' acceptance and children's externalizing behaviors. Grant et al. (2003) concluded that negative parenting (an aggregation of measures of parent-child hostility and adolescent-report of parental support) was related to externalizing behavior. Thus, strong support exists for the role of parenting in predicting externalizing behavior.

Although neither of these meta-analyses assessed whether the relation between parenting and externalizing behavior differs by race or ethnicity, findings from individual studies have led some researchers to suggest that race and ethnicity may indeed moderate

relations between parenting behaviors and externalizing problems. Based on both qualitative and quantitative studies that have found racial / ethnic differences in relations between parenting and various child outcomes, researchers have suggested that parenting practices may hold different meanings for different racial and ethnic groups, partly due to differences in these groups' political, historical, social, and economic experiences (e.g., Hill & Bush, 2001; Lansford, Deater-Deckard, Dodge, Bates, & Pettit, 2004; Lindahl & Malik, 1999; McLoyd, Cauce, Takeuchi, & Wilson, 2000; Pinderhughes et al., 2001). For example, "hierarchical" or authoritarian parenting seems to be perceived more negatively in many European American families, but in ethnic minority families such parenting may be more normative and adaptive, or seen as caring when coupled with warmth (Lindahl & Malik, 1999; McLoyd et al., 2000). Race and ethnicity have been found to significantly moderate relations between externalizing problems and parent-child attachment and parental warmth and involvement (Dunifon & Kowaleski-Jones, 2002; Fishbein & Perez, 2000; Paschall, Ennett, & Flewelling, 1996; Smith & Krohn, 1995); parental control and supervision (Fishbein & Perez, 2000; Smith & Krohn, 1995; Walker-Barnes & Mason, 2001); parents' use of physical discipline (Deater-Deckard, Dodge, Bates, & Pettit, 1996); and multiple caregiver risk factors (Deater-Deckard, Dodge, Bates, & Pettit, 1998).

On the other hand, supporting arguments that race and ethnicity have little effect on most developmental processes, some studies have found small or no moderating effects of race and ethnicity on relations between externalizing problems and family relations and attachment (Dornbusch et al., 2001; Williams, Ayers, Abbott, Hawkins, & Catalano, 1999); parental monitoring (Fridrich & Flannery, 1995); and harsh discipline

(Nix, Pinderhughes, Dodge, Bates, Pettit, & McFayden-Ketchum, 1999). Some researchers have questioned the need to study ethnic differences in processes, arguing that there are actually few reasons why most developmental processes would vary across racial groups (Rowe, 1997). Because members of different racial and ethnic groups are genetically more alike than different, and because all groups share a common American culture (at least in research on Americans), we should expect more similarities than differences in developmental processes across race and ethnicity (Rowe, Vazsonyi, & Flannery, 1994).

Mirroring the aforementioned conflicting findings, a recent review of racial / ethnic differences in parenting found neutral, positive, and negative outcomes for African American children whose parents used physical discipline and relatively harsh or authoritarian parenting styles, indicating that authoritarian parenting styles may affect some African American children as negatively as they affect European American children (Ngo, 2004). Some studies have found that even within the same sample of participants, race and ethnicity moderated relations between some but not all parenting behaviors and externalizing problems. For example, Hill & Bush (2001) found a significant interaction between ethnicity and hostile control; but ethnicity did not moderate the relation between conduct problems and inconsistent discipline, love withdrawal, enforcement, parenting efficacy, or negative communication. Another study found that the relation between conduct problems and parent acceptance, hostile control, inconsistent discipline and family conflict did not differ between Whites and English-speaking Mexican Americans; however, the relation between acceptance and conduct

problems differed between English-speaking Mexican American mothers and Spanish-speaking Mexican American mothers (Hill, Bush, & Roosa, 2003).

Thus, whereas the importance of family processes in predicting externalizing behaviors is generally accepted, particularly in regards to parent-child attachment / warmth and supervision / control (Leventhal & Brooks-Gunn, 2000; Smith & Krohn, 1995), relatively little is known about the precise roles that race and ethnicity play in moderating the links between family processes and delinquency (Smith & Krohn, 1995). These data suggest that there are complex relations among these variables that need additional clarification. Despite overwhelming similarity in biogenetic and developmental processes across social groups, differences like discrepant delinquency rates do exist and highlight the need to understand the causes of such disparities. For reasons outlined previously, variables associated with neighborhood characteristics may extend our understanding beyond the categorical and loosely-defined constructs of race and ethnicity we often use, and reconcile these discrepant findings.

### **Do Neighborhood Characteristics Account for Racial or Ethnic Moderation of Relations Between Parenting and Externalizing Behaviors?**

As discussed previously, neighborhood conditions may directly influence parenting behaviors, and given that socioeconomic and neighborhood conditions can differ substantially along racial / ethnic lines, it is possible that neighborhood variables mediate racial / ethnic moderation of relations between parenting and child outcomes. Such a possibility is supported by ecological theory, which posits that the effectiveness of parenting practices depends on community characteristics, which in turn suggests that neighborhood characteristics may moderate (more proximally than race / ethnicity)



associations between parenting and adolescent conduct problems (Beyers et al., 2003). In support of such theory, neighborhood characteristics have been found to moderate the association between parenting and youth outcomes, with increased parental control linked to positive outcomes in high-risk neighborhoods but to less beneficial outcomes in lower-risk neighborhoods (Leventhal & Brooks-Gunn, 2000).

Still, it remains unclear whether neighborhood conditions mediate race / ethnicity's moderating effects on parenting and externalizing problems. Beyers et al. (2003) found that although the neighborhood characteristics of residential instability, structural disadvantage, and concentrated affluence did not predict initial levels of externalizing problems for 11-year-olds, the association between decreasing externalizing levels and increasing parental monitoring was stronger for families in neighborhoods with more residential instability. Being African American was associated with living in a neighborhood with more residential instability; however, even after accounting for neighborhood variables, ethnic differences on externalizing problems remained. Using the same sample, Lansford et al. (2004) found that although some of the physical discipline-by-race interaction effects on externalizing problems were explained by neighborhood safety, physical discipline did not entirely explain race's moderation of the relation between physical discipline and externalizing problems. Another study by Dornbusch et al. (2001), which assessed community economic disadvantage using census data, found no racial differences in the relation between family attachment and delinquency.

These studies provide some information regarding the ability of neighborhood characteristics to account for – or fail to account for – racial / ethnic differences in the

relation between parenting and externalizing behaviors. Most studies that have found racial / ethnic moderation of these relations have not, however, controlled for neighborhood conditions; and those that have need to be replicated with more stringent analyses, such as those incorporating both neighborhood-level (e.g., census data) and individual-level (e.g., participant opinions of their neighborhood) data into designs estimating neighborhood effects (Leventhal & Brooks-Gunn, 2000; Roosa et al., 2003).

### **Current Study**

#### *Conceptual Aims*

A recent review remarked upon the need for studies of neighborhood effects on child and adolescent development, as many studies in this area have not focused specifically on youths (Sampson et al., 2002), a developmental stage in which the effects of neighborhood might be expected to be most pronounced. To build upon the existing body of knowledge regarding relations between race / ethnicity, neighborhoods, and parenting, the present study aimed to: (a) determine whether neighborhood factors accounted for race differences in externalizing problems; (b) assess whether parenting behaviors might, in turn, mediate associations between neighborhood factors and externalizing problems; and (c) test whether neighborhood factors would account for any moderation of race on parenting-externalizing relations.

## *Hypotheses*

After first determining whether race, neighborhood factors, and parenting behaviors were related to adolescents' externalizing problems, the following hypotheses regarding relations among the three factors and externalizing problems were tested:

*Hypothesis 1. Neighborhood characteristics will partially account for mean-level racial / ethnic differences in externalizing behaviors.* Hypothesis #1 is expected to be confirmed when the dependent measures are parent and youth ratings of externalizing behavior. However, past studies have reported larger effect sizes for race when teachers rated students' externalizing behavior (Walters, 2004), so it was predicted that race would maintain significance in predicting teacher ratings of externalizing behavior even after neighborhood characteristics were controlled.

*Hypothesis 2. Parenting behaviors will partially mediate relations between neighborhood characteristics and externalizing problems.* In the most comprehensive review to date of reported associations between neighborhood conditions and child and adolescent outcomes, Leventhal & Brooks-Gunn (2000) recommended that studies go beyond using only neighborhood-level data (e.g., census data) and also examine individual- and family-level variables to determine the mechanisms through which neighborhoods influence child and adolescent development, with parental characteristics and behaviors as such mechanisms. A more recent review by Roosa et al. (2003) reiterated the need to study mechanisms of neighborhood influences. Two dimensions of parenting behaviors are often studied, both in regard to their relations to child and adolescent socio-emotional outcomes (Grant et al., 2003; Rothbaum & Weisz, 1994) as well as to their response to neighborhood characteristics (Leventhal & Brooks-Gunn,

2000; McLoyd, 1998; Pinderhughes et al., 2001; Simons et al., 1996). Those two dimensions are responsiveness / warmth (also identified as acceptance-responsiveness) and harshness / control. To test Hypothesis 2, analyses will determine whether three parenting subscales reflective of both dimensions – (a) *Acceptance*, (b) *Psychological Control*, and (c) *Firm Control* – mediate relations between neighborhood characteristics and adolescent externalizing behaviors.

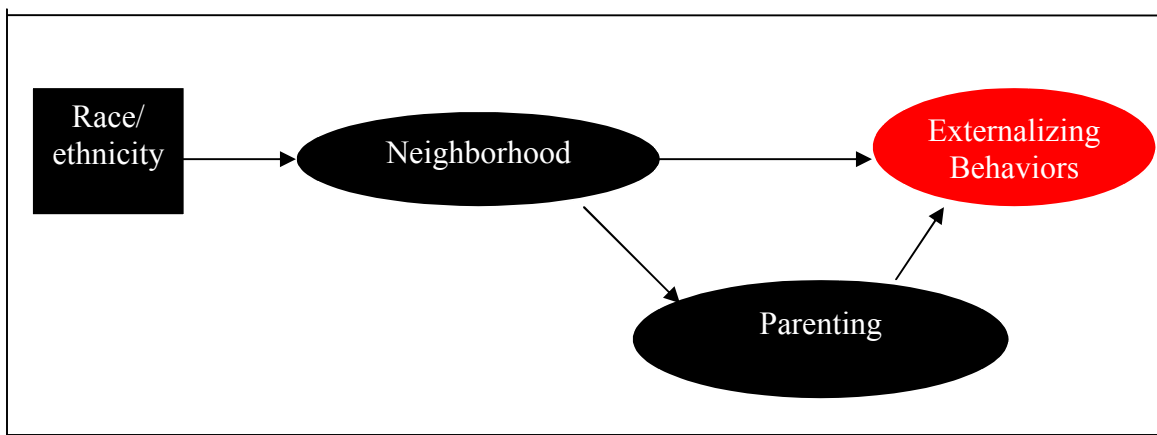


Figure 1. Theoretical model tested by hypotheses 1 and 2

*Hypothesis 3. Neighborhood characteristics will account for racial / ethnic moderation of the relation between parenting and externalizing behavior.* As outlined previously, there are differing views and findings regarding whether race and ethnicity moderate relations between parenting and developmental outcomes. However, if present in this sample, it is hypothesized that any racial / ethnic moderation would be explained by the characteristics of the adolescents' neighborhoods.

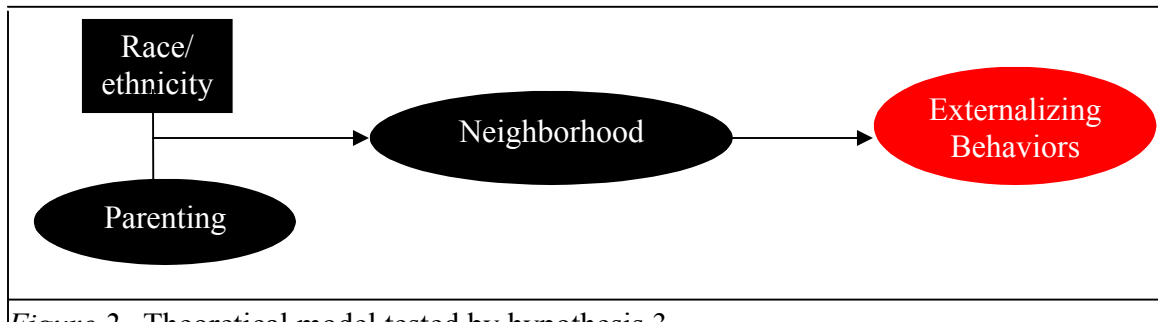


Figure 2. Theoretical model tested by hypothesis 3.

*Gender.* Child gender has been shown to have moderating effects in several studies on relations among neighborhoods, parenting, and externalizing behaviors (Greenberg et al., 1999; Leventhal & Brooks-Gunn; Roosa et al., 2003; Simons et al., 1996). According to a review by Beyers et al. (2003), neighborhoods seem to exert more influence on males, both White American and Black American, than on females. However, because the present sample was 84% male, it was not possible to conduct gender tests.

## **CHAPTER II**

### **METHOD**

#### **Participants**

The study sample consisted of 164 families with an adolescent between the ages of 12 and 17 in Nashville, Tennessee, a large urban city in the southern U.S., selected from public school Moderate Intervention Program (MIP) classrooms, which are self-contained classrooms for students experiencing serious behavioral difficulties such that they are not able to be educated in a mainstream classroom. They were recruited to participate in a randomized controlled multi-systemic therapy (MST) intervention study. The sample was primarily low-to-middle income, 16% female, and 60% ethnic minority. Participants are referred to as “White” and “Black” since data were not detailed enough to determine ethnic group membership within these two broad, general categories (e.g., Caribbean, European, Brazilian).

MIP classrooms represent the 4<sup>th</sup> step in a 5-step sequence of increasingly restrictive placements, which include: (a) Regular Classroom, (b) Special Education Consultation, (c) Resource Room, (d) Moderate Intervention Program, and (e) out-placement to Alternative School. To qualify for these services, a multi-disciplinary team (M-team) meets to determine special education status (e.g., learning disability; serious emotional disturbance) and an appropriate educational placement. Referrals to the MIP classroom are based on a student's need for behavioral intervention rather than his special education category (i.e., an adolescent with a learning disability would be placed in an

MIP class only if s/he was having behavioral difficulties). A student may be placed in MIP directly from a regular classroom or as part of a transition process from a more or less restrictive placement. All students placed in MIP classrooms exhibit moderate to severe behavioral problems that interfere with their successful academic performance in a less restrictive classroom. Data provided by the school system indicated that for students in MIP classrooms, the mean teacher rating for delinquent behavior, based on the Teacher Behavior Questionnaire (Weiss, Harris & Catron, 1997), was 1.8 standard deviations above the mean rating for students in regular classrooms.

### **Procedure**

All students in a junior or senior high school MIP classroom were eligible for participation in the MST intervention study. Exclusion criteria were: (a) presence of psychosis in the parent or child, and (b) lack of a legal guardian (e.g., children in state custody living in a group home) to provide consent and ongoing participation in the project.

School personnel paid by the research project contacted families with adolescents in MIP classrooms. The study was described to families, and for parents who provided initial consent to contact, the name of the family and contact information was provided to the research project. The research project then contacted the family, provided more information regarding the project, and for those families interested in participating, scheduled an initial home interview. During this interview, consent to participate was obtained, and the first assessment was conducted.

Home assessments involved two research assistants. The large majority of parent

assessments took place in the home, although on occasion assessments took place at other locations at the request of the parent. The present study used data from the baseline assessment that occurred near the beginning of treatment. During home interviews, research assistants read the measures to parents, who received \$50 per assessment. During school assessments, adolescents were administered measures either individually or in small groups, in a room separate from their classrooms.

Teachers completed their forms after school and received \$20-40 depending on the number of study youths (1-5) for whom they provided data. After the assessment was completed, a research assistant opened an envelope that contained the family's assignment to treatment or control. Assignment to experimental group was random within pairs matched on gender.

## **Measures**

### *Demographic Questionnaire*

A demographic questionnaire assessing child and parent age, gender, race, parental marital status, and family structure was completed by the target youth's primary caregiver. Parent education and family income were also assessed with this questionnaire. Parent income was recorded on a scale of 1-8 (1 = <\$5000; 2 = \$5000-9999; 3 = \$10,000-14,999; 4 = \$15,000-19,999; 5 = \$20,000-29,999; 6 = \$30,000-39,999; 7 = \$40,000-59,999; 8 = \$60,000+).



### *Externalizing Behaviors*

Parents completed the Child Behavior Checklist (CBCL; Achenbach, 1991), a broadband measure of children's social competencies and behavioral and emotional problems. The CBCL contains 118 problem items rated on a 0-2 scale and produces a broadband scale of Externalizing Problems. The CBCL scales have an average one week test-retest reliability of .89 and a correlation of .81 with the Quay and Peterson (1983) Revised Behavior Problem Checklist (Achenbach, 1991). In this study's sample, the reliability coefficient for the White sub-sample was .93, and it was .89 for the Black sub-sample.

Teachers completed the Teacher Report Form (TRF; Achenbach, 1991) for each child in the study. The TRF is a teacher version of the CBCL, and like the CBCL, it contains 118 problem items rated on a 0-2 scale. It also produces a broadband scale of Externalizing Problems. The TRF scales have an average correlation of .83 with the Conners Revised Teacher Rating Scale (Goyette, Conners & Ulrich, 1978), and a four-month retest reliability of .66 (Achenbach, 1991). In this study's sample, the reliability coefficient for the White sub-sample was .90, and was .89 for the Black sub-sample.

Adolescents completed the Youth Self-Report form (YSR; Achenbach, 1991). The YSR is a child-report version of the CBCL, and like the CBCL, contains 118 problem items rated on a 0-2 scale. It produces a broadband Externalizing Problems scale. This scale has an average one week retest reliability of .80 and correlates .44 with the comparable parent-report CBCL Externalizing scale (Achenbach, 1991). In this study's sample, the reliability coefficient for the White sub-sample was .88, and it was .86 for the Black sub-sample.

### *Parenting Behaviors*

This study used Schulderman and Schulderman's 1998 Child Report of Parent Behavior Inventory (CRPBI-30) to assess the quality of the adolescents' relationships with their mother and father figures. It is a shortened version of Schaefer's (1965) original 108-item inventory that Schulderman revised in 1970 and in 1988. Although the revised edition is shorter, factor analysis has found it to be consistent and reliable with the original version. This measure has three subscales: a) *Psychological Control* – versus psychological autonomy; b) *Firm Control* – versus lax control; and c) *Acceptance* – versus rejection. Interviewers read descriptions of parenting behaviors to the adolescents, who were asked to indicate whether each description was “like,” “somewhat like,” or “not like” their parents. Primary caregivers completed a self-report version of the CRPBI.

The Psychological Control subscale indexes such indirect parenting strategies like guilt induction, anxiety provocation, and love withdrawal. The Firm Control scale indexes aspects of parental behavior control such as encouraging compliance through enforcement of rules and punishment, and the Acceptance subscale is a relationship quality index that accesses warmth and support in the parent-adolescent relationship through expressions of love and affection, positive involvement, responsiveness, and a lack of rejection or hostility. All items are listed in Table A1 in the Appendix.

Test-retest reliability for the three scales exceeds  $r = .79$  (Schaefer, 1965; Schulderman & Schulderman, 1970). Internal consistency, as measured by Cronbach's alpha, has typically been over .90 for the CRPBI in previous studies (e.g., Galambos, 2003). In this study, for Black participants Cronbach's  $\alpha$  was .88, .90, and .85 for the

Psychological Control, Firm Control, and Acceptance subscales, respectively, and for White participants was .86, .89, and .88, respectively.

### *Neighborhood Characteristics*

*Objective neighborhood-level data.* Concentrated socioeconomic disadvantage and residential instability have been linked to developmental outcomes in multiple studies, but findings have also shown that *high SES* or “*affluence*,” as a construct, may account for unique variance in behavioral disorders and should not be treated as simply the opposite of socioeconomic disadvantage (Leventhal & Brooks-Gunn, 2000; Sampson et al., 2002). Consistent with many past studies of neighborhood effects, Census tract data were used to measure these dimensions. Census tract data used in this study are from the 2000 U.S. Census and were limited to those tracts in which study participants lived at the time of baseline assessment for the MST study. A Concentrated Socioeconomic Disadvantage Index was composed by summing the standardized mean of each tract’s percentages of adults aged 25 and over without a high school diploma, unemployed adults, single-parent families, and poor residents. Median income and the percentages of households with incomes  $\geq$ \$75,000 and of residents over 25 years old with a college degree in each participant’s tract were standardized, averaged, and aggregated to derive an Affluence Index. Similarly, the Residential Instability Index was derived by taking the mean of three standardized variables in each tract: proportion of renters versus homeowners, number of vacant units, and the percentage of those who had moved within the 5 years prior to the 2000 U.S. Census.

Crime data for each census tract was obtained from a public dataset housed by the

Inter-university Consortium for Political and Social Research and accessed via permissions granted to Vanderbilt University as a participating institution. This objective measure of crime was calculated by geo-coding crimes' locations using raw crime data provided by the Metro Nashville Police Department for 28 personal and property crimes, including homicide, sexual assault, robbery, aggravated assault, burglary, larceny, motor vehicle theft, other assaults, stolen property, criminal damage, weapons, commercialized sex, sex offenses, narcotic drug laws, offenses against family and children, driving under the influence (DUI), liquor law violations, disorderly conduct, and juvenile violations (Cahill, 2004). Incidents of gambling and suicide were omitted from crime data. The *Crime Rate* variable used in this study was an average of each tract's crime rate (# of crimes per 100,000) from 1998 to 2002, a period of time immediately preceding this study's baseline assessments taken during 2000 to 2003. Both Black and White participants lived in Census tracts where, on average, 95% of those surveyed during Census 2000 reported having lived in the same home for more than five years; therefore, the crime rates should provide a sense of study participants' exposure to crime both before and during data collection. Also, averaging crime data across years is expected to provide a more accurate measure of crime than one-year totals (Cantillon, 2006; Peterson, Krivo, & Harris, 2000) because averaging should decrease measurement error due to random, and not uncommon, uncharacteristic spikes or decreases in crime from year to year or in certain neighborhoods. To reduce the number of variables, crime totals were not separated to indicate person versus property crimes or drug offenses, and the rates were standardized, averaged across all tracts, and added to the Concentrated Socioeconomic Disadvantage Index during analyses.

*Subjective individual-level data.* Some studies of neighborhood influences on families have not assessed individuals' perceptions and experience of their neighborhoods (Caughy & O'Campo, 2006; Leventhal & Brooks-Gunn, 2000; Roosa et al., 2003). To help bridge this gap in the empirical literature, I also analyzed individual-level data, in conjunction with the preceding neighborhood-level Census data, by assessing participants' perceptions of their neighborhoods with parallel parent and adolescent versions of three multidimensional empirically-derived scales: *Neighborhood Organizations*, *Informal Networks*, and *Social Control* (Elliott et al., 1996). The measure leaves interpretation of what constitutes "neighborhood" to respondents. Items from these three scales are listed in Table A2 in the Appendix.

The first scale, *Neighborhood Organizations*, asked the parent and adolescent whether 14 different institutions and organizations such as a libraries, community centers, after-school programs, and health facilities were present in their neighborhood. The *Informal Network* scale consisted of 2 items asking respondents to list the number of relatives and friends who lived in their neighborhood. The *Social Control* scale was composed of four items that asked about the likelihood of a neighbor coming to the respondent's aid if someone were breaking into his / her home, if a child / sibling / friend were being sold drugs or "getting in trouble," and if someone were being beaten in front of the respondent's home. In addition to these scales, primary caregivers and adolescents answered 8 two-part items that asked how often 8 different crimes had occurred in their neighborhoods during the month preceding the assessment and how concerned they were about each type of crime. All items from the MST Neighborhood Scale are in Table A2 in the Appendix.

Reliability estimates for the Social Control scale, as measured by Cronbach's alpha, was .82 in a racially and socioeconomically diverse Denver, Colorado, probability sample and .92 in a Chicago sample of mostly poor African American neighborhoods (Elliott et al., 1996). In this study's sample, Cronbach's alphas for caregiver responses on the Neighborhood Organizations, Informal Network, and Social Control scales were .83, .43, and .82, respectively, for White primary caregivers; and alphas were .87, .38, and .74, respectively, for Black primary caregivers. For adolescent report of Neighborhood Organizations, Informal Network, and Social Control, Cronbach's alphas were .83, .38, and .74, respectively, for Black adolescents, and .82, .43, and .82, respectively for White adolescents. The lower reliability coefficients on the Informal Network scale were expected given its brevity and because the items are more of a frequency count than a representation of a unitary latent construct. Of note, reliability estimates were quite similar across parent and adolescent ratings and also across Black and White participants.

## CHAPTER III

### RESULTS

#### Descriptive Analyses

Data were analyzed with statistical computing software programs SAS 9.1 and SPSS Version 13.0. Continuous variables were evaluated for normality of distribution and presence of outliers. Calculations of skew and kurtosis indicated that all variables had distributions acceptable for analysis. When analyzing data by race, best methodological practices call for establishing cross-race measurement equivalence on predictor variables (Epstein, March, Connors & Jackson, 1998; Okazaki & Sue, 1995). Although not a complete test of measurement equivalence, but central to establishing suitability of these data for cross-race analyses, Cronbach's alphas were computed separately for the Black and White sub-samples in order to ensure that these measures were operating similarly in both groups. On the measures suitable for estimation of Cronbach's alpha (i.e., those with items expected to co-vary), reliability coefficients were very similar across race, as detailed in descriptions of the CRPBI, CBCL, TRF, YSR, and most neighborhood measures in the Method section (Chapter II).

Cohen's  $d$  effect sizes were calculated in order to gauge the magnitude of differences in group means. Based on widely accepted guidelines (Cohen, 1988), effect sizes are described as "small" when  $|d| = .2$ , "medium" when  $|d| = .5$ , and "large" when  $|d| = .8$ . The degree of between-group overlap on a variable's distribution is 85%, 67%, and 53% for small, medium, and large effect sizes, respectively (Howell, 2002). In these

data, negative effect sizes indicate that the Black mean was lower than the White mean, and positive effect sizes indicate a larger mean for the Black sub-sample. Compared to tests of significant difference (e.g., *t*-test, ANOVAs), effect size estimates provide more contextual data about cross-race similarities and differences and should reduce the degree of “*ethnic gloss*,” a term describing the tendency to emphasize statistically significant mean differences across cultural groups to the detriment of the fact that there is almost always more overlap than difference in racial, ethnic, and cross-cultural groups’ scores (Trimble, 1990, 1991). Ethnic gloss plays a big part in producing what epidemiologists call the “*ecological fallacy*,” also termed “*Evidence-Based Stereotypes*,” both of which describe the common mistake of over-applying population statistics (e.g., differences in group means) to individuals at the expense of recognizing within-group variability, which often accounts for more variance than between-group variance (Burgess, Fu & van Ryn, 2004).

### *Demographics*

All demographic data were provided by target youths’ primary caregivers, 83% of whom were a biological parent, usually the mother. Two students whose race was recorded as “Other” were excluded from analyses, yielding a study sample that was 60% Black ( $N = 97$ ), 40% White ( $N = 65$ ), and 84% male ( $N = 136$ ). Table 1 contains descriptive demographic data for the entire sample and by race. Medium sized effects for race were present for youths’ and caregivers’ ages ( $d = -.51$  for youths;  $d = -.48$ ). As a group, Black youths and primary caregivers were younger than their White counterparts. On average, Black participants also had more children in their homes ( $d = .44$ ), but there



was no cross-race difference in the average number of adults in target youths' homes ( $d = .00$ ).

Overall, the sample was largely working class, yet cross-race comparisons yielded a large effect size for a race difference in caregiver-reported household income ( $d = -.83$ ), with 53% of White primary caregivers reporting less than \$30,000 in household income for the previous year compared to 75% of their Black counterparts who reported less than \$30,000 in yearly household income. Smaller effect sizes were observed for primary caregivers' level of education ( $d = -.27$ ) and employment status ( $d = -.39$ ), with White primary caregivers having had approximately 6 more months of education and a higher within-race prevalence of full-time employment (Table 1).

### *Externalizing Behaviors*

The sample mean on the CBCL Broadband Externalizing Problems scale was 24.68 ( $sd = 10.19$ ), which corresponds to a  $T$ -Score of approximately 68, indicating parent endorsement of clinically significant levels of problem behaviors in target youths. Target youths' self-ratings of Broadband Externalizing behaviors on the parallel YSR measure averaged 17.32 ( $sd = 8.51$ ), which corresponds to a  $T$ -Score of approximately 61, closer than parent CBCL ratings to the  $T = 50$  mean in non-clinical samples. The sample mean for teachers' ratings of adolescents' Broadband Externalizing Problems on the TRF was 22.73 ( $sd = 12.05$ ), equivalent to a  $T$ -Score of approximately 67 and very consistent with primary caregivers' ratings. There was a small-to-medium effect for race on teacher ratings ( $d = .31$ ; Table 1).

Table 1

*Descriptive Data for Demographics, Parenting Behavior, and Externalizing Behaviors with Effect Sizes for Differences between Black and White Participants*

	N	Percentage of Respondents	Mean	SD	Effect size <sup>1</sup> Black Mean(SD) White Mean (SD)
<i>Demographic Variables</i>					
Adolescent Participants	162				
Black	97	59.88%	--	--	n/a
White	65	40.12%	--	--	n/a
Male	136	83.95%	--	--	n/a
Target Youth Age	164	--	14.58	1.35	<b>-.51</b> 14.31 (1.35) 14.98 (1.26)
# of children in home	164	--	2.38	1.38	<b>.44</b> 2.62 (1.53) 2.02 (1.02)
# of adults in home	164	--	1.79	0.84	<b>.00ns</b> 1.78 (.81) 1.78 (.89)
Parent 1 Age	160	--	40.75	8.82	<b>-.48</b> 39.07 (8.70) 43.22 (8.61)
Parent 1 Education	164	--	12.65	2.09	<b>-.27</b> 12.42 (1.92) 12.98 (2.31)
Parent 1 Income <sup>2</sup>	138	--	4.39	2.14	<b>-.83</b> 3.70 (2.07) 5.36 (1.89)
Parent 1 Employment Status	156				<b>-.39*</b> Black – 60% White – 75%
Full-time	19	12.18%	--	--	
Part-time	21	13.46%	--	--	
Unemployed	13	8.33%	--	--	
Work at Home	16	10.26%	--	--	
Disabled	16	10.26%	--	--	
Retired & Other			--	--	
<i>Parenting Behaviors (CRPBI) – Youth Ratings of Mother [Row 1] and Father [Row 2]</i>					
Psychological Control	160	--	20.56	3.99	<b>.29</b> 21.08 (3.81) 19.95 (4.09)
	89	--	18.67	4.19	<b>-.04</b> 18.61 (4.15) 18.76 (4.28)

Table 1 – continued

	N	Percentage of Respondents	Mean	SD	Effect size <sup>1</sup> Black Mean(SD) White Mean (SD)
Firm Control	160	--	21.50	3.42	-.15 21.28 (3.35) 21.79 (3.49)
	89	--	22.22	4.11	-.25 21.75 (4.34) 22.78 (3.79)
Acceptance	160	--	23.75	5.11	.21 24.19 (5.14) 23.12 (5.09)
	89	--	21.84	5.95	<b>-.33</b> 20.94 (5.94) 22.90 (5.84)
<i>Parenting Behaviors (CRPBI) – Primary Caregiver Self-Report</i>					
Psychological Control	164	--	18.73	4.36	<b>.78</b> 20.04 (4.31) 16.86 (3.75)
Firm Control	164	--	22.98	3.38	.05 23.06 (3.61) 22.89 (3.08)
Acceptance	164	--	26.17	3.56	.10 26.32 (3.60) 25.97 (3.55)
<i>Broadband Externalizing Problems (raw scores)</i>					
Parent (CBCL)	164	--	24.68	10.19	-.05 23.85 (8.84) 25.77 (11.85)
Youth (YSR)	161	--	17.32	8.51	-.17 16.65 (8.37) 17.67 (8.64)
Teacher (TRF)	139	--	22.73	12.05	.31 25.30 (10.39) 21.22 (14.25)

Note.

<sup>1</sup> Negative effect size values indicate *Black Mean* < *White Mean*; positive value indicates opposite.

**Effect sizes in BOLD print** were significant at  $p < .05$ .

<sup>2</sup> Income was coded as follows: 1 = <\$5000; 2 = \$5000-9999; 3 = \$10,000-14,999; 4 = \$15,000-19,999; 5 = \$20,000-29,999; 6 = \$30,000-39,999; 7 = \$40,000-59,999; 8 = \$60,000+.

\*Effect Size calculated from difference in percentage of parents working full- or part-time.

\*\* Black respondents ( $N = 16$ ); White respondents ( $N = 17$ ). Parent 2 Income data should be interpreted cautiously given high number of missing responses.

### *Parenting Behaviors*

Youth and parent ratings on the CRPBI Psychological and Firm Control subscales approximated the normal distribution, but both youth- and parent-reported scores on the Acceptance subscale were negatively skewed, indicating that both parents and youths reported that most parents in this sample displayed relatively high levels of warmth, responsiveness, and affection towards target youths. Small effects for race were seen on the Acceptance ( $d = .21$ ) and Psychological Control ( $d = .29$ ) subscales. Likewise, small effect sizes were also found for youth-rated father Acceptance and Firm Control, both of which were higher for White fathers ( $d = -.33$  and  $-.25$ , respectively).

Score distributions of White and Black primary caregivers' self-ratings of Acceptance and Firm Control were very similar; but Black primary caregivers, usually the biological mother, rated themselves substantially higher on Psychological Control ( $d = .78$ ). This was consistent with Black adolescents' ratings of their mothers as exhibiting more psychological control than White mothers.

To summarize, Black and White primary caregivers rated themselves similarly, with the exception of Black primary caregivers' self-endorsed use of more psychological control with their children (see Appendix A, Table A1 for items). Overall, however, both youth and caregiver ratings showed substantial overlap in Black and White parents' behaviors.

### *Neighborhood Variables*

*Neighborhood-level variables.* The 164 study participants represented 85 Census tracts within the geographical boundaries of the city, resulting in an average of 1.93

(range 1 to 11) participants per tract. Preliminary analyses of U.S. Census 2000 tract data showed that for the most part, Black and White participants lived in vastly different neighborhoods. Two-thirds of the Black students lived in neighborhoods that were at least 35% Black; and two-thirds of the White students' neighborhoods were > 72% White. All effect sizes comparing the four Census tract variables comprising the Concentrated Socioeconomic Disadvantage Index were large ( $d = |.75 - .99|$ ). As shown in Table 2, Black participants' neighborhoods had larger percentages of single-parent households ( $d = .75$ ), unemployment ( $d = .71$ ), poor residents ( $d = .91$ ), and adults without high school diplomas ( $d = .99$ ). Similarly, there were large effect sizes for race on the Affluence Index, with White participants' neighborhoods having much higher median incomes and far more neighbors with incomes of \$75,000 or more ( $d = -1.06$ ) and residents with college degrees ( $d = -.54$ ). Additionally, the effect size for race differences in crime rates were large ( $d = .90$ ). On the Residential Instability Index, there was no effect of race on the proportion of neighbors who had lived in a different home within the 5 years prior to the 2000 Census ( $d = .00$ ). Effect sizes were large, however, for race differences in the proportions of vacant units ( $d = .67$ ) and of renters (versus homeowners) within a tract ( $d = .87$ ). Stated succinctly, Black participants' neighborhoods fared qualitatively worse on every indicator that differed significantly by race.

*Individual-level variables.* Despite substantial neighborhood differences on Census data, effect sizes for race on individual reports of neighborhood characteristics, at most, approached the medium range. Effect sizes were minimal-to-small ( $d < .20$ ) on comparisons between Black and White youths and between Black caregivers and White

caregivers on the Neighborhood Organizations and Concerns about Crime scales. Youths and caregivers of both races reported having an average of 5-6 organizations and institutions in their neighborhoods. Concerns about Crime means differed more across rater than across race, with parents reporting more concern than the adolescents. Interestingly, even though Black youths collectively reported more neighborhood crime than White adolescents did ( $d = .41$ ), the extent to which the two groups worried about it was minimal ( $d = .12$ ). Table 2 contains means, standard deviations, and effect sizes for all MST Neighborhood Questionnaire scales.

Table 2

<i>Descriptive Data for Neighborhood Variables</i>			
	Black	White	Effect size ( $d$ ) <sup>1</sup>
	Mean (sd)	Mean (sd)	
<i>Population within Census Tract</i>	4386.31 (1989.64)	4953.32 (1756.99)	<b>-.29</b>
% Black Residents	59.58 (31.55)	20.93 (24.55)	<b>1.33</b>
% White Residents	34.88 (28.87)	72.42 (24.58)	<b>-1.35</b>
<i>Concentrated Socioeconomic Disadvantage Index</i>			
% Single Parent Households	19.55 (11.18)	11.61 (9.72)	<b>.75</b>
% Unemployed	9.23 (4.72)	6.03 (4.24)	<b>.71</b>
% Residents in Poverty	25.87 (16.36)	11.63 (14.72)	<b>.91</b>
% >25 y.o. without HS diploma	31.22 (11.82)	18.54 (14.04)	<b>.99</b>
<i>Affluence Index</i>			
Median Income	28003.07 (11696.57)	45850.48 (17783.04)	<b>-1.24</b>
% High Income Families (\$75K+)	12.72 (9.20)	27.76 (19.35)	<b>-1.06</b>
% >25 with College Degree	16.18 (30.85)	30.84 (20.29)	<b>-.54</b>
<i>Residential Instability Index</i>			
% Vacant Units	7.39 (3.43)	5.41 (2.04)	<b>.67</b>
% Renting (vs. Owning) Home	53.34 (20.47)	37.19 (21.60)	<b>.87</b>
% in Different Home 5yrs ago	5.28 (9.42)	5.28 (10.10)	<b>.00</b>

Table 2 – continued

	Black	White	Effect size ( <i>d</i> ) <sup>1</sup>
<i>Crime in Tract of Residence</i>			
Crimes per 100,000 persons, 1998-2002	19492.52 (10385.58)	10973.68 (7856.11)	<b>.90</b>
<i>MST Study Neighborhood Scale</i>			
# of Neighborhood Organizations (Youth)	19.84 (5.08)	19.70 (3.49)	<b>.03</b>
# of Neighborhood Organizations (Parent)	20.22 (3.96)	19.62 (3.56)	<b>.16</b>
Informal Network (Youth)	5.57 (4.20)	4.50 (3.95)	<b>.26</b>
Informal Network (Parent)	2.48 (2.99)	3.02 (3.36)	<b>-.17</b>
Social Control (Youth)	12.86 (5.35)	14.08 (4.82)	<b>-.24</b>
Social Control (Parent)	15.51 (5.27)	17.31 (3.62)	<b>-.39</b>
# of Crimes in Past Month (Youth)	18.06 (8.97)	14.77 (6.25)	<b>.41</b>
# of Crimes in Past Month (Parent)	12.72 (6.36)	11.68 (5.45)	<b>.17</b>
Concern About Crime (Youth)	20.07 (10.40)	18.84 (9.97)	<b>.12</b>
Concern About Crime (Parent)	32.27 (11.24)	30.20 (12.00)	<b>.18</b>

*Note.* <sup>1</sup> Negative effect size values indicate *Black Mean* < *White Mean*; positive value indicates opposite.

The cross-race effect size for youth-reported Informal Network scores was small ( $d = .26$ ), as it was also for parent report of this scale ( $d = -.17$ ). The largest race differences were seen on the Social Control scale (Youth  $d = -.24$ ; Parent  $d = -.39$ ). White parents were most likely to say their neighbors would help them and their children if they were in danger (Table 2).

For the purpose of data reduction in the main analyses, caregiver and youth scores were standardized then averaged together for the Neighborhood Organizations scale. Social Control and Informal Network scores were standardized then multiplied, to

adequately capture the interactive range of effects of different combinations of each. This derived scale, a measure of whom participants knew nearby and of how much they trusted their neighbors, was called Social Cohesion. Using the same methodology, the Perceived Crime and Concern about Crime scales were aggregated into a scale called Crime Concerns.

## **Primary Analyses**

### *Race Differences in Externalizing Behaviors*

Before evaluating the first hypothesis, primary analyses were conducted to determine whether Black and White adolescents in this clinical sample differed on parent-, teacher-, and self-reported externalizing behaviors. Three mixed model analyses of variance were run with: (a) MIP classroom as a random effect (to control for clustering of variance within classroom); (b) the CBCL, TRF, and YSR as dependent variables; and (c) the target youth's race as the fixed factor along with the independent variables. For the parent and self reports, the effect of Race was non-significant, but for the teacher-report TRF, the effect of Race was marginally significant ( $F[1,132] = 3.52, p < .07$ ). For the Black American sample, adjusted for the effect of Classroom, the mean TRF Externalizing score was 23.89 and for the White American sample it was 19.85.

### *Hypothesis 1: Neighborhood Factors Will Account for Race - Externalizing Relations*

Because the Race effect on teacher-report was marginally significant and because the effect size of Race on the TRF was small-to-medium ( $d = .31$ , Table 1), Hypothesis 1,



which posited that neighborhood effects would partially explain associations between race and externalizing problems, was evaluated for the TRF teacher-report data. As the first step in testing the mediating role of neighborhood conditions, the relation between Race and each of the six neighborhood factors (Concentrated Socioeconomic Disadvantage, Residential Instability, Affluence, Neighborhood Organizations, Social Cohesion, and Crime Concerns) was assessed, with three of the variables showing significant Race differences, and one showing a marginally significant Race difference (Figure 3).

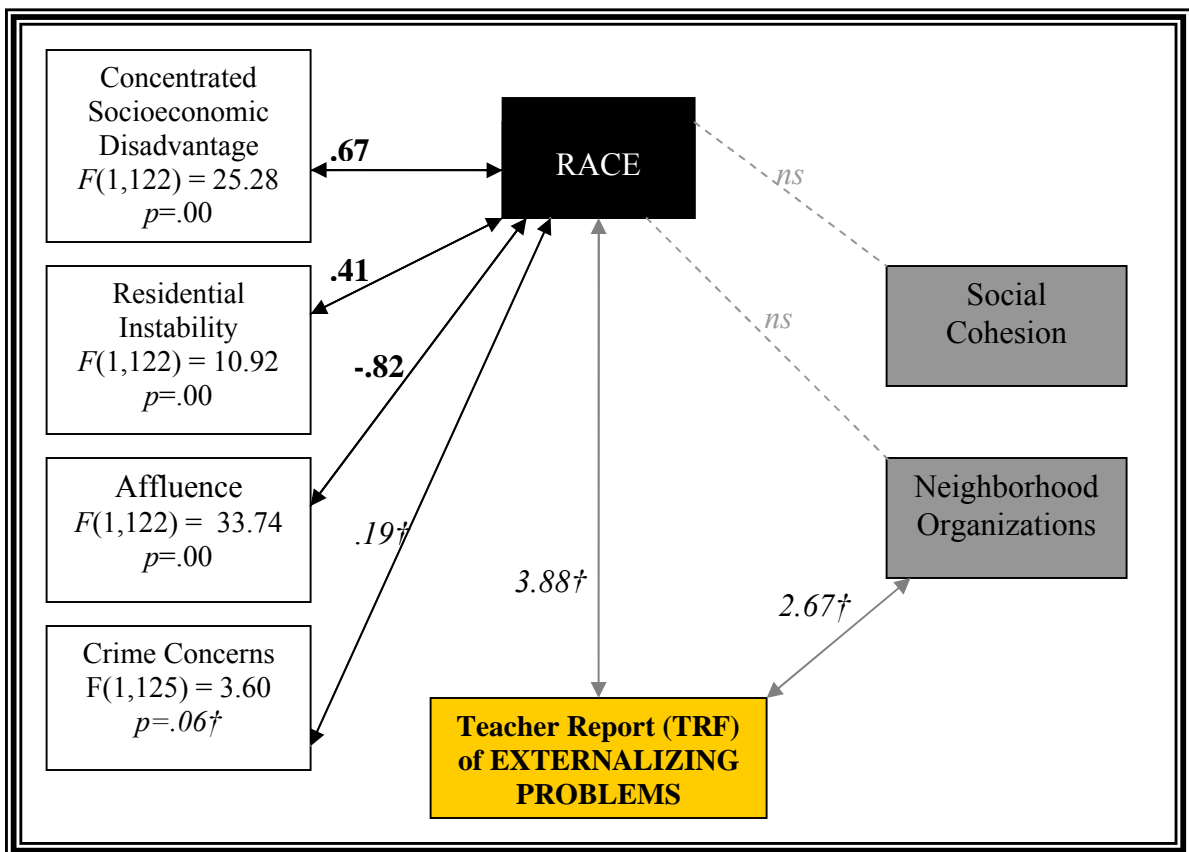


Figure 3. Relations among race, TRF, and neighborhood variables in mixed linear models († indicates marginal significance,  $p = .06-.10$ ).

In the next step in evaluating whether neighborhood factors accounted for the effect of Race on TRF Externalizing Problems, the total effect on the TRF of each of the neighborhood factors showing significant or marginally significant differences was assessed. Again, a mixed linear model was used, with MIP classroom as a random effect. None of these variables' effects on the TRF was significant, nor were their effects significant when simultaneously included in a single model (Table 3). Thus, given that there were no significant links from neighborhood factors to TRF Externalizing Problems, Hypothesis 1 was disconfirmed. However, for the sake of completeness, relations between the TRF and Race were assessed by including in the model the four neighborhood factors that were significantly or marginally significantly related to Race. The effect of Race on the TRF remained marginally significant ( $F[1,97] = 3.19, p < .08$ ) (Figure 3).

Table 3

*Results from Mixed Linear Model of Neighborhood-Externalizing Relations*

	Parent Report [25.17]			Teacher Report [19.84]			Youth Self Report [18.40]		
[Intercept]	Estimate	Z Value	p	Estimate	Z Value	p	Estimate	Z Value	p
<u>Random Effect</u>									
Classroom	2.38	.46	.32	<b>35.40</b>	<b>2.06</b>	<b>.02*</b>	8.74	1.45	.07†
<u>Fixed Effects</u>									
Race	-.56	.11 (1,125)	.73	4.03	3.52 (1,104)	.06†	-1.14	.63 (1,122)	.43
<u>Neighborhood Variables</u>				<u>Estimate</u>	<u>Z Value</u>	<u>p</u>			
Disadvantage				-1.26	.33 (1,96)	.57			
Residential Instability				.28	.03 (1,96)	.86			
Affluence				-.90	.26 (1,96)	.61			
Neighborhood Organizations				2.67	3.36 (1,96)	.07†			
Social Cohesion				-.07	.16 (1,96)	.61			
Crime Concerns				-1.78	.84 (1,96)	.36			
				<b>Final Race Effect</b>	<b>3.88</b>	<b>3.19 (1,96)</b>	<b>.08†</b>		

Note. \* $p < .05$ ; † $p < .10$ ;

*Hypothesis 2: Parenting Behaviors Will Mediate Neighborhood – Externalizing Relations*

Hypothesis 2 predicted that parenting behaviors would partially mediate relations between neighborhood characteristics and externalizing problems. Because neighborhood characteristics were not related to externalizing problems, this hypothesis was moot.

*Hypothesis 3: Neighborhood Characteristics Will Account for Race Moderation of Parenting - Externalizing Relation*

As the first step in evaluating this hypothesis, the interactions between Race and parenting behavior were tested separately by informant of psychopathology (teacher, parent, youth) and by informant of parenting behavior (parent, youth). For the teacher-reported TRF, none of the six interactions between Race and parenting behaviors were significant. For the parent-reported CBCL, none of the three interactions between Race and parenting behaviors, as reported by the youth, were significant. However, for the CBCL, the interaction between Race and Psychological Control as reported by the parent was significant ( $F[1,119] = 7.74, p < .01$ ). And for the YSR, none of the three interactions between Race and youth-reported parenting behaviors were significant; but the interaction between Race and Acceptance, as reported by the parent, was significant ( $F[1,116] = 9.95, p < .005$ ).

As shown in Figure 4, the first significant interaction reflected the fact that for the Black American sub-sample, the relation between Psychological Control and the CBCL Externalizing scale was non-significant; but for the White American sub-sample it was significant ( $F[1,35] = 10.51, p < .005$ ), with higher levels of Psychological Control

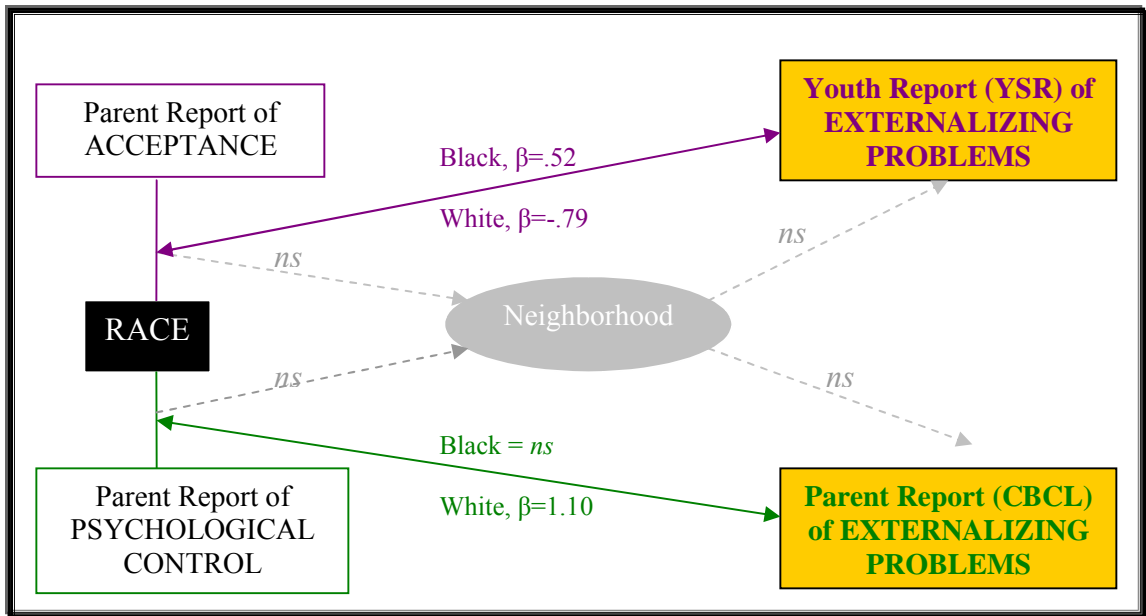


Figure 4. Significant race moderated parenting-externalizing relations (with no variance accounted by neighborhood variables)

associated with higher levels of parent-reported Externalizing Problems ( $\beta = 1.10$ ). The second interaction reflected a significant and positive relation between Acceptance and the YSR ( $F[1,62] = 4.73, p < .05$ ), with higher levels of Acceptance associated with higher levels of youth-reported Externalizing Problems ( $\beta = .52$ ) in the Black American sub-sample. These relations were also significant within the White American sub-sample ( $F[1,62] = 5.48, p < .05$ ) but occurred in the opposite direction, indicating that higher levels of Acceptance were associated with lower levels of youth-reported Externalizing Problems ( $\beta = -.79$ ) (Figure 4).

The next step in testing this hypothesis involved evaluating interactions between Race and the six neighborhood factor variables (as well as the main effects for the neighborhood factors) in the two models that showed significant interactions between parenting behavior and Race: 1) for the CBCL, Race and Psychological Control reported by the parent; and 2) for the YSR, Race and Acceptance reported by the parent). In both

of these models, the interactions of interest remained significant ( $F[1,105] = 8.91$ ,  $p < .005$ ) and ( $F[1,105] = 8.60$ ,  $p < .005$ ), respectively. Thus, neighborhood characteristics did not account for race-moderated relations between parenting behavior and Externalizing Problems.

## **CHAPTER IV**

### **DISCUSSION**

#### **Summary of Results**

Conceptualizations of the constructs “race” and “ethnicity” have changed drastically in recent decades; however, methodologies and theories regarding the use of these variables in psychological research have not kept pace with the evidence that race and ethnicity are dynamic, amorphous social constructs that are by and large unsuitable as independent or explanatory variables for most psychological phenomena. Experts on this topic assert that variables for which race and ethnicity are markers are the more proximal causes of racial / ethnic group differences. Because of the vast disparities in the environments in which Black and White Americans often live, even within the same socioeconomic classes, neighborhood conditions and their correlates are hypothesized to serve as such proximal causes of some race differences.

For these reasons, the purpose of this study was to test the ability of indicators of neighborhood conditions to partially or fully account for racial / ethnic differences in disruptive and externalizing behaviors, which have been consistently shown to differ across race in both government and psychometric data. Employing a special education sample of adolescents exhibiting clinical levels of problem behaviors requiring placement in self-contained classrooms, I tested three hypotheses: (a) neighborhood characteristics would account for mean-level ethnic differences in externalizing behaviors; (b) parenting behaviors would partially mediate relations between neighborhood characteristics and

externalizing problems; and (c) neighborhood characteristics would account for racial / ethnic moderation of the relation between parenting and externalizing behavior. All three hypotheses were tested using mixed linear modeling of relations among parent-, teacher-, and youth-reported data and objective federal and city measures of crime and neighborhood characteristics.

Race differences were not detected on parallel parent-reported (CBCL) and youth self-reported (YSR) Broadband Externalizing Problems scales. Preliminary analyses, however, did reveal small (Cohen's  $d = .31$ ), trend-level ( $p = .07$ ) differences between Black and White youths on teacher-rated Broadband Externalizing Problems (TRF). These findings are consistent with other findings that race differences are detected more often on teacher ratings of problem behaviors than on ratings from other sources (Ngo, 2004; Walters, 2004). This finding is robust across different rating scales and age groups, and nearly always in the direction of Black American youths exhibiting higher levels of externalizing behaviors. For example, Mistry et al. (2002) reported that teachers rated school-age African American children lower on social competence on the Positive Behavior Scale, and higher on problem behaviors on the Problem Behavior Scale of the Social Skills Rating System.

There are three basic reasons why teachers but not parents and youths may report higher levels of externalizing problems for Black youths, the first involving differences in actual behavior and the second, differences in perceptions of the behavior. The first possibility is that Black and White youths may behave differently in the environments that teachers, but not the other informants, observe. For instance, given that Black parents have been sometimes found to use relatively harsher parenting strategies than

White parents do (Deater-Deckard et al., 1996; Hill & Bush, 2001), it is possible that Black youths exhibit less problem behaviors at home than at school, thus resulting in teachers but not parents reporting higher levels of problem behaviors for Black youths. However, an argument against this hypothesis is the fact that the youths themselves, who have access to all relevant environments, like the parents did not report different levels of behavior problems as a function of race.

The second explanation involves teachers' perceptions. It is possible that teachers' but not parents' and youths' perceptions or standards of behavior differ for Blacks and Whites (e.g., Jackson, 2002). CBCL ratings involve at least two subjective decisions: (a) what constitutes a behavior, "argues," for instance, and (b) what constitutes "sometimes" vs. "often", etc., which provides an opportunity for bias or stereotyped expectations to influence ratings (Epstein et al., 1998). Parents and youths are rating their children or themselves, respectively, and thus bias in their ratings based on stereotypes may be less likely to occur. One way to test this hypothesis would be to use trained behavioral observers, who presumably would be far less subject to bias because of their training and reliability checks, to rate youths' behaviors. Another way to reduce the possibility of bias might be to use measures that are more concrete and specific in operationalizing behaviors (e.g., define "argues sometimes" as once or twice a week).

A third possibility is that MIP referrals are biased, with lower levels of externalizing behavior required for Black adolescents to be referred into an MIP classroom (e.g., Serwatka, Deering & Grant, 1995). However, if this were the case in the present study, it would not explain why Black and White parents and youth did not differ on their ratings of the youths' externalizing problems.



## *Hypotheses*

*Hypothesis 1.* This study failed to find support for the hypothesis that neighborhood characteristics could explain the relation between race and externalizing problems, primarily because neighborhood characteristics were not related to externalizing problems. Several possible factors may underlie this finding. First, in regards to the neighborhood-level census data, it is possible that the effects of these factors may be relatively weak at the individual level because of variability within the neighborhood. Although “neighborhoods” are defined to represent relatively homogeneous geographical locales, it is unclear whether there may be substantial variability within a particular neighborhood that obscures effects at the individual level (Duncan & Raudenbush, 1999; Raudenbush & Sampson, 1999). That is, for instance, although a neighborhood may be rated as being a high crime area, much of the crime may occur in one area but not in another, thus unequally influencing different individuals within the same neighborhood. One way to test this hypothesis would be to assess the variability of individuals’ ratings of crime within a neighborhood, relative to cross-neighborhood mean ratings, to determine the extent to which neighborhoods represent homogeneous experiences (Duncan & Raudenbush, 1999).

Also, sampling issues may have attenuated the effects of neighborhood variables. For example, although there seemed to be adequate variability within the sample in regards to externalizing problems, by virtue of being in an MIP classroom, all youths had at least moderate levels of externalizing problems that likely were not of recent development. Significant findings of relations between neighborhood characteristics and externalizing relations in community samples or in high risk samples studied prior to

onset of clinical levels of problem behavior support this possibility (e.g., Aneshensel & Sucoff, 1996; Greenberg et al., 1999). Thus, neighborhood characteristics may be related to the initiation but not the maintenance of externalizing problems. Once externalizing problems reach a certain level or duration they may be maintained by other factors, such as the operant reinforcement from crime or social support from other delinquent youths (Snyder et al., 2005). One way to evaluate this possibility might be to also assess how long youths had been showing particular externalizing problems, and use this length or duration as a moderator of relations between neighborhood characteristics and externalizing problems. Also, this study used a local sample whereas large national or multi-site studies, particularly those designed to test neighborhood effects, have had more success in finding neighborhood effects on child and adolescent development (Leventhal & Brooks-Gunn, 2000), perhaps because of the increased range of variability of sampled neighborhoods.

*Hypothesis 2.* Hypothesis 2, that parenting behaviors would partially mediate relations between neighborhood characteristics and externalizing problems, was not tested because neighborhood characteristics and externalizing problems were not related.

*Hypothesis 3.* Hypothesis 3, that neighborhood characteristics would account for race-moderated parenting - externalizing relations, also was not supported by the data. Two race-by-parenting interaction effects on externalizing problems were significant, but neighborhood characteristics were not associated with either of these relations.

## Limitations

There are several general limitations of this study that should be noted. First, regarding sampling, the fact that the sample had undergone a selection process into the MIP classroom may have influenced the participant pool, particularly in regards to levels of externalizing problems. However, the effect of selection processes on Hypotheses 2 and 3 is less clear, since it is less obvious how selection factors might impact interactive effects. Also, because the sample was only 16% female, these data may not be applicable to female adolescents, nor are they necessarily generalizable to co-ed populations containing larger proportions of female adolescents. The large number of males, however, is representative of the population of individuals in MIP classrooms in most cities and reflects the fact that most adolescents with serious behavior problems are male.

One limitation that is inherent in most if not all studies of neighborhood effects is the *omitted variable bias* or selection bias (Leventhal & Brooks-Gunn, 2000; Roosa et al., 2003). That is, unmeasured family or individual characteristics (e.g., reasons or motivations for moving to a particular neighborhood) may actually account for observed neighborhood effects, thus leading to an overestimation of neighborhood effects. However, a strength of this study was its use of multiple sources of neighborhood data, at the neighborhood-, individual-, and family-levels, which should have reduced the level of omitted variable bias. A major limitation of this study was that it was not designed to specifically capture a range of neighborhood characteristics. Studies designed with that aim and large multi-site or national studies typically yield better estimates of neighborhood effects (Leventhal & Brooks-Gunn, 2000). Indeed, the number of participants per Census tract did differ considerably in this sample, but the overall sample

was reflective of the region's population on important indicators such as median income. Finally, as opposed to analyzing data across individuals, a more powerful analysis may have been gained from analyzing data in ways consistent with "ecometrics," an emerging methodology which posits that neighborhood data behave and vary differently than individual data, thereby requiring different methods and inferential principles than those typically used in most studies of psychosocial phenomena (Raudenbush & Sampson, 1999). Raudenbush and Sampson emphasize treating each neighborhood as a research "participant" which would have required a substantially larger sample than this study's.

### **Implications and Conclusion**

Perhaps the primary, overarching result of this study is that despite large effect sizes indicating vast disparities in the quality of the neighborhoods where Black and White Americans live, parenting behaviors – within-family factors – were more strongly associated with adolescent problem behavior than neighborhood characteristics were. This is not an uncommon finding, even in studies that have detected significant neighborhood effects. A review by Leventhal and Brooks-Gunn (2000) reported that neighborhood effects in most studies have usually accounted for 5–10% of the variance in individual child and adolescent outcomes. Additionally, Duncan and Raudenbush (1999) reported that even large neighborhood effects, upwards of  $|d| = .8-.9$ , often explain little variance in individual outcomes. Thus, how to best link neighborhood effects to individual outcomes is unclear.

Nevertheless, it is still clear in the larger body of literature that families' socioeconomic standing and geographical surroundings are strongly tied to child and

adolescent developmental outcomes. For example, there are findings supporting the association between exposure to violence and crime with exacerbation of antisocial behaviors and symptoms of stress in young people (Salzinger et al., 2002; Ngo, 2004). The results of this study reinforce that an important next step is to increase focus on measuring ecological effects on individual development in ways that are more adequate, consistent, and methodologically appropriate.

## APPENDIX

Table A1

<i>Child Report of Parent Behavior Inventory Items</i>	
<b>Youth Version</b>	<b>Parent Version</b>
Response Values: 1. <i>Not Like Your Mother/Father</i> 2. <i>Somewhat Like Your Mother/Father</i> 3. <i>A Lot Like Your Mother/Father</i>	Response Values: 1. <i>Not Like Me as a Parent</i> 2. <i>Somewhat Like Me as a Parent</i> 3. <i>A lot Like Me as a Parent</i>

### Acceptance vs. Rejection Subscale

1. S/He makes me feel better after talking over my worries with her/him. 4. S/He smiles at me very often 7. S/He is able to make me feel better when I am upset. 10. S/He enjoys doing things with me. 13. S/He cheers me up when I am sad. 16. S/He gives me a lot of care and attention. 19. S/He makes me feel like the most important person in his/her life. 22. S/He believes in showing his/her love for me. 25. S/He often praises me. 28. S/He is easy to talk to.	1. I make her feel better after she talks over her worries. 4. I smile at him very often. 7. I am able to make her feel better when she is upset. 10. I enjoy doing things with him. 13. I cheer her up when she is sad. 16. I give him a lot of care and attention. 19. I make her feel like she is the most important person in my life. 22. I believe in showing my love for him. 25. I often praise her. 28. I am easy to talk to.
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### Firm Control vs. Lax Control Subscale

3. S/He believes in having a lot of rules and sticking with them. 6. S/He insists I must do exactly as told. 9. S/He is very strict with me. 12. S/He gives hard punishment. 15. S/He is easy with me. 18. S/He lets me off easy when I do something wrong. 21. S/He gives me as much freedom as I want 24. S/He lets me go anyplace I please. 27. S/He lets me go out any evening I want. 30. S/He lets me do anything I like to do	3. I believe in having a lot of rules and sticking to them. 6. I insist that he must do exactly as told. 9. I am very strict with her. 12. I give hard punishment 15. I am easy with him. 18. I let her off easy when she does something wrong. 21. I give him as much freedom as he wants. 24. I let her go anyplace she pleases. 27. I let him go out any evening he wants. 30. I let her do anything she likes to do.
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Table A1 – continued

<u>Psychological Control vs. Psychological Autonomy Subscale</u>	
2. S/He tells me all the things s/he has done for me.	2. I tell her all the things I have done for her.
5. S/He tells me if I really cared for him/her, I would not do things to make him/her worry.	5. I often tell him if he really cared for me, he would not do things that cause me to worry.
8. S/He is always telling me how I should behave.	8. I am always telling her how she should behave.
11. S/He would like to be able to tell me what to do all the time.	11. I would like to be able to tell him what to do all the time.
14. S/He wants to control whatever I do.	14. I want to control whatever she does.
17. S/He is always trying to change me.	17. I am always trying to change him.
20. S/He only keeps rules when it suits him/her.	20. I only keep rules when it suits me.
23. S/He is less friendly with me if I do not see things his/her way.	23. I am less friendly with her if she does not see things my way.
26. S/He will avoid looking at me when I have disappointed him/her.	26. I avoid looking at him when he has disappointed me.
29. If I have hurt his/her feelings, s/he stops talking to me until I please him/her again.	29. If she has hurt my feelings, I stop talking to her until she pleases me again.

*Note.* All items are applicable to both genders. The gender used in parent-version items listed are not reflective of gender specificity of an item.

Table A2

*MST Neighborhood Scale Items*

	Response Value	1	2					
<i>Do the following organizations or activities exist in your neighborhood?</i>		<u>NO</u>	<u>YES</u>					
1. a community watch program								
2. an after school recreation program								
3. a community day care center								
4. an organized summer recreation program for children								
5. a community family health service								
6. a community center for people in the neighborhood to use								
7. active involvement in local politics among your neighbors								
8. an active scouting troop or youth club for girls and boys								
9. community sports teams or leagues for kids								
10. churches, synagogues, or other religious organizations								
11. a family-planning clinic (for example, Planned Parenthood)								
12. an employment office								
13. a library								
14. a police station								
	<b><i>Informal Network</i></b>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7 or more</u>
15. Not counting family members living with you, how many family members live in your neighborhood?								
16. Not counting people you live with, how many of your good friends live in your neighborhood?								
17. How many of your good friends live outside your neighborhood?								
	<b><i>Social Control</i></b>							
<i>How likely is it that one of your neighbors would do something if:</i>		<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>		
		<u>not likely</u>	<u>a little likely</u>	<u>somewhat likely</u>	<u>pretty likely</u>	<u>very likely</u>		
18. Someone was breaking into your house in plain sight?								
19. Someone was trying to sell drugs to one of your children / to you or your friends / or to your children's friends in plain sight?								
20. There was a fight in front of your house and someone was being beaten?								
21. Your kids / friends / siblings were getting in trouble?								



Table A2 - continued

<i>Crime Frequency &amp; Concern*</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
<i>In the last month, how many times ...</i>	<i>zero</i>	<i>one</i>	<i>3</i>	<i>3-4</i>	<i>5 or</i>
22a. was a drug deal made in your neighborhood	<u><i>times</i></u>	<u><i>time</i></u>	<u><i>2 times</i></u>	<u><i>times</i></u>	<u><i>more</i></u>
23a. did a shooting or stabbing occur in your neighborhood?					
24a. did fights break out in your neighborhood?					
25a. did a mugging occur in your neighborhood?					
26a. did homes or apartments get robbed in your neighborhood?					
27a. did people hang out in your neighborhood (e.g., drunk people, loiterers, etc.) without any purpose					
28a. were gangs present in your neighborhood?					
29a. was property vandalized (i.e., damaging property) in your neighborhood?					

*Note.* After each crime, parent or youth was asked Part B: “How concerned are you about this?” and given the response choices: 1 = not at all concerned; 2 = a little concerned; 3 = somewhat concerned; 4 = pretty concerned; and 5 = very concerned.

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