

Neighborhood Characteristics and Expectations of Racially Discriminatory Experiences Among African American Adolescents

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This study examined how youth's neighborhood characteristics informed their expectations of racial discrimination concurrently and longitudinally. Secondary analyses were conducted on data from Waves 1, 3, 4, 5, and 6 of the Maryland Adolescent Development in Context Study, which permitted the examination of neighborhood influences among a socioeconomically diverse sample of African American parents and adolescents ($n = 863$; $M_{\text{age}} = 12.29$). Youth exposed to more neighborhood disadvantage in seventh grade reported more negative concurrent neighborhood perceptions, which, in turn, predicted greater expectations of racial discrimination in eighth grade; youth's expectations remained stable into adulthood. Thus, support was found for the mediating role of youth's subjective neighborhood perceptions in the longitudinal relation between neighborhood structure and expectations of racial discrimination.

Racial discrimination is an unwanted yet pervasive reality for African American youth (Seaton, Caldwell, Sellers, & Jackson, 2008). Several studies demonstrate the ubiquitous nature of racial discrimination for youth of color, who are likely to have experiences across multiple contexts (e.g., Greene, Way, & Pahl, 2006; Niwa, Way, & Hughes, 2014). In addition, many African American youth understand that they may be exposed to differential treatment or opportunities in the future due to their racial group membership (e.g., Carter, 2005; Grossman & Porche, 2014; Mickelson, 1990). This is problematic, as youth's exposure to racially discriminatory experiences has clear and negative consequences for adolescents' physical and mental health (e.g., Brody et al., 2014) and academic adjustment (e.g., Chavous, Rivas-Drake, Smalls, Griffin, & Cogburn, 2008).

Although research examining the impact of racial discrimination on minority youth development has increased, there is less empirical knowledge elucidating the role of neighborhoods in youth's expectations of racially discriminatory treatment they may encounter. This study examines how neighborhood characteristics inform youth's expectations of

racial discrimination. The neighborhood context is an important setting during adolescence, as youth have increasingly more autonomy to experience the neighborhood and interact with its residents (Leventhal & Brooks-Gunn, 2000) and thereby create their own impressions of the neighborhood social milieu. The neighborhood context exposes youth to race-based institutional patterns (e.g., racial segregation, intergroup relations, and vicarious discrimination) that they may utilize when assessing racism in their lived experiences (Carter, 2005).

Theoretical Framework

Using the integrative model, we examined how multiple neighborhood indicators influenced African American adolescents' expectations of racial discrimination from early adolescence to adulthood. The integrative model articulated by García Coll et al. (1996) provides a framework for examining the association between neighborhood characteristics and racial discrimination among Black youth. The integrative model proposes that American society stratifies individuals on the basis of social

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position variables such as race, ethnicity, social class, and gender (García Coll et al., 1996). Racial discrimination is proposed to operate at the macro level through the creation of racially segregated contexts, which includes residential, social, and psychological dimensions that directly influence developmental pathways for youth of color (García Coll et al., 1996). Accordingly, racial segregation influences the multiple environments (e.g., school and neighborhood) that children and youth of color experience on a daily basis (García Coll et al., 1996). Racial stratification and the resulting segregated contexts are posited to increase negative outcomes and reduce positive outcomes for children and adolescents of color (García Coll et al., 1996), although the mechanisms by which these patterns arise are unclear.

African American youth's perceptions of racial discrimination may be influenced by the environments in which they are embedded, especially their neighborhood contexts (Benner & Graham, 2013; White, Zeiders, Knight, Roosa, & Tein, 2014). The neighborhood context is a salient and important environment during adolescence and adulthood (Leventhal & Brooks-Gunn, 2000). The structural and social components of neighborhoods have been shown to affect psychosocial, behavioral, and mental health outcomes (Murry, Berkel, Gaylord-Harden, Copeland-Linder, & Nation, 2011). Social disorganization theory (i.e., Kingston, Huizinga, & Elliott, 2009; Sampson & Groves, 1989; Shaw & McKay, 1942) posits that structural indicators of poverty and racial-ethnic heterogeneity increase negative outcomes due to stymied positive social relationships and limited mutual trust among neighbors. Structural indicators may be associated with greater perceptions of negative neighborhood characteristics (e.g., physical and social disorder), which may increase psychosocial stressors (e.g., daily hassles and racial discrimination) and negatively influence mental health (Wandersman & Nation, 1998). In this sense, the neighborhood context can be considered an inhibiting environment (García Coll et al., 1996) that may limit youth's successful development due to poverty- and diversity-related indicators of structural disadvantage.

Alternatively, other scholars propose that neighborhoods may be a promotive environment that fosters wellness through positive social interactions among neighbors and that these perceptions of the social environment are important for positive youth development (Aber & Nieto, 2000). Specifically, neighborhoods confer benefits to residents through their positive characteristics (e.g., cohesion and

trust). Also, residents (i.e., adult and youth) have varying perceptions of the same environment and demonstrate multiple developmental trajectories (Aber & Nieto, 2000). Examining adolescents' neighborhood perceptions are important to consider given their opportunity for increased exposure to the environment, which allows them to form their own, independent ideas about neighborhood social dynamics. Together, social disorganization and pluralistic theories offer a conceptual model that demonstrates how structural characteristics of the neighborhood (i.e., poverty and diversity indicators) can impact the way individuals experience and perceive their neighborhoods, which, in turn, have implications for their psychosocial and behavioral outcomes.

This study examined the relation between structural and perceived neighborhood characteristics and African American youth's expectations of racially discriminatory treatment. Specifically, we examined the direct association between neighborhood characteristics based on race and socioeconomic status (SES; i.e., structural disadvantage) with African American youth's expectations of racial discrimination. We also examined whether the association between neighborhood structural characteristics and expectations of racial discrimination was mediated by youth's subjective perceptions of their neighborhood. Given that most African American children grow up in racially segregated neighborhoods (Williams & Collins, 2004), this study examined objective and subjective neighborhood characteristics as antecedents that inform expectations of racial discrimination among African American youth.

Racial Discrimination

Racial discrimination consists of dominant group members' actions that are systematic and result in differential and negative effects on subordinate racial-ethnic groups (Williams, Neighbors, & Jackson, 2003). The empirical research examining racial discrimination among African American adolescent populations has illustrated two key findings. The first is that racial discrimination is a normative and pervasive experience for Black youth. Prior research using survey methods has shown that perceptions of discriminatory treatment are quite prevalent among Black adolescents. For example, the majority of Black youth report experiencing racial discrimination within the past 3 months (Prelow, Danoff-Burg, Swenson, & Pulgiano, 2004), within the previous year (Seaton et al., 2008), and within their

lifetime (Gibbons et al., 2007). Using the experiential sampling procedure, previous research indicates that the majority of Black youth experienced racial discrimination on a daily basis with a daily average of 2.5 discriminatory events (Seaton & Douglass, 2014).

The second key finding is that racial discrimination is detrimental to the mental health and development of African American adolescents. A recent review of the racial discrimination literature among minority children and youth indicated a positive relation between racial discrimination and negative mental health outcomes, such as anxiety, depression, and psychological distress (Priest et al., 2013). The review also indicated a consistently negative relation between racial discrimination and positive mental health outcomes, such as self-esteem, self-worth, and psychological adjustment (Priest et al., 2013). Longitudinal research has also indicated a link between racial discrimination and increased conduct problems and substance use among African American adolescents (Brody et al., 2006; Fuller-Rowell et al., 2012). Thus, racial discrimination is pervasive and harmful to the mental health and development of African American youth.

Neighborhoods and Racial Discrimination

When examining the link between neighborhood characteristics and racial discrimination, neighborhood racial composition has been the most studied indicator given the assumption that there will be more incidents of racial discrimination in diverse neighborhoods with more opportunities for intergroup contact (English, Lambert, & Ialongo, 2014). Martin et al. (2011) reported that a greater proportion of residential Blacks were associated with less reports of racial discrimination among African American adolescents. A similar association between racial-ethnic density and racial discrimination from peers was reported among Mexican-origin adolescents (White et al., 2014). However, two studies have shown no association between racial composition and racial discrimination. Riina, Martin, Gardner, and Brooks-Gunn (2013) reported that the percentage of Blacks in the neighborhood was unrelated to African American adolescents' reports of racial discrimination within and outside of the neighborhood. Seaton and Yip (2009) showed that neighborhood racial-ethnic diversity was not significantly associated with racial discrimination among African American adolescents.

Prior research has also examined the relation between neighborhood SES and racially discrim-

inatory experiences. Previous research with Māori adults in New Zealand (Bécares, Cormack, & Harris, 2013) and African American adolescents (Martin et al., 2011) indicated that individuals living in more disadvantaged neighborhoods (e.g., high poverty and unemployment rates and more female-headed households) reported more incidents of racial discrimination. Yet, one study conducted among African American adolescents reported no association between neighborhood SES characteristics and racial discrimination (Riina et al., 2013). These studies highlight the lack of insight regarding the relation between neighborhood characteristics and racial discrimination. One way to shed light on this topic is to consider multiple structural characteristics simultaneously.

Moreover, subjective neighborhood characteristics are important to consider as they may begin to explain how neighborhoods matter for youth outcomes (Sharkey & Faber, 2014; Witherspoon & Hughes, 2014) by elucidating the theoretical link between neighborhood structural characteristics and youth outcomes (Shaw & McKay, 1942). Previous research suggests that perceptions of neighborhood risk (Benner & Graham, 2013) and social capital (Cooper, Brown, Metzger, Clinton, & Guthrie, 2013) are associated with adolescent reports of racial discrimination such that perceptions of neighborhood risk (e.g., crime and racism) increased youth's reports of racial discrimination, whereas perceived neighborhood supports decreased reported racial discrimination. However, it is important to note that some of these studies did not account for neighborhood structural characteristics, such as SES or racial composition. Additionally, previous research (e.g., Behnke et al., 2011; Nair et al., 2013; White et al., 2014) was conducted with Latino samples, and it is unclear if similar relations are evident for African American youth.

The Current Study

Although extant literature provides evidence that neighborhood structural characteristics (e.g., racial composition and SES) are associated with racial discrimination, there is a dearth of literature that examines the influence of multiple neighborhood indicators (i.e., structural disadvantage and residents' neighborhood perceptions) with racial discrimination among African American adolescents. This gap in the literature limits our understanding of how adolescents' early experiences may impact their later expectations of racial discrimination. Therefore, this study seeks to address the following

research questions using a longitudinal study of socioeconomically diverse African American youth's experiences from early adolescence to young adulthood: (a) Do African American youth's expectations of racial discrimination change from adolescence to young adulthood; (b) Are neighborhood structural characteristics (at early adolescence) associated with African American youth's expectations of racial discrimination over time (from early adolescence to young adulthood); and (c) Do youth's perceptions of their neighborhoods mediate the association between neighborhood structural characteristics (at early adolescence) and African American youth's racial discrimination over time? Thus, this study examined if expectations of racial discrimination changed over time and how multiple, theoretically informed neighborhood indicators (i.e., neighborhood structural disadvantage, neighborhood racial composition, and adolescent perceptions of neighborhoods) are associated with adolescents' expectations of racial discrimination from early adolescence into young adulthood.

Extant research with African American youth from adolescence to young adulthood (Brody et al., 2014; Seaton et al., 2008) shows that racial discrimination experiences increase throughout these developmental periods; therefore, we hypothesize a similar pattern for racial discrimination expectations. Based on previous research with adults (Bécares et al., 2013) and adolescents (Martin et al., 2011), we hypothesized that neighborhood disadvantage would be positively associated with expectations of discrimination. Although intergroup contact theory would suggest that there may be more expectations of discrimination in a racially diverse neighborhood, extant research with adolescents provides mixed findings, such that there is no association (Seaton & Yip, 2009) or a negative relation (Martin et al., 2011; White et al., 2014) between ethnic concentration and racial discrimination. Therefore, given the variability in samples (i.e., urban [Seaton & Yip, 2009] vs. rural [Martin et al., 2011] and race-ethnicity [i.e., White et al., 2014, Latino]), we provide no specific hypothesis and treat the examination of this relation concurrently and over time as exploratory.

We also assessed whether adolescents' early neighborhood perceptions mediate the relation between neighborhood structural characteristics and expectations of racial discrimination among African American adolescents. Rather than focusing exclusively on negative neighborhood structural features, pluralistic neighborhood theory (Aber & Nieto, 2000) emphasizes the importance of

individuals' positive perceptions of their neighborhoods and proposes that the meaning associated with their neighborhood experiences may impact their outcomes. This logic suggests that youth's neighborhood perceptions may explain the link between neighborhood disorganization and perceived discrimination. Further, social disorganization theory (Kingston et al., 2009; Shaw & McKay, 1942) offers that neighborhood structural characteristics are associated with youth's outcomes through their impact on the social fabric or experience of residents in their neighborhoods. This rationale implies a mediational model for neighborhood effects on youth outcomes. Riina et al. (2013) suggest that the lack of association between neighborhood structural characteristics and African American youth's perceived discrimination may be because of the mediating effect of one's neighborhood perceptions. Therefore, based on tenets of social disorganization and pluralistic neighborhood theory, we hypothesized that the way in which neighborhood disadvantage matters for racial discrimination expectations is through youth's perceptions of the neighborhood environment.

Method

Data Source and Sample

Secondary analyses were conducted on data drawn from Waves 1, 3, 4, 5, and 6 of the Maryland Adolescent Development in Context Study (MADICS; Eccles, 1997), which permitted the examination of neighborhood influences among a socioeconomically diverse sample of African American families residing in Prince Georges County, Maryland; MADICS data collection began in 1990. The present sample includes 863 African American youth who self-identified as African American and who were between 11 and 14 years old at Wave 1 (98% of the full sample) and their parents. At Wave 1 of the study, youth were 12 years old on average (age range = 11–14; $M = 12.29$, $SD = .56$; 47% girls). The mean pretax family income for this sample was approximately \$40,000–\$44,999. As a point of reference, the national mean family and Black family incomes during this same year were \$43,803 and \$28,659, respectively (U.S. Census, 1990a, 1990b). At Wave 1, families lived in 130 census tracts (i.e., neighborhoods); the number of families per census tract ranged from 1 to 23 (mode = 1 family per census tract; 20% of census tracts had 10 or more families; 80% of tracts had nine or less families). Data at Waves 3, 4, 5, and 6 were collected when youth

were in 8th grade, 11th grade, 1 year post high school, and 3 years post high school, respectively. Further details regarding the larger study and its sample and procedures can be found at <http://www.rcgd.isr.umich.edu/pgc/>.

Measures

Neighborhood Structural Disadvantage

Neighborhood structural socioeconomic disadvantage was assessed with census tract information from the 1990 U.S. Census to best correspond to the year in which Wave 1 data were collected. Addresses were geocoded and linked to participants' survey records. Specifically, we included percent unemployment (range = 1%–13%), percent female-headed households (range = 6%–58%), and percent families in poverty (range = 0%–27%).

Neighborhood Racial-Ethnic Diversity

Employing methods described in Juvonen, Nishina, and Graham (2006), the racial-ethnic diversity of the neighborhood at Wave 1 was computed based on information about the percentage of African American, Hispanic, White, and Asian residents (based on information from the U.S. Census for that year). Using information about the number of different racial-ethnic groups (g) and the proportion of individuals (p) who are members of each group (i), the index (D_c) provides an estimate of the relative probability that two randomly selected adolescents are from different racial-ethnic groups:

$$D_c = 1 - \sum_{i=1}^g p_i^2.$$

Higher scores indicate more racial-ethnic diversity (range = 0–1).

Youth's Neighborhood Perceptions

Youth's subjective experiences of their neighborhoods were assessed at Wave 1 (seventh grade) with six items ($\alpha = .61$) adapted from the National and Denver Youth Studies (Elliott et al., 2006; see <http://www.rcgd.isr.umich.edu/pgc/>). Sample items include the following: "There are a lot of adults in this neighborhood that you would like to be when you grow up," and "You want to get away from this neighborhood as soon as you can." The responses range from 1 = *strongly disagree* to 5 = *strongly agree*, and all items were coded such that higher values indicate more positive neighborhood perceptions.

Expectations of Racially Discriminatory Treatment

Youth's expectations of racially discriminatory treatment were assessed with four items developed by the MADICS researchers at Wave 3 (8th grade), Wave 4 (11th grade), Wave 5 (1 year post high school), and Wave 6 (3 years post high school). Sample items include the following: "There is little you can do to avoid racial discrimination by your peers," and "Because of your race, no matter how hard you work, you will always have to work harder than others to prove yourself." The responses range from 1 = *strongly disagree* to 5 = *strongly agree* and internal reliability was adequate (Wave 3–Wave 6 α s = .72–.78).

Covariates

Parental SES indicators (i.e., education and income; Brody et al., 2014), as well as adolescent gender and age (Seaton et al., 2008), were included in the model to account for the potential influence of these characteristics in the links between neighborhood characteristics and expectations of racial discrimination.

Analysis Plan

As a preliminary analytic step, we examined the census tract intraclass correlation coefficients (ICCs) for discrimination at each wave to assess the proportion of between-group (i.e., census tract) variability to total variability; the ICCs were relatively small (Wave 3–Wave 6 discrimination expectations = .00–.03), suggesting more within-group variability rather than between-group variability. Therefore, we proceeded with our substantive analyses without further decomposing the variance in discrimination experiences with multilevel models. Mplus 7.0 was used to estimate a latent growth curve model including latent variable mediation in an structural equation modeling framework (e.g., Kline, 2005; Little, 2013). This approach was used to estimate neighborhood disadvantage as a latent construct indicated by structural characteristics and to model the intercept and slope of racial discrimination expectations; neighborhood perceptions were modeled as a manifest variable (Figure 1). Neighborhood, parent, and child variables at Wave 1 were modeled as antecedent covariates of the intercept and slope of expectations of racial discrimination. The intercept of the latent growth curve, thus, represents expectations of racial discrimination at Wave 3 or eighth grade. The reference group in all

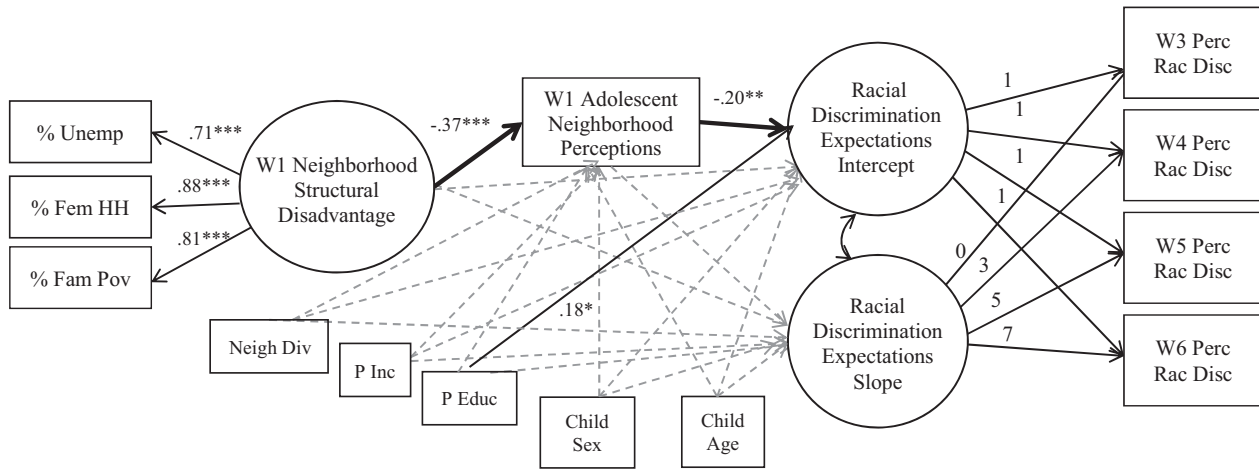


Figure 1. Neighborhood influences on perceived racial discrimination over time ($N = 863$).
 Note. Standardized coefficients shown. Bolded arrows signify a significant indirect path, and dashed lines indicate nonsignificant paths. Adjusted for parent income, parent education, child gender, child age, and neighborhood racial diversity. Unemp = unemployed; Fem HH = female-headed household; Fam Pov = families in poverty; Neigh Div = neighborhood diversity; P = parent; Educ = education; Inc = income; Perc Rac Disc = perceived racial discrimination. Covariances among exogenous variables and of neighborhood diversity, parent income, and parent education with neighborhood disadvantage are not shown for ease of presentation.
 $*p < .05$. $**p < .01$. $***p < .001$.

analyses was male. Full information maximum likelihood was used to handle missing data. The proposed model employed expectations of racial discrimination at Waves 3 (intercept), 4, 5, and 6 to generate the intercept and slope of this construct; waves were coded to reflect their uneven spacing as noted earlier (i.e., Wave 3 = 0; Wave 4 = 3; Wave 5 = 5; Wave 6 = 7). Two indirect paths were assessed from Wave 1 neighborhood disadvantage: one to the intercept and other to the slope of racial discrimination expectations. To do so, we inspected the bias-corrected bootstrap confidence intervals (with 5,000 resamples); if they did not contain zero, then there was support for mediation.

Results

Means, standard deviations, and bivariate correlations for primary study variables are presented in Table 1. Neighborhood percent unemployment, percent female-headed households, and percent families in poverty were all negatively and significantly associated with youths' neighborhood perceptions. Neighborhood diversity was positively and significantly correlated with youth's neighborhood perceptions.

The hypothesized model yielded a good fit to the data ($\chi^2 = 108.44$, $df = 46$, $p < .001$; comparative fit index [CFI] = .97; Tucker-Lewis Index [TLI] = .96; root mean square error of approximation [RMSEA] = .04 [.03, .05]). We note that the χ^2 information should be

interpreted with caution given the large sample size; however, the CFI, TLI, and RMSEA all suggest the model is a very good fit to the data. The results of the hypothesized model suggest that exposure to more neighborhood disadvantage in seventh grade was concurrently and significantly associated with more negative adolescent neighborhood perceptions ($b = -.21$, $SE = .05$, $p = .000$). Adolescent neighborhood perceptions were significantly and negatively associated with greater expectations of racial discrimination in eighth grade ($b = -.13$, $SE = .05$, $p = .009$). A nonsignificant slope indicated that expectations of racial discrimination remained stable between adolescence and young adulthood (estimate = .00, $SE = .01$, $p = ns$). A test of the mediation indicated a significant indirect association of seventh-grade neighborhood disadvantage with expectations of racial discrimination in eighth grade (intercept) via adolescents' neighborhood perceptions, estimate = .03, 95% CI [.0, .05]. Thus, support was found for the hypothesized mediating role of youth's subjective neighborhood perceptions in the longitudinal relation between neighborhood structure and expectations of racial discrimination. Figure 1 summarizes the model using standardized coefficients.

Discussion

A growing literature suggests that racial discrimination is a pervasive reality for Black youth and that

Table 1
Descriptive Statistics for Primary Study Variables

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|--|---------|---------|---------|--------|-------|--------|--------|--------|-------|
| 1. Neighborhood % unemployment | — | | | | | | | | |
| 2. Neighborhood % female-headed households | .60*** | — | | | | | | | |
| 3. Neighborhood % families in poverty | .65*** | .73*** | — | | | | | | |
| 4. Neighborhood diversity | -.62*** | -.73*** | -.66*** | — | | | | | |
| 5. Wave 1 youth neighborhood perceptions | -.21*** | -.28*** | -.26*** | .22*** | — | | | | |
| 6. Wave 3 racial discrimination expectations | .00 | .01 | .01 | -.01 | -.08 | — | | | |
| 7. Wave 4 racial discrimination expectations | -.14** | -.06 | -.07 | .08 | -.05 | .26*** | — | | |
| 8. Wave 5 racial discrimination expectations | -.08 | -.10 | -.10* | .12* | .07 | .28*** | .30*** | — | |
| 9. Wave 6 racial discrimination expectations | -.13* | -.05 | -.12* | .12* | -.05 | .20*** | .28*** | .30*** | — |
| Mean | 4.80 | 27.58 | 4.74 | .35 | 3.58 | 2.25 | 2.29 | 2.62 | 2.70 |
| SD | (2.37) | (13.92) | (4.99) | (.18) | (.57) | (.69) | (.62) | (.61) | (.60) |

* $p < .05$. ** $p < .01$. *** $p < .001$.

these experiences are associated with negative physical and mental health outcomes (Priest et al., 2013). This study is one of the first to examine how both neighborhood structural characteristics (i.e., neighborhood socioeconomic disadvantage and racial composition) and adolescents' neighborhood perceptions are associated with youths' racial discrimination expectations from adolescence into young adulthood. Using a socioeconomically diverse sample of African American youth, we sought to identify multiple neighborhood indicators that were associated with youth's expectations of racial discrimination from adolescence to young adulthood and the mediating effect of adolescents' neighborhood perceptions on expectations of racial discrimination. The results indicate that expectations of racial discrimination do not change as adolescents mature into adulthood, which is inconsistent with previous research indicating that racial discrimination experiences increase during the adolescent period (Seaton et al., 2008) and into adulthood (Brody et al., 2014) for African American youth. Future research should examine how and why African American youth's expectations for racial discrimination remain stable into adulthood, yet have similar negative impacts on the mental health of African Americans as do racial discrimination experiences (Taylor, Wright, & Porter, 1993). Relatedly, scholars should explore how expectations for racial discrimination impact African American youth's racial discrimination experiences. For example, do youth who expect more racial discrimination based on their contextual circumstances actually experience more racial discrimination? Future research should also consider the perpetrators of racial discrimination in neighborhood contexts because previous research indicates that

African American adolescents repeatedly describe hostile relations with police officers and shopkeepers (Rosenbloom & Way, 2004). Last, future research should consider how school and neighborhood contexts simultaneously influence racial discrimination expectations, as prior research indicates that African American adolescents in minority contexts were most affected by racial discrimination experiences (Seaton & Yip, 2009).

Whereas previous research indicates that African Americans in neighborhoods characterized by greater proportions of their in-group reported less racial discrimination (Martin et al., 2011; White et al., 2014), we neglected to find an association between racial composition and adolescents' awareness of discrimination concurrently or over time. This pattern of findings is consistent with other studies among urban African American adolescents (Riina et al., 2013; Seaton & Yip, 2009). Consistent with previous work by Seaton and Yip (2009) and Riina et al. (2013), the adolescents in this study were living in predominantly African American neighborhoods; the restricted range of neighborhood racial composition may have suppressed any association between racial composition and racial discrimination. Additional research is needed to explore whether there is a threshold at which neighborhood racial composition affects racial discrimination, especially within neighborhoods that have varying SES indicators.

Research on the link between neighborhood disadvantage and racial discrimination has been somewhat mixed. Some studies show that in more economically disadvantaged neighborhoods, residents report more racial discrimination (Bécares et al., 2013; Martin et al., 2011). Other researchers find no association between neighborhood SES and

racial discrimination (Riina et al., 2013). The differences in the studies' results may be attributed to developmental period (adult vs. adolescent), geography (urban vs. rural), and other neighborhood characteristics. Further, based on the tenets of social disorganization theory (Kingston et al., 2009), structural disadvantage may indirectly, rather than directly, affect youth's outcomes and assessments of the likelihood that they will encounter racial discrimination, specifically. As suggested by pluralistic neighborhood theory, youth's neighborhood perceptions may be the key mechanism. For example, as youth age, they have more opportunities to engage with people and institutions in their neighborhoods. These interactions may shape their future orientation and perspectives on what the possibilities are for youth of color as well as the potential for racial discrimination experiences. If adults and role models interact in more racially and socioeconomically diverse settings, they may experience more discrimination (English et al., 2014) and share these experiences with youth. Youth then may expect similar experiences for themselves. Alternatively, in more cohesive and safe environments with additional supports, youth may feel insulated and protected from potential racial discrimination. As discussed in the following section, we found that the way residents experience their neighborhoods may be an important link in any association between neighborhood SES and discrimination.

Neighborhood Perceptions as a Mediator

We demonstrated that after adjusting for neighborhood diversity, parental SES, and child characteristics, neighborhood disadvantage indirectly affected later expectations of racial discrimination through youths' perceptions of the neighborhood. Our findings, which are consistent with Riina et al. (2013), demonstrate that the association between neighborhood disadvantage at seventh grade and expectations of racial discrimination at eighth grade is partially mediated by youth's positive neighborhood perceptions at seventh grade. This finding suggests that African American youth make meaning of their environments and interpret the interactions among neighbors and the resources available to them in ways that are implicated in their understanding of how racial discrimination may operate in their own lives (Chen & Yang, 2014; Lewin, Mitchell, Rasmussen, Sanders-Phillips, & Joseph, 2011).

Identifying this indirect association provides further evidence for pluralistic neighborhood theory

by demonstrating the importance of youth's positive neighborhood perceptions for understanding their psychological well-being. Also, this finding simultaneously supports pluralistic neighborhood theory and the integrative model's hypothesis that a neighborhood context can be simultaneously inhibiting and promoting. Even though economically disadvantaged neighborhoods are inhibiting because they lack economic resources linked to healthy developmental outcomes, they are promoting if they allow youth of color to process racially discriminatory experiences in a safe, cohesive environment (García Coll et al., 1996). These contextual interpretations, whether positive or negative, may serve to reduce (Chen & Yang, 2014; Cooper et al., 2013) or increase (Behnke et al., 2011; Benner & Graham, 2013) daily stressors such as perceived racial discrimination. These findings illustrate that the neighborhood context is a salient setting for expectations of racial discrimination during adolescence and young adulthood. Further, these findings begin to illustrate how or why (Sharkey & Faber, 2014) neighborhoods matter for African American youths' outcomes: Youths' neighborhood perceptions are important in translating the impact of structural, sociodemographic neighborhood characteristics, which may be the result of segregation (García Coll et al., 1996), on youths' beliefs about the role of racial discrimination in their life chances.

Limitations and Future Directions

There are a few limitations in this study that need to be considered. The neighborhood characteristics were measured at one time point only, preventing the assessment of change, which is an important caveat given that neighborhoods are not static entities. It is possible that economic indicators of neighborhood disadvantage and neighborhood racial composition may change over time (Kubrin & Weitzer, 2003). A related point is that adolescent perceptions of their respective neighborhoods may change over time, particularly as youth mature through adolescence into adulthood. African American youth may perceive their neighborhoods distinctly during different developmental periods. For example, White et al. (2014) illustrated that changes in neighborhood racial composition impacted youth's perceptions of peer racial discrimination. Therefore, it is important for future studies to consider youth's potentially evolving neighborhood perceptions and how fluctuations in their perceptions may influence their discrimination experiences.

An additional limitation to be considered is that people may select to live in certain neighborhoods (Anderson, Leventhal, & Dupéré, 2014; Leventhal, Dupéré, & Brooks-Gunn, 2009), and those choices may spill over into or be associated with the likelihood of perceiving, experiencing, or expecting discrimination; we cannot know for sure if there are additional characteristics that may account for the relations found in this study. Future studies should consider not only these sociodemographic characteristics (e.g., race, income, education, and age) but also additional contextual correlates that may explain these associations between the neighborhood context and expectations of racially discriminatory experiences. For example, there is a growing literature that has established a link between parental racial socialization and racial discrimination (Hughes et al., 2006; Riina & McHale, 2012), and the messages parents communicate about race may be shaped by the broader environment in which they live. Further, families and schools are nested within the broader neighborhood context, so future studies should examine these more proximal contextual processes and the interactive influence of school and neighborhood characteristics (Benner & Graham, 2013) on expectations of racial discrimination.

An additional limitation of this study concerns the lack of assessment of racial discrimination from multiple sources. Previous research indicates that racial discrimination has a differential impact on various outcomes depending on the source (Benner & Graham, 2013); this study did not account for expectations of racial discrimination that might occur from various perpetrators. Future studies should examine whether there are differential relations between neighborhood characteristics and youth's expectations of racial discrimination; that is, if youth anticipate discrimination from various perpetrators (e.g., adults, author figures, and peers), given the neighborhood context. For example, do neighborhood characteristics matter more for discrimination from neighborhood peers, community authorities (e.g., police officers), or school personnel?

In addition, although this study benefitted from its longitudinal design, we are not able to establish causality. Specifically, we cannot assert that seventh-grade neighborhood perceptions caused expectations for racial discrimination, 1 year later. Youth's prior expectations for racially discriminatory experiences may shape their views of their neighborhoods. This competing hypothesis suggests reverse causality and is not an issue that we

address with the current analyses and data set. Youth's expectations of racially discriminatory experiences are only available beginning in eighth grade, after the assessment of seventh-grade neighborhood perceptions. Future studies would benefit from including concurrent measurement of both neighborhood and racial discrimination perceptions to tease apart the underlying processes. Relatedly, neighborhood structural disadvantage and youth's neighborhood perceptions (i.e., mediator) were measured concurrently. Maxwell, Cole, and Mitchell (2011) suggest that cross-sectional estimates for longitudinal mediators are biased; thus, our mediation results should be interpreted with caution. With this caveat, we note that this potential mediator was associated with later (not concurrent) expectations of discrimination, and this may help to allay concerns about bias. Future studies will benefit from assessment of predictors, mediators, and outcomes at discrete, sequential time points.

Finally, although the study benefitted greatly from having a socioeconomically diverse sample, it was nonetheless a community sample of African American adolescents, so the present results may not be generalizable to African American youth in other settings or in the United States more broadly. Our understanding of the link between neighborhood characteristics and African American youth's expectations of racial discrimination would be enhanced by replication of the study's results with a national sample of African American youth. Such a sample would also permit exploration of heterogeneity in the experiences of African American (e.g., Caribbean Black and African immigrant) youth.

Conclusion

With these caveats in mind, the current findings extend the racial discrimination literature with a longitudinal examination of the impact of neighborhood characteristics on African American adolescents' expectations of racial discrimination. Although the integrative model of youth development argues that minority youth develop in a racialized society that segregates individuals into particular contexts that may be promotive or inhibitive (García Coll et al., 1996), there is little in-depth empirical examination of such mechanisms. Further, with five waves of data, we were able to examine expectations of discrimination from adolescence to young adulthood and provide more evidence on the pervasiveness of this stressor throughout development. One of the strengths of this study is a

focus on neighborhood structural characteristics and youth's neighborhood perceptions as longitudinal predictors of expectations of racial discrimination among African American youth. This study contributes to existing theoretical formulations and empirical research documenting the importance of neighborhoods as an important context that is pertinent to racially discriminatory experiences among African American adolescents. Although the findings suggest that there is a complex relation among objective and subjective neighborhood characteristics with expectations of racial discrimination among youth, it is hoped that future research will further illuminate these complex processes.

References

- Aber, M. S., & Nieto, M. (2000). Suggestions for the investigation of psychological wellness in the neighborhood context: Toward a pluralistic neighborhood theory. In D. Cicchetti, J. Rappaport, I. Sandler, & R. Weissberg (Eds.), *The promotion of wellness in children and adolescents* (pp. 185–220). Washington, DC: CWLA Press.
- Anderson, S., Leventhal, T., & Dupéré, V. (2014). Residential mobility and the family context: A developmental approach. *Journal of Applied Developmental Psychology, 35*, 70–78. doi:10.1080/10888691.2014.924355
- Bécares, L., Cormack, D., & Harris, R. (2013). Ethnic density and area deprivation: Neighbourhood effects on Māori health and racial discrimination in Aotearoa/New Zealand. *Social Science & Medicine, 88*, 76–82. doi:10.1016/j.socscimed.2013.04.007
- Behnke, A. O., Plunkett, S. W., Sands, T., & Bámaca-Colbert, M. Y. (2010). The relationship between Latino adolescents' perceptions of discrimination, neighborhood risk, and parenting on self-esteem and depressive symptoms. *Journal of Cross-Cultural Psychology, 42*, 1179–1197. doi:10.1177/0022022110383424
- Benner, A. D., & Graham, S. (2013). The antecedents and consequences of racial/ethnic discrimination during adolescence: Does the source of discrimination matter? *Developmental Psychology, 49*, 1602–1613. doi:10.1037/a0030557
- Brody, G. H., Chen, Y., Murry, V. M., Ge, X., Simons, R. L., Gibbons, F. X., . . . Cutrona, C. E. (2006). Perceived discrimination and the adjustment of African American youths: A five-year longitudinal analysis with contextual moderation effects. *Child Development, 77*, 1170–1189. doi:10.1111/j.1467-8624.2006.00927.x
- Brody, G. H., Lei, M. K., Chae, D. H., Yu, T., Kogan, S. M., & Beach, S. R. H. (2014). Perceived discrimination among African American adolescents and allostatic load: A longitudinal analysis with buffering effects. *Child Development, 85*, 989–1002. doi:10.1111/cdev.12213
- Carter, P. (2005). *Keepin' it real: School success beyond Black and White*. New York, NY: Oxford University Press.
- Chavous, T. M., Rivas-Drake, D., Smalls, C., Griffin, T., & Cogburn, C. (2008). Gender matters, too: The influences of school racial discrimination and racial identity on academic engagement outcomes among African American adolescents. *Developmental Psychology, 44*, 637–654. doi:10.1037/0012-1649.44.3.637
- Chen, D., & Yang, T. (2014). The pathways from perceived discrimination to self-rated health: An investigation of the roles of distrust, social capital, and health behaviors. *Social Science & Medicine, 104*, 64–73. doi:10.1016/j.socscimed.2013.12.021
- Cooper, S. M., Brown, C., Metzger, I., Clinton, Y., & Guthrie, B. (2013). Racial discrimination and African American adolescents' adjustment: Gender variation in family and community social support, promotive and protective factors. *Journal of Child and Family Studies, 22*, 15–29. doi:10.1007/s10826-012-9608
- Eccles, J. S. (1997). *MADICS study of adolescent development in multiple contexts, 1991–1998*. Retrieved from <http://hdl.handle.net/1902.1/01066UNF:5:uuV+GIHq+xtra75iHCPSPw==Murray>. Research Archive [Distributor] V2 [Version]
- Elliott, D. S., Menard, S., Rankin, B., Elliott, A., Wilson, W. J., & Huizinga, D. (2006). *Good kids from bad neighborhoods: Successful development in social context*. New York, NY: Cambridge University Press.
- English, D., Lambert, S. F., & Ialongo, N. S. (2014). Longitudinal associations between experienced racial discrimination and depressive symptoms in African American adolescents. *Developmental Psychology, 50*, 1190–1196. doi:10.1037/a0034703; 10.1037/a0034703.supp
- Fuller-Rowell, T. E., Cogburn, C. D., Brodish, A. B., Peck, S. C., Malanchuk, O., & Eccles, J. S. (2012). Racial discrimination and substance use: Longitudinal associations and identity moderators. *Journal of Behavioral Medicine, 35*, 581–590. doi:10.1007/s10865-011-9388-7
- García Coll, C., Lambert, G., Jenkins, R., McAdoo, H. P., Crnic, K., Wasik, B. H., et al. (1996). An integrative model for the study of developmental competencies in minority children. *Child Development, 67*, 1891–1914. doi:10.2307/1131600
- Gibbons, F. X., Yeh, H. C., Gerrard, M., Cleveland, M. J., Cutrona, C., Simons, R. L., & Brody, G. H. (2007). Early experience with racial discrimination and conduct disorder as predictors of subsequent drug use: A critical period hypothesis. *Drug and Alcohol Dependence, 88*, 27–37. doi:10.1016/j.drugalcdep.2006.12.015
- Greene, M. L., Way, N., & Pahl, K. (2006). Trajectories of perceived adult and peer discrimination among Black, Latino and Asian American adolescents: Patterns and psychological correlates. *Developmental Psychology, 42*, 218–238. doi:10.1037/0012-1649.42.2.218
- Grossman, J. M., & Porche, M. V. (2014). Perceived gender and Racial/Ethnic barriers to STEM success. *Urban Education, 49*, 698–727. doi:10.1177/0042085913481364
- Hughes, D., Rodriguez, J., Smith, E. P., Johnson, D. J., Stevenson, H. C., & Spicer, P. (2006). Parents' ethnic-racial socialization practices: A review of research and

- directions for future study. *Developmental Psychology*, 42, 747–770. doi:10.1037/0012-1649.42.5.747
- Juvonen, J., Nishina, A., & Graham, S. (2006). Ethnic diversity and perceptions of safety in urban middle schools. *Psychological Science*, 17, 393–400. doi:10.1111/j.1467-9280.2006.01718.x
- Kingston, B., Huizinga, D., & Elliott, D. S. (2009). A test of social disorganization theory in high-risk urban neighborhoods. *Youth and Society*, 41, 53–79. doi:10.1177/0044118X09338343
- Kline, R. B. (2005). *Principles and practice of structural equation modeling* (2nd ed.). New York, NY: Guilford.
- Kubrin, C. E., & Weitzer, R. (2003). New directions in social disorganization theory. *Journal of Research in Crime and Delinquency*, 40, 374–402. doi:10.1177/0022427803256238
- Leventhal, T., & Brooks-Gunn, J. (2000). The neighborhoods they live in: The effects of neighborhood residence on child and adolescent outcomes. *Psychological Bulletin*, 126, 309. doi:10.1037/0033-2909.126.2.309
- Leventhal, T., Dupéré, V., & Brooks-Gunn, J. (2009). Neighborhood influences on adolescent development. In R. M. Lerner & L. Steinberg (Eds.), *Handbook of adolescent psychology, Vol 2: Contextual influences on adolescent development* (3rd ed., pp. 411–443). Hoboken, NJ: Wiley.
- Lewin, A., Mitchell, S. J., Rasmussen, A., Sanders-Phillips, K., & Joseph, J. G. (2011). Do human and social capital protect young African American mothers from depression associated with ethnic discrimination and violence exposure? *Journal of Black Psychology*, 37, 286–310. doi:10.1177/0095798410381242
- Little, T. D. (2013). *Longitudinal structural equation modeling*. New York, NY: Guilford.
- Martin, M. J., McCarthy, B., Conger, R. D., Gibbons, F. X., Simons, R. L., Cutrona, C. E., & Brody, G. E. (2011). The enduring significance of racism: Discrimination and delinquency among Black American youth. *Journal of Research on Adolescence*, 21, 662–676. doi:10.1111/j.1532-7795.2010.00699.x
- Maxwell, S. E., Cole, D. A., & Mitchell, M. A. (2011). Bias in cross-sectional analyses of longitudinal mediation: Partial and complete mediation under an autoregressive model. *Multivariate Behavioral Research*, 46, 816–841. doi:10.1080/00273171.2011.606716
- Mickelson, R. (1990). The attitude-achievement paradox among Black adolescents. *Sociology of Education*, 63, 44–61. doi:10.2307/2112896
- Murry, V. M., Berkel, C., Gaylord-Harden, N. K., Copeland-Linder, N., & Nation, M. (2011). Neighborhood poverty and adolescent development. *Journal of Research on Adolescence*, 21, 114–128. doi:10.1111/j.1532-7795.2010.00718.x
- Nair, R. L., White, R. M., Roosa, M. W., & Zeiders, K. H. (2013). Cultural stressors and mental health symptoms among Mexican Americans: A prospective study examining the impact of the family and neighborhood context. *Journal of Youth and Adolescence*, 42, 1611–1623. doi:10.1007/s10964-012-9834-z
- Niwa, E. Y., Way, N., & Hughes, D. L. (2014). Trajectories of ethnic-racial discrimination among ethnically diverse early adolescents: Associations with psychological and social adjustment. *Child Development*, 85, 2339–2354. doi:10.1111/cdev.12310
- Prelow, H. M., Danoff-Burg, S., Swenson, R. R., & Pulgiano, D. (2004). The impact of ecological risk and perceived discrimination on the psychological adjustment of African American and European American Youth. *Journal of Community Psychology*, 32, 375–389. doi:10.1002/jcop.20007
- Priest, N., Paradies, Y., Trener, B., Truong, M., Karlsen, S., & Kelly, Y. (2013). A systematic review of studies examining the relationship between reported racism and health and wellbeing for children and young people. *Social Science & Medicine*, 95, 115–127. doi:10.1016/j.socscimed.2012.11.031
- Riina, E. M., Martin, A., Gardner, M., & Brooks-Gunn, J. (2013). Context matters: Links between neighborhood discrimination, neighborhood cohesion and African American adolescents' adjustment. *Journal of Youth and Adolescence*, 42, 136–146. doi:10.1007/s10964-012-9804-5
- Riina, E. M., & McHale, S. M. (2012). Adolescents' experiences of discrimination and parent-adolescent relationship quality: The moderating roles of sociocultural processes. *Journal of Family Issues*, 33, 851–873. doi:10.1177/0192513X11423897
- Rosenbloom, S. R., & Way, N. (2004). Experiences of discrimination among African American, Asian American and Latino adolescents in an urban high school. *Youth and Society*, 35, 420–451. doi:10.1177/0044118X03261479
- Sampson, R. J., & Groves, W. B. (1989). Community structure and crime: Testing social-disorganization theory. *American Journal of Sociology*, 94, 774–802. doi:10.1086/229068
- Seaton, E. K., Caldwell, C. H., Sellers, R. M., & Jackson, J. S. (2008). The prevalence of perceived discrimination among African American and Caribbean Black youth. *Developmental Psychology*, 44, 1288–1297. doi:10.1037/a0012747
- Seaton, E. K., & Douglass, S. (2014). School diversity and racial discrimination among African American adolescents. *Cultural Diversity and Ethnic Minority Psychology*, 20, 156–165. doi:10.1037/a0035322
- Seaton, E. K., & Yip, T. (2009). School and neighborhood contexts, perceptions of racial discrimination, and psychological well-being among African American adolescents. *Journal of Youth and Adolescence*, 38, 153–163. doi:10.1007/s10964-008-9356-x
- Sharkey, P., & Faber, J. W. (2014). Where, when, why, and for whom do residential contexts matter? Moving away from the dichotomous understanding of neighborhood effects. *Annual Review of Sociology*, 40, 559–579. doi:10.1146/annurev-soc071913-043350

- Shaw, C. R., & McKay, H. D. (1942). *Juvenile delinquency and urban areas*. Chicago, IL: University of Chicago Press.
- Taylor, D. M., Wright, S. C., & Porter, L. E. (1993). Dimensions of perceived discrimination. In M. P. Zanna & J. M. Olson (Eds.), *The psychology of prejudice: The Ontario Symposium* (Vol. 7, pp. 233–255). Hillsdale, NJ: Erlbaum.
- U.S. Census. (1990a). *1990 census of population and housing*. Retrieved from <http://www.census.gov/prod/www/abs/decennial/1990.html>
- U.S. Census. (1990b). *1990 census of the population and housing: Characteristics of the Black population*. Retrieved from <http://www.census.gov/prod/cen1990/cp3/cp-3-6.pdf>
- Wandersman, A., & Nation, M. (1998). Urban neighborhoods and mental health: Psychological contributions to understanding toxicity, resilience, and interventions. *American Psychologist*, *53*, 647–656. doi:10.1037/0003-066X.53.6.647
- White, R. M. B., Zeiders, K. H., Knight, G. P., Roosa, M. W., & Tein, J. (2014). Mexican origin youths' trajectories of perceived peer discrimination from middle childhood to adolescence: Variation by neighborhood ethnic concentration. *Journal of Youth and Adolescence*, *43*, 1700–1714. doi:10.1007/s10964-014-0098-7
- Williams, D. R., & Collins, C. (2004). Reparations: A viable strategy to address the enigma of African American Health. *The American Behavioral Scientist*, *47*, 977–1000. doi:10.1177/0002764203261074
- Williams, D. R., Neighbors, H. W., & Jackson, J. S. (2003). Racial/ethnic discrimination and health: Findings from community studies. *American Journal of Public Health*, *93*, 200–208. doi:10.2105/AJPH.93.2.200
- Witherspoon, D. P., & Hughes, D. (2014). Adolescent perceptions of neighborhood: Strengths, structural disadvantage, and relations to outcomes. *Journal of Early Adolescence*, *34*, 866–895. doi:10.1177/0272431613510404