

Racial Microstressors, Racial Self-Concept, and Depressive Symptoms Among Male African Americans During the Transition to Adulthood

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Abstract Racial discrimination is a pervasive stressor that can undermine mental health among African American youth and young adults. Several studies identify links between racial discrimination and depressive symptoms; however, this research base does not focus on male African American youth who experience significant racism-related stress during the transition to young adulthood. Moreover, few prospective studies consider significant confounding variables that affect exposure to and perception of discriminatory treatment. In response to this need, we examined the effect of exposure to racial discrimination from ages 16 to 18 on depressive symptoms among male African Americans at age 20. Racial self-concept, one's sense of positivity about one's race, was examined as a mediator and self-control as a moderator. Hypotheses were tested with 222 participants, age 16 at baseline and age 20 at the endpoint. Participants provided self-report data at five time points. Exposure to racial discrimination from ages 16 to 18 predicted depressive symptoms at age 20, net of confounding influences. Racial self-concept mediated this effect. Self-control moderated the influence of discrimination on racial self-concept. This study underscores the salience of racial discrimination in the development of

depressive symptoms among African American male youth and the clinical utility of interventions targeting racial pride and self-control.

Keywords Microstressors · Minority groups · Self-control · Racial discrimination · Depressive symptoms

Introduction

Epidemiological studies indicate that, in general, men and African Americans experience lower rates of depressive symptoms and disorders than do women and members of other racial or ethnic groups (Pratt and Brody 2008). The prevalence of depression varies across the life course, however, and these reported differences may not accurately characterize the prevalence of depressive symptoms African American men experience during late adolescence. For example, using data from the National Longitudinal Survey of Youth, Walsemann et al. (2009) found that African American men in late adolescence had higher rates of depressive symptoms than did their Caucasian peers. This trend has been replicated in data from the National Health Interview Study (Child Trends Data Bank 2006), in which rates of depressive symptoms were similar for men and women age 18–24 years, and rates for African American young adults were equal to or higher than those reported by Caucasians. Depressive symptoms during late adolescence and the transition to adulthood confers a substantial risk for persistence or recurrence of depression later in adulthood (Rush et al. 2012).

Psychosocial stress in adolescence covaries extensively with depressive symptoms (Hammen 2005). In addition to the normative psychosocial stressors that all youth experience, African American male adolescents are exposed to

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racial discrimination. Emerging evidence suggests that racial discrimination is a particularly pernicious source of psychosocial stress that affects African American young men's emotional well-being (Williams and Mohammed 2013). During later adolescence and the transition to adulthood, exposure to racial discrimination intensifies as young people are increasingly exposed to members of the larger community and develop the cognitive competencies to recognize subtle forms of disrespect (Brody et al. 2006). This is particularly true for African American youth in rural areas who, as children, might have interacted primarily with members of their own race. Few studies, however, address the prospective influence of exposure to racial discrimination on male African Americans' experience of depressive symptoms during this critical transition period. Moreover, the psychological mechanisms and protective processes that link discrimination and depressive symptoms also are largely unexplored in this population. This lack of information is particularly problematic given the known heterogeneity in the etiology and course of depressive symptoms between male and female youth (Cole et al. 2009; Shih et al. 2006), as well as the documented elevated prevalence of racial discrimination among male African Americans (Kessler et al. 1999). The present study addresses these omissions.

Racial Discrimination and Mental Health

Psychosocial stressors, including both major life events and daily "hassles," are among the most cited correlates of depression in adults and adolescents (Hammen 2005). Adolescents experiencing depression report more acute and chronic stressors than do youth with conduct problems or healthy youth (Andersen and Teicher 2008). Major stressful events appear to exert their effects on psychological well-being at least in part by creating daily stress and possibly by weakening personal and social resources for coping with stress (Compas et al. 1993). Racial discrimination is a widely cited source of psychosocial stress associated with a range of negative health behaviors and outcomes in adults (Williams and Mohammed 2013) and in youth (Sanders-Phillips et al. 2009). Broadly conceived, racial discrimination refers to unfair treatment because of minority status by individuals from a dominant group (Harrell 2000). Like other stressors, it can be categorized in terms of major episodic experiences, such as being denied a bank loan or being passed over for a job promotion, and more mundane unfair experiences, such as being treated rudely or dismissively on the basis of one's race.

The cumulative effect of everyday discrimination poses unique challenges to the well-being of minority group members. Harrell (2000) coined the term *racial microstressors* to describe routine experiences with racism that

include being ignored, overlooked, or mistreated in ways that lead to feelings of demoralization and dehumanization. Among African Americans, men are more likely than women to report racial discrimination (Sellers et al. 2003), especially the subtle, everyday microstressors (Harrell 2000). Although major racism-related events may happen infrequently to individuals, racial microstressors occur more commonly. Most people may perceive them as not serious enough to confront; the incidents may even be forgotten unless someone asks about them. The routine and pervasive aspects of this treatment, however, may lead to uniquely high levels of vulnerability. Research with adults reveals that everyday discrimination takes a greater toll on mental health than do major episodic experiences (Kessler et al. 1999).

Studies indicate that, beginning in adolescence, many African American youth identify racial discrimination as commonplace (Brody et al. 2006; Fisher et al. 2000), and exposure tends to increase across adolescence (Brody et al. 2006). During this time, youth develop the cognitive capacities to identify and reflect on unfair treatment (Brody et al. 2006) while personal identity and status become highly salient. Emerging neurocognitive studies suggest that adolescence is a developmental phase in which young people are particularly vulnerable to stressful events. Brain regions involved in coping with stress continue to mature throughout the early 20s (Russell 2013). A recent study by Gibbons et al. (2012) supports the "erosive" effects of racial microstressors on adolescents' emotion regulation and executive functioning (Gibbons et al. 2012). The convergence of these factors suggests that repeated experiences with discriminatory treatment pose a significant threat to the emotional health of African American youth. Not surprisingly, studies link discrimination to youth's emotional distress, internalizing problems, and risk for substance use and conduct problems (Brody et al. 2006, 2012; Fisher et al. 2000).

Although several studies identify links between everyday racism and depressive symptoms, significant limitations characterize this research base. First, as noted previously, despite the unique gender-based course of depressive symptoms, relatively little research focuses specifically on African American male youth. Second, recent studies using longitudinal designs suggest the importance of considering the impact of exposure to discrimination over time. Longitudinal data on racial microstressors (Gibbons et al. 2012) as well as on the health effects of coping with challenging everyday environments during adolescence (Miller et al. 2011) attest to the importance of considering racial discrimination over time.

Another limitation of existing research on discrimination involves confounding factors that are linked to youth's

perceptions of, and exposure to, discrimination. Heterogeneity in youth's experience of discrimination is informed by a range of developmental factors (Seaton et al. 2010). These include personality and behavioral characteristics that can influence youth's likelihood of noting, attending to, and reporting experiences with discrimination (Seaton et al. 2009). Our design thus controlled for baseline levels. Discriminatory experiences can induce anger and hostility; in turn, these emotions can heighten recognition and salience of subsequent discriminatory experiences (Brondolo et al. 2008; Jamieson et al. 2013). Chronically angry youth are particularly likely to perceive and respond to slights in general; thus, they are particularly likely to self-report discrimination. When considering the influence of racial discrimination as an effect on health and development, it is thus useful to disentangle dispositional anger from that which arises from discriminatory treatment (Brody et al. 2006).

From the standpoint of behavioral processes, discrimination covaries with youth's involvement with deviant peers and engagement in delinquent behaviors (Brody et al. 2006; Simons et al. 2003). Youth who are involved in delinquency and affiliate with risk-taking peers may elicit hostility from authority figures and distrust from community members. For example, such youth are more likely than those who avoid delinquency to be exposed to law enforcement officials, many of whom treat African American youth differently than Caucasian youth (Stewart et al. 2009). The effects of reported discrimination on outcomes may thus be, in part, a product of delinquent behavior and affiliation with deviant peers. Studies that account for the influences of hostility, delinquent behavior, and affiliation with deviant peers thus provide particularly rigorous evaluations of the effects of self-reported discriminatory experiences.

Risk and Protective Mechanisms Connecting Discrimination to Depressive Symptoms

Although studies document the pernicious influence of racial discrimination on African American male adolescents' mental health, the processes accounting for it have received less attention. A range of potential mechanisms linking discrimination to negative outcomes have been proposed, including effects on coping resources and strategies, access to social support, family relationship quality, and effects on racial identity and self-concept (Williams and Mohammed 2013). Seaton et al. (2013) recently found that coping strategies mediated the influence of discrimination on depressive symptoms among a subsample of African American male and female adolescents with specific racial ideologies. We identified only one study, however, that tested mediation specifically among male

African Americans. Matthews et al. (2013) found that the combination of highly traditional masculinity beliefs and passive coping styles partially accounted for the association between discrimination and depressive symptoms among African American men.

Informed by Williams and Mohammed's (2013) review, we hypothesized that racial discrimination may undermine youth's racial self-concept. A negative racial self-concept comprises personal attitudes in which individuals value or devalue aspects of themselves associated with their racial group. Conceptually related to aspects of racial identity such as private regard (Sellers et al. 1998) or earlier stages of racial awareness in developmental models (Cross et al. 1995), we conceived of racial self-concept as a part of general self-esteem (Wills et al. 2007). This perspective is evident in a number of studies in which racial self-concept is assessed along a continuum from positive (racial pride) to negative (incorporating racist ideas and beliefs into one's self-evaluation) (Ward 2004). The extent to which African Americans view being Black as favorable has been associated previously with adolescents' psychological functioning (Seaton et al. 2011; Sellers et al. 2006).

Most commonly, aspects of racial self-concept have been examined as moderators of racial discrimination. It has been hypothesized, however, that for some African Americans racial self-concept may mediate the influence of discrimination. Routine experiences of unfair treatment based on race can lead to the perception of oneself as worthless and powerless (Williams and Williams-Morris 2000). The results of studies directly linking racial discrimination to aspects of racial self-concept are mixed, with some finding effects (Sellers et al. 2003) whereas others have not (Seaton et al. 2012). We test the hypothesis that youth exposed to relatively higher levels of racial microstressors will report negative racial self-concepts, which will carry forward to predict changes in depressive symptoms.

Studies have documented extensive individual differences in youth's responses to discrimination (Watkins et al. 2011; Sanders-Phillips et al. 2009). Moderators of the effects of discrimination on internalized racism and on depressive symptoms provide important clues for developing interventions that protect young men from discrimination-associated risks. An accumulating research base documents the influence of protective parenting practices on African American children and young adolescents. As youth approach the transition to adulthood, however, increases in time spent with peers and autonomy from parents suggest that intrapersonal factors may become more prominent (Aquilino 2006). Self-control (also known as effortful control) is a set of related abilities that includes focusing and shifting attention, delaying gratification, and

inhibiting prepotent responses (Metcalf and Mischel 1999). Some developmental theorists have implicated self-control processes as moderators of adverse circumstances in childhood and adolescence (Wills et al. 2007). Recent prospective studies have shown that good self-control reduces the impact of negative life events on substance use problems (Wills et al. 2008) and on depression among adolescents (Dishion and Connell 2006). This suggests that the investigation of self-control as a possible moderator of the effect of discrimination on depression is warranted.

Good self-control is posited to be related to elaborated processing of information (Wills et al. 2008). Individuals able to process complex information can be expected to analyze carefully the situations in which racial microstressors occur and reinterpret their experiences (Wills et al. 2007). For example, when experiencing disrespectful treatment, good self-control helps a youth to consider the action, evaluate it as inappropriate, and reject its implications. Conversely, a youth who is low in self-control may react with highly emotional responses that undermine effective appraisal and management of the situation. This process was demonstrated in a recent study of African American college students (Johns et al. 2008) that evaluated the experience of stereotype threat: anxiety or concern in a situation in which a person's behavior might support a negative stereotype about his or her social group. Across four experiments, participants exposed to stereotype threat attempted to control their expressions of anxiety, which in turn depleted the executive resources needed to perform well on tests of cognitive ability. When threatened individuals' executive functioning was bolstered through reappraisal of the situation or insight into their anxiety, their test performance improved. Consistent with these findings, we expect that self-control processes will buffer youth from the consequences of racial discrimination on depressive symptomology.

The Present Study

In this study, we investigated the effect of exposure to racial discrimination on changes in African American male youth's depressive symptoms. Our hypotheses were informed by minority stress theory, which posits that racial discrimination constitutes a unique and chronic stressor that undermines mental health (Hatzenbuehler et al. 2008; Meyer 2003). Racial self-concept is one of several well-documented proximal mechanisms that this theory specifies as a mediator of the influence of discrimination on various health outcomes (Williams and Williams-Morris 2000). We examined this pathway controlling for a range of confounding factors associated with exposure to and

perception of discrimination, including anger, affiliation with deviant peers, and delinquent behaviors.

With 222 African American male youth, we assessed exposure to racial discrimination over a 2-year span from ages 16 to 18 by using data from three assessments. Compared with single-time-point analyses, this design provides a more reliable estimate of general exposure during these years. Exposure to racial microstressors over this period was then related prospectively to changes in racial self-concept and depressive symptoms. We hypothesized that racial discrimination would predict increases in depressive symptoms from ages 16 to 20, net of confounding factors. We hypothesized that changes in racial self-concept from ages 16 to 19 would mediate this association. Self-control was expected to buffer the influence of racial discrimination on youth's racial self-concept.

Methods

Participants

Hypotheses were tested with data from 222 male African American adolescents recruited randomly from public high schools in six rural Georgia counties. Youth were enrolled when they were 16 years of age; data were collected at mean ages of 16, 16.5, 18, 19, and 20 years. Data were collected as part of a family-based prevention study (Kogan et al. 2012). Because the present study does not focus on intervention efficacy, assignment to the prevention or control condition was controlled in all data analyses. At baseline, youth's families' median household gross monthly income was \$2,016.00 ($SD = \$4,353.86$) and mean monthly per capita gross income was \$887.54 ($SD = 1,578.98$). Although youth's caregivers worked an average of 38.5 h/week, 42 % of the families lived below federal poverty standards and another 15 % lived within 150 % of the poverty threshold; they could be described as working poor (Boatright 2009).

Procedures

Youth and their caregivers were contacted and enrolled in the study by African American community liaisons. At all data collection points, caregivers gave written consent to each minor youth's participation, and youth gave written assent or consent to their own participation. To enhance rapport and cultural understanding, African American university students and community members served as field researchers to collect data. During each assessment, one home visit lasting 2 h was made to each participant. At the home visit, self-report questionnaires were administered

privately via audio computer-assisted self-interviewing technology on a laptop computer.

Measures

Socioeconomic Disadvantage

An index was formed based on the number of socioeconomic risk factors that caregivers reported at Wave 1 on a household demographic and economic hardship measure (Kogan et al. 2012). The risk factors assessed were family poverty based on federal guidelines, caregiver unemployment, receipt of temporary assistance for needy families, caregiver single-parent status, caregiver education less than high school graduation, and caregiver-reported inadequacy of family income. Scores on the index ranged from 0 to 6 risk factors ($M = 2.56$, $SD = 1.57$).

Hostility

At Wave 1, youth completed a hostility scale (Joe et al. 2002) that comprised eight items. On a scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*), participants responded to items that included, “You have a hot temper” and “You feel a lot of anger inside you.” Cronbach’s α at baseline was .86. This measure has shown adequate reliability and has been associated with discrimination in prior research with African American youth (Kogan et al. 2014).

Conduct Problems

At Wave 1, youth completed a checklist (Elliott et al. 1985) used widely with mulitethnic populations indicating the number of times in the past 6 months they had engaged in each of 13 delinquent behaviors (e.g., stealing, damaging property). The frequency of each item was summed across the items; Cronbach’s α was .71.

Affiliation with Deviant Peers

Youth indicated the proportions of their close friends at Wave 1 who had engaged in each of 15 antisocial behaviors during the past 3 months, on a scale ranging from 0 (*none of them*) to 3 (*all of them*). Example items included, “been suspended or expelled from school” and “attacked someone with a weapon.” Cronbach’s α was .92. This scale has been used previously with African American youth (Brody et al. 2001).

Racial Discrimination

Perceived racial discrimination was assessed at Waves 1–3 with a scale adapted from research on racially based microstressors (Williams and Williams-Morris 2000). Items from existing scales were presented to rural African American community members, who identified the most common forms of racial microstressors and suggested wording changes (Brody et al. 2006). Youth reported how often in the past 12 months each of nine stressors occurred, from 1 (*never*) to 4 (*frequently*). Example items included, “How often have you been treated rudely or disrespectfully because of your race?” and “How often have your ideas or opinions been put down, ignored, or belittled because of your race?” Cronbach’s α exceeded .89 across waves. Scores across the three time points were associated significantly ($r_s = .35-.42$) and subsequently averaged across time points to form an index of adolescents’ exposure to discrimination from ages 16 to 18.

Racial Self-concept

At Wave 1 (age 16) and Wave 4 (age 19), youth completed a 9-item scale that we adapted based on focus group feedback and on factor analyses in our prior research (Wills et al. 2007) using items from the Multidimensional Inventory of Black Identity (Sellers et al. 1998). Previous analyses indicated that items indicative of racial centrality and private regard did not form separate factors with our samples. Rather, they indexed a general racial self-esteem construct. Thus, our measure included items that indexed low regard for being African American (“Sometimes, I wish I were White” and “Blacks have bad hair”) and low perception of the centrality of race (“In general, I feel close to Black people”). Items were coded so that high scores indicated a positive racial self-concept. The response set ranged from 1 (*strongly disagree*) to 5 (*strongly agree*). The resulting scale indicated a more or less positive attitude towards being Black; Cronbach’s α exceeded .77.

Self-control

Youth reported their self-control at Waves 1, 2, and 3 via 15 items that Humphrey (1982) developed. The response set ranged from 0 (*never*) to 4 (*almost always*). Example items included, “How often do you think ahead of time about the consequences of your actions?” and “How often do you work toward a goal?” Past research has demonstrated adequate reliability with African American youth (Kogan et al. 2011). In the present study, Cronbach’s α exceeded .78 across waves. Scores across the three time points were associated significantly ($r_s = .53-.65$) and

subsequently averaged across time points to form an index of adolescents' self-control from ages 16 to 18.

Depressive Symptoms

Depressive symptoms were assessed at Waves 1 and 5 with the Center for Epidemiologic Studies-Depression Scale (CES-D; Radloff 1977). The measure included 20 items describing depressive symptoms; respondents used a scale ranging from 1 (*rarely or none of the time*) to 5 (*most or all of the time*) to indicate the extent to which they experienced each symptom during the past week. Sample items included, "How often did you feel that you could not shake off the blues even with help from your family or friends?" and "How often did you think your life was a failure?" Cronbach's α for the scale was .82 at Wave 1 and .84 at Wave 5. Past research supports the utility of the CES-D with African American young adults (Kogan and Brody 2010).

Plan of Analysis

Hypotheses were tested with structural equation modeling as implemented in Mplus. We specified autoregressive models controlling for Wave 1 (age 16) levels of depressive symptoms and mediating factors. Data missing due to attrition and item nonresponse were managed with full information likelihood estimation per the attrition analyses described below. We first specified the effect of exposure to racial discrimination between the ages of 16 and 18 on depressive symptoms at age 20, controlling for hostility, deviant peers, conduct problems, and socioeconomic disadvantage at age 16. We then included racial self-concept at age 19, with age 16 levels controlled, as an indirect effect in the model. Indirect effects were tested with bootstrapping. In the third step, we investigated the moderating influence of self-control on the path connecting racial discrimination to racial self-concept using a multi-group analysis based on a median split of the self-control scale. This was followed by a test for moderated mediation as necessary per techniques that Preacher et al. (2007) described. Model fit was assessed via Chi square, Chi square/*df*, CFI, and RMSEA.

Results

Of the 222 men who provided data at Wave 1, 182 (82 %) provided data at Wave 5. We examined attrition status at Wave 5 (yes/no) as a function of all study variables assessed at Wave 1. No significant difference emerged by attrition status, suggesting that the assumption of data missing at random required for FIML

estimation is justified. Table 1 presents the correlations among study variables and their means and standard deviations.

Figure 1 presents the influence of racial discrimination on depressive symptoms net of hostility, conduct problems, affiliations with deviant peers, and socioeconomic disadvantage. This model was saturated; thus, model fit statistics are not presented. Racial discrimination from ages 16 to 18 significantly predicted changes in depressive symptoms at age 20 ($\beta = .19, p < .05$). Figure 2 specifies the indirect effect of racial self-concept. This model fit the data as follows: $\chi^2(2) = 3.65, p = .16; \chi^2/df = 1.83; CFI = .98; RMSEA = .06 (.00, .16)$. Discrimination significantly predicted reductions in racial self-esteem, which in turn significantly predicted increases in depressive symptoms. The direct effect from discrimination to depressive symptoms was attenuated in the presence of the mediator. The indirect effect of discrimination on depressive symptoms through racial self-concept was .090, 95 % CI (.015, .233).

We next tested the moderational influence of self-control on the path between racial discrimination and racial self-concept. Model comparisons revealed a change in Chi square between nested models ($\Delta\chi^2[1] = 3.68$) with a *p* value of .055. For the group high in self-control, no association between racial discrimination and racial self-concept was evident ($\beta = .03, p = .718$). In contrast, for the low self-control group, racial discrimination significantly predicted racial self-concept ($\beta = .31, p = .001$). We then conducted a comparison of indirect effect pathways in the high and low self-control groups (moderated mediation). In the high self-control group, the indirect effect was not statistically significant at conventional levels (.014, 95 % CI [−.058, .137]). The indirect path for the low self-control group was significant (.220, 95 % CI [.056, .512]), and the difference of the indirect effect between the high self-control and low self-control groups was significant, $\Delta\chi^2(1) = 4.006, p = .045$. This suggests that racial discrimination had an indirect effect on depressive symptoms via racial self-concept only for youth with low self-control.

Discussion

The cumulative effect of everyday discrimination poses unique challenges to minority group members' well-being. Studies have indicated that, beginning in adolescence, many African American youth consider racial discrimination to be commonplace (Brody et al. 2006; Fisher et al. 2000), and exposure to it tends to increase across adolescence (Brody et al. 2006). Although several studies have identified links between everyday racism and depressive

Table 1 Correlations among control variables and study variables

Variables	1	2	3	4	5	6	7	8	9	10	11
Control variables											
1. Intervention assignment	–										
2. SES disadvantage (16)	–.11	–									
3. Hostility (16)	–.02	–.02	–								
4. Conduct problems (16)	.02	.10	.38***	–							
5. Deviant peers (16)	–.03	–.10	.41***	.33***	–						
6. Racial discrimination (16–18)	.08	–.04	.21**	.09	.19**	–					
7. Self-control (16–18)	.02	–.07	–.42***	–.36***	–.28***	–.30***	–				
8. Racial self-concept (16)	–.17*	–.09	–.17**	–.27***	.05	–.25***	.37***	–			
9. Racial self-concept (19)	.09	–.04	–.14*	–.19**	–.07	–.26***	.34***	–.40***	–		
10. Depressive symptoms (16)	.03	.11	.38***	.31***	.20**	.33***	–.46***	–.33***	–.29***	–	
11. Depressive symptoms (20)	.03	–.02	.14*	.10	–.01	–.26***	–.30***	–.26***	–.34***	.34***	–
Mean	0.50	2.56	14.94	7.42	7.90	12.83	39.04	4.37	4.32	12.17	12.78
SD	0.50	1.56	5.34	15.04	6.85	3.75	6.79	0.72	0.75	7.24	8.71

Numbers in parentheses refer to age

SES socioeconomic status

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

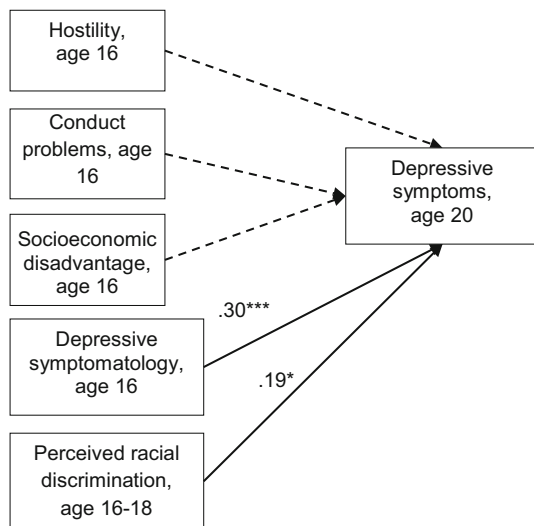


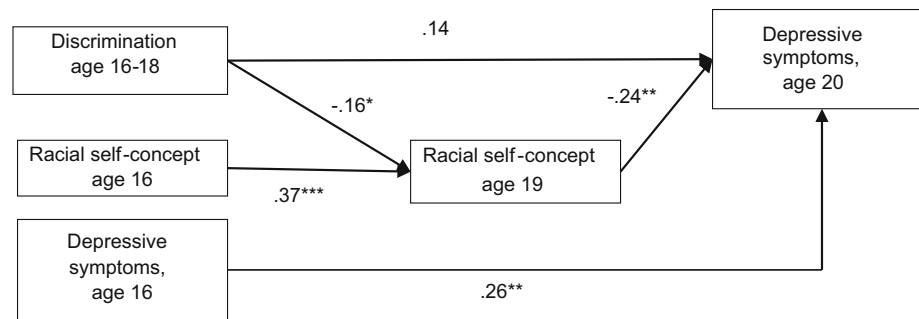
Fig. 1 Main effect of perceived racial discrimination on depressive symptoms at age 20 years. Dashed lines indicate nonsignificant paths. * $p < .05$; *** $p < .001$

symptoms, this research is significantly limited. First, as noted previously, despite the unique gender-based course of depressive symptoms, relatively little research focuses specifically on male African American youth. Second, recent studies using longitudinal designs suggested the importance of considering the impact of exposure to discrimination over time rather than as a single instance.

Although studies have documented the pernicious influence of racial discrimination on African American male adolescents' mental health, the processes accounting for it have received less attention. We hypothesized that discrimination may undermine youth's racial *self-concept*, personal attitudes in which individuals devalue aspects of themselves associated with their racial group. Racial self-concept, in turn, was hypothesized to serve as a mechanism linking exposure to discrimination to depressive symptoms among African American men during young adulthood. We further hypothesized that self-control would buffer youth from the effects of discrimination.

We tested hypotheses regarding the influence of exposure to racial discrimination from ages 16 to 18 on depressive symptoms at age 20 among male African Americans during adolescence and the transition to adulthood. Hypotheses were tested with 222 African American youth participating in a longitudinal study, with assessments at ages 16, 16.5, 18, 19, and 20. Consistent with our predictions, race-related microstressors experienced from ages 16 to 18 predicted changes in self-reported depressive symptoms from ages 16 to 20. This finding is consistent with research on the effects of discrimination on mental health in general (Williams et al. 2003) and on depressive symptoms among male African Americans in particular (Matthews et al. 2013). The present study extends and confirms these findings in several ways. Whereas many studies are cross-sectional and combine multiple ages and

Fig. 2 Indirect effects of perceived racial discrimination on depressive symptoms at age 18 years. * $p < .05$; ** $p < .01$



genders in the samples, we examined the experience of male African Americans over a period of 5 years during adolescence and the transition to adulthood, controlling for the influence of depressive symptoms at baseline. This evidence implicates discrimination in young men's changing mental health status during this time. Additionally, we controlled for multiple factors that affect youth reports of discrimination, demonstrating that discrimination exerts an influence independent of confounding personality attributes and behaviors.

A second purpose of this study was to examine the extent to which racial self-concept explains the link between discrimination and depressive symptoms. In adolescence, youth are keenly aware of and concerned with others' regard and have developed the cognitive capacity to interpret complex social messages (Holmbeck et al. 1994). In late adolescence, male African Americans in rural areas are increasingly exposed to disrespectful treatment in the community as they attend larger schools (each rural Georgia county had one high school), become more mobile in their communities, interact with more diverse members of the community, and work part-time jobs (Brody et al. 2010). The present findings suggest that racial microstressors during late adolescence are highly salient for male African Americans, contributing to negative attitudes about their own race, which in turn increase their vulnerability to depressive symptoms.

Beginning in early adolescence, extensive development and change take place in self-concepts as youth integrate new cognitive capacities and changing relationships with peers, parents, and school (Steinberg and Morris 2001). For many aspects of self-concept, the high school years are a period of relative consolidation for youth who experience stable environments (Steinberg and Morris 2001). The present study identified significant effects of racial microstressors on older male adolescents' racial self-concept in the high school years. Controlling for baseline levels of hostility, affiliations with deviant peers, delinquent behavior, and family SES further suggests that the high school years comprise a sensitive maturational period for the development of racial self-concept.

Study results suggest that decrements in racial self-concept act as a mechanism linking discrimination to depressive symptoms. This finding is consistent with past studies on multiple forms of self-esteem and depression, as well as with studies that focus specifically on racial self-concept (Mandara et al. 2009; Yip et al. 2006). Our findings are somewhat inconsistent, however, with studies that did not find direct effects between racial discrimination and aspects of racial self-concept (Seaton et al. 2012). Although differences in measurement and our focus specifically on male youth may explain these inconsistencies, moderational analyses suggested that this mechanistic pathway is particularly salient for a subgroup of young men. For young men high in self-control, racial self-concept played no significant role in linking racial discrimination to depressive symptoms. In fact, for these young men, exposure to racial microstressors had little influence on racial self-concepts or depressive symptoms. This is consistent with a recent study of African American men that found that mastery, defined as a sense of control over the environment, protects men from the influence of racial discrimination on depressive symptoms (Watkins et al. 2011). Conversely, for adolescents low in self-control, decrements in racial self-concept significantly mediated the association between discrimination and depressive symptoms in emerging adulthood. Similarly, Dishion and Connell (2006) reported buffering effects of effortful control on the link between stress and depression among adolescents.

Important foci for future research and for the development of preventive interventions for male African Americans can be derived from the current findings. Self-control is increasingly being recognized as a key focus in studies of resilience processes, and increasingly sophisticated studies are mapping the neurobiological correlates of self-regulatory behaviors and considering their interaction with brain maturation throughout adolescence. The specific mechanisms through which aspects of self-control protect youth remain to be explicated. Planning and forethought could help them to anticipate and to prepare for troublesome situations, and problem solving could help them to perceive multiple solutions to problems that arise and use

interpersonal skills in solving them. Emotional self-regulation could provide better emotional control in problem situations, as well as enabling individuals to avoid ruminating about adverse events that occur (Zimmerman 2000).

The study's findings support the utility of intervention efforts designed to enhance self-control and racial pride to protect youth from the cumulative effects of racial microstressors during adolescence. Examples of efficacious interventions that target racial pride include the Strong African American Families programs for adolescents (Kogan et al. 2012). These programs capitalize on parental involvement to increase active racial socialization and family support for the development of a positive racial self-concept. These and other programs such as Life Skills Training (Botvin and Griffin 2004) also target the development of self-control through goal planning and problem-solving exercises. This component, common to many interventions designed for adolescents, has the potential to provide unique benefits for African American young men experiencing discrimination, preventing microstressors from inculcating negative attitudes towards their own race.

As with all empirical research, the reported results must be interpreted within the context of the study's limitations. The young men in this study lived in rural areas of Georgia and were predominantly from working-class and poor families. These youth may have different racial self-concepts and experience different patterns of exposure to racial microstressors than do youth in urban areas or those from middle-class backgrounds. Future research should compare these results with findings derived from various subpopulations of African American male youth. Furthermore, the present report focused on discrimination experienced during the high school years. As these young men transition to adulthood, experiences in higher education and the labor force provide new sources of potential exposure to discriminatory treatment. Further research is needed to investigate the ways in which discrimination during young adulthood affects future development and adjustment (Nebbitt et al. 2011). Several constructs were assessed from youth's perspectives, potentially affecting Type 1 error rates. This concern is attenuated somewhat by the assessment of key constructs at multiple measurement occasions, the separation of key measures in the presentation of the assessment battery, and the use of a variety of question formats. Controlling a range of behavioral and personality attributes as well as parent-reported SES factors also increases confidence in the findings. Future studies using different methods, such as observations of self-control and clinical ratings of depressive symptoms, are warranted. Culturally specific measures of mental health may capture more precisely symptoms of depression, such as anger, on which the CES-D does not focus (Chao and Green 2011).

Conclusion

Racial discrimination undermines young African American men's mental health, predicting impaired racial self-concept and elevated depressive symptoms. These findings carry important implications for theory and research on the impact of discrimination on African American male youth's well-being. Most theoretical models and empirical studies focused on discrimination have not taken into account male African Americans' unique experiences and the extent to which they are affected by depressive symptoms. In late adolescence, youth are keenly aware of and concerned with others' regard and have developed the cognitive capacity to interpret complex social messages. The present findings suggest that racial microstressors are highly salient for male African American adolescents, contributing to negative attitudes about their race, and increasing their vulnerability to depression. These findings build on a burgeoning research base that documents the effects of racial discrimination on youth and young adults. Importantly, this study addresses several key limitations in this database. Perceptions of racial discrimination are influenced by attributional processes such as anger, which increase the salience of discrimination and the likelihood of discriminatory treatment being recognized. Also, youth's affiliations with risk-taking peers and involvement in delinquent behaviors can place youth in settings where their race places them at a disadvantage. By controlling for such factors, the present study provides a particularly strong test of the influence of discrimination with a nonexperimental design. Moreover, the study confirms Williams and Mohammed's (2013) conjecture that a key process through which discrimination affects youth is by inducing them to devalue themselves. Fortunately, protective processes can buffer youth from the influence of discrimination. Whereas most previous studies examined family practices that protect youth, during late adolescence young people spend less time with their families. Personal attributes then become more salient in determining how they will deal with community-based stressors. Accordingly, we tested self-control as a protective process. Consistent with our hypothesis, self-control strongly attenuated the impact of discrimination on youth's self-concepts. From a policy perspective, these findings send a strong message regarding the necessity of reducing African Americans' exposure to racial microstressors through education of their peers and their peers' families. From the perspective of intervention development, the identification of these risk and protective mechanisms provides guides for curricula that can protect youth from the effects of racial discrimination.

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