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Racial Identity and Depressive Symptoms among Black Emerging Adults: The Moderating Effects of Neighborhood Racial Composition

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Abstract

In the current study, we explored patterns of change in Black emerging adults' racial identity beliefs during the transition to adulthood, assessed neighborhood racial composition effects on Black emerging adults' racial identity beliefs, and tested the moderating effects of neighborhood racial composition on the relationship between Black emerging adults' racial identity beliefs and depressive symptoms over time. Participants in the current study included 570 Black adolescents (52% female) who were transitioning into adulthood (senior year of high school through 5 years post-high school). We did not find average patterns of change in Black emerging adults' racial identity beliefs over time. Further, neighborhood racial composition did not predict participants' beginning status or growth in racial identity beliefs over time. We, however, found evidence that neighborhood racial composition may moderate the association between Black emerging adults' racial identity beliefs and symptoms of depression over time. Findings from the current study underscore the importance of considering how the larger social context may interact with individuals' racial identity beliefs to influence Black emerging adults' psychological health.

Keywords

racial identity; depressive symptoms; neighborhoods; Black emerging adults

Mounting evidence supports the significance of racial identity in the lives of Black Americans. To date, researchers have investigated trends in racial identity development (French, Seidman, Allen, & Aber, 2006; Pahl & Way, 2006), associations between racial identity beliefs and psychosocial outcomes (Caldwell, Sellers, Bernat, & Zimmerman, 2004; Caldwell, Zimmerman, Bernat, Sellers, & Notaro, 2002; Chavous et al., 2003; Rowley, Sellers, Chavous, & Smith, 1998), and the potential of racial identity beliefs to buffer against the negative effects of discrimination among Black adolescents and emerging adults (Caldwell, Kohn-Wood, Schmeelk-Cone, Chavous, & Zimmerman, 2004; Sellers, Caldwell, Schmeelk-Cone, & Zimmerman, 2003; Sellers, Copeland-Linder, Martin, & Lewis, 2006; Sellers & Shelton, 2003; Wong, Eccles, & Sameroff, 2003). Yet few researchers have considered how the larger neighborhood context may shape the development of racial identity beliefs and influence associations between racial identity beliefs and Black youths' psychosocial outcomes (for exception see Byrd & Chavous, 2009).

According to Bronfenbrenner's (1979) ecological model, individual outcomes are influenced by interactions between individuals and multiple, interacting contexts. Thus, beyond identifying associations between racial identity beliefs and individual outcomes, there is a

need for research that considers how racial identity beliefs may operate differently in diverse environmental contexts. Multiple models of racial and ethnic identity have been proposed and applied to the study of African American or Black identity (for a review, see Marks, Settles, Cooke, Morgan, & Sellers, 2004). Most of these models address identity development in a stage-like fashion, assume a normative progression through each stage, and assign value to different stages or levels of identity development (Cross, 1971, 1991; Phinney, 1989, 1992). More recently, however, Sellers and colleagues proposed the multidimensional model of racial identity (MMRI; Sellers, Smith, Shelton, Rowley, & Chavous, 1998). The MMRI focuses on the significance and meaning Blacks assign to race and this model makes no value judgments regarding the psychological healthiness of differing identity beliefs. According to this model, particular racial identity beliefs are not inherently psychologically beneficial. Sellers and colleagues posit that relationships between racial identity beliefs and psychological health outcomes may differ as a function of the ecological context. Consistent with this notion, further exploration into contextual factors that may both shape these identity beliefs and determine how these identity beliefs operate to influence psychological health are needed. In the present study, we examined the relative psychological benefits of racial identity beliefs as a function of the broader environmental context. Specifically, we focused on the neighborhood context and examined how neighborhood racial composition may have contributed to racial identity beliefs and moderated the associations between racial identity beliefs and depressive symptoms over time among Black emerging adults.

Racial Identity Beliefs and the Transition to Adulthood

Researchers interested in racial and ethnic identity developmental trajectories among Black Americans have almost exclusively focused on development occurring during the adolescent (French et al., 2006; Pahl & Way, 2006; Phinney, 1989) or adult (Cross, 1978) years, with few longitudinal studies of racial identity development during the transition to adulthood. Those who have studied adolescent trajectories of ethnic identity have noted a gradual increase in identity exploration during early and middle adolescence followed by a deceleration in exploration during the high school years (French et al., 2006; Pahl & Way, 2006). Cross and Fhagen-Smith (1999) theorize that most Black Americans emerge from adolescence with an *achieved* identity that has been shaped by formative socialization experiences during childhood and adolescence. They also conjecture that identity status and content are relatively stable throughout adulthood (early through late). Similarly, Tatum (1997) suggests that most Black Americans enter adulthood with a highly developed and well-integrated sense of their race (i.e., feeling secure about their own race, and able to both perceive and transcend race). On the whole, research findings suggest that racial identity beliefs are relatively stable among Black American adults, but may fluctuate in response to experiences with individual or institutional discrimination, particularly among individuals who transition to adulthood without any examination of their racial identity (Cross, 1991). Moreover, even adults with *achieved* racial identities may re-enter stages of identity exploration as a result of positive or negative race-related experiences. Rather than developing a completely new identity, exploration may result in modifications or adjustments to pre-existing racial identities (Parham, 1989).

Worldview shifts are considered to be fairly common among emerging adults in the U.S. (Arnett, 2000). Although the college experience provides an opportunity for emerging adults to reconsider worldviews, researchers have found that emerging adults who do not attend college may be as likely as their college-attending peers to reexamine beliefs they learned from their families of origin and to prioritize beliefs that result from independent reflections (Arnett & Jensen, 1999 as cited in Arnett, 2000; Hoge, Johnson, & Luidens, 1993). Yet it is important to note that limitations in educational and occupational opportunities may

influence the extent to which emerging adults can explore their worldviews (Arnett, 2000). Emerging adults from low-resource communities, for example, may experience this time as more structured and directive as they enter the workforce to provide for themselves and possibly their children. Exploring their worldviews and shifting identities may be an inaccessible luxury for some. Given that emerging adulthood contains few normative developmental processes as well as significant heterogeneity in individual outcomes (Arnett, 2000), it may be a time of increased racial identity exploration for some but not for others. Although researchers have hypothesized stability in racial identity beliefs during the transition to adulthood, few have studied Black Americans' racial identity development during this transition. Thus, it is unclear whether and under what circumstances fluctuations in racial identity beliefs may occur. Further, most studies of developmental trajectories have emphasized growth in racial identity processes (French et al., 2006; Pahl & Way, 2006), while less research has been conducted to investigate changes in racial identity content during the period of emerging adulthood.

As mentioned above, *process-oriented models* address the normative changes in individuals' attitudes and beliefs about their membership in their racial or ethnic group over time (Cross, 1971, 1991; Phinney, 1989, 1992). These models envision racial identity development occurring in a stage-like, progressive fashion that ideally concludes with a fully-explored and achieved racial identity (e.g., Phinney, 1992). Conversely, *content-oriented models* emphasize the nature of individuals' beliefs regarding their membership in their racial or ethnic group at any point in time. While *process-oriented models* classify individuals based on where they stand in the identity development process, *content-oriented models* classify individuals by the different types (or dimensions) of racial identity beliefs they hold. As mentioned previously, the MMRI is a framework for assessing Black individuals' racial identity content (Sellers et al., 1998). Given our interest in advancing our understanding of the role of environmental context in shaping the content of Black emerging adults' racial identity, and the association between Black emerging adults' racial identity content and their symptoms of depression, the MMRI framework is the most appropriate racial identity framework for the current study. Included in the MMRI are the following four dimensions of Black racial identity: the centrality of race to one's identity, regard held for the racial group, the salience of race to one's identity, and the ideology associated with the identity. Racial centrality and salience relate to the significance of race in one's identity, while regard and ideology relate to the meaning one attaches to his/her racial group.

In the current study, we focused on centrality and regard as these constructs have been linked to the psychological well-being of Black adolescents and emerging adults (Caldwell et al., 2002; Rowley et al., 1998; Sellers et al., 2003). Racial centrality refers to the degree to which race is a part of the way an individual normatively defines him/herself. Regard for one's racial group includes positive and negative perceptions one may hold toward one's racial group and one's membership in that group (private regard) as well as one's perceptions of how society perceives one's racial group (public regard). According to Sellers et al. (1998), these dimensions of racial identity are thought to be relatively stable properties of individuals across situations, but are susceptible to changes over time as a result of changes in individuals' race-related experiences. In a 2-year study, Sellers and colleagues (2003) documented stability in centrality, private and public regard among Black emerging adults. Researchers, however, have not evaluated patterns of stability or fluctuation in racial identity beliefs among Black emerging adults over an extended period of time. In the current study, we assessed trajectories of centrality and regard over a six-year period among Black emerging adults. In addition, we assessed associations between these racial identity beliefs and emerging adults' depressive symptoms over time and examined the potential of neighborhood racial composition to moderate these associations.

Racial Identity Beliefs and Psychological Distress

Scholars have argued that members of stigmatized racial and ethnic groups likely benefit from feeling connected to other members of their racial group and holding a positive racial or ethnic group orientation (Quintana, 2007). Researchers note that feeling good about one's racial group may allow for more of an emphasis on the positive aspects of one's group, foster feelings of pride, increased self-esteem, and attenuate negative effects of stressors such as discrimination (Greene, Way, & Pahl, 2006). In addition to noting the potential protective effects of centrality and positive racial regard for Black Americans' mental health, scholars have also hypothesized the need for Black Americans and other stigmatized racial and ethnic group members to develop an ability to cope with racial or ethnic discrimination (Cross, 1995; Helms, 1995; Quintana, 2007). Given the frequency with which Black American adolescents (Fisher, Wallace, & Fenton, 2000; Greene et al., 2006) and emerging adults (Sellers et al., 2003) report experiencing discrimination, some expectations of mistreatment and preparation for how to respond seem to be critical resources for Black Americans.

Despite conceptual links between racial identity beliefs and Black Americans' psychological distress (White & Parham, 1990), findings from empirical studies have been mixed. Some researchers have documented more symptoms of psychological distress among Black emerging adults reporting lower race salience and more anti-Black attitudes (Carter, 1991; Pyant & Yanico, 1991). Similarly, researchers have documented more positive psychological outcomes among Black American adolescents and emerging adults with more positive attitudes toward Blacks (Rowley et al., 1998; Sellers et al., 2006). Caldwell et al. (2002) found an indirect relationship between higher levels of race centrality and psychological distress via increased perceived stress among Black emerging adults. Sellers et al. (2003), however, found higher levels of race centrality predicted lower levels of psychological distress one year later among Black adolescents transitioning into adulthood. In the same study, Sellers and colleagues did not find an association between public regard and mental health outcomes. Others have failed to find any direct associations between dimensions of racial identity and symptoms of psychological distress among Black emerging adults (Neblett, Shelton, & Sellers, 2004; Sellers & Shelton, 2003).

An explanation of these differing findings may be that contextual factors, such as neighborhood characteristics, dictate whether certain aspects of racial identity beliefs are associated with more positive or negative psychological outcomes. Indeed, researchers have questioned the utility of assessing direct relationships between racial identity beliefs and psychological distress in the absence of contextual influences (Cross, 1991; Sellers, Morgan, & Brown, 2001). As noted by Quintana (2007), there has been a general movement away from models that assume a hierarchy of racial identities and ideologies and more of an acceptance of models like the MMRI that do not define healthy versus unhealthy racial identity beliefs. These models allow for a more complex assessment of the potential psychological consequences of racial identity beliefs across diverse settings and contexts. In the present study, we posited that the extent to which different levels of centrality and regard were associated with Black emerging adults' symptoms of depression would be determined by the ecological context in which they reside.

Racial Identity Beliefs, Psychological Distress, and Neighborhood Racial Composition

According to theory and previous research findings, the racial or ethnic composition of important social contexts may both shape racial and ethnic identity development, as well as moderate the influence of racial and ethnic identity beliefs on psychological distress among

people of color. Umaña-Taylor (2004) found that Latino adolescents who were the numerical minority in their school reported higher levels of ethnic identity (a composite measure including exploration, commitment, affirmation, belonging, and ethnic behaviors) compared to Latino adolescents who comprised the numerical majority in their school. Therefore, heightened contact with out-group members may influence ethnic or racial identity development among minority group members.

Few researchers have investigated how heightened exposure to out-group members may affect the content of Black emerging adults' racial identities; however, it seems plausible that heightened awareness of one's race may shape one's ideas regarding the significance and meaning of one's race. Also, it seems equally plausible that increased exposure to in-group members may contribute to one's sense of connection to other members of one's racial group, as well as inform one's positive or negative regard for her/his racial group. In fact, Sellers et al. (1997) found that Black students attending a university with predominantly Black enrollment endorsed higher levels of private regard in comparison to their Black peers attending a predominantly White university. Notably, Sellers et al. did not find differences in the level of racial centrality endorsed by Black students across these two university settings. Cokley (1999) also did not find differences in racial centrality between Black students attending historically Black colleges and universities and Black students attending predominantly White colleges and universities. Additionally, Cokley (1999) found that Black students in these different institutions did not differ in their levels of private or public regard, suggesting that neither racial centrality or regard were influenced by the racial composition of Black students' educational institutions. It remains unclear whether the racial composition of Black youths' larger social contexts may influence their racial identity beliefs.

Beyond influencing the development of particular beliefs about the significance and meaning of race, the ecological context is also likely to influence how these racial identity beliefs are related to psychological distress. Spencer's (1995) phenomenological variant of ecological systems theory (PVEST) provides theoretical support for the possible moderating role of neighborhood context. PVEST underscores the role of race in determining an individual's status and experiences in their environmental context. Acknowledging the complex interaction of risk and protective factors that Black youth typically experience, Spencer (1995) suggests that youth employ different coping strategies that if effective in some settings may become incorporated into their identities and used more automatically across settings. These identities, including racial or ethnic identities, may then serve as psychological resources that help to promote resilience in the face of risk. Alternatively, identities may develop that exacerbate risk and contribute to psychological distress. Therefore, whether or not an identity belief is adaptive or maladaptive is largely dependent on the individual's environment..

Neighborhood racial composition may moderate the associations between racial identity beliefs and psychological distress in two ways. First, it may influence the *strength* of the associations. For instance, it may be that racial identity beliefs have stronger associations with psychological distress in environments where Blacks are in the minority. Blacks may experience these contexts as less supportive. Also, given that race may be more salient in these settings due to the discrepancy between self and context (Ethier & Deaux, 1994; Kosmitzki, 1996), Blacks' racial identity beliefs may be more likely to influence their psychological functioning. In contrast, when Blacks are in majority Black settings, the developmental context is congruent in terms of race, possibly making race less salient. Additionally, Blacks may experience these racially-congruent environments as more supportive, secure, and affirming (Pahl & Way, 2006), making them less vulnerable to

psychological dysfunction and possibly resulting in weaker associations between racial identity beliefs and depressive symptoms.

Second, neighborhood racial composition may influence the *direction* of associations between racial identity beliefs and psychological distress. Consistent with PVEST (Spencer, 1995), the neighborhood context may determine the psychological benefits of racial identity beliefs. PVEST dictates that adolescents' identities may be adaptive in some contexts and maladaptive in others, but PVEST does not elaborate on the specific ways in which these interactions may operate.

The worldview verification model also provides reason to expect different directions of associations between racial identity beliefs and psychological distress as a function of neighborhood racial composition (Major, Kaiser, O'Brien, & McCoy, 2007). According to the worldview verification model, individuals will work proactively to preserve their worldviews and will experience psychological distress when faced with evidence that contradicts their worldview. Perceptions of public regard may be particularly vulnerable to contradiction given that these are perceptions one has about how others perceive one's racial group. Blacks living in predominantly White neighborhoods, for example, may be more likely to have experiences with out-group members that may challenge their beliefs about how other groups perceive Blacks, whereas Blacks living in predominantly Black neighborhoods may have fewer opportunities to experience challenges to their perceptions of public regard.

Major et al. (2007) suggest that there may be psychological benefits associated with holding system-justifying ideologies (beliefs that justify the prevailing social system/status quo such as endorsing meritocracy or high public regard) for members of marginalized racial and ethnic groups. Blacks who perceive that other groups hold more positive perceptions of Blacks may feel a greater sense of safety and fairness which may yield psychological benefits. Nevertheless, high public regard may only promote more positive psychological outcomes if this worldview is not challenged; if challenged, this worldview may be associated with more negative psychological outcomes.

Holding lower public regard also may be protective of psychological well-being given that members of marginalized racial groups may be able to understand their group's social status in the context of bias and discrimination as opposed to shortcomings such as a lack of effort or merit (Crocker & Major, 1989; Major et al., 2007). Therefore, possessing low public regard may be a protective strategy that allows Blacks to maintain their psychological well-being despite receiving messages that their group is devalued by mainstream society. Though this worldview may protect Blacks against the negative psychological effects associated with discriminatory experiences, Blacks living in predominantly Black neighborhoods may have limited opportunities to interact with others outside their group to personally confirm perceptions of low public regard leading them to question the legitimacy of this worldview. In light of these varied potential outcomes, further investigation into how racial identity content relates to psychological distress in the context of neighborhood racial composition is warranted.

Current Study

Despite increasing amounts of research assessing the psychological correlates of racial identity beliefs, few researchers have considered how environmental contexts may affect these associations. We know little about how Black adolescents' racial identity beliefs develop and change during the transition to adulthood. In addition, there is a dearth of research investigating how the neighborhood context may influence associations between

racial identity beliefs and psychological distress. As such, in the current study, we set out to identify average patterns of growth in racial identity beliefs during the transition to adulthood, assess neighborhood racial composition effects on racial identity beliefs, and test the moderating effects of neighborhood racial composition on associations between Black emerging adults' racial identity beliefs and depressive symptoms over time (i.e., moderation of the effect of the time-varying covariates on the development of depressive symptoms). In all of these analyses, we included gender and family socioeconomic status (SES) as predictors of our outcome variables. Given limited investigation of average patterns of growth in racial identity beliefs during the transition to adulthood, our analyses exploring average growth trajectories and the potential of neighborhood racial composition to shape these patterns were exploratory.

We hypothesized that residence in neighborhoods with lower concentrations of Black residents would result in stronger negative associations between centrality and depressive symptoms, as well as private regard and depressive symptoms. Informed by the worldview verification model (Major et al., 2007), we expected that the direction of the relationship between public regard and depressive symptoms would differ depending on neighborhood racial composition. We hypothesized that believing others hold less positive perceptions of Blacks (low public regard) would be associated with fewer symptoms of depression in neighborhoods with fewer Black residents but more symptoms of depression in neighborhoods with higher concentrations of Black residents. Similarly, we hypothesized that believing others hold more positive perceptions of Blacks (high public regard) would predict fewer symptoms of depression in predominantly Black neighborhoods, but more symptoms of depression in neighborhoods with lower concentrations of Black residents.

Method

Participants

Participants in the current study included 570 Black emerging adults (52% female) who participated in a larger longitudinal study of high school dropout.¹ In order to be included in the study, participants needed an eighth-grade GPA of 3.0 or lower and could not have had a school-diagnosed emotional or developmental disability (the exclusion of students with emotional or developmental impairments was done for methodological and practical purposes). Participants were interviewed annually at four public high schools with the first wave of data collection occurring at the beginning of the ninth grade. Waves 1 through 4 correspond to the participants' high school years. Participants who dropped out of high school were still contacted and included in the study. Wave 5 data were collected 2 years after Wave 4 and then data were collected at 1-year intervals across the subsequent 3 years (Waves 6–8). In our analyses, we included participants who participated in Waves 4 through 8 (1998 through 2003) as these were the only waves that included all of the variables of interest for our study. Average age of participants at Wave 4 (Time 1) was 17.8 ($SD = .65$). The neighborhoods in which participants resided had an average median neighborhood annual income of \$24,775 ($SD = \$13,239$; U.S. Census, 2000). Throughout the 5 years following participants' senior year of high school, less than 20% of the 570 participants in the current study were enrolled in a community college and less than 11% were enrolled in a 4-year college/university at any time point. By Wave 8, approximately 12% of participants had obtained an associate's degree, and about 2% had received a bachelor's degree.

¹Participants in the current study self-identified as African American or Black. We use the label "Black" throughout this manuscript to identify the racial/ethnic background of study participants because "Black" is more inclusive and reflects the possibility that some participants in our study who identified as Black may not be African American but instead may be Afro Caribbean or African.

Eight hundred and fifty youth (92% of all eligible youth) from four public high schools in the second largest school district in an urban, Midwestern city participated in Wave 1 of the larger study. Adolescents self-reporting as Black constituted eighty percent of the sample in Wave 1 ($n = 681$). Participants in the fourth wave of data included 770 youth (90% response rate from original sample). The sample was approximately 80% Black, 17% White, and 3% Biracial. Black and White youth did not differ significantly in rates of attrition. Given that our study focused on Black racial identity, we only included Black participants in our analyses. Comparative analyses between the 615 Black participants who participated in Wave 4 of the study and the 66 Black participants who did not participate in data collection at Wave 4 indicated no significant gender, age, SES, or wave 1 symptoms of depression differences. We used geo-coded home address information to link participant data to U.S. census data. Participants were excluded from our analyses if they were missing address information or if we were unable to link their address to U.S. census data. We did not find differences by gender, age, socioeconomic status, or Wave 1 symptoms of depression between the 570 participants included in our analyses and the 45 participants excluded due to missing census data.

Procedure

This study received approval from the University of Michigan Institutional Review Board (UMIRB #H03-0001309) and the staff at the schools where data were collected. Trained interviewers conducted face-to-face, structured interviews with participants. Interviews took approximately 50–60 minutes to complete. Interviews were conducted by six male and female, Black and White interviewers. When possible, participants and interviewers were matched by race and gender. Following the interview, participants completed a self-administered paper and pencil questionnaire that included questions about racial identity, sexual behavior, and alcohol and substance use. During the fourth wave of data collection, participants were interviewed at their school. Participants who had dropped out of school were contacted and interviewed at home or at another agreed-upon community location. In all subsequent years of data collection, participants were interviewed either in their homes or community settings.

Measures

Means and standard deviations for study variables across waves are included in Table 1.

Racial identity—Shortened versions of the public regard, private regard, and centrality subscales of the Multidimensional Inventory of Black Identity (MIBI) were used to assess racial identity beliefs across all of the waves used in the current study (Sellers, Rowley, Chavous, Shelton, & Smith, 1997). For each statement, adolescents indicated how much they agreed on a scale of 1 to 7 (1 = strongly disagree, 7 = strongly agree). *Centrality* refers to how central race is to an individual's identity. Centrality was assessed with four items. Sample items include "Being Black is a major part of my identity," and "Being Black is an important part of the way I see myself." Cronbach's alphas for these four items ranged from .65 to .70 across the five study waves. *Private regard* refers to individuals' positive or negative perceptions of people from their own race. Four items were used to assess this construct; example items include "I am proud of Black people," and "I feel that the Black community has made many valuable contributions to this society." Cronbach's alphas for these items ranged from .67 to .72 across study waves. *Public regard* refers to individuals' perceptions of how other groups view their racial group. Six items were used to assess participants' public regard including items such as "In general, other groups view Blacks in a positive manner," and "Blacks are considered to be good by society." Across the five study waves, Cronbach's alphas ranged from .59 to .64. For each construct (centrality, private regard, public regard), items were summed and averaged for each wave.

Depressive Symptoms—Six items from the Brief Symptom Inventory were used to assess participants' depressive symptoms (Derogatis & Spencer, 1982). These items assessed the frequency with which participants have felt uncomfortable during the past week due to symptoms of depression (e.g., feeling no interest in things, feeling hopeless about the future). Response options on a Likert scale ranged from 1 (not at all uncomfortable) to 5 (extremely uncomfortable). Alphas for these items ranged from .84 to .87 across the five study waves. These 6 items were summed and averaged for each wave. We also included depressive symptoms reported during wave 1 (during participants' 9th grade year) as a control variable in our analyses predicting depressive symptoms during emerging adulthood.

Neighborhood Racial Composition—Neighborhood racial composition was assessed at the block group level using 2000 census information. The block group is the smallest and most concise unit of analysis available for use when operationalizing neighborhoods using U.S. census information (Collins & Williams, 1999). Participants in the current study resided in 112 different neighborhoods (block groups) with an average of 5 participants per neighborhood. Approximately half (52%) of participants moved at least once throughout the five waves of the study. For these participants, we used the neighborhood information corresponding to the block group they resided in for the most study waves. When there was not a mode, we used the neighborhood data corresponding to the earliest wave in the study. Our measure of neighborhood racial composition was the percentage of Black or African American residents in the block group. A review of the neighborhood demographics revealed that few racial or ethnic groups beyond Whites and Blacks/African Americans resided in participants' block groups. Most neighborhoods (82%) had 5% or fewer residents from other racial or ethnic groups with no neighborhoods having more than 15% of residents from racial or ethnic groups other than White or Black/African American. Consequently, neighborhoods with low concentrations of Blacks by default had high concentrations of Whites.

Demographics—During Wave 1, participants reported their gender and parents' occupations. Gender was coded (0 = male, 1 = female) so we could account for potential gender effects in our models. We used data on parents' occupations as indicators of family SES. Prestige scores were assigned to occupations based on 20 occupational classifications (Nakao & Treas, 1990) which ranged from 29.3 (private household work) to 64.5 (professional) in the current study. If both parents had occupations, the higher of the two prestige scores was used. The mean occupational prestige score for this sample was 39.8 (SD = 9.8), which represented blue-collar employment. In addition, we created a dichotomous variable for each individual based on whether or not they had moved (0 = stayed, 1 = moved) to a different neighborhood (block group) at least once during the five waves of the current study. We included this variable in our analyses to assess for possible differences in outcomes between participants who did and did not move during the study.

Data Analytic Strategy

Given the nested structure of our data (both the nesting of time points within persons and the nesting of persons within neighborhoods), we conducted our analyses using three-level hierarchical linear models (HLM; Raudenbush & Bryk, 2002). HLM is advantageous because it accounts for intraclass correlation of the data caused by the nested structure and allows for missing data points in longitudinal data (under the assumption that the missing data are missing at random, or MAR; see Little & Rubin, 2002). HLM also allows the total variance in the outcomes to be partitioned into within-individual, between-individual, and between-neighborhood error variation. Although HLM allows for some missing observations at Level 1, missing data at Levels 2 and 3 are not permitted as all lower-level observations would be dropped. Participants in the current sample with missing

neighborhood data (Level 3) were excluded from this study ($n = 45$). Given that a portion ($n = 56$) of participants had missing family SES data (Level 2), we conducted maximum likelihood estimation using the Expectation-Maximization algorithm within EQS (Bentler, 1995) to impute missing values for these 56 participants. This allowed us to maximize the number of participants we had per neighborhood/block group.

We conducted two separate sets of analyses to test our three study hypotheses. Our first set of analyses modeled participants' racial identity beliefs across the transition to adulthood. We ran separate analyses for each of the racial identity variables included in this study (centrality, private regard, and public regard). These analyses were conducted to identify average patterns of growth (linear, quadratic, and cubic) over time in these study variables among study participants as they transitioned into adulthood. In addition, we examined individual characteristics (gender, family SES, participants' neighborhood mobility) at Level 2 and neighborhood characteristics (neighborhood racial composition) at Level 3 to see if these factors were associated with initial status (status at Wave 4) or average growth of racial identity dimensions over time (measured at Level 1 across Waves 4–8). These analyses allowed us to examine potential effects of neighborhood racial composition on average racial identity status and average growth over time for each of the racial identity dimensions while accounting for individual demographic variables.

In our second set of analyses we modeled participants' depressive symptoms across the transition to adulthood. We included the time-varying racial identity variables as Level 1 predictors of depressive symptoms. Gender, Wave 1 depressive symptoms, family SES, and participants' neighborhood mobility were entered as Level 2 control variables on the intercept. To test our hypothesized cross-level interactions between neighborhood racial composition and the racial identity variables, we modeled neighborhood racial composition (at Level 3) on the Level 1 racial identity slopes. Accordingly, we also tested the main effect of neighborhood racial composition on depressive symptoms by modeling neighborhood racial composition on the intercept (Aiken & West, 1991). Our three-level model was specified as follows:

Level-1 Model

$$Y = \pi_0 + \pi_1(\text{WAVE}) + \pi_2(\text{CENTRALITY}) + \pi_3(\text{PRVREGARD}) + \pi_4(\text{PUBREGARD}) + e$$

Level-2 Model

$$\pi_0 = \beta_{00} + \beta_{01}(\text{FEMALE}) + \beta_{02}(\text{W1 DEPRESS}) + \beta_{03}(\text{FAM SES}) + \beta_{04}(\text{MOVED}) + r_0$$

$$\pi_1 = \beta_{10}$$

$$\pi_2 = \beta_{20} + r_2$$

$$\pi_3 = \beta_{30} + r_3$$

$$\pi_4 = \beta_{40} + r_4$$

Level-3 Model

$$\beta_{00} = \gamma_{000} + \gamma_{001}(\text{NEIGHBORHOOD RACIAL COMPOSITION}) + u_{00}$$

$$\beta_{01} = \gamma_{010}$$

$$\beta_{02} = \gamma_{020}$$

$$\beta_{03} = \gamma_{030}$$

$$\beta_{04} = \gamma_{040}$$

$$\beta_{10} = \gamma_{100}$$

$$\beta_{20} = \gamma_{200} + \gamma_{201}(\text{NEIGHBORHOOD RACIAL COMPOSITION}) + u_{20}$$

$$\beta_{30} = \gamma_{300} + \gamma_{301}(\text{NEIGHBORHOOD RACIAL COMPOSITION}) + u_{30}$$

$$\beta_{40} = \gamma_{400} + \gamma_{401}(\text{NEIGHBORHOOD RACIAL COMPOSITION}) + u_{40}$$

In all analyses, all continuous variables at Levels 1 and 2 except for the growth terms were centered on their grand means to facilitate interpretation of effects (Kreft & de Leeuw, 1998). Neighborhood racial composition was not centered given that this was a percentage of neighborhood residents who were Black and was easier to interpret uncentered. When fixed effects of predictor variables were not significant, we conducted nested model comparisons and relied on the change in the deviance statistic of the model to determine whether or not to drop the fixed effects from the model.

Results

Racial Identity Beliefs over the Transition to Adulthood

We did not find statistically significant coefficients associated with the linear, quadratic, or cubic growth terms in the unconditional models for racial centrality, private regard, or public regard. These findings indicate that there was not an average pattern of growth for the study sample on any of the racial identity dimensions. Yet the results of these analyses indicated that participants varied in terms of their initial status and their linear patterns of growth (i.e., statistically significant χ^2 statistics in the random effects table based on Level 1 and Level 2 variance components; Raudenbush & Bryk, 2002) in racial centrality, private regard, and public regard. Therefore, we assessed the effects of gender, family SES, and participants' neighborhood mobility on the random intercepts (initial status) and the random linear growth terms. In each set of analyses, none of these variables predicted initial status or linear growth in the racial identity outcome variable (results not shown). We then examined whether participants' initial status or growth in racial identity beliefs may have varied by neighborhood.

Although random effects results based on Level 3 variance components indicated no random variation between neighborhoods on initial status or linear growth for racial centrality, we found random between-neighborhood variation for the initial status of private regard ($\chi^2 = 162.57$, 110 *df*, $p < .05$) and public regard ($\chi^2 = 152.48$, 110 *df*, $p < .05$). Accordingly, we assessed effects of neighborhood racial composition on the initial status for each model to determine if neighborhood racial composition may have shaped emerging adults' initial statuses (corresponding to Wave 4/first time point of current study) of private or public regard. We found that neighborhood racial composition did not significantly predict the initial status of either private or public regard (results not shown). Therefore, while we found random variation at the individual level for all of the racial identity dimensions and random variation between neighborhoods for initial levels of private and public regard, none of the Level 2 or Level 3 predictors in our models explained this variation.

Racial Identity Beliefs, Depressive Symptoms, and Neighborhood Racial Composition

Prior to creating our full model of depressive symptoms with all of our predictors, we tested an unconditional model to decompose the variance in depressive symptoms. We found that 38% of the variance in depressive symptoms was due to intra-person differences (i.e., differences over time; Level 1 variance), 60% of the variance was due to inter-person differences (i.e., differences between individuals; Level 2 variance), and 2% was due to differences between neighborhoods (Level 3 variance). Given that our primary interest was

in identifying moderating effects of neighborhood racial composition on the relationships between dimensions of racial identity and depressive symptoms, we proceeded to build our model. We, first, examined whether the associations between the three racial identity variables and depressive symptoms may have varied by neighborhood. We did not find random between-neighborhood variance in the centrality slope; however, we did find random between-neighborhood variation in the private ($\chi^2 = 143.96, 105 \text{ df}, p < .05$) and public regard ($\chi^2 = 131.07, 105 \text{ df}, p < .05$) slopes. We found that racial centrality did not predict depressive symptoms and removing centrality from our model significantly improved model fit ($p < .001$). As a result, we elected to drop this variable from our model. All other variables were retained in our final model.

As can be seen in Table 2, neighborhood racial composition did not independently predict participants' depressive symptoms at Wave 4 (initial status/Time 1 of the current study). Furthermore, we did not find associations between any individual-level demographic characteristics and Wave 4 depressive symptoms except for Wave 1 depressive symptoms. We found that Wave 1 depressive symptoms positively predicted subsequent (Wave 4) symptoms of depression ($t = 8.56, p < .001$). Although removing family SES and participants' neighborhood mobility from our model may have improved model fit, we elected to leave these variables in our model to avoid potential cross-level confounding. We did not find an average linear pattern of growth in depressive symptoms among study participants (quadratic and cubic terms did not fit the data so were not included in the model). Thus, on average, participants' private and public regard and depressive symptoms remained relatively stable over time

In our examination of associations between regard and depressive symptoms, we found a negative association between participants' private regard and depressive symptoms ($t = -2.98, 109 \text{ df}, p < .01$). Hence, participants who felt more positive towards Blacks reported fewer depressive symptoms. We also found that this association was attenuated in neighborhoods with higher concentrations of Black residents ($t = 2.06, 109 \text{ df}, p < .05$). Figure 1 illustrates this cross-level interaction at any given time point across the study data. This figure shows a stronger association between private regard and depressive symptoms among participants residing in neighborhoods with fewer Black residents. Also, we found that higher levels of public regard predicted more symptoms of depression ($t = 1.99, 109 \text{ df}, p < .05$), and that this relationship was moderated by neighborhood racial composition ($t = -2.44, 109 \text{ df}, p < .05$). As depicted in Figure 2, the association between public regard and depressive symptoms operated differently as a function of neighborhood racial composition (this figure represents the relationships between these variables at any given time point across the study data). Specifically, among participants residing in neighborhoods with lower concentrations of Black residents, believing that others hold less positive perceptions of Blacks was associated with fewer symptoms of depression. In contrast, among participants residing in neighborhoods with higher concentrations of Black residents, believing that others hold less positive perceptions of Blacks was associated with more symptoms of depression. We found that neighborhood racial composition accounted for a substantial amount of the random between-neighborhood variation in both the private regard ($\chi^2 = 113.96, 95 \text{ df}, ns$) and public regard ($\chi^2 = 109.07, 95 \text{ df}, ns$) slopes.

Discussion

We found that neighborhood racial composition shaped associations between private and public regard and depressive symptoms over time. Specifically, we found that higher levels of private regard were associated with fewer symptoms of depression over time; however, this association was particularly pronounced among Black emerging adults residing in neighborhoods with lower concentrations of Black residents. This finding supported our

hypothesis and suggests that feeling positively about one's racial group may be particularly beneficial for Black emerging adults who reside in neighborhoods with fewer Black residents. It may be that Black emerging adults experience these environments as less supportive and consequently reap greater psychological benefits from holding more positive perceptions of and pride in their racial group. It is also possible that race is more salient for Blacks living in predominantly White neighborhoods (Ethier & Deaux, 1994; Kosmitzki, 1996) and thus, a heightened awareness of and attention to one's race may make one's feelings about one's racial group a more central component of one's day-to-day experiences and a more potent predictor of one's psychological distress. In contrast, Black emerging adults residing in more racially-congruent neighborhoods may feel more supported and think about race less often. Therefore, although higher private regard still predicted fewer symptoms of depression over time among Black emerging adults in neighborhoods with higher concentrations of Black residents, this relationship was weaker in these neighborhood settings.

Regarding the moderating effects of neighborhood racial composition on the relationship between public regard and depressive symptoms, our findings also were consistent with our hypotheses. Participants who resided in neighborhoods with lower concentrations of Blacks appear to have benefited from believing that other racial groups hold less positive perceptions of Blacks (i.e., lower public regard). It may be that Blacks living in predominantly White neighborhoods may be more likely to receive messages that their group is devalued through direct or indirect experiences with racial bias or discrimination. Situating these experiences within a larger context of societal bias may make these experiences less psychologically distressing (Davis et al., 2000). Further, expecting or being prepared for biased or discriminatory treatment may make these experiences less upsetting and facilitate improved coping responses (Sellers & Shelton, 2003; Sellers et al., 2006).

In majority White neighborhoods, Black emerging adults who expected biased treatment from other racial groups may have had these beliefs confirmed; however, Black emerging adults in these neighborhoods who experienced biased or discriminatory treatment when they were not expecting it (i.e., those who endorsed higher levels of public regard) may have experienced more distress due to a reality that conflicted with their worldview. Moreover, coping with race-related mistreatment may have been more challenging if this mistreatment was unexpected and in direct conflict with one's worldview. This may be why we found that in predominantly White neighborhoods, Black emerging adults who believed that other groups hold more positive perceptions of Blacks reported more symptoms of depression.

In contrast, Black emerging adults who resided in neighborhoods with higher concentrations of Black residents appeared to benefit from holding beliefs that other groups perceive Blacks more positively (higher public regard). This finding may indicate that Black emerging adults who believe that other groups hold more positive perceptions of Blacks may feel less devalued, a greater sense of safety and fairness, greater optimism, and a greater sense of control of their life circumstances, all of which may yield psychological benefits (Major et al., 2007). Of course, these positive outcomes may be conferred only in the absence of biased or discriminatory treatment that would contradict this worldview. Whereas Black emerging adults who resided in neighborhoods with fewer Black residents may have been increasingly likely to have had negative race-related experiences that may have contradicted their perceptions of high public regard, Black emerging adults living in predominantly Black neighborhoods may have had fewer opportunities to experience challenges to their perceptions of high public regard (Hunt, Wise, Jipguep, Cozier, & Rosenberg, 2007). Accordingly, Black emerging adults in neighborhoods with greater concentrations of Black residents may have been able to reap the psychological benefits of holding higher public regard without much risk of experiencing threats to their belief system.

Although this may benefit Black emerging adults who hold higher levels of public regard, limited opportunities to confirm one's perceptions of low public regard may prove distressing for Black emerging adults in predominantly Black neighborhoods who believe that other racial groups hold more negative perceptions of Blacks. In the current study, Black emerging adults who held lower public regard beliefs and lived in predominantly Black neighborhoods may have felt devalued by mainstream society and had limited opportunities to gather confirming or conflicting evidence due to lower levels of contact with out-group members. In the absence of personal experiences that may have confirmed their worldview, Black emerging adults living in predominantly Black neighborhoods may have questioned the legitimacy of this worldview. The uncertainty of whether their groups' devalued status resulted from personal or group inadequacies as opposed to a larger system of structural bias may have caused psychological distress. Hence, our findings suggest that in neighborhoods with higher concentrations of Black residents, Black emerging adults who hold lower public regard may be at increased risk of developing symptoms of depression.

Taken together, these findings are consistent with Spencer's (1995) PVEST model in that differing levels of public regard were more or less adaptive depending on the neighborhood context. These findings also are consistent with Major et al.'s (2007) worldview verification model in that neighborhood racial composition may have dictated the likelihood of having experiences that contradicted or confirmed Black emerging adults' public regard beliefs.

Racial Identity Beliefs during Emerging Adulthood

Our analyses of Black emerging adults' average growth in racial identity beliefs over time indicated no average patterns of growth in racial centrality, private or public regard during the transition to adulthood. Though these analyses indicated individual variation in both initial status and linear growth for all three racial identity dimensions, none of our individual-level variables (i.e., gender, family SES, participants' mobility) explained any of this variation across participants. This finding suggests that other individual or family factors not included in this study may have explained individual differences in Black emerging adults' status and change in racial identity content during the transition to adulthood. It may be that certain family or peer factors such as the racial make-up of participants' peer groups or parental racial socialization messages (Neblett, Smalls, Ford, Nguyen, & Sellers, 2009) may have shaped their initial levels of racial centrality, private regard, and public regard.

Moreover, any number of factors related to emerging adulthood may have contributed to participants' change or lack of change in racial identity beliefs. As mentioned earlier, personal experiences with discrimination may trigger fluctuations in racial identity beliefs (Cross, 1991; Seaton, Yip, & Sellers, 2009). Additionally, the number of adult responsibilities acquired during this developmental period (e.g., occupational, marital, or childrearing responsibilities) may constrain individuals' ability to explore their beliefs (Arnett, 2000). Therefore, some participants may have experienced changes in racial identity beliefs, while others may have maintained consistency in their racial identity beliefs during this developmental transition. This notion is consistent with Arnett's (2000) description of emerging adulthood as a time of great heterogeneity in individual outcomes. Overall, our findings suggest that on average, participants' racial centrality, private regard, and public regard remained fairly stable during the transition to adulthood. Nevertheless our findings regarding individual differences in the initial status and linear growth of these three racial identity dimensions during the transition to adulthood point to the need for future research that considers how family and peer influences, individual experiences (e.g., discrimination), and increased adult responsibilities may contribute to Blacks' racial identity status and development during emerging adulthood.

Neighborhood Racial Composition and Racial Identity Beliefs

In addition to finding individual variation in racial identity status and growth, we also found neighborhood-level variation in the initial status of both private and public regard beliefs. Yet our analyses indicated that neighborhood racial composition did not explain this neighborhood-level variation in either private or public regard. Other neighborhood-level factors not included in this study may have influenced Black emerging adults' perceptions of their racial group and their beliefs about how others outside of their racial group perceive their racial group. For instance, neighborhood resources, institutions, and income levels may uniquely contribute to Black residents' racial identity beliefs (Byrd & Chavous, 2009) or may interact with neighborhood racial composition to influence residents' racial identity beliefs. The present study examining neighborhood racial composition represents an initial investigation into neighborhood effects on Black residents' racial identity beliefs. Clearly, further research is needed to explicate potential sources of neighborhood-level variation in these racial identity beliefs.

Additionally, although our findings did not support a direct influence of neighborhood racial composition on Black emerging adults' private or public regard, we did not investigate indirect pathways through which neighborhood racial composition may have related to these identity beliefs. Researchers interested in uncovering neighborhood effects on individual outcomes have discussed the potential of more distal neighborhood characteristics to shape individual outcomes via more proximal community- and family-level processes (Leventhal & Brooks-Gunn, 2000). Therefore, further inquiry into indirect pathways from neighborhood racial composition to Black emerging adults' racial identity beliefs may be warranted.

Limitations and Directions for Future Research

A few issues must be considered when drawing firm conclusions from the present study. As with all studies of neighborhood effects on individual outcomes, there is the potential for selection bias (Jencks & Mayer, 1990; Tienda, 1991). Given that families often select themselves into neighborhoods, neighborhood attributes may be a proxy for individual- or family-level factors that influence individuals' racial identities and depressive symptoms. In an effort to account for possible selection bias, we included participants' prior levels of depressive symptoms and family SES in our models. Nonetheless, it is possible that other factors such as parents' racial identity beliefs may have influenced their choice of neighborhood (e.g., parents who held higher levels of private regard may have elected to live in neighborhoods with higher concentrations of Black residents). Thus, our assessment of the effects of neighborhood racial composition 1) on racial identity beliefs and 2) on the association between racial identity beliefs and depressive symptoms may have been confounded by familial influences that affected neighborhood characteristics and participants' outcomes.

In addition, unmeasured structural factors may have constrained families' neighborhood choices as well as influenced individual outcomes. Scholars have documented the role of discriminatory institutional practices and policies (e.g., housing discrimination, redlining) in creating highly segregated urban neighborhoods (Massey & Denton, 1993; Wilson, 2009). Therefore, beyond accounting for selection bias, there is a need for future research to identify how these larger oppressive structural forces shape the characteristics (e.g., neighborhood racial composition) of the neighborhoods families move in to and individual outcomes such as racial identity beliefs and psychological distress. Continued inquiry into how structural and individual processes shape neighborhood selection will both advance our understanding of these processes and improve our ability to identify neighborhood effects.

A second issue is our use of census data to define participants' neighborhoods. We operationalized neighborhoods as block groups given that block groups are the smallest and most concise unit of analysis available in census data (Collins & Williams, 1999); yet we must acknowledge the possibility that the neighborhood boundaries we established based on census data may not have been consistent with participants' perceptions of their neighborhood boundaries (Furstenberg, 1993). Future studies should incorporate objective and subjective measures of neighborhood characteristics to more accurately capture participants' definitions and perceptions of their neighborhoods.

A third issue is our static measure of neighborhood racial composition. Our analytic approach assumed a linear and consistent effect of neighborhood racial composition on participants' outcomes over time and did not capture participants' neighborhood mobility. To account for this limitation, we used the neighborhood data associated with the block group participants resided in for the most study waves and we created a participant mobility variable to assess differences between participants who moved and those who stayed. Of note, we did not find differences in racial identity beliefs or depressive symptoms based on participants' neighborhood mobility, suggesting that participants who did move may have moved into neighborhoods with demographics similar to those of their previous neighborhood. Unfortunately, we did not have enough statistical power to effectively run separate analyses for participants who were and were not mobile across the five study waves. Future research that assesses time-varying neighborhood effects on residents' racial identity beliefs and psychological distress will better account for the potential effects of neighborhood mobility and dynamic neighborhood influences that may vary over time.

We also did not assess other contexts in which emerging adults are immersed. Emerging adults likely encounter occupational, educational, and recreational contexts, at least some of which may exist outside of their neighborhoods. Participants in the current study may have experienced different racial compositions in their workplace, educational institutions, or at entertainment venues. Including an analysis of the racial composition of these settings in addition to the racial composition of participants' neighborhoods will allow for a more complex analysis of how multiple contexts may shape Black emerging adults' racial identity beliefs and influence associations between their racial identity beliefs and depressive symptoms.

Further, additional consideration of how the college or university experience may shape Black emerging adults' racial identity beliefs and the association between their racial identity beliefs and psychological distress is needed. Unfortunately, we were unable to examine this in the present study given that only a small group of participants in the current study reported attendance at a college or university during any of the study waves following high school, with an even smaller percent reporting continuous enrollment across these years. Future studies with larger samples of Black emerging adults attending and not attending college will provide improved opportunities to explore how the college experience may influence racial identity development and may moderate the association between racial identity beliefs and psychological distress over time.

Additionally, the private regard, public regard, and racial centrality subscales only achieved moderate reliability coefficients. Yet previous research with these MIBI subscales have found them to be reliable and valid measures of racial identity among Black adolescents and emerging adults (Cokley & Helm, 2001; Rowley et al., 1998; Sellers et al., 1997; Shelton & Sellers, 2000). Of note, the MIBI is still a relatively novel measure and additional studies are needed to further establish its psychometric properties. Consistent with previous work, however, the results of the current study demonstrate the usefulness of the MIBI for assessing Black emerging adults' racial identity beliefs.

Lastly, caution should be used when attempting to generalize these findings to other groups of Black emerging adults. Our sample was initially drawn according to the somewhat selective criteria of being academically at-risk when they were in the 8th grade (operationalized as having cumulative GPAs at or below 3.0). In addition, the majority of participants did not attend college, and participants resided in urban neighborhoods with an average median neighborhood annual income of \$24,775 ($SD = \$13,239$). Additionally, though participants' neighborhoods differed in their composition of Black and White residents, there was an extremely limited representation of other racial or ethnic groups in participants' neighborhoods. Therefore, the findings of the current study may not hold for Black emerging adults with different academic trajectories or for Black emerging adults living in rural, middle-class, or more racially and ethnically diverse neighborhoods. Yet given that much of the research on Black emerging adults' racial identity beliefs and mental health outcomes to date has been conducted almost exclusively with college students, our study makes an important contribution to this body of work by being one of the first to examine these variables in a predominantly non-college, working-class sample. This study is also one of the first to examine neighborhood influences on Black emerging adults' racial identity beliefs over time and to investigate how the larger social context may affect the associations between racial identity beliefs and depressive symptoms over time. In doing so, we believe that the present study provides a strong foundation upon which future research may build.

Conclusions

Findings from the current study underscore the importance of considering how the larger social context may interact with individuals' racial identity beliefs to influence Black emerging adults' psychological distress. This study's findings lend support to the notion that racial identity beliefs are not inherently adaptive or maladaptive (Quintana, 2007; Sellers et al., 1998), and suggest that the environmental context may help determine the extent to which racial identity beliefs contribute to or help prevent psychological distress. It is clear that the field can benefit from continued investigation of contextual effects on associations between Black emerging adults' racial identity beliefs and psychological distress. These findings may be used to inform intervention efforts aimed at building protective racial identity beliefs among Black young people across contextually diverse settings. The results of this study suggest that the most successful efforts to promote more positive outcomes among Black emerging adults will both help build adaptive racial identity beliefs among individuals while simultaneously working to ensure that all neighborhoods provide opportunities for Black residents to grow and develop in communities where they feel respected, affirmed, and valued.

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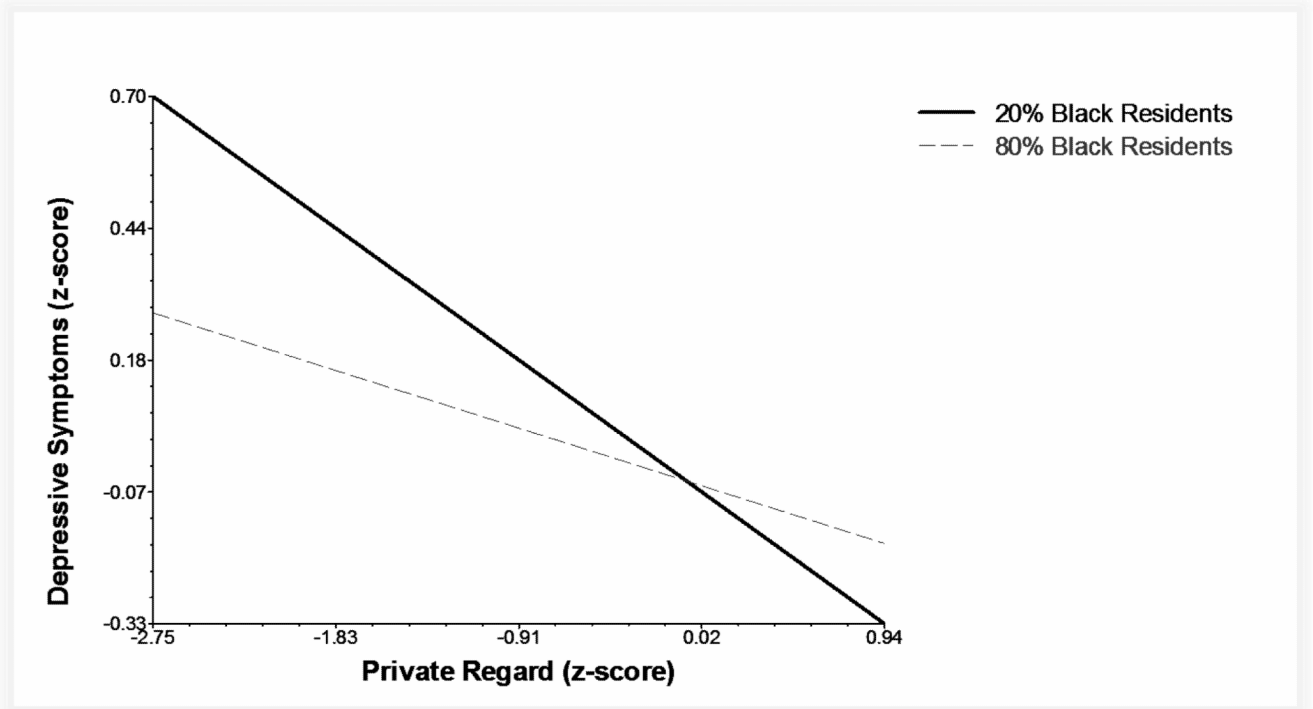


Figure 1.
Moderating effect of neighborhood racial composition on the relationship between private regard and depressive symptoms

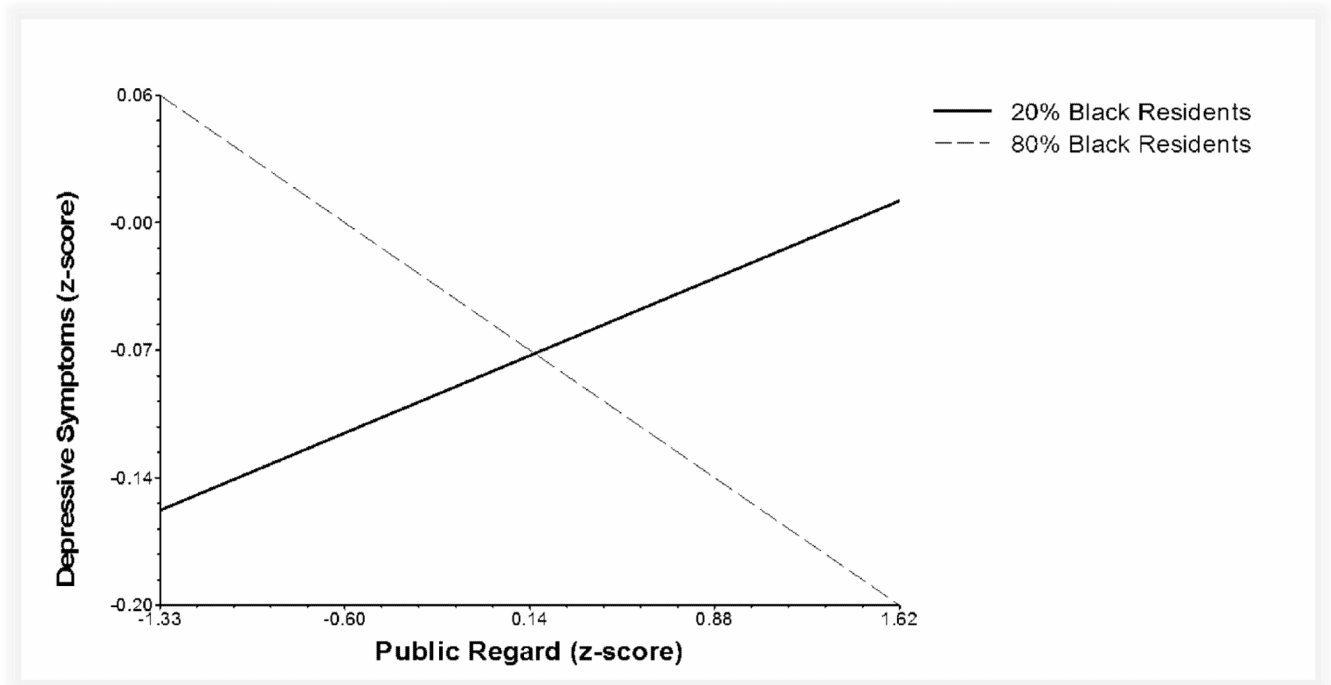


Figure 2.
Moderating effect of neighborhood racial composition on the relationship between public regard and depressive symptoms

Table 1

Descriptive Statistics (Means and Standard Deviations) for Study Variables.

	Wave 4	Wave 5	Wave 6	Wave 7	Wave 8
Time-Varying Covariates					
Centrality	5.46 (1.26)	5.72 (1.14)	5.76 (1.20)	5.84 (1.11)	5.81 (1.16)
Private Regard	6.18 (.96)	6.19 (1.01)	6.20 (1.12)	6.28 (1.00)	6.21 (1.08)
Public Regard	3.96 (1.21)	4.10 (1.08)	4.22 (1.10)	4.25 (1.10)	4.20 (1.10)
Depressive Symptoms	1.81 (.91)	1.75 (.72)	1.67 (.69)	1.73 (.71)	1.72 (.72)
Individual Characteristics					
Age	17.8 (.65)				
Gender (% Female)	52%				
Depressive Symptoms (Wave 1)	1.65 (.73)				
SES (Wave 1)	39.5 (9.8)				
Neighborhood Mobility (% Moved)	52%				
Neighborhood Characteristics					
% Black Residents	56.1 (37.1)				

Table 2

Fixed Effects Model for Depressive Symptoms.

Fixed Effects	Coefficient	<i>t</i>	<i>df</i>	<i>p</i>
Mean Initial Status (Wave 4)				
Intercept	-0.10	-1.01	109	0.315
Neighborhood Racial Composition	-0.08	-0.75	109	0.455
Female	0.06	1.07	553	0.285
Wave 1 Depressive Symptoms	0.37	8.56	553	0.001
Family SES	-0.01	-1.38	553	0.168
Moved	0.02	-0.58	553	0.562
Mean Linear Growth (Waves 4–8)				
Intercept	0.02	0.63	2013	0.529
Private Regard				
Intercept	-0.33	-2.98	109	0.004
Neighborhood Racial Composition	0.26	2.06	109	0.042
Public Regard				
Intercept	0.10	1.99	109	0.049
Neighborhood Racial Composition	-0.24	-2.44	109	0.016