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Perceived Discrimination and the Adjustment of African American Youths: A Five-Year Longitudinal Analysis With Contextual Moderation Effects

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Longitudinal links between perceived racial discrimination and later conduct problems and depressive symptoms were examined among 714 African American adolescents who were 10–12 years old at recruitment. Data were gathered 3 times over a 5-year period. Hypotheses were tested via latent curve modeling and multiple-group latent growth modeling. Increases in perceived discrimination were associated with increased conduct problems and depressive symptoms. This association was weaker when youths received nurturant-involved parenting, affiliated with prosocial friends, and performed well academically. For conduct problems, the association was stronger for boys than for girls; for depressive symptoms, no gender differences emerged. The findings thus identify contextual variables that moderate the contribution of perceived discrimination to African American youths' adjustment.

For some young people, internalizing symptoms (Fleming & Offord, 1990; Lewinsohn, Hops, Roberts, Seely, & Andrews, 1993) and some forms of externalizing or conduct problem behaviors (see Moffitt, 1993) increase significantly in prevalence and incidence during late childhood and early adolescence. This contributes to a nonnormative developmental trajectory that includes peer rejection (Coie & Dodge, 1998), a lack of motivation, poor academic performance (Bergman & Magnusson, 1997), and risk of school dropout (Cairns, Cairns, & Neckerman, 1989; Ensminger & Slusarcick, 1992). It also forecasts alcohol misuse during late adolescence (Brook & Newcomb, 1995) and underemployment during young adulthood (Sanford et al., 1994). The processes that contribute to the development of internalizing symptoms and conduct problems during this developmental period should be identified, not only to advance knowledge of their etiology and the trajectories they foster but also to inform the design of preventive interventions (see Brody et al., 2004).

Using a three-wave prospective research design that spanned 5 years, we advanced and evaluated predictions about a salient vulnerability factor for African American youths, perceptions of racial discrimination. We also investigated predictions about moderation effects in the association of discrimination with the development of conduct problems and depressive symptoms, proposing that nurturant-involved parenting, affiliation with prosocial peers, and school efficacy (including both academic success and commitment) would reduce the likelihood that African American youths who reported experiences with racial discrimination during late childhood and early adolescence would develop conduct problems or depressive symptoms. In the following sections, we first discuss racial discrimination and youth mental health, a central relationship around which the study is organized. We then describe the theoretical and empirical bases for the proposed moderational processes.

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Perceived Discrimination and Mental Health Outcomes

Racial discrimination presents daily challenges in the lives of African American youths and their families. Landrine and Klonoff (1996) found that 98% of the African American adults in their sample reported that they had experienced a racist event during the past year. All participants reported that, at some point in their lives, they had been treated badly or their intentions were misinterpreted because of their race. These experiences are demeaning and degrading, inducing stress, frustration, depression, and anxiety (Brown et al., 2000; Williams, Yu, Jackson, & Anderson, 1997). Studies of African American (Jackson, Williams, & Torres, 1997; Sanders-Thompson, 1996; Williams et al., 1997), Hispanic (Amaro, Russo, & Johnson, 1987; Salgado de Snyder, 1987), and Asian (Noh, Beiser, Kaspar, Hou, & Rummens, 1999) adults show an association between exposure to racial discrimination and depression. Many of these studies are limited, however, by their reliance on a single item to index discrimination (Kessler, Mickelson, & Williams, 1999).

An association between racial discrimination and the development of adjustment problems among children and adolescents is also plausible. Although a large majority of studies have focused on adults, researchers who work with minority children and adolescents (García Coll et al., 1996) have recognized the powerful challenges that racial discrimination imposes on young people's development. Survey research with adolescents, which is consistent with this conjecture, corroborates the findings obtained with adults: Assessments of perceived discrimination are associated with self-reported internalizing symptoms (Fisher, Wallace, & Fenton, 2000; Gibbons, Gerrard, Cleveland, Wills, & Brody, 2004; Rumbaut, 1994; Simons et al., 2002; Szalacha et al., 2003; Wong, Eccles, & Sameroff, 2003) and externalizing behaviors (DuBois, Braxton-Burk, Swenson, Tevendale, & Hardesty, 2002; Simons, Chen, Stewart, & Brody, 2003; Szalacha et al., 2003). Even worrying about the prospect of future racial discrimination places adolescents' psychological well-being at risk (Fordham & Ogbu, 1986; Mickelson, 1991; Ogbu, 1978, 1991; Taylor, Wright, & Porter, 1993). These findings resonate with Franklin's (1993) contention that ethnic minority individuals' inner vigilance for racial slights can create a state of constant watchfulness that leads to chronic tension and stress. Phinney, Madden, and Santos (1998) suggested that anxiety arising from this stress can increase adolescents' likelihood of perceiving and reacting to discrimination. According to the theoretical rationale that underlies this study, however, perceived discrimination is more likely to contribute to emotional distress and conduct problems among youths rather than the reverse. To verify the validity of this rationale, our initial data analyses examined the relative strengths of the associations between perceived discrimination and youth psychological functioning over time.

Despite significant growth in the literature on racial discrimination and youth adjustment, many significant areas have yet to be explored. A fuller understanding of the contribution of discrimination to adjustment requires longitudinal analyses. Such analyses enable scientists to examine the ways in which changes in African American youths' experiences with discrimination during important developmental periods are linked to the course of their adjustment. Most of the extant literature addresses the contemporaneous association between racial discrimination and youth adjustment. Three studies, though, moved beyond this point to demonstrate relations between discrimination and adjustment during late childhood using two waves of data collected at intervals of 1 (Wong et al., 2003) or 2 (Gibbons et al., 2004; Simons et al., 2003) years. The present study will extend the literature further; three waves of data collected over a 5-year period will be used to determine whether increases in youths' perceptions of racial discrimination are associated with changes in their expression of conduct problems and depressive symptoms across early adolescence.

As children make the transition into early adolescence, they begin to explore their ethnic identities (Phinney & Tarver, 1988). Through this developmental process, youths come to understand the importance of their ethnic group membership to their thought processes, perceptions, feelings, and behavior (Spencer & Markstrom-Adams, 1990). Most African American youths develop positive ethnic identities and self-concepts despite negative messages they receive from the broader society about themselves and members of their ethnic group in general (Spencer, Fegley, & Harpalani, 2003). The distress occasioned by assaults on African American youths' developing identities from the demeaning messages inherent in discriminatory experiences, however, can exact a toll on their mental health (Clark, Anderson, Clark, & Williams, 1999). Thoits (1991) maintained that those stressors that threaten the central parts of an individual's identity are particularly pernicious and likely to undermine mental health. Accordingly, African American youths' experiences with discrimination over time have the potential to induce depressive symptoms such as

sadness, fatigue, and irritability and to provoke problematic behaviors arising from anger and other negative emotions. Thus, the first purpose of this study was to test the hypothesis that increases in perceived discrimination from late childhood through early adolescence will be linked to increases in conduct problems and depressive symptoms. Both types of symptoms were assessed because links between vulnerability processes and mental health outcomes may be domain specific (Luthar, Doerberger, & Zigler, 1993).

The study also extends knowledge about the link between perceived discrimination and mental health outcomes among African American youths in two specific ways. First, the research was designed to determine whether longitudinal linkages between perceived discrimination and mental health outcomes are similar for boys and girls. It seems plausible that perceived discrimination's link with depressive symptoms would be more pronounced for girls and its link with conduct problems would be more apparent for boys. This conjecture is based on data suggesting that females are likely to ruminate about and internalize negative feelings arising from relational and life stresses (Nolen-Hoeksema, 2004) whereas males are likely to become emotionally dysregulated and lose inhibitory controls (Hetherington, 1989; Rutter, 1990). Second, we examined the association of socioeconomic status (SES) with African American youths' exposure to perceived discrimination across time. In prior research, African American adults of higher SES reported more experiences with discrimination than did those of lower SES (Gibbons et al., 2004; Kessler et al., 1999; Sigelman & Welch, 1991). Higher SES may render African Americans more likely to have contact with individuals from other races, increasing their chances of exposure to racially discriminatory situations. Thus, the analyses that address the first hypothesis will also test the generalizability of the hypothesized links across gender while determining whether increases across time in perceived discrimination vary as a function of youths' SES.

Perceived Discrimination, Contextual Processes, Conduct Problems, and Depressive Symptoms

The second hypothesis stated that African American youths' vulnerability to the development of conduct problems and depressive symptoms as a consequence of exposure to discriminatory experiences would be attenuated by nurturant-involved parenting, affiliation with prosocial peers, and school efficacy. We also tested the ancillary hypothesis that increases over time in perceived discrimination would be positively associated with the development of conduct problems and depressive symptoms after controlling for parenting, peer affiliation, and school efficacy. The following sections present the theoretical bases and empirical support for these predictions. The theoretical rationale for the contextual processes' mitigating effects is presented first; then, the parenting, peer, and school processes are considered in turn.

The stress occasioned by repeated exposure to discrimination (Clark et al., 1999) and the internalization of negative feedback about the self (Allport, 1954; Mead, 1934; Rutter, 1988) are the mechanisms that underlie perceived discrimination's link with conduct problems and depressive symptoms. The stress-coping model that has framed much of the research on the effects of discrimination (Clark et al., 1999) posits that discriminatory experiences, like other stressful life experiences and daily hassles, deplete both adults' and children's coping resources. Subsequent responses to the strains of demeaning discriminatory experiences take a variety of forms, ranging from anger and frustration to feelings of helplessness, sadness, and demoralization. Clark et al. (1999) also proposed that the impact of discrimination on psychological functioning depends on contextual supports and the individual protective competencies they promote. Thus far, cross-sectional studies have shown that parents' racial socialization of their children and children's competence in relating to people from different racial and ethnic groups mitigate discrimination's negative effects (García Coll et al., 1996; Phinney et al., 1998; Szalacha et al., 2003). We extended this line of research by examining the potential protective capacities of nurturant-involved parenting, affiliation with prosocial peers, and school efficacy. Each of these contextual variables has been found to promote a positive, resilient sense of self as well as providing an ''arena of comfort'' when youth are confronted with stressors (Luthar, 2006).

Recent reviews of the existing literature identify nurturant-involved parenting as one of the most robust predictors of resilient adaptation in children and adolescents (Luthar & Zelazo, 2003; Masten, 2001; Rutter, 2000; Werner, 2000). For African American youths, nurturant-involved parenting that includes emotional support, instrumental assistance, and communication about potential areas of concern promotes a positive sense of self that enables youths to cope more effectively with both daily hassles and acute stressors (Luthar, Cicchetti, & Becker, 2000). When combined with support and involvement,

high levels of parental vigilance and monitoring protect African American children from dangerous surroundings, hazardous experiences, and involvement in antisocial activity (Brody et al., 2004; Lamborn, Dornbusch, & Steinberg, 1996; Simons et al., 2003) while decreasing their likelihood of developing depressive symptoms (Brody et al., 2004; Kim et al., 2003). This association has emerged for African American youths living in both nonmetropolitan (Brody, Dorsey, Forehand, & Armistead, 2002; Brody, Murry, Kim, & Brown, 2002; Ge, Brody, Conger, Simons, & Murry, 2002; Simons et al., 2003) and urban (Bradley, Rock, Caldwell, Harris, & Hamrick, 1987; Taylor & Roberts, 1995) areas.

Decades of research have shown positive school experiences, including academic commitment and success, to be protective factors for youths' adjustment and mental health outcomes (Hawkins, Catalano, & Miller, 1992; Petraitis, Flay, & Miller, 1995). When students are psychologically and behaviorally engaged in their schooling, their sense of academic efficacy, social efficacy, and prosocial orientations increase whereas antisocial orientations decrease (Caprara, Barbaranelli, Pastorelli, Bandura, & Zimbardo, 2000). Academic achievement and positive relationships with teachers help youths to foster mutually supportive intellectual relationships with like-minded peers through differential affiliation processes (Elliott, Huizinga, & Ageton, 1985; Jessor & Jessor, 1977; Patterson, DeBaryshe, & Ramsey, 1989). These relationships, in turn, reduce the likelihood that youths will engage in antisocial behavior or develop depressive symptoms (Caprara, et al., 2000; Brody, Kim, Murry, & Brown, 2005). For African American youths, academic success is also an objective accomplishment on which they can draw to counter the demeaning messages that discriminatory experiences include. To the extent that youths can attribute these messages to those who send them and not to their own characteristics, they will be unlikely to internalize the message to the detriment of their psychological adjustment (Ruggiero & Taylor, 1997).

In addition to parenting and school experiences, peer relationships can serve important protective functions (Bernard, 2004; Jackson & Warren, 2000). This is particularly true as young people make the transition from late childhood to early adolescence, when they increase the amount of time they spend with friends. Various aspects of friendship quality have been found to be associated, both contemporaneously (Armsden & Greenberg, 1987; Cauce, 1986; Ryan, Stiller, & Lynch, 1994; Way & Chen, 2000) and longitudinally (Buhrmester & Yin, 1997), with high self-esteem and low levels of depressive symptoms. For children and adolescents who are at risk due to family difficulties or maltreatment, the protective benefits of positive peer relationships attenuate the impact of that risk on self-worth and social conduct (Bolger, Patterson, & Kupersmidt, 1998; Criss, Petit, Bates, Dodge, & Lapp, 2002; Gauze, Bukowski, Aquan-Assee, & Sippola, 1996; Lansford, Criss, Petit, Dodge, & Bates, 2003). We used a conceptualization of the protective function of peer relationships that differs from those used in previous studies. Instead of examining relationship quality, we focused on the peers' encouragement of academic achievement, involvement in after-school and community activities, and helpful behavior at home. To the extent that African American youths affiliate with friends who sanction and encourage such activities, the youths become more likely to engage in family and school experiences that are hypothesized to attenuate the effects of discrimination.

As previously stated, a secondary purpose of the analyses was to determine whether perceived discrimination is linked to youth outcomes net of parenting, peer, and school processes. Because these processes are linked, directly or indirectly, with youth conduct problems and depressive symptoms, they may confound any associations that may emerge between perceived discrimination and youth outcomes. Researchers must demonstrate that the effects of perceived discrimination operate over and above those of other contextual processes. We dealt with this issue by using a latent growth curve model (LGC; McArdle & Epstein, 1987; Willett and Sayer 1994) to examine the longitudinal links between perceived discrimination and the development of conduct problems and depressive symptoms. If the hypothesized links emerge, the model will be re-executed with links from the contextual processes added to the outcome measures. We predicted that increases in perceived discrimination over time would be related to African American youths' development of conduct problems and depressive symptoms after controlling for the effects of parenting processes, affiliation with prosocial peers, and school efficacy.

Models Tested

Figure 1 depicts the hypothetical model that addresses the effect of perceived discrimination throughout late childhood and early adolescence on the development of conduct problems and depressive symptoms. With this model, we examined the ways in which SES is related to perceived discrimination during late childhood (initial level of dis-

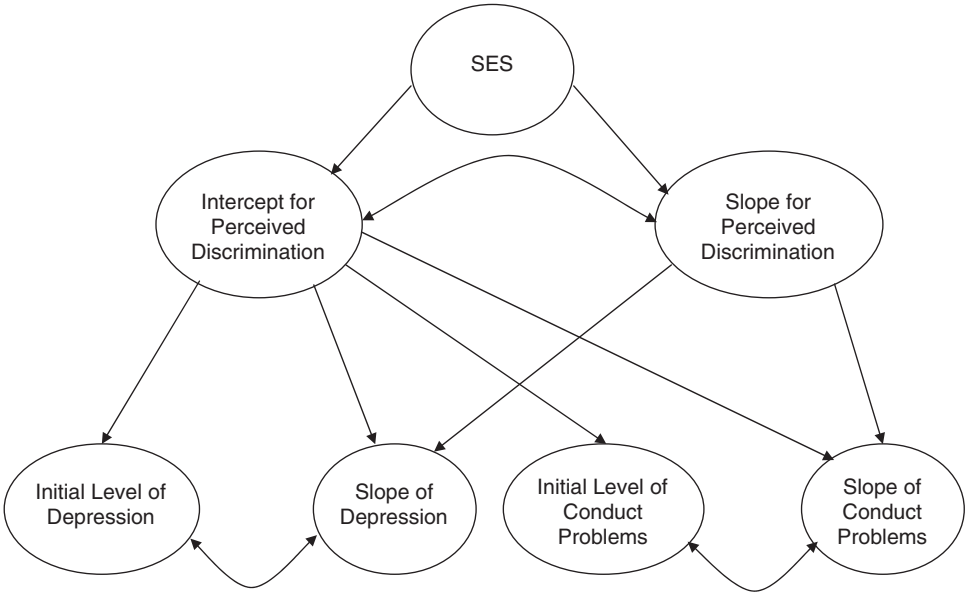

Figure 1. Hypothetical model.

crimination) as well as changes in perceived discrimination throughout early adolescence (slope for perceived discrimination). We also used the model to determine whether slopes for perceived discrimination are related to those for conduct problems and depressive symptoms; these links are of greatest interest theoretically. A second model was tested to determine the extent to which the associations emerging in the original model would be reduced or eliminated with nurturant-involved parenting, peer prosociability, and school efficacy taken into account. The models were tested using three waves of data from the Family and Community Health Study (FACHS). The first wave was collected when the youths were in late childhood; subsequent waves were collected approximately 2 and 5 years after the first data were collected. This data set enabled us to examine the hypotheses with data gathered throughout the youths' early adolescence.

Method

The FACHS is a multisite study of contextual effects on health and development. It was designed to analyze the particular risks and resources that impede or facilitate African American family functioning and youth development in contexts other than inner cities. The sites that were sampled included rural, suburban, and metropolitan communities. Data were collected in Georgia and Iowa using identical research procedures; the samples were combined after data analyses indicated that they were comparable on demographic, community, and family process variables (Cutrona, Russell, Hessling, Brown, & Murry, 2000).

Participants

A total of 897 African American families, 475 in Iowa and 422 in Georgia, were recruited for participation in FACHS. Each family included a fifth-grade target youth who was 10 (52%), 11 (45%), or 12 (3%) years old at wave 1. Slightly more than half (54%) were girls. Of the 897 families, 779 (87%) remained in the sample at wave 2 and 767 (86%) were interviewed at wave 3. The analyses presented here include the 714 families for whom data from all three waves, collected in 1996, 1998, and 2001, were available. Among these families, most (84%) of the target youths' primary caregivers were their biological mothers, of whom 37% were married at wave 1. The rest were grandmothers (6%), biological fathers (5%), or other adults (5%). The caregivers' mean age at wave 1 was 37 years, ranging from 23 to 80 years. At wave 1, the primary caregivers' educational backgrounds ranged from less than a high school diploma (19%) to a bachelor's or advanced degree (10%); the majority (71%) were high school graduates. Their educational attainments changed little across the duration of the study. The mean family income across the three waves of data collection was $33,120; across the 5 years that separated the first and third waves, family income increased by an average of 12%. The families resided in a variety of settings, none of which could be characterized as a densely populated inner-city environment. On the basis of

criteria developed for the 2000 census (Dalaker, 2001), the families' residential settings were characterized as urban ($n = 120$), suburban ($n = 563$), or rural ($n = 101$).

Sampling Strategy, Recruitment, and Interview Procedures

Families were recruited for FACHS from multiple sites that varied considerably in demographic characteristics such as racial composition and economic level. Potential participants were chosen randomly from lists of families with fifth-grade youths who lived in neighborhoods in which at least 10% of the population was African American. The lists were compiled by community liaisons in Athens, Georgia and by school officials in Des Moines and Waterloo, Iowa. Each family received an introductory letter, followed by a recruitment phone call and a personal visit requesting the youth's and caregiver's participation in the study. The letter included a toll-free number through which families without home telephone service could contact the researchers. Complete data were gathered from 72% of the families on the recruitment lists. Most families who did not participate cited the amount of time the interviews would take as their reason for declining. (For further details about the FACHS sample and the recruitment process, see Brody et al., 2001; Cutrona et al., 2000; Gibbons et al., 2004; Simons et al., 2002; Wills, Gibbons, Gerrard, & Brody, 2000.) In general, the sample was representative of the African American populations of the communities from which participants were recruited.

To enhance rapport and cultural understanding, African American university students and community members served as field researchers to collect data from the families in their homes. Before data collection, the researchers received 1 month of training in the administration of the self-report instruments. Two home visits, each of which lasted 2 hr, were made to each family within 7 days as the families' schedules allowed. During the first visit, informed consent was obtained; primary caregivers consented to their own and the youths' participation and the youths agreed to participate. At each home visit, the self-report questionnaires were administered to the primary caregiver and the target youth in an interview format. Each interview was conducted privately between one participant and one researcher, with no other family members present or able to overhear the interview. The instruments were presented on laptop computers. Questions appeared in sequence on the computer screen, which both the researcher and the participant could see. The researcher read each question aloud and entered the participant's response using the computer keypad. The second wave of data collection took place approximately 2 years after the first wave ($M = 25$ months) and the third wave took place slightly more than 3 years after the second wave ($M = 38$ months). Caregivers received $100 and youths received $70 for their participation.

Measures

Perceived discrimination. At each wave of data collection, the target youths completed 13 items from a revised version of the Schedule of Racist Events (SRE; Landrine & Klonoff, 1996). The SRE was designed for adult respondents; we revised it for youths in late childhood through adolescence. The revisions included simplifying the language and replacing items dealing with discrimination in the workplace with items about discriminatory behaviors in the community. The first step in the revision process involved presentation of the revised scale to focus groups of African American primary caregivers and youths of the same age as those in the study population; the second step included psychometric and validity analyses.

In the first step, the revised scale was presented to four focus groups. Two of the groups each included 10 African American primary caregivers with a child the age of the children targeted in this study; the other two groups each included 10 rural African American youths aged 10–12 years. The group members were asked to indicate whether the revised scale adequately covered the discriminatory events that children and adolescents would encounter in their communities and to suggest wording changes that would make the scale easy for youths to understand. All four focus groups reported that the revised scale effectively covered the discriminatory experiences that youths in their communities might experience. The analyses executed in the second step confirmed the scale's reliability. Its validity was demonstrated through its association with variables that the literature suggests would be associated with perceived discriminatory experiences, such as anger, a hostile world view, depression, and conduct problems (Clark et al. 1999; Landrine & Klonoff, 1996), both in contemporaneous (Simons et al., 2002) and 2-year longitudinal assessments (Gibbons et al., 2004). These associations remained robust when family income, financial stress, negative life events, and parental education were controlled.

The items in the revised SRE assessed the frequency during the past year, ranging from 1 (*never*)

to 4 (*several times*), with which the respondent perceived specific discriminatory behaviors. These events include racially based slurs and insults, disrespectful treatment from community members, physical threats, and false accusations from business employees or law enforcement officials. Sample items include, ''someone said something insulting to you because you are African American,'' ''a store owner or sales person working at a business treated you in a disrespectful way because you are African American,'' ''someone yelled a racial insult at you because you are African American,'' and ''you encountered Whites who didn't expect you to do well because you are African American.'' Coefficient alpha for the scale exceeded .85 at each wave of data collection.

Depression. At each wave, the target youths completed the Diagnostic Interview Schedule for Children–Version 4 (DISC–IV). The DISC was developed over a 15-year period of research on thousands of children and parents; it has demonstrated reliability and validity (Shaffer et al., 1993). Version IV became available in 1995 and represents a modest revision, based on findings from the MECA study (Shaffer et al., 1993), of the DISC–III. The DISC–IV generates both counts and diagnoses of symptoms; in the present study, only symptom counts were used because fewer than 5% of the youths in our sample met the criteria for clinical diagnoses. The symptoms that make up the 22-item Major Depression section include the frequency with which the respondent, during the previous year, felt sad, irritable, tired, restless, or worthless; slept more or less than usual; experienced difficulty in focusing or making decisions; or thought about death or suicide. Alpha coefficients exceeded .83 for each wave of data collected.

Conduct problems. Conduct problems were measured using the 21-item Conduct Disorder section of the DISC–IV. Target youths reported the frequency with which, during the previous year, they engaged in deviant acts such as shoplifting, physical assault, lying, fire setting, cruelty to animals, vandalism, burglary, and robbery. Alpha coefficients were .69 for wave 1 data and .68 for data collected at waves 2 and 3.

Nurturant-involved parenting. Primary caregivers and youths completed the nurturant-involved parenting scale (Brody et al., 2001) at each wave of data collection. The scale is composed of summed standardized scores from scales that assess caregivers' use of warmth, involvement, inductive reasoning, communication skills, and monitoring. Each scale is rated on a 4-point response set that ranges from 1 (*always*) to 4 (*never*). The 9-item warmth/involvement subscale concerns the extent to which caregivers provide emotional support to youths and spend time with them. The 9-item reasoning/communication subscale involves the degree to which caregivers express their views clearly, reason with the youths, and encourage them to consider the consequences of their behavior. The 4-item monitoring subscale deals with the caregivers' level of awareness of the youths' behavior in various settings. This scale has been used in previous studies with this sample (Brody et al., 2001; Ge et al., 2002). Cronbach's αs for both primary caregivers' and targets' responses to the nurturant-involved parenting scale exceeded .80 at each wave of data collection. A multi-informant measure of nurturant-involved parenting was formed by adding the primary caregiver's and youth's reports at each wave, then summing those scores across the three waves of data collection. At each wave, correlations between the primary caregiver and youth reports exceeded .20, $p < .01$. Cronbach's αs for the full 22-item scale were .83 at wave 1, .88 at wave 2, and .91 at wave 3.

School efficacy. A confirmatory factor analysis was conducted on 15 items developed for the Iowa Youth and Families Project (Simons et al., 2003). These items loaded onto a single factor, which was termed school efficacy. At each data collection wave, caregivers rated the youths' academic performance, ranging from 1 (*superior*) to 4 (*far below average*), as well as the youths' valuation of academic efficacy and their relationships with their teachers, both rated 1 (*strongly disagree*) to 4 (*strongly agree*). Items were coded so that high scores indicated positive outcomes: good grades, emphasis on good academic performance, and positive student—teacher relationships. Cronbach's α exceeded .80 at each wave of data collection.

Prosocial peers. At waves 1 and 2, youths responded to a 9-item index, developed for this study, of the extent to which their friends encouraged involvement in prosocial activities. The youths used a 3-option response set, 1 (*tell you to stop*), 2 (*do nothing*), and 3 (*encourage you to do it again*), to indicate their friends' likely reactions to their engagement in activities such as working hard for good grades, taking part in school activities, helping with chores at home, taking care of younger siblings, and taking part in community activities. Responses to the items were summed to yield a total score measuring friends' support of prosocial behavior. Alpha coefficients for this scale were .79 at wave 1 and .82 at wave 2.

SES. SES was assessed at each wave using the family's annual income and an index of the primary caregiver's educational level. The annual income

Table 1
Descriptive Statistics and Correlations for Study Variables

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Family SES	—												
2. Nurturant-involved parenting[a]	0.06	—											
3. School efficacy[a]	0.13	0.22	—										
4. Prosocial peers[b]	−0.01	0.26	0.08	—									
5. Perceived discrimination, wave 1	−0.09	−0.06	−0.10	−0.10	—								
6. Perceived discrimination, wave 2	−0.01	0.01	−0.04	−0.01	0.49	—							
7. Perceived discrimination, wave 3	0.10	0.02	−0.05	−0.01	0.30	0.48	—						
8. Depression, wave 1	0.03	−0.12	−0.12	−0.02	0.25	0.22	0.23	—					
9. Depression, wave 2	−0.00	−0.11	−0.06	−0.01	0.29	0.29	0.19	0.32	—				
10. Depression, wave 3	−0.10	−0.07	−0.06	−0.01	0.14	0.13	0.17	0.21	0.34	—			
11. Conduct problem, wave 1	−0.07	−0.17	−0.15	−0.14	0.29	0.17	0.17	0.26	0.15	0.05	—		
12. Conduct problem, wave 2	−0.02	−0.25	−0.22	−0.20	0.22	0.28	0.16	0.19	0.32	0.09	0.32	—	
13. Conduct problem, wave 3	0.05	−0.22	−0.18	−0.12	0.15	0.19	0.23	0.15	0.19	0.31	0.26	0.39	—
M	0.01	319.00	20.60	44.70	21.28	21.06	22.47	5.63	6.39	5.68	.53	1.07	1.27
SD	1.67	66.00	5.76	9.50	7.04	7.13	7.47	4.61	4.48	4.79	1.15	1.59	1.77

Note. SES = socioeconomic status. All coefficients with an absolute value of .09 or higher are significant at $p < .05$.
[a]Aggregated across 3 waves.
[b]Aggregated across 2 waves.

measure was derived from primary caregivers' reports of income derived from employment, business ventures, government assistance, and child support. The education index ranged from 1 (*less than a high school diploma*) to 10 (*a graduate degree*). The income and education items were standardized and combined at each wave, and then aggregated across time by summing the measure across the three waves of data collection. Cronbach's α for this measure was .73.

Results

Attrition Analyses

To test for differences among families who provided data at various waves, we formed four groups: Group 1 ($n = 65$), wave 1 only; Group 2 ($n = 65$), waves 1 and 2; Group 3 ($n = 53$), waves 1 and 3; and Group 4 ($n = 714$), all three waves. Univariate analyses of variance (ANOVAs) conducted on each measure in the following analyses detected no intergroup differences.

Descriptive Statistics

Table 1 presents the correlations, means, and standard deviations for the study variables. The majority of youths reported experiencing racial discrimination at some point during the study. By wave 3, only 8% of the youths, 10% of the boys and 6% of the girls, reported that they had not experienced any instances of racial discrimination. At wave 3, more than half of the youths in the sample reported that someone had insulted them because they were African American and that family members or friends had been treated unfairly for the same reason. More than a quarter reported being excluded from an activity because of their race and more than half had encountered surprise from White people in response to their competent academic behavior.

As the data in Table 1 indicate, the youths' rates of conduct problems were low throughout the study. Consistent with findings from previous studies (Elliott, Huizinga, & Menard, 1989), however, problem behaviors increased from late childhood to adolescence. At wave 1, 64% of the boys and 75% of the girls reported that they had not engaged in any problem behaviors during the past year; at wave 3, these percentages had dropped to 41% for boys and 46% for girls. Most of the behaviors involved breaking curfews, lying, skipping school, and receiving in-school suspension. Very few youths reported serious behaviors such as fighting, shoplifting, or committing infractions that involved the police.

Although at wave 3 only 4% of the youths met the DISC–IV criteria for a diagnosis of clinical depression, 25% of the boys and 35% of the girls reported that they had experienced at least five depressive symptoms during the previous year. Of the entire sample, the symptoms that youths most frequently reported were irritability (20% boys, 45% girls), loss of appetite (25% boys, 44% girls), sleeping more (35%

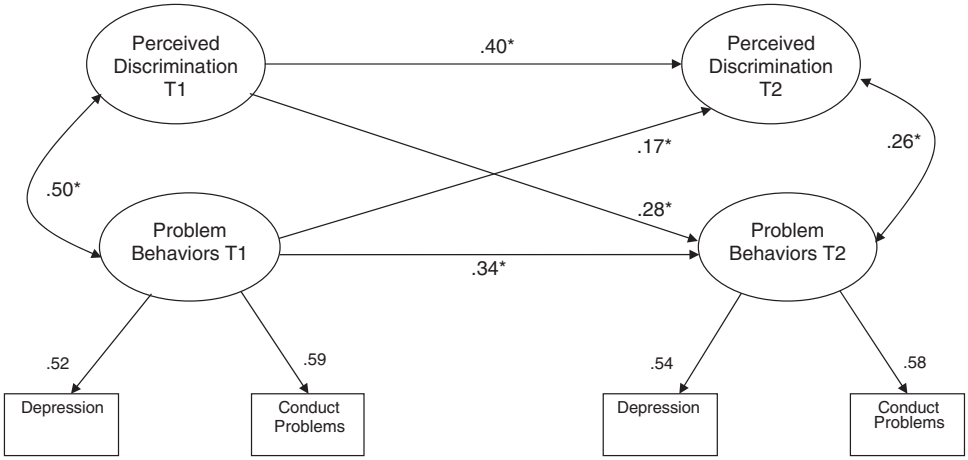

Figure 2. Cross-lag analysis for perceived discrimination, depression, and conduct problems.

boys, 41% girls) or less (25% boys, 36% girls) than usual, and difficulty concentrating (34% boys, 38% girls).

Discrimination and Youth Outcomes

The theoretical rationale for this study is based on the premise that perceptions of racial discrimination lead to conduct problems and emotional distress among youths rather than the reverse. To justify this rationale, we conducted a cross-lag analysis using the first two waves of data. Structural equation modeling (SEM) was conducted in which the cross-lags (e.g., wave 1 discrimination to wave 2 youth outcomes and wave 1 youth outcomes to wave 2 discrimination) were first constrained to be equal; the constrained model was then compared with one in which the two paths were free to vary. The non-constrained model, pictured in Figure 2, fit the data well, $\chi^2(3) = 2.44$, *ns*; CFI = 1.00. The root mean square error of approximation (RMSEA) was .00; 90% confidence interval (CI) = .00; .05. A significant reduction in chi-square from the constrained to the nonconstrained model indicates that one cross-lag is stronger than the other. In this case, both cross-lags were significant, but the path from perceived discrimination to youth outcomes was stronger than the path from youth outcomes to perceived discrimination. Chi-square was reduced significantly, from 9.05 ($df = 4$) to 2.44 ($df = 3$), a change of 6.61 ($df = 1$; $p < .01$).

Plan of Analysis for the Study Hypotheses

Latent growth curve modeling (LGM; Singer & Willett, 2003) was used to test the study hypotheses. Previous studies of the links between perceived discrimination and youth outcomes have included data collected at one or two time points. A youth's rank order regarding perceived discrimination was compared with his or her rank order on the outcomes of interest at the same time or at a later time. Such autoregressive procedures examine change over time by using residual change scores obtained by calculating the extent to which scores at one particular point in time differ from scores at a subsequent point in time. Thus, change is assessed relative to predicted scores. When three waves of data are available, LGC modeling uses these data points to determine a change in constructs within individuals, and then allows an examination of the predictors of differences among individuals in their rates of change. Applied to this study, LGC fits an ordinary least squares (OLS) regression line to the three data points for perceived discrimination, conduct problems, and depressive symptoms for each youth. The regression lines describe the growth or change in each construct for each youth over the course of the study. The intercept for each youth represents his or her level of each construct at wave 1. The slope of each line indicates the rate at which each construct changes across the three waves of data collection. This allows for a determination of the initial level of each construct and changes in each construct over time that are based on youths' actual data, and not on residual scores obtained at different points in time.

LGC calculates the mean and variance for the intercepts of the study constructs (values at wave 1) as well as the mean and intercept for the slopes. LGC modeling treats the constructs' intercepts and slopes as latent variables. The latent variable representing the initial level is defined by measurements at wave 1. Factor loadings for all the indicators for the initial

level are fixed to 1. The latent construct corresponding to change varies depending on the mathematical form being tested (e.g., linear, quadratic, and so forth). In this study, we used a linear model.

Testing the study hypotheses involved several steps. First, univariate growth curve analyses were executed to test the measurement model for the latent growth constructs (perceived discrimination, conduct problems, and depressive symptoms). The LGC model presented in Figure 1 was then evaluated to determine whether the hypothesized effects—that increases in individual trajectories of perceived discrimination would be linked to increases across 5 years in individual trajectories of conduct problems and depressive symptoms—were statistically significant and to ensure that the hypothesized model would be consistent with the data. The LGC model was then estimated separately for boys and girls and multigroup comparisons were used to detect any gender differences in the longitudinal links among perceived discrimination, conduct problems, and depressive symptoms. Finally, multigroup comparison procedures were used to test the hypothesis that significant associations between changes in perceived discrimination and changes in conduct problems and depressive symptoms would be less apparent for youths who received nurturant-involved parenting, evinced high levels of school efficacy, and associated with peers who encouraged involvement in prosocial activities.

LGC Modeling Analyses Linking Discrimination to Conduct Problems and Depressive Symptoms

We began by testing the measurement model for the latent growth constructs by fitting univariate growth curves for the variables of perceived discrimination, conduct problems, and depressive symptoms. The latent growth model comprises two constructs: one represents the intercept, or initial level, of these variables and the other represents their slope, or rate of change. The measurement model was based on reported levels of the variables at waves 1, 2, and 3. A test of the measurement model for the latent growth constructs was conducted, with the intercept construct specified by setting factor loadings for each of the reported levels of the three variables under consideration to 1. The slope construct was specified by setting the loadings to 0, 1, and 2, reflecting the approximately equal spacing of assessments over time. Table 2 presents the intercept, intercept variance, slope, slope variance, and model fit indices for the univariate growth curve analyses.

The linear growth curve for perceived discrimination across the three waves of data showed an acceptable fit: $\chi^2(1) = 7.86$, $p = .000$; CFI = .98; RMSEA = .08 (CI = .02; .10). The mean initial SRE score was 21.13 and the mean change across data collection waves was an increase of .30 per year. As the data in Table 2 reveal, the variances for both the intercept and the slope were statistically significant, indicating significant variability around the means and variances for the intercept and slope constructs.

The growth curve for conduct problems also showed an acceptable fit: $\chi^2(1) = 14.00$, $p = .001$; CFI = .93; RMSEA = .10 (CI = .06; .12). The mean initial DISC–IV Conduct Problems score was .60 and the mean change was an increase of .19 per year. Again, the variances for both the intercept and slope were statistically significant (see Table 2).

The linear model for depression showed an adequate fit: $\chi^2(1) = 19.30$, $p = .001$; CFI = .88; RMSEA = .11 (CI = .08; .13). The mean initial DISC–IV Depression score was 6.11 and the mean change was

Table 2
Univariate Growth Curve Models

	Intercept	Variance of intercept	Slope	Variance of slope	Model fit index
Perceived discrimination	21.13**	32.42**	0.30**	2.27**	$\chi^2 = 7.86$, $df = 1$, $p = .005$ CFI = 0.98 RMSEA = .08 (CI = .02; .10)
Conduct problems	0.60**	0.72**	0.19**	0.08**	$\chi^2 = 10.98$ $df = 1$, $p = .001$ CFI = 0.95 RMSEA = .10 (CI = .06; .12)
Depression	6.11**	8.85**	− 0.06	0.60**	$\chi^2 = 19.30$, $df = 1$, $p = .001$ CFI = 0.88 RMSEA = .11 (CI = .08; .13)

Note. CFI = comparative fit index; RMSEA = root mean square error of approximation.
**$p < .01$.

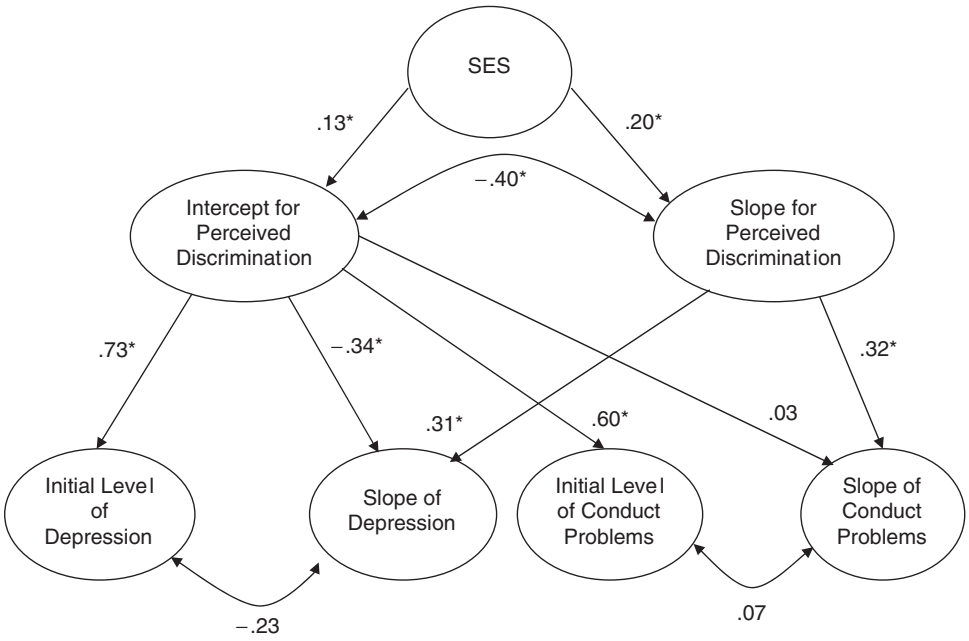

Figure 3. Latent growth curve test of the effect of perceived discrimination on depression and conduct problems.

−.06. This slope coefficient was not statistically significant, suggesting that, on average, youths' depression levels did not change across the 5 years of the study. The variances for both the intercept and slope, however, were statistically significant. This indicates substantial variability in the slope, in which the number of youths whose depressive symptoms increased was approximately equal to the number whose symptoms decreased.

Having fit univariate growth curves to the three longitudinal variables, the next step involved testing the multivariate model depicted in Figure 1. This model examined the extent to which the initial level of perceived discrimination assessed at wave 1 and increases in perceived discrimination over time (slope of perceived discrimination) predicted the initial levels of conduct problems and depression assessed at wave 1 and their increases over time (slopes of conduct problems and depression). The results are presented in Figure 3. The model showed an adequate fit to the data: $\chi^2(36) = 153.63$, $p < .01$; CFI = .90; RMSEA = .06 (CI = .05; .08). As expected, the wave 1 intercept for perceived discrimination was significantly correlated with those for conduct problems and depressive symptoms. This is consistent with past studies, reviewed previously, in which these associations emerged contemporaneously. The intercept for perceived discrimination was not significantly associated with the slope for conduct problems, but it was associated significantly and negatively with the slope for depressive symptoms. This suggests a "ceiling effect" in which youths who experience higher levels of discrimination during late childhood are less likely to develop additional depressive symptoms over time than those who initially experience less discrimination. As a check of this interpretation, an OLS regression line was fitted to the three waves of data on depressive symptoms for youths who scored in the top and bottom thirds of the sample on the SRE at wave 1. The regression line was steeper for youths reporting fewer depressive symptoms at wave 1, which is consistent with our interpretation. The analysis presented in Figure 3 also tested the hypothesis that the slope for perceived discrimination would forecast the slopes for conduct problems and depressive symptoms. Consistent with the hypothesis, increases in perceived discrimination from late childhood through early adolescence were linked with the development of conduct problems and depressive symptoms among African American youths.

A measure of SES that was aggregated across the three waves was included as an exogenous control variable to determine whether the paths illustrated in Figure 3 would change when links from SES were added to each parameter in the model. Although the endogenous effects remained unchanged, SES was associated negatively with the intercept, but positively with the slope, for perceived discrimination. Youths from higher-SES families reported lower levels of perceived discrimination at wave 1 and

greater increases in perceived discrimination from waves 1 to 3 than did youths from families of lower SES. These results suggest that a higher-SES family context may have protected youths from perceiving discrimination during late childhood, but with time the youths became more likely to perceive discriminatory situations. Prior research has shown that, among African American adults, SES is positively associated with discriminatory experiences (Kessler et al., 1999; Williams & Chung, in press). Ours is the first longitudinal study that documents this association among African American youths. The paths from the slope for perceived discrimination to the slopes for conduct problems and depressive symptoms did not change with SES controlled; this suggests that the relation between discrimination and African American youths' mental health is not an artifact of SES.

A secondary purpose of this study was to determine whether perceived discrimination is linked to the development of youth outcomes after controlling for parenting processes, affiliation with prosocial peers, and school efficacy. Because these processes have been shown to be linked, directly or indirectly, with youth conduct problems and depressive symptoms, they could confound the associations that emerged from the previous analysis. We predicted that increases in perceived discrimination over time would be positively related to African American youths' development of conduct problems and depressive symptoms after controlling for the aforementioned variables. The model depicted in Figure 2 was then re-executed with the time-varying parenting, prosocial peer, and school efficacy indicators added to the intercepts and slopes for the youth outcome variables. The model fit the data adequately: $\chi^2(42) = 169.35$, $p < .01$; CFI = .90; RMSEA = .07 (CI = .06; .09). The addition of these parameters did not change any of the results depicted in Figure 3; the slope for perceived discrimination predicted the development of conduct problems and depressive symptoms even when nurturant-involved parenting, affiliation with prosocial peers, and school efficacy were controlled.

Gender differences. The model presented in Figure 3 was rerun separately for boys and girls to determine whether gender differences would emerge in the results obtained for the full sample. The models fit the data well for both boys and girls: for boys, $\chi^2(31) = 77.22$, $p < .001$, CFI = 90, RMSEA = .06 (CI = .04; .07); for girls, $\chi^2(27) = 91.84$, $p < .01$, CFI = 90, RMSEA = .07 (CI = .05; .08). Multigroup analyses using Mplus 3.0 (Muthén & Muthén, 2004) were used to determine whether any of the specific paths depicted in Figure 2 varied according to youth gender. A two-group invariance model was estimated by imposing equality constraints on every path coefficient. We then relaxed one path in the constrained model at a time and compared it with the constrained path via chi-square, $df = 1$. This procedure was repeated for each path in the model, yielding independent comparisons in which the order of comparisons did not influence the test results. A change in chi-square between the constrained path and the relaxed path indicates a gender difference. The analyses revealed two paths for which chi-square was reduced significantly: the path from the slope for perceived discrimination to the slope for conduct problems, $\Delta\chi^2(1) = 7.88$, $p < .05$; and the path from the intercept for perceived discrimination to the intercept for conduct problems, $\Delta\chi^2(1) = 12.47$, $p < .001$. The association between the slopes for perceived discrimination and conduct problems was stronger for boys than for girls; standardized path coefficients were .55 for boys and .10 for girls. The association between the intercepts for perceived discrimination and conduct problems was also stronger for boys; standardized path coefficients were .73 for boys and .37 for girls. The link between perceived discrimination and depressive symptoms did not vary by gender.

Tests for Moderation Effects of Parenting, School Efficacy, and Prosocial Peers

We hypothesized that African American youths' vulnerability to the development of conduct problems and depressive symptoms as a consequence of perceived discrimination would be moderated by nurturant-involved parenting, affiliation with prosocial peers, and school efficacy. To test this hypothesis, multiple group analyses were conducted separately for each moderator. The sample was divided via median splits; for parenting and school efficacy, the median splits were derived from data aggregated across three waves, whereas the median split for affiliation with prosocial peers was based on two waves of aggregated data. A base model was determined through inputting covariance matrices and mean vectors for the subgroups and estimating the model in Figure 3 simultaneously in both subgroups with no constraints (Jaccard & Wan, 1996; Jöreskog & Sörbom, 1996, see Chapter 9; Muthén & Muthén, 2004; Singer & Willett 2003). We then imposed equality constraints to determine whether constraining the coefficients to be equal across the moderator subgroups would degrade the fit of the multiple group model as indicated by an increase in

Table 3
Results of Multigroup Moderational Analyses

Moderators	Model	Level	UPC	$\Delta\chi^2$ (p)
Slope of discrimination to slope of depression				
Nurturant-involved parenting	Equal across group	Low	0.17	Con: 204.63 $df = 59$
		High	0.17	Base: 191.23 $df = 60$
	Free across group	Low	1.69	Diff: 13.40 (.001)
		High	0.10	
School efficacy	Equal across group	Low	1.15	Con: 214.82 $df = 59$
		High	1.15	Base: 202.38 $df = 60$
	Free across group	Low	1.80	Diff: 12.44 (.001)
		High	0.30	
Prosocial peers	Equal across group	Low	0.21	Con: 201.40 $df = 59$
		High	0.21	Base: 187.96 $df = 60$
	Free across group	Low	1.26	Diff: 13.43 (.001)
		High	0.11	
Initial level of discrimination to initial level of conduct problems				
Nurturant-involved parenting	Equal across group	Low	0.11	Con: 207.72 $df = 59$
		High	0.11	Base: 191.23 $df = 60$
	Free across group	Low	0.11	Diff: 16.50 (.001)
		High	0.01	
School efficacy	Equal across group	Low	0.08	Con: 211.16 $df = 59$
		High	0.08	Base: 202.38 $df = 60$
	Free across group	Low	0.10	Diff: 8.78 (.003)
		High	0.03	
Slope of discrimination to slope of conduct problems				
Nurturant-involved parenting	Equal across group	Low	0.08	Con: 204.11 $df = 59$
		High	0.08	Base: 191.23 $df = 60$
	Free across group	Low	0.90	Diff: 12.88 (.001)
		High	0.06	
School efficacy	Equal across group	Low	0.08	Con: 225.05 $df = 59$
		High	0.08	Base: 202.38 $df = 60$
	Free across group	Low	3.54	Diff: 22.68 (.001)
		High	0.06	
Prosocial peers	Equal across group	Low	0.09	Con: 201.72 $df = 59$
		High	0.09	Base: 187.96 $df = 60$
	Free across group	Low	0.74	Diff: 13.75 (.001)
		High	0.05	

Note. UPC = unstandardized path coefficients; Con = constrained model; Base = unconstrained base model; Diff = difference between constrained and base models.

chi-square over that of the base model with degrees of freedom equal to the number of parameters constrained. A significant difference in chi-square would indicate a moderation effect.

Table 3 presents the results of the multigroup analyses. To conserve space, only the associations for which multigroup differences emerged are included in the table. Each of the hypothesized moderators produced a reduction in chi-square: for nurturant-involved parenting, $\Delta\chi^2(1) = 12.88$, $p < .01$; for school efficacy, $\Delta\chi^2(1) = 22.68$, $p < .01$; for affiliation with prosocial peers, $\Delta\chi^2(1) = 13.75$, $p < .01$. These results indicate that the effect of perceived discrimination on the development of conduct problems was significantly weaker for youths in the high groups for nurturant-involved parenting, school efficacy, and affiliation with prosocial peers. When we allowed the path between the slope for perceived discrimination and the slope for depressive symptoms to vary across nurturant-involved parenting, affiliation with prosocial peers, and school efficacy, the model's fit to the data improved further: $\Delta\chi^2(1) = 13.40$, $p < .01$; $\Delta\chi^2(1) = 13.43$, $p < .01$; and $\Delta\chi^2(1) = 12.44$, $p < .01$, respectively. The association between increases in perceived discrimination and the development of depressive symptoms was significantly

weaker among youths who received high levels of nurturant-involved parenting and whose friends encouraged involvement in prosocial activities.

Finally, the multigroup analysis also detected a significant reduction in chi-square and model fit improved when the path from the intercept for perceived discrimination to the intercept for conduct problems was allowed to vary. Significant reductions in chi-square resulted for nurturant-involved parenting, $\Delta\chi^2(1) = 16.50$, $p < .001$, and school efficacy, $\Delta\chi^2(1) = 8.78$, $p < .003$. Thus, the association of the intercepts for perceived discrimination and conduct problems at wave 1 was weaker for youths in the high nurturant-involved parenting and school efficacy groups. Affiliation with prosocial peers did not moderate this link.

Discussion

Using a longitudinal design, we tested an LGC model of the links from perceived discrimination to conduct problems and depressive symptoms among African American youths across late childhood and early adolescence. The results indicated that (a) increases across late childhood and early adolescence in perceived discrimination were linked positively with the development of conduct problems and depressive symptoms; (b) youths from higher-SES families were more likely to experience increases in perceived discrimination over time; (c) the link between the growth trajectories for perceived discrimination and conduct problems was stronger for boys than for girls, but no gender differences emerged for depressive symptoms; and (d) the impact of perceived discrimination on the outcome variables was reduced when youths received nurturant-involved parenting, had prosocial friends, and performed well in school.

The basic growth model indicated that the intercepts and slopes for perceived discrimination were significantly related to those for the outcome variables across early adolescence; these effects were independent of socioeconomic characteristics. The analyses also indicated that the slope for perceived discrimination predicted conduct problems and depressive symptoms even with nurturant-involved parenting, affiliation with prosocial peers, and school efficacy controlled. These results are consistent with contemporaneous and short-term longitudinal studies, reviewed previously, in which variations in perceived discrimination were linked to variations in youths' mental health. Thus, as Clark et al. (1999) proposed, effects derived from increases in perceived discrimination constitute an important contributor to African American youths' adjustment.

The findings from the LGC model raise questions about the risk mediation mechanisms through which perceived discrimination contributes to youth outcomes. Simons et al. (2003) suggested an emotional mechanism in which anger and belief in the legitimacy of violence act as indirect links connecting perceived discrimination with conduct problems. Both sociological (Elliott et al., 1985) and psychological (Patterson et al., 1989) theorists suggest that, after perceived discrimination elicits these attitudes, youths become likely to affiliate with peers who have similar outlooks. Social selection effects such as these lead to social influence effects, which further influence conduct problems (Menard & Elliott, 1994; Thornberry & Krohn, 1997). The development of depressive symptoms could be related to similar mechanisms or to different ones (Capaldi & Patterson, 1991; Ge et al., 1992). Allport (1954) contended that one's reputation, whether or not it is a correct representation of one's actual characteristics, cannot be "hammered into one's head without doing something to one's character" (p. 142). This assertion suggests that those at the receiving end of discrimination can, over time, come to internalize the discriminators' views. The psychological cost of striving to maintain a positive sense of self while facing frequent exposure to discriminatory experiences can tax youths' coping resources, resulting in disillusionment, depression, and anxiety (Brown et al., 2000; Williams et al., 1997). Understanding the risk mediation processes that connect perceived discrimination to youth outcomes is beyond the scope of this study. Researchers interested in African American children's and adolescents' mental health, however, should focus on these dynamics.

One of the primary purposes of this study was to determine whether parenting, peer, and school processes reduce the impact of perceived discrimination on African American youths' adjustment. The results of multigroup analyses indicated that the longitudinal links of perceived discrimination with youth conduct problems were reduced among youths who received nurturant-involved parenting, had prosocial friends, or experienced high levels of school efficacy. These results extend findings from contemporaneous analyses, in which parental racial socialization processes reduced the effects of discrimination on African American children (García Coll et al., 1996), by demonstrating with a longitudinal research design the importance of context in buffering African American youths from the vulnerability that discriminatory experiences induce.

Notably, these moderation effects were strong. One index of their effect size is the comparative magnitude of coefficients (Jaccard & Wan, 1996). In the multiple group models, the effect size shown by the coefficient between perceived discrimination and youth outcomes in the ''low'' protective context groups was two to three times as large as the coefficient in the ''high'' groups. The magnitude of these moderation effects is comparable to the impact of effective prevention programs (Brody et al., 2004).

The results of the moderational analyses are also pertinent to research on youth resilience, which indicates that some children who experience many discrete and chronic stressors do not succumb to their negative effects. Similar to the youths in the present study, these children have supportive relationships with parents or extrafamilial adults who vigilantly monitor the children's whereabouts and know their friends (Brody et al., 2002; Luthar, 2006; Werner & Smith, 1982; Wyman, Cowen, Work, & Parker, 1991). Our findings are consistent with this literature and extend it by documenting the contributions that prosocial peer affiliations and school efficacy make to youths' ability to resist the effects of perceived discrimination. The next step in this research process is to identify the ways in which the moderators in this study foster protection from discrimination. Future researchers can explore several possible mechanisms, such as rejection of the negative messages about the self that discriminatory experiences contain; planful, self-regulated behavior; emotion regulation; non-anger-based coping strategies; and a future time orientation. We expect the parenting, peer, and school moderators to promote the development of these intraindividual processes, which in turn are hypothesized to minimize the effects of racial discrimination (see Brody et al., 2005; Murry et al., 2005).

Caution should be used, however, in extending the results of the moderation analyses to all African American youths. Some youths who seem to be resilient may not be as adaptable as they appear; still others may be resilient in some areas but experience distress in other domains. Research with children who have been maltreated (Farber & Egeland, 1987), whose mothers have depression (Hammen, 2003), and whose parents have alcoholism (Zucker, Wong, Puttler, & Fitzgerald, 2003) support this caveat. Even youths who are well-adjusted behaviorally and emotionally can have their resilient trajectories derailed by other vulnerabilities that perceived discrimination induces.

We also investigated gender differences in the associations that we examined. Although gender has been identified as an important source of individual variability in stress and coping among members of ethnic minority groups (Clark et al., 1999; Slavin, Rainer, McCreary, & Gowda, 1991), few studies have examined gender differences in youths' responses to discrimination. We expected the link between the slopes for perceived discrimination and conduct problems to be stronger for boys and the link between the slopes for perceived discrimination and depression to be stronger for girls. The results supported the gendered hypothesis for conduct problems but not for depressive symptoms. This finding may reflect beliefs that aggression is a more acceptable and effective coping tactic for boys than for girls. It is also consistent with other studies in which boys were found to be more likely than girls to respond to life stress by losing inhibitory controls and expressing anger and frustration through their behavior (Hetherington, 1989; Rutter, 1990). The lack of gender differences for the link between the slopes for perceived discrimination and depressive symptoms suggests that perceived discriminatory experiences, especially when they are perceived as rooted in unjust treatment, affect boys and girls similarly in this domain.

Prior research had not examined the function of SES in determining whether youths experience an increase in perceived discrimination across late childhood and early adolescence. Building on research with African American adults, reviewed previously, we proposed that higher-SES youths would become more likely over time to interact with members of other racial groups, exposing them to more instances in which both overt and subtle instances of discrimination could take place. The positive association between SES and increases in perceived discrimination across early adolescence supports this hypothesis. These findings suggest that higher-SES African American youths may be more vulnerable to the negative effects of direct discriminatory experiences as a function of greater exposure to them, particularly if they are not prepared for such encounters (García Coll et al., 1996; Phinney et al., 1998). Future research should be designed to detect SES differences in rates of exposure to multiple kinds of perceived discrimination, including vicarious exposure through demeaning and stereotypic portrayals of African Americans in the media and perceived institutional discrimination that decreases access to competence-promoting school and community activities. Future research should also identify the mechanisms through which neighborhood and community processes are linked with a greater probability that youths from higher SES households

will perceive discrimination. These youths may live in more extensively integrated neighborhoods and attend more extensively integrated schools; as a consequence, they may come into more frequent contact with White youths and adults in school and community contexts, which may increase their opportunities for perceiving racial discrimination (Hamm, Brown, & Heck, 2005; Szalacha et al., 2003). These hypotheses await empirical verification.

Assessments of perceived discrimination, conduct problems, and depressive symptoms were obtained from the youths at each wave of data collection. The decision to depend on youth reports for these constructs was based on the research literature and on our own longitudinal research program with rural African American families. Analyses of primary caregivers' assessments of target youths' mental health outcomes in our previous studies revealed that caregivers reported a decrease or plateau in conduct problems and depressive symptoms as the youths made the transition from childhood to adolescence. The youths' self-reports, however, did not correspond to this pattern; instead, they evinced increases in both conduct problems and depressive symptoms. We interpreted this discrepancy as underreporting of behavioral and emotional problems on the caregivers' part as their children grew older. Hartung, McCarthy, Milich, and Martin (2005) and Lahey et al. (2000) obtained similar results and maintained that, as youths mature, they spend more time away from home, out of their parents' presence; consequently, parents' reports probably constitute accurate assessments of youths' behavior at home, whereas youths' reports encompass their behavior at home, in school, and in unstructured peer interactions. A second and related concern that common method variance could account for the findings obtained was addressed through the execution of a cross-lag analysis. This procedure demonstrated that perceived discrimination led to stronger changes in youth outcomes than vice versa, supporting our hypothesis. This result would not have emerged if common method variance among perceived discrimination, conduct problems, and depressive symptoms was responsible for the findings we obtained.

Most research on the effects of perceived discrimination and other contextual factors on the adjustment of African American youths has focused on those living in densely populated inner cities. African Americans, however, grow up in diverse communities. The present study was conducted with African American families who resided in nonmetropolitan areas that were far less densely populated than urban settings. Racial discrimination is as likely to operate in small or moderately sized communities as in large urban areas. Regardless of population size or rural–urban location, when children and adolescents experience racial discrimination, challenges to their mental health increase.

Despite the strengths of the research design, limitations of this study and some caveats must be noted. First, models that include moderators other than those in the present model could also confer protective effects; racial socialization in particular should be included in future studies. Second, the study did not focus on the risk mediation mechanisms that link perceived discrimination to youth adjustment outcomes. To advance understanding of these processes, future studies should incorporate measures that index youth-related variables such as chronic anger, beliefs about the legitimacy of aggression, self-efficacy, and differential peer affiliation processes. Third, future studies should include a measure of attributional processes. If youths have tendencies to overperceive threat or bias, these tendencies could contribute both to misperceptions of racial discrimination and to conduct problems and depressive symptoms. Fourth, because fewer than 5% of the participants displayed clinical levels of conduct problems or depressive symptoms, additional research is needed to determine the extent to which our findings can be generalized to youths who meet clinical criteria. These cautions notwithstanding, the present results add to the literature by documenting links from perceived discrimination to the development of conduct problems and depressive symptoms among African American youths throughout early adolescence.

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