Race and Gender Influences on Adjustment in Early Adolescence: Investigation of an Integrative Model

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This research investigated an integrative model of race- and gender-related influences on adjustment during early adolescence using a sample of 350 Black and White youth. In the proposed model, prejudice/discrimination events, as well as race and gender daily hassles, contribute to a general stress context. The stress context, in turn, influences levels of emotional and behavioral problems in adjustment, with these associations mediated (in part) by intervening effects on self-esteem. Racial and gender identity similarly have positive effects on adjustment via their intermediary linkages with self-esteem. Structural equation modeling analyses provided support for all of these aspects of the model. Findings also revealed theoretically predicted differences in model parameters across race by gender subgroups. These include a direct effect of prejudice/discrimination events on emotional problems specific to Black youth and an effect of gender identity on self-esteem specific to girls. Black girls appeared to be most vulnerable to exhibiting significant adjustment difficulties as a result of the processes under investigation.

INTRODUCTION

In recent years there has been increasing interest in race- and gender-related influences on youth adjustment. There is growing appreciation that a better understanding of concerns in these areas will be necessary not only for promoting optimal individual development, but also for meeting the nation’s social and economic needs (Cauce, Coronado, & Watson, 1998; McLoyd, 1998; Sue, Bingham, Porche-Burké, & Vasquez, 1999). Contemporary theory and research reflects a shift from studying race and gender as static, relatively isolated indicators to examining their mutual implications for youth adjustment within more process-oriented, integrative frameworks (Clark, Anderson, Clark, & Williams, 1999; Frable, 1997; N. G. Johnson, Roberts, & Worell, 1999; McLoey & Steinberg, 1998; Nettles & Pleck, 1996). Using this approach, contextual and psychological experiences of group members can be considered in relation to normative processes of adaptation within specific periods or stages of development (McLoey, 1998). Several factors point to early adolescence as a period of particular importance for issues pertaining to race (McLoey & Steinberg, 1998; Phinney, 1990) and gender (Department of Health and Human Services, 2000; N. G. Johnson et al., 1999). These include increased exposure to others of differing backgrounds at this age (Petersen, 1988), stage-specific concerns such as puberty and dating (Compas, 1995; Compas, Hinden, & Gerhardt, 1995), and the emerging salience of group identity (e.g., racial/ethnic) in processes of self-understanding (Hill & Lynch, 1983; Quintana, 1998). The present research investigates a process-oriented, integrative model of race- and gender-related influences on the emotional and behavioral adjustment of Black and White young adolescents (see Figure 1).

Stressful Experiences

Exposure to prejudice or discrimination on the basis of race or gender has been found to be associated with less favorable levels of mental health and adjustment in several studies (for reviews, see Albee & Perry, 1998; Clark et al., 1999; Contrada et al., 2000; Pugliesi, 1992; C. E. Thompson & Neville, 1999). Numerous important issues, however, are in need of clarification regarding these associations. Prior research has focused nearly exclusively, for example, on older adolescent (i.e., college student) and adult samples. As a result, little is known about the adjustment implications of prejudice or discrimination experiences for younger age groups. Vulnerability of young adolescents, in particular, would be consistent with their potential to experience significant levels of both racism and sexism (Leadbeater & Way, 1996; McLoyd & Steinberg, 1998), despite still-evolving skills for coping with such experiences (Sandler & Twohey, 1998).

A second concern is the prevailing tendency to investigate prejudice and discrimination as sources of stress only for those groups expected to be most vulnerable to their effects. This is reflected in a focus on racial or ethnic minorities in the case of stressors that have a racial component, and a primary concern with
females when considering negative experiences relating to gender. These emphases are consistent with the status of minorities and females as oppressed or stigmatized groups within larger society. Still, it should not be assumed that theoretically less vulnerable groups are necessarily immune from the negative effects of such stressors (Clark et al., 1999). In a recent investigation of adults (Williams, Yu, Jackson, & Anderson, 1997), for example, it was found that exposure to race-related stress was an equally strong predictor of psychological distress for Whites as it was for Blacks. Especially when extending research to new age groups, it thus would seem imperative to consider whether nonminorities are susceptible to negative effects of race-related stressors and whether males are affected by those with gender salience.

A third issue in need of greater understanding is the nature and significance of interrelations among differing types of stressors involving prejudice or discrimination. The distinction between major life events and relatively more minor, but potentially recurrent sources of stress (often referred to as “daily hassles”) is well-established in the broader stress literature for children and adolescents (Compas, 1987, 1995). Major events frequently result in increased levels of day-to-day stress, however, thus accounting, at least in part, for the effects of such events on youth adjustment (Compas, 1995). This suggests that the adaptive consequences of larger incidents of prejudice or discrimination may be mediated by subsequent social and environmental experiences (e.g., responses of others) that stem from these events (C. E. Thompson & Neville, 1999). The extent to which the latter experiences constitute sources of stress can be expected to be the product of a dynamic interplay between characteristics of the situations involved and individual appraisal processes (Lazarus & Folkman, 1984). Their linkage to relatively more major, acute events therefore represents an important mechanism through which differences in the meaning and significance that youth ascribe to such incidents and their aftereffects may be manifested (C. E. Thompson & Neville, 1999). Based on these considerations, the proposed model includes contributions of prejudice/discrimination events to daily hassles involving both race and gender (see Figure 1). It can be seen, furthermore, that these linkages mediate (in part) the relation of the former types of events to adjustment outcomes.

A final issue is the linkage of prejudice and discrimination experiences, in turn, to more general or overall levels of stress experienced by youth. This is an important concern for at least two reasons. First, many types of events and situations involving prejudice or discrimination may exacerbate levels of stress in other areas (Albee & Perry, 1998; C. E. Thompson & Neville, 1999). Incidents of unfair treatment on the basis of race or gender in a particular setting (e.g., school), for example, may create significant additional obstacles to adaptation within that same context. Second, it is well-established that risk for negative adjustment outcomes increases during development with the accumulation of stressors across differing areas (Compas, 1995; Rutter, 1996). Based on these considerations, the confluence of prejudice/discrimination experiences with broader, more encompassing sources of stress seems a likely mechanism mediating their consequences for adaptation in early adolescence. In the proposed model, prejudice/discrimination events, as well as race and gender daily hassles, are thus assumed to influence adjustment via contributions to the general stress context (see Figure 1).

Figure 1  Integrative model of race- and gender-related influences on adjustment during early adolescence.
Identity and Self-Esteem

As conceptualized in the seminal theoretical work of Tajfel (1978, 1981), social identity is a central part of the self-concept based on identification with specific groups. Through processes involving social comparison and exposure to group norms in decision-making and behavior, individuals have the potential to cultivate a positive group identity and a sense of the distinctiveness and value of the group(s) of which they are members (Tajfel, 1981). Application of these concepts to race and ethnicity has emphasized the importance of self-identification, exploration, learning about group customs and behaviors, and a sense of belonging to and pride in one’s group as the basis for a positive racial or ethnic identity (Phinney, 1990; Spencer & Markstrom-Adams, 1990). Components of a strong gender identity similarly may include identification with other women (or men), personal and public gender esteem, and critical awareness of the influence of gender roles and stereotypes in larger society (Martin, 1999; Michaelieu, 1997).

A positive racial or ethnic identity has been found to be associated with more favorable scores on indices of adjustment in several studies of older adolescents and adults (Bates, Beauvais, & Trimble, 1997; Brook, Whiteman, Balka, Win, & Gursen, 1998; Grossman, Wirt, & Davids, 1985; Munford, 1994; Pyant & Yanico, 1991; Rotheram-Borus, 1990; Zimmerman, Ramirez, Washienko, Walter, & Dyer, 1998). Paralleling research in the stress area, it is less clear whether racial or ethnic identity retains a similar protective function at earlier stages of development. It seems reasonable to expect, however, that benefits would extend at least to early adolescence, when identity exploration and formation processes begin to intensify (Adams, 1992; Phinney, 1989; Quintana, 1998). A further limitation of available studies, again similar to the stress area, is their nearly exclusively focus on members of racial or ethnic minority groups (e.g., Black). Despite this omission, it has been noted that a positive racial identity may be of significant benefit not only to members of minority groups, but also members of the White majority (Helms, 1990; Phinney, 1996).

Investigations of gender identity and its implications for adjustment involve primarily clinical populations (i.e., those diagnosed with gender identity disorders; see Money & Lehne, 1999). These studies necessarily are of limited usefulness for understanding the adaptive significance of less extreme, more normative variations in attitudes about gender group membership. The adjustment correlates of sex role orientation also have received considerable attention (for a review, see Markstrom-Adams, 1989). Measures used in this research, however, focused on the extent to which participants endorsed traditional masculine and feminine traits rather than gender identity as indicated by valuing of and commitment to one’s gender group (Michaelieu, 1997). Positive adaptive correlates of a strong gender identity as assessed from the latter perspective have been reported for older female, primarily White adolescents (i.e., college students; Kennedy, 1993; Michaelieu, 1997). Theoretically, there is a basis for expecting such benefits to extend to earlier periods of adolescence (N. G. Johnson et al., 1999) as well as to a broader cross-section of youth, including members of minority groups (Leadbeater & Way, 1996) and possibly males (Carlock, 1999; Good, Borst, & Wallace, 1994).

There has been little investigation of the combined implications of racial and gender identity for adjustment or how these linkages may be mediated by other self-system processes. Enhancement of overall feelings of self-regard (i.e., global self-esteem), however, appears to be one of the most consistent benefits associated with having a positive identity relating to race (Allen, Howard, & Grimes, 1997; Phinney & Rosenthal, 1992) or gender (Michaelieu, 1997). Theoretically, as distinct and salient components of personal identity (Frable, 1997), racial and gender identity each may contribute to a broader, more encompassing sense of favorable self-regard. In the proposed model, the two types of identity thus are assumed to independently and positively influence self-esteem. Because overall feelings of self-worth function as a central organizational component of the self-system (Harter, 1999), these linkages with self-esteem are expected to represent the primary mechanism through which racial and gender identity influence youth emotional and behavioral adjustment (see Figure 1).

Influences of Stress on Identity and Self-Esteem

A process-oriented, integrative framework of race- and gender-related influences on adjustment in early adolescence also requires consideration of linkages between stressful experiences and processes of identity and self-esteem. Racial and gender group affiliations as “ego-extensions” (Rosenberg, 1979) may make youth susceptible to feelings of shame and hence disidentification when they have negative experiences relating to group membership. Stress processes leading to stronger sense of identity, however, also have been described. In Cross’ (1995) theory of Nigrescence, for example, an identity based on valuing Black culture and history can be strengthened by unfavorable “encounters” relevant to race (e.g., experiences of discrimination), in part because these provide...
opportunities for reconsideration of an identity in which being Black has low salience or is devalued. Studies conducted with college-age and adult populations provide some support for both possibilities (Branscombe, 1998; Chambers et al., 1998; V. L. S. Thompson, 1996). Based on these considerations, the proposed model assumes that stress experiences relating to race and gender (i.e., race daily hassles and gender daily hassles) may exert either a primarily positive or negative influence on corresponding aspects of personal identity in early adolescence. A related feature of the model is that effects of the general stress context on emotional and behavioral adjustment are mediated (in part) by negative effects on global self-esteem (see Figure 1). Thus, to the extent that experiences of prejudice or discrimination contribute to an overall heightened exposure to stress, this is expected to have negative consequences at a correspondingly general level of the self-system (DuBois & Tevendale, 1999).

Present Study

In the present study, structural equation modeling (SEM) was used to investigate all features of the proposed model within an integrative framework of analysis. The sample included approximately equal numbers of youth in each of four race by gender subgroups (i.e., Black males and females as well as White males and females). Accordingly, it was well-suited to investigating both race and gender as moderators of the strength of hypothesized relations. This aspect of the research extends previous studies, furthermore, by allowing for consideration of race-related influences among nonminority, White youth and gender-related influences among males.

METHOD

School and Community Context

Youth participating in the research were attending grades 5 through 8 in the public school system of a medium-sized Midwestern city (population approximately 70,000). Schools in the district included 18 elementary schools (grades K–5), 3 middle schools (grades 6–7), and 3 junior high schools (grades 8–9), all of whom participated in the research. At the time the research was conducted, racial composition of the student population at the targeted grade levels within the district was 80% White, 16% Black, and 4% other non-Black minority backgrounds. The proportion of minority students varied substantially by school for those who were in grade 5 and thus still attending elementary school (range = 0–46% Black students), but was relatively consistent across both middle schools (14–18% Black students) and junior high schools (15–21% Black students). Only approximately 5% of certified teaching staff in the district were members of minority groups, although nearly one third (31%) of support staff had minority backgrounds; minority staff in both categories were predominantly Black. In terms of gender, approximately 90% of teachers were female at the elementary school level and between 75% and 80% were female in middle and junior high schools.

The city served by the school district was surrounded by numerous smaller, predominantly White, rural communities that maintained separate school systems. Neighborhoods within the city ranged from low income (e.g., public housing) to upper middle income; most had predominantly Black or White populations, despite evidence of racial integration in some areas of the city. Historically, segregation had been practiced in the community as late as the 1960s. In recent years, race-related incidents and concerns had continued to arise with some regularity. A community survey on race relations conducted shortly before the present research took place revealed significant differences in the perceptions of White and Black residents (Mayor’s Columbia Race Relations Task Force, 1996). Most Whites (81%), for example, reported that White people generally treated Black people well in the community, whereas just under one half of Blacks (46%) felt this to be true. A majority of each race, moreover, acknowledged the presence of at least some racial discrimination in the community (52% of Whites; 82% of Blacks).

Sample

The sample for the present research consisted of 350 youth who participated in an initial, baseline assessment for a planned longitudinal study. Youth were selected randomly for possible participation from the public school system described previously. Selection was stratified, however, in an effort to include equal numbers of youth within relevant categories of each of the following demographic and background characteristics: gender, race (White and Black/African American), developmental level (pre-adolescent—grades 5 and 6, and early adolescent—grades 7 and 8), and family income level (low- and non-low-income status, as indicated by parent-reported annual family income of $20,000 or less). A further effort was made to balance selection across differing combinations of these characteristics (e.g., preadolescent Black females from low-income families). The participating...
school system provided the information necessary for selection on the basis of gender, race, and developmental level. Data on family income were not available from the school system. As an alternative strategy for this selection factor, U.S. Census Bureau data were used to identify prevailing levels of family income within differing areas of the city (i.e., block groups). For purposes of sample selection, these data then were combined with student home address information to provide an indirect indication of likely family income status for each youth. As noted, actual family income status for each study participant ultimately was determined directly on the basis of parent-reported data obtained at the initial time of assessment.

The resulting sample of 350 youth included 170 boys and 180 girls, 160 White and 190 Black youth, 189 preadolescents and 161 early adolescents, and 173 and 177 youth from low-income and non-low-income families, respectively. Limited proportions of both White youth (n = 20; 12.5%) and Black youth (n = 25; 13.2%), when provided with the opportunity to self-identify their race/ethnicity flexibly on the survey instrument, indicated one or more additional designations other than White/European American or Black/African American, respectively (e.g., biracial, ethnic affiliations, and so forth). Because their small numbers precluded separate analysis, these youth were combined with other White and Black youth for study analyses. With respect to race by gender subgroups, the sample included 89 Black males, 81 White males, 101 Black females, and 79 White females. Of further note, despite the effort to balance sample selection across differing combinations of demographic characteristics, there remained a significantly greater representation of low-income families among Black youth (n = 113 of 190; 59.5%) as compared with White youth (n = 60 of 160; 37.5%), χ²(1, N = 350) = 16.78, p < .001.

Procedure

Participation required both parent or guardian consent and youth assent. Following an initial mailing that described the study, parents and youth were contacted by phone and, when necessary, by home visits to discuss possible participation. Transportation to questionnaire sessions was offered to reduce obstacles to participation among youth from low-income families. To facilitate participation of minority youth, research team members from minority backgrounds were involved as much as possible in making initial contacts with these youth and their parents. Using these procedures, consent for participation was obtained for approximately 60% of those youth who were selected and able to be contacted. This overall rate of participation compares favorably with other research that involved youth from similar demographic backgrounds (e.g., Seidman, Allen, Aber, Mitchell, & Feinman, 1994). The consent rate, furthermore, was similar across differing race by gender subgroups in the sample (range = 58% for White males–65% for Black females) as well as preadolescent and early adolescent age groups (59% and 64%, respectively).

Youth completed their initial assessment for the research on a rolling basis as they were recruited into the study during a 3-month period in the first half of the school year (i.e., late September through December); as noted previously, it was data from this first, baseline assessment that were used in the present investigation. Questionnaires were administered to youth during 2-hr group sessions on Saturdays and in individually scheduled sessions as necessary. In all sessions, instructions and items were read aloud to youth to ensure that reading level did not interfere with accurate completion of measures. Youth did not place their names on questionnaires and were assured of the confidentiality of their responses within ethical guidelines.

Measures

Stress. Revised versions of two well-validated instruments, the Daily Hassles Questionnaire (DHQ; Rowlison & Felner, 1988) and the Life Events Checklist (LEC; J. H. Johnson, 1986), were used to derive the following measures of stress for use in primary study analyses: race daily hassles, gender daily hassles, prejudice/discrimination events, and general stress context. The DHQ is designed for use with older children and adolescents and is patterned after the original Daily Hassles Scale (Kanner, Coyne, Schaefer, & Lazarus, 1981). Items represent typical day-to-day concerns of school-age children and adolescents. Children and adolescents are instructed to indicate whether each event or situation occurred during the past month and, if it did, to rate the extent to which it was a hassle using a 4-point rating scale ranging from 0 (not at all a hassle) to 3 (a very big hassle). The revised version of the measure reflects results of further validation research and is designed to assess stressors in each of five targeted domains (i.e., school, family, peer relations, physical appearance, and sports/athletics; see DuBois, Felner, Brand, Phillips, & Lease, 1996; DuBois, Felner, Sherman, & Bull, 1994). For the present study, the revised DHQ was expanded to include additional stressors pertaining specifically to both race and gender. A total of 10 and 11 items representing race and gender stressors, respectively,
were added to the measure for this purpose. These items included events and situations relating to each of the five content domains noted previously: school (three items for race, e.g., “Were called names or insulted at school about your race/ethnicity”; and three items for gender, e.g., “Treated unfairly at school because you are a girl/boy”), family (one item for race, “Family member was called racist names or insulted about his/her race/ethnicity”; and two items for gender, e.g., “Were not allowed to do something at home because you are a girl/boy”), peers (three items for race, e.g., “Were excluded by other kids because of your race/ethnicity”; and three items for gender, e.g., “Were called names or teased by other kids about something having to do with being a girl/boy”), appearance (one item for race, “Experienced teasing or comments about your appearance having to do with your race/ethnicity”; and one item for gender, “Experienced teasing about your appearance having to do with being a girl/boy”), and sports/athletics (two items for race, e.g., “Were expected to be good or NOT be good at a sport just because of your race/ethnicity”; and two items for gender, e.g., “Were told you wouldn’t be any good at a sport because you are a girl/boy”). Separate scores were derived for race and gender daily hassles. Consistent with established scoring procedures for the measure (DuBois et al., 1996; DuBois et al., 1994), these were obtained by summing ratings for each type of stressor on the 0 to 3 scale noted previously. Items not endorsed (i.e., event or situation had not occurred in past month) were assigned values of 0. The resulting scale scores demonstrated satisfactory internal reliability both for the overall sample, coefficient $\alpha$ of .86 for race hassles and .87 for gender hassles, and for each race by gender subgroup, as ranging from .74 to .91 for race hassles and .76 to .88 for gender hassles. (Internal consistency reliability also was assessed across Family Low-Income Status × Developmental Level subgroups in the sample and found to be adequate for all study measures, as of .69 or greater.)

The LEC (J. H. Johnson, 1986) assesses the occurrence of major life events experienced by older children and adolescents. The revised version of the LEC used in the present study assesses the occurrence of events in the same content domains as the revised DHQ (i.e., school, family, peer relations, physical appearance, and sports/athletics; see DuBois et al., 1996; Dubois et al., 1994). The respondent is asked to indicate whether each event occurred in the previous 6 months and, if it did, to appraise the event as good or bad and rate its degree of impact on a 4-point scale. For the present research, respondents also were asked within each content domain (e.g., school) whether they had experienced a major event or change relating to prejudice/discrimination during the designated time frame. This allowed for computation of a prejudice/discrimination events score for each participant (i.e., number of domains for which a negative event of this type was reported). Impact ratings were not utilized because of potential confounding with reports of daily stressors that included a similar appraisal component and because, as in prior research (Compas, 1987), this type of weighting did little to change the relation of the prejudice/discrimination events score with other study measures. Fifty-nine youth reported at least one prejudice/discrimination event, with Black youth doing so more than White youth (Black males: $n = 17, 19.1%$; White males: $n = 6, 7.4%$; Black females: $n = 27, 26.7%$; White females: $n = 9, 11.4%$). Among those who reported at least one prejudice/discrimination event, the following percentages of youth within each Race $\times$ Gender subgroup reported an event in each targeted domain (values in each domain represent Black males, White males, Black females, and White females, respectively): school (70.6%, $n = 12$; 83.3%, $n = 5$; 59.3%, $n = 16$; 66.7%, $n = 6$), family (23.5%, $n = 4$; 16.7%, $n = 1$; 25.6%, $n = 7$; 0%, $n = 0$), peer relations (41.2%, $n = 7$; 66.7%, $n = 4$; 25.9%, $n = 7$; 44.4%, $n = 4$), physical appearance (17.6%, $n = 3$; 50%, $n = 3$; 14.8%, $n = 4$; 22.2%, $n = 2$), and sports/athletics (17.6%, $n = 3$; 16.7%, $n = 1$; 14.8%, $n = 4$; 0%, $n = 0$).

The final measure, general stress context, was derived on the basis of responses to both of the preceding instruments. First, the remaining 104 items on the DHQ not included in the measures of race and gender hassles were summed using the scoring procedures described previously, $\alpha > .90$ for full sample and each Race $\times$ Gender subgroup. Next, a total negative life events score was computed from the core set of 73 events on the LEC (i.e., excluding prejudice/discrimination events). The two resulting indices, which exhibited a substantial positive association, $r = .47$, then were standardized ($M = 0$, $SD = 1$) and averaged to form a single composite measure.

**Racial identity.** Racial identity was assessed using the widely utilized Multigroup Ethnic Identity Measure (MEIM; Phinney, 1992). Items on the MEIM are rated on a 4-point scale from strongly disagree to strongly agree, with responses to 14 items summed to yield a total racial or ethnic identity score. Subsequent validation research has indicated, however, that a slightly abbreviated, 12-item version of the scale is most appropriate for use with younger, preadolescent and early adolescent youth (Roberts & Phinney, 1996). Accordingly, only this latter set of items was administered in the present research. As with those
RESULTS

Preliminary Analyses

Zero-order correlations and descriptive statistics for study measures are shown in Table 1. Moderate positive correlations were evident among the different measures of stress, for example, $r = .51$ between...
race and gender daily hassles. Higher scores on each of these measures, in turn, were associated with greater reported levels of emotional and behavioral problems. Measures of racial and gender identity similarly were associated positively with each other, \( r = .27 \), and with ratings of global self-esteem. Neither identity measure exhibited a significant direct relation with indices of adjustment. More positive ratings of global self-esteem, however, were associated with lower reported levels of both emotional and behavioral problems, \( rs \) of \(-.44\) and \(-.31\), respectively, \( p < .001 \). The overall pattern of associations evident thus allowed for a possible mediated linkage between measures of identity and adjustment via their mutual association with ratings of self-esteem. Stress and identity measures exhibited a pattern of weak and primarily nonsignificant relations with one another. The associations involved also varied in direction, with prejudice/discrimination events having a positive relation with racial identity, \( r = .11 \), \( p < .05 \), but gender daily hassles having a negative relation with gender identity, \( r = -.11 \), \( p < .05 \). All stress measures did, however, demonstrate the expected negative association with ratings of global self-esteem. Finally, there was a moderate to strong association between ratings of emotional and behavioral problems, \( r = .72 \). Although noteworthy, this did not present a major concern with regard to multicollinearity because the indices were to be utilized only as criterion or outcome measures in primary analyses rather than as predictors.

Analysis of variance (ANOVA) was used to examine differences on measures in association with youth demographic and background characteristics. For each study measure, an ANOVA was performed to test for both main effects and all possible two-way interactions involving the four primary demographic and background characteristics—that is, gender, race (White versus Black), developmental level (preadolescent—grades 5 and 6 versus early adolescent—grades 7 and 8), and family income level (low versus non-low-income status). All tests of significance controlled statistically for other main effects and interactions given that the design was not completely balanced (Pedhazur, 1997).

Main effects for race were found for several measures: prejudice/discrimination events, \( F(1, 335) = 4.34, p < .05 \); race daily hassles, \( F(1, 339) = 5.56, p < .05 \); racial identity, \( F(1, 336) = 12.31, p < .001 \); and global self-esteem, \( F(1, 339) = 5.45, p < .05 \). Black youth scored higher than did White youth on each of these measures, thus reporting greater exposure to prejudice/discrimination events \( (M = .37, SD = .82\) and \( M = .17, SD = .61\) for Black and White youth, respectively) and race daily hassles \( (M = 1.89, SD = 4.37\) and \( M = .85, SD = 2.51\), respectively) as well as more favorable levels of both racial identity \( (M = 29.45, SD = 5.65\) and \( M = 27.39, SD = 4.98\), respectively) and self-esteem \( (M = 24.19, SD = 4.06\) and \( M = 23.36, SD = 3.89\), respectively). The main effect found for the measure of race daily hassles was accompanied by a significant Race \( \times \) Family Income Level interaction, \( F(1, 339) = 6.81, p < .01 \). Simple effects analysis (Keppel, 1982) indicated a significant race difference among youth from non-low-income families, \( F(1, 339) = 13.33, p < .001 \), in the direction of greater reported race daily hassles by Black youth \( (M = 2.49, SD = 2.65\) in comparison with White youth \( (M = .48, SD = 1.60\); the corresponding comparison for youth from low-income families was not significant, \( F(1, 339) < 1, ns \) \( (M = 1.49, SD = 3.18\) and \( M = 1.46, SD = 3.48\), for Black and White youth, respectively). Similarly, the main effect for the measure of racial identity was found in conjunction with a significant Race \( \times \) Developmental Level interaction, \( F(1, 336) = 4.42, p < .05 \). On this measure, a race difference was found among early adolescent youth, \( F(1, 339) = 15.31, p < .001 \), in the direction

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Table 1  Zero-Order Correlations and Descriptive Statistics for Study Measures

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<td>3. Gender daily hassles</td>
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<td>4. General stress context</td>
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<td>7. Global self-esteem</td>
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<tr>
<td>8. Emotional problems</td>
<td>.31***</td>
<td>.30***</td>
<td>.31***</td>
<td>.50***</td>
<td>-.03</td>
<td>-.09</td>
<td>-.44***</td>
<td></td>
<td></td>
<td>350</td>
<td>13.31</td>
<td>10.13</td>
</tr>
<tr>
<td>9. Behavioral problems</td>
<td>.22***</td>
<td>.25***</td>
<td>.21***</td>
<td>.44***</td>
<td>-.05</td>
<td>-.07</td>
<td>-.31***</td>
<td>.72***</td>
<td></td>
<td>350</td>
<td>12.91</td>
<td>9.64</td>
</tr>
</tbody>
</table>

Note: \( n \) ranges from 343 to 350 for correlations because of missing data on certain measures.  
*\( p < .05 \); *** \( p < .001 \).
of stronger racial identity for Black youth ($M = 36.14, SD = 5.94$) in comparison with White youth ($M = 31.80, SD = 5.91$); the corresponding comparison among preadolescent youth was not significant, $F(1, 339) = 1.53, p > .10$ ($M = 35.74, SD = 7.42$ and $M = 34.62, SD = 5.76$, for Black and White youth, respectively).

Significant main effects for gender also were found for gender daily hassles, $F(1, 339) = 6.48, p < .05$, and emotional problems, $F(1, 339) = 4.04, p < .05$. Girls scored higher than did boys on each of these measures, thus reporting greater levels of both gender daily hassles ($M = 2.04, SD = 3.54$ and $M = .96, SD = 2.58$ for girls and boys, respectively) and emotional problems ($M = 14.39, SD = 10.94$ and $M = 12.17, SD = 9.09$, respectively). In addition, a significant Gender $\times$ Developmental Level interaction was found for gender identity, $F(1, 338) = 4.00, p < .05$. On this measure, a gender difference was found among early adolescent youth, $F(1, 338) = 5.38, p < .05$, in the direction of less strong gender identity for girls ($M = 34.19, SD = 4.20$) in comparison with boys ($M = 35.67, SD = 3.64$); the corresponding comparison among preadolescent youth was not significant, $F(1, 338) < 1, ns$ ($M = 35.29, SD = 4.78$ and $M = 34.90, SD = 4.84$, for girls and boys, respectively). No other main effects or interactions were significant in the ANOVA analyses.

Structural Equation Modeling Analyses
for Hypothesized Model

Primary analyses used SEM to investigate the hypothesized conceptual model (see Figure 1). These analyses were performed using Version 5.1 of the EQS computer program (Bentler, 1996). A latent variables approach offers potential advantages in SEM analyses in terms of taking into account error in measurement (Bollen, 1989). Typically, multiple items or measures are used to assess each latent variable. In the present application, however, this approach would have resulted in an unacceptably high ratio of estimated parameters to sample size and thus was not feasible. Therefore, an alternative procedure was used in which estimates of the reliability of each measure were incorporated as fixed parameters into all SEM analyses (see Bollen, 1989, pp. 168–171). This was accomplished by modeling each construct as a latent variable with the relevant study measure as its single observed indicator; the error variance for each indicator then was set to a fixed value based on estimated reliability of the measure for the present sample (i.e., coefficient $\alpha$).

Along with race and gender as shown in Figure 1, family low-income status and developmental level as defined previously were included as exogenous variables in SEM analyses. To control for the latter factors (i.e., family low-income status and developmental level) as possible confounding influences, paths representing their direct effects on study measures were incorporated into all analyses; the full set of covariances among these and the remaining exogenous variables (i.e., race and gender) was modeled as well. In an analogous manner, correlation between error (i.e., residual) terms was modeled for each of the following pairs of measures that were related conceptually and occupied similar positions in the hypothesized model: race and gender daily hassles; racial and gender identity; and emotional and behavioral problems. To facilitate interpretation of SEM results, all study measures used as input data were rescaled to have a uniform mean of 0 and an $SD$ equal to 1 at the level of the full sample. Unstandardized path coefficients obtained in analyses using these rescaled measures are reported.

Model fit first was evaluated for the full sample. Hypothesized paths were retained if they were either significant (i.e., $p < .05$) or approached significance (i.e., $p < .10$). Given the exploratory nature of the research and the potential for even nonsignificant paths to be important in overall fit, this relatively conservative approach to model trimming was viewed as most appropriate. Lagrange multiplier indices next were examined to identify any further, theoretically relevant paths that, if added, would enhance model fit (Bentler, 1989), again at a level that either reached or approached significance. This final step in the model-fitting process was important given the potential for significant bias to result from model specification errors in SEM analyses (Bollen, 1989), especially when examining support for relatively unproven models, as was the case in the present context (MacCallum, 1995).

Indices of overall fit generally were good for the hypothesized model, for example, Bentler-Bonett Normed Fit Index = .95; furthermore, all hypothesized paths were significant and in predicted directions with only a few exceptions. The exceptions were nonsignificant paths linking race to race daily hassles, gender to prejudice/discrimination events and gender identity, and race daily hassles to racial identity. A significant overall $\chi^2$ statistic, $\chi^2(31, N = 350) = 49.13, p < .05$, suggested, however, that fit could be improved. Consistent with this possibility, after trimming the nonsignificant paths, iterative examination of Lagrange multiplier indices resulted in the addition of three significant paths. One of the paths was a direct (i.e., unmediated) effect of prejudice/discrimination events on emotional problems, unstandardized coefficient $b = .15, p < .05$. The remaining two paths represented direct linkages between race and global self-esteem (in the direction of higher reported self-esteem for
Black youth) and between gender and emotional problems (in the direction of greater reported emotional problems for girls). For this model, as shown in Figure 2, all hypothesized paths not trimmed in initial model fitting continued to reach significance and remained in expected directions. Also significant, but not depicted in Figure 2, were paths representing effects of family low-income status on gender hassles (in the direction of fewer reported gender hassles for youth from low-income families), \( b = -.24, p < .05 \), and developmental level on general stress context (in the direction of greater levels of reported stress for older, early adolescent youth), \( b = .18, p < .05 \). No other paths representing effects of family low-income status or developmental level were significant in the final model. Overall, in accordance with the improvements noted, fit indices for the model indicated a strong fit to the data, for example, Normed Fit Index = .96, and now included a nonsignificant \( \chi^2(32, N = 350) = 31.85, p > .20 \). As shown in Figure 2, the model accounted for nearly half of the variance in reported levels of emotional problems, \( R^2 = .43 \), and a smaller, but still noteworthy proportion of the variance in reported levels of behavioral problems, \( R^2 = .28 \).

The final model included several sets of paths through which measures of race- and gender-related influences were linked indirectly to indices of youth adjustment via intermediary effects on other measures. Although this suggested indirect model effects of race- and gender-related measures on adjustment indices, it was important to test their statistical significance (Bollen, 1989). Estimates of indirect effects of race- and gender-related measures on indices of both emotional and behavioral problems, respectively, and results of tests of their significance are summarized in Table 2, along with corresponding information for direct model effects for purposes of comparison. As can be seen in the table, significant indirect effects were found linking each race- and gender-related measure to both criterion measures of youth adjustment, with all effect estimates in expected directions.

Race × Gender Subgroup Analyses

A multigroup analysis (Bentler, 1989) was conducted next, using EQS to examine whether fit for the final model differed across the four Race × Gender subgroups. This analysis first examined whether constraining path coefficients from the model to be equal across groups resulted in a significantly poorer overall fit in comparison with allowing path coefficients to vary freely across groups. All other model parameters, including covariances among residual terms and paths representing effects of developmental level and low-income status, were free to vary across groups.

Figure 2 Final structural equation model for the full sample (\( N = 350 \)). Path coefficients are unstandardized; to facilitate interpretation, all coefficient estimates were derived on the basis of study measures rescaled to have a mean of 0 and SD equal to 1. Significance levels were determined by critical ratios on the unstandardized coefficients, \( * p < .05; ** p < .01; *** p < .001 \). Coefficients of determination (\( R^2 \)) indicate the overall proportion of variance accounted for in each criterion measure of youth adjustment. Not depicted in the figure are two additional exogenous variables (i.e., developmental level and family low-income status); the final model included estimates of the covariance of these variables with each other and other exogenous variables (i.e., race and gender) as well as paths representing their possible effects on all remaining variables in the model. Also not depicted are correlations between error (i.e., residual) terms for the following pairs of measures: race and gender daily hassles, racial and gender identity, and emotional and behavioral problems.
The context of considering Race because the analysis was investigating model fit in portions of the model. Finally, it should be noted that differences in the structural, as opposed to measurement, differences found in model fit could be attributed to differences found in model fit when constraining paths to be equal across Black and White subgroups of youth or those involving gender-related measures to differ across Black and White subgroups separately, it was no longer possible to include race and gender as exogenous variables and estimate their relations to study measures as had been done in the full-sample analysis. The resulting multigroup analysis revealed a significant difference (i.e., worsening) in model fit when constraining paths to be equal across Race X Gender subgroups, \( \chi^2(118, N = 350) = 171.44 \), as compared with when they were allowed to vary freely, \( \chi^2(76, N = 350) = 81.04 \); difference \( \chi^2(42, N = 350) = 90.40, p < .001 \).

Based on this result, a theoretically guided approach was used to identify specific paths that differed across two or more subgroups of youth. The goal in doing so was to determine the most parsimonious approach to allowing model parameters to vary across subgroups that would produce an acceptable overall fit. A related aim was to avoid modeling of relatively minor, potentially chance variations in path estimates across groups that might not reflect actual or substantive differences (MacCallum, 1995).

Available theory and research, it will be recalled, emphasizes that race- and gender-related experiences may be especially salient in processes that affect the adjustment of ethnic minorities and females, respectively. The possible existence of subgroup differences along these lines thus was addressed as a first step in the model refinement process. This involved examining whether the fit of the constrained model was improved in any instances by allowing paths involving race-related measures to differ across Black and White subgroups of youth or those involving gender-

### Table 2  Direct and Indirect Effects of Race and Gender Measures on Indices of Youth Adjustment

<table>
<thead>
<tr>
<th>Measure</th>
<th>Full Sample</th>
<th>Black Males</th>
<th>Black Females</th>
<th>White Males</th>
<th>White Females</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Direct Effects</td>
<td>Indirect Effects</td>
<td>Direct Effects</td>
<td>Indirect Effects</td>
<td>Direct Effects</td>
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<tr>
<td>Emotional problems</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Prejudice/discrimination events</td>
<td>.15**</td>
<td>.30***</td>
<td>.25***</td>
<td>.21*</td>
<td>.25***</td>
</tr>
<tr>
<td>Race daily hassles</td>
<td>—</td>
<td>.17***</td>
<td>—</td>
<td>.19*</td>
<td>—</td>
</tr>
<tr>
<td>Gender daily hassles</td>
<td>—</td>
<td>.16***</td>
<td>—</td>
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<td>—</td>
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<tr>
<td>Racial identity</td>
<td>—</td>
<td>—.08**</td>
<td>—</td>
<td>—.09</td>
<td>—</td>
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<tr>
<td>Gender identity</td>
<td>—</td>
<td>—.08*</td>
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<td>—</td>
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<tr>
<td>Behavioral problems</td>
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<tr>
<td>Prejudice/discrimination events</td>
<td>—</td>
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<td>Race daily hassles</td>
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<td>Racial identity</td>
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<tr>
<td>Gender identity</td>
<td>—</td>
<td>—.04*</td>
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Note: The effects reported are in unstandardized form. To facilitate interpretation, effect estimates were derived in structural equation modeling analyses in which study measures used as input data were rescaled to have a mean of 0 and an SD equal to 1 at the level of the full sample. This rescaling had no effect on tests for statistical significance, which were conducted using critical ratios on unstandardized effects.

* \( p < .05; ** \( p < .01; *** \( p < .001; ^* p < .10. \)

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1 As in the full-sample SEM analysis, family low-income status and developmental level were included primarily for purposes of statistical control in the multigroup analysis. Thus, significant paths from these variables to study measures are not discussed in the text. Briefly, for the final multigroup analysis model that was fit, paths for family low-income status and developmental level indicated the following, all \( ps < .05 \): less favorable ratings of gender identity for Black males from low-income families relative to those from non-low-income families, \( b = -.49 \); lower reported global self-esteem for Black females from low-income families compared to those from non-low-income families, \( b = -.40 \), as well as higher scores on the general stress context measure for early adolescent compared with preadolescent Black females, \( b = .34 \); among White males, fewer reported gender daily hassles but greater prejudice/discrimination events for youth from low-income families relative to those from non-low-income families, \( bs = -.24 \) and \( .47 \), respectively, as well as less favorable ratings of racial identity for early adolescent compared with preadolescent youth, \( b = -.42 \); and, among White females, less favorable ratings of both racial and gender identity and greater reported race daily hassles for early adolescent youth compared with preadolescent youth, \( bs = -.43 \) and \( -.48 ; .27 \), respectively. No other paths involving family low-income status or developmental level were significant in the final multigroup analysis model.
related measures to differ across female and male subgroups. Illustratively, for the path from racial identity to self-esteem, improvement in model fit was evaluated when this path was allowed to vary for Black subgroups of youth (i.e., Black females and Black males) in comparison with White subgroups (i.e., White females and White males), while still constraining the path to be equal within each pairing of race subgroups that differed only on gender (e.g., Black females and Black males). For purposes of these analyses, differences across both race and gender subgroups were examined for the path representing an effect of prejudice/discrimination events on emotional problems. Lagrange multiplier indices identified three paths that, when allowed to vary in the preceding manner, yielded significant improvements in model fit both individually and in combination: difference $\chi^2(3, N = 350) = 19.28, p < .001$. These included the paths representing effects of prejudice/discrimination events on both race daily hassles and emotional problems. As expected, each of these paths, when allowed to differ across race subgroups, revealed stronger estimated effects for Black youth (i.e., Black males and Black females) in comparison with White youth (i.e., White males and White females). The third path represented the effect of gender identity on global self-esteem. Also as expected, when freed, this path was revealed to be stronger for female subgroups (i.e., Black females and White females) in comparison with male subgroups (i.e., Black males and White males).

As noted, allowing the preceding paths to vary in the manner indicated improved overall model fit. The remaining constraints imposed, however, still resulted in a reliably less favorable fit in comparison with the fully unconstrained model: difference $\chi^2(39, N = 350) = 71.12, p < .01$. Lagrange modifier indices thus were examined to identify further paths that, if allowed to vary across two or more subgroups, would significantly improve fit. Fit was revealed to be improved significantly by allowing the paths from gender daily hassles to gender identity and from global self-esteem to emotional problems to vary freely across all subgroups, and by allowing the path from gender daily hassles to general stress context to vary for White youth (i.e., White males and White females) in comparison with Black youth (i.e., Black males and Black females). With these additional modifications, there was no longer evidence of a less favorable fit in comparison with a fully unconstrained model: difference $\chi^2(32, N = 350) = 42.18, p > .10$.

Two further steps in model fitting also were carried out. The first explored whether any paths involving race- and gender-related measures not included in the final model derived for the full sample might nonetheless be significant for specific Race $\times$ Gender subgroups. These included paths from the original hypothesized model that had been dropped due to nonsignificance (e.g., effect of race daily hassles on racial identity). Also examined were possible paths representing direct effects of race- and gender-related measures on indices of emotional and behavioral problems (e.g., effect of gender daily hassles on emotional problems). These paths had not been hypothesized, but were nonetheless theoretically plausible. In accordance with considerations noted previously, tests focused on effects for race-related measures that might be specific to Black or White subgroups and those for gender-related measures that might be specific to females or males. These analyses failed to reveal any additional paths that merited estimation for either race or gender subgroups. The last step was then to trim from the multigroup model those paths for each Race $\times$ Gender subgroup that did not reach or approach significance. A total of eight paths were trimmed on this basis, ranging from one path for Black females to three for Black males.

The resulting multigroup model, shown in Figure 3, provided a good overall fit to the data, as indicated both by a nonsignificant $\chi^2$ goodness-of-fit statistic, $\chi^2(113, N = 350) = 129.11, p > .10$, and relatively high levels for other major indices of fit, for example, Normed Fit Index = .97. For each subgroup, model variables accounted for noteworthy proportions of the variance in criterion measures of youth adjustment, that is, $R^2$ ranging from .36 to .48 for emotional problems and from .23 to .35 for behavioral problems.

Differences in paths for each Race $\times$ Gender subgroup were apparent consistent with findings reported previously. Illustratively, whereas the path from prejudice/discrimination events to emotional problems was significant for both Black females and Black males, $b = .25$, it was nonsignificant for White females and White males and thus not estimated (see Figure 3). Similarly, the path from gender identity to global self-esteem was significant for female subgroups, $b = .31$, but nonsignificant for male subgroups. The negative path from gender daily hassles to gender identity that had been significant in the model fit for the full sample, furthermore, was revealed to be significant only for White males.

As can be seen in Table 2, indirect effects of race- and gender-related measures on criterion indices of youth adjustment were significant within each subgroup. All indirect effects that reached significance involved measures of stress. These were found for both emotional and behavioral problems in all subgroups.
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Figure 3 Final multigroup structural equation model for Black males (n = 89), Black females (n = 101), White males (n = 81), and White females (n = 79). Paths that share the same lettered superscript for differing groups were constrained to be equal across these groups. Path coefficients are unstandardized; to facilitate interpretation, all coefficient estimates were derived using study measures rescaled to have a mean of 0 and SD equal to 1 at the level of the full sample. Significance levels were determined by critical ratios on the unstandardized coefficients, * p < .05; ** p < .01; *** p < .001. Coefficients of determination (R^2) indicate the overall proportion of variance accounted for in each criterion measure of youth adjustment. Not depicted in the models shown for each subgroup are two exogenous variables (i.e., developmental level and family low-income status); their covariance and possible effects on all remaining model variables were estimated separately for each group. Also not depicted are correlations between error (i.e., residual) terms for the following pairs of measures: race and gender daily hassles, racial and gender identity, and emotional and behavioral problems.
DISCUSSION

Findings of this research indicate that socioenvironmental experiences (i.e., stress) and psychological characteristics (i.e., identity) pertaining to race and gender are related to emotional and behavioral adjustment in early adolescence. In analyses conducted with the full sample, support was obtained for nearly all aspects of the proposed model. Significant differences in model fit across Race × Gender subgroups within the sample, furthermore, could be accounted for (in part) by theoretically predicted variation in model parameters for both Black and White youth and males and females. Overall, findings extend previous research by helping to delineate race- and gender-related influences on youth adjustment within a process-oriented, integrative framework and for groups not traditionally viewed as stigmatized or discriminated against on the basis of race or gender (i.e., White and male youth, respectively).

As hypothesized, model pathways were found that linked race- and gender-related stress to greater levels of emotional and behavioral problems. These were evident both at the level of the overall sample and for each Race × Gender subgroup. Whereas previous empirical studies that investigated effects of prejudice and discrimination on mental health have focused predominantly on adults and older adolescents (Albee & Perry, 1998; Clark et al., 1999), the current findings indicate a relation between such experiences and adaptive difficulties at a substantially earlier point in development (i.e., early adolescence). This result is consistent with a limited amount of other research that addressed the implications of prejudice and discrimination for younger populations (Fisher, Wallace, & Fenton, 2000; Phinney, Madden, & Santos, 1998).

Within the stress portion of the model, reports of major events involving prejudice or discrimination consistently were linked to increased daily hassles relating to gender and race. This aspect of results is consistent with prior research in which negative life events have been indicated to produce heightened levels of ongoing (i.e., day-to-day) stress in adolescence (Seidman et al., 1994; Wagner, Compas, & Howell, 1988). Sensitivity to this type of mechanism likely was enhanced in the present investigation by the shared focus of the measures involved on similar types of experiences (i.e., prejudice and discrimination) occurring within the same set of life domains (DuBois et al., 1994). The relatively strong linkage between prejudice/discrimination events and race daily hassles for Black participants, furthermore, suggests that characteristics of youth (e.g., race or ethnicity) may interact with events involving prejudice or discrimination to increase susceptibility to particular types of daily stressors. As in prior studies (e.g., Wagner et al., 1988), daily stressors had a salient role in pathways that linked life events to adjustment outcomes. A noteworthy aspect of these results is that prejudice/discrimination events were related to poorer adjustment through associations with heightened levels of day-to-day stressors pertaining to both race and gender. Multiple pathways of this nature could constitute a mechanism through which certain types of incidents (e.g., events involving both sexism and racism) present greater risk for adverse effects on youth.

The relations of all the preceding measures with indices of adjustment were mediated, in turn, by their associations with a measure of the general stress context. It thus appears that prejudice and discrimination experiences make a significant contribution to the overall level of stress reported by young adolescents and that this is influential in accounting for the negative implications of such experiences for emotional or behavioral functioning (Compas, 1995; Rutter, 1996). Prejudice/discrimination events and race and gender hassles each were indicated to make a distinct contribution to general stress level, despite the overlap among them. This pattern suggests another set of processes through which multiple forms of prejudice and discrimination may combine with one another to create significant risk for problems in adjustment. Findings are nevertheless most consistent with a relatively indirect linkage between prejudice/discrimination experiences and the emotional and behavioral functioning of young adolescents that is dependent on associations with other variables. It will be recalled in this regard that the relation of general stress context with adjustment problems was itself mediated (in part) by an intervening association with lower reported levels of self-esteem (DuBois & Tevendale, 1999). Overall, then, results indicate that several linkages involving normative developmental processes may be important in accounting for effects of prejudice and discrimination on adjustment in early adolescence.

For minority youth in the sample (i.e., Black males and Black females), exposure to events that involved perceived prejudice or discrimination also was linked directly to poorer mental health in the form of emotional problems. Research on stress and coping processes within the Black population (Anderson, 1991; Clark et al., 1999) suggests several mechanisms that could be important in accounting for this type of association. These include, for example, internalized feelings of anger stemming directly from incidents of perceived racism. Specific characteristics of the context in which the research was conducted also are a
relevant consideration. Most Black youth who reported events that involved prejudice or discrimination had experienced at least one of these events in the school setting. There was only a limited representation of Black students in the population of the participating schools and their teaching and support staff likewise was predominantly White. In this context, many Black youth may not have felt adequately supported in efforts to deal with situations that involved perceived victimization or unfair treatment on the basis of race. Such concerns for minority students, furthermore, may be exacerbated by a relative scarcity of crossrace friendships at the secondary school level (Hallinan & Williams, 1989).

Model findings for racial and gender identity measures also largely conformed to prediction. Within path analyses for the full sample, results were consistent with stronger identity in each area contributing independently to higher self-esteem. Through these linkages, positive racial and gender identity were implicated indirectly in fewer reported problems in both emotional and behavioral adjustment (i.e., identity → self-esteem → youth adjustment). The same type of mediational pathway was evident within each of the models fit separately for Race × Gender subgroups. In contrast, support for direct effects of identity on youth adjustment was not found, despite relevant paths being eligible for inclusion in all models. Zero-order correlations between measures of identity and adjustment within the overall sample similarly were weak and nonsignificant. Findings thus suggest that the protective benefits of positive racial and gender identities for young adolescents are tied very closely to whatever advantages accrue from them in the form of an overall enhanced sense of self-worth (N. G. Johnson et al., 1999; Leadbeater & Way, 1996; Phinney, 1992). The mediational pathways found that linked measures of identity and adjustment were relatively less strong than those found that linked measures of stress and adjustment. Accordingly, the associated estimates of indirect effect reached statistical significance only in analyses that took advantage of the statistical power associated with the full sample. One possible explanation for this trend is that active identity exploration is typically only in its first stages during early adolescence (Adams, 1992), thus limiting the potential protective benefits of a positive racial or gender identity at this age.

In multigroup SEM analyses, racial identity was related positively to self-esteem among both male and female Black youth. A corresponding relation between gender identity and self-esteem was evident for both White and Black females. Those youth who would be expected on the basis of broader societal trends to receive more external negative feedback concerning a particular facet of their identity (i.e., race or gender) thus were indicated to benefit significantly from being able to nonetheless construct a positive view and understanding of that area of their self-concept. Minority and female youth differed, however, in the extent to which they reported favorable levels of the relevant components of their identities in comparison with other youth. Of particular note is that in the early adolescent portion of the sample, Black youth reported significantly more positive levels of racial identity than did White youth, whereas females reported less favorable gender identity relative to boys. Possible implications of findings in this portion of the research include a contribution of identity issues to observed race and gender differences in the self-esteem of young adolescents. Black youth at this age, for example, tend to report higher self-esteem than do White youth (Gray-Little & Hafdahl, 2000). Present results suggest that this trend could be linked to esteem-enhancing benefits of a relatively strong sense of racial or ethnic identity for these youth. Likewise, girls report lower self-esteem than do boys in early adolescence (Kling, Hyde, Showers, & Buswell, 1999). This would be in accordance with the current findings that indicated a less positive gender identity for girls at this age and its relevance to their feelings of self-worth (N. G. Johnson et al., 1999).

Results for identity measures did not conform entirely to a theoretically predicted pattern of differential importance for minority and female youth. In particular, although the relation of gender identity to self-esteem was restricted to female subgroups, the comparable association for racial identity was evident not only for Black youth, but also for White youth. This result seems especially noteworthy with respect to White males for at least two reasons. First, for these youth, further deviations from patterns of association expected on the basis of prevailing theory were apparent for gender-related measures. These include a strong negative linkage between gender daily hassles and gender identity as well as a contribution of gender hassles to overall stress context. Second, among the various subgroups in the sample, White males were unique as the only youth whose backgrounds lacked a traditional basis (i.e., belonging to a minority group or being female) for expecting sensitivity to the types of influences under investigation. Although not necessarily anticipated fully, findings for this subgroup are nonetheless plausible from a theoretical perspective. By early adolescence, White males can be expected to be aware of criticism of the advantages they enjoy in contemporary society and to be exposed to situations in which others respond
negatively to them on this basis (Carlock, 1999). Their reports of stress therefore often may include significant experiences of perceived prejudice or discrimination that have the potential to affect them adversely. These considerations illustrate, furthermore, how achieving a realistic positive view and understanding of what it means to be White (Helms, 1990) and male (Good et al., 1994) could be important for self-esteem and other aspects of psychological well-being. Compared with other youth, however, White males appear to have experienced lower absolute levels of exposure to race- and gender-related stress (i.e., fewer prejudice/discrimination events and race daily hassles compared with Black youth and less exposure to gender daily hassles compared with girls). Along with Black males, they also reported a more favorable gender identity than did females. These differences suggest that processes of influence for the constructs involved, even if relevant to White males, are not as likely to create vulnerability to significant adjustment problems for this group of youth. Process similarities for this subgroup relative to minority and female youth thus should be interpreted with this qualification.

Using the same reasoning, Black females would be expected to be most susceptible to experiencing problems in adjustment attributable to processes associated with the constructs under investigation. As a result of being minority and female, these youth were included in all of the groups in the sample that reported relatively high degrees of race- and gender-related stress (i.e., Black youth who reported greater prejudice/discrimination events and race daily hassles and females who reported greater gender daily hassles); Black females also were among the females who reported less positive gender identity than did males in the early adolescent portion of the sample. Black females did not, however, exhibit overall elevations on measures of emotional and behavioral problems relative to the remainder of the sample. They may have benefitted in this regard from a wide variety of compensatory resources, including the relatively strong racial identity and high level of self-esteem evident for Black youth within the sample. On the other hand, there also were signs of added risk for some Black females. In particular, those who were from low-income backgrounds and were older reported relatively high levels of stress in other parts of their lives (i.e., general stress context) as well as less favorable overall self-esteem. The presence of multiple sources of risk pertaining both to race and gender and to more general areas of development could have a cumulative effect in creating vulnerability to significant adjustment difficulties (Rutter, 1996). As these possibilities illustrate, several differing types of processes may interact with those under investigation to influence the levels of emotional and behavioral functioning that are exhibited by particular members of groups such as Black females.

In closing, several limitations and directions for future research should be noted. Because of the cross-sectional design, inferences concerning influences among the constructs investigated are inherently tentative. In accordance with prevailing theory (Albee & Perry, 1998; Anderson, 1991; Cauce et al., 1998; Clark et al., 1999; Nettles & Pleck, 1996; C. E. Thompson & Neville, 1999), the proposed conceptual model assumed that race- and gender-related aspects of stress and identity can have significant effects on youth adjustment. Alternative processes, however, could account for the associations observed among measures in these areas. It is possible, for example, that emotional problems experienced by youth (e.g., anxiety) also have a role in reciprocally shaping the nature and extent of discrimination that they perceive in their environments (Phinney et al., 1998). A further methodological limitation is the relatively small size of the sample in comparison with what would have been ideal for conducting SEM analyses (Bollen, 1989). This is an especially relevant issue with respect to the multigroup SEM analysis, given the substantially smaller numbers of participants within the subgroups involved. Relatedly, sample size prohibited investigation of interactions of race and gender with either developmental level or socioeconomic status, although these clearly could be important. To address the preceding concerns, longitudinal studies based on larger samples should be a priority in future research.

Measures of stress and identity used in the current investigation were differentiated with respect to race and gender. A distinction also was made in assessments of stress between relatively acute, major events involving prejudice or discrimination and more minor, but potentially ongoing negative situations and experiences of this nature (i.e., daily hassles). Numerous additional refinements are possible, however, and should be pursued. These include distinguishing sources of race- or gender-related stress on the basis of such dimensions as domain (e.g., school) and their intra- versus intergroup nature (Clark et al., 1999). A similar potential exists for multidimensional assessments of racial and gender identity, such as separate consideration of their more affectively and cognitively oriented components (Sellers, Smith, Shelton, Rowley, & Chavous, 1998). This might prove useful for better delineating linkages between stresses and identity, which were only partially elucidated with the present measures. Because existing work has tended to lack a developmental focus, however, it will
be important first to determine which types of distinctions are most salient for populations as young as those included in the present research.

Given the prominent role of coping responses in literature that addresses effects of prejudice and discrimination stress among adults (Clark et al., 1999), these also should receive consideration. In the present research, individual appraisal ratings were built into stress measures. It would be helpful in future work, however, to investigate their role in coping processes distinct from objective event characteristics. This might help to identify cognitive tendencies or biases of youth, for example, that contribute to either under- or overestimated degrees of perceived exposure to discrimination (Feldman & Swim, 1998). The specific types of coping responses that youth employ to deal with perceived experiences of discrimination or prejudice are likely to be significant as well, such as with respect to moderating effects of these types of stress on adjustment outcomes.

Qualitative sources of data could be of further value in future investigations. These would allow for more in-depth interpretation and understanding of findings obtained with the types of structured, quantitative measures used in this study and most previous research. In the current investigation, for example, information was not available on the specific content of the major life events involving prejudice and discrimination that youth reported. Data addressing such concerns could be especially useful for increasing understanding of the stress and identity experiences of groups not traditionally included in research of this nature (e.g., White males).

Finally, the design and scope of the present investigation was restricted in several respects that are noteworthy. This includes the focus on a specific stage of development (i.e., early adolescence) and hence a relatively limited range of ages. In addition, youth from only two racial or ethnic backgrounds (i.e., White and Black) were sampled, all of whom were living in a single community and attending the same school system. Results might have differed, for example, if the research had not been conducted within a community and school system in which there was a White majority population. To address these concerns, comparative investigation of youth of varying developmental levels; from multiple racial and ethnic minority groups; and across contrasting types of schools, neighborhoods, communities, and regions of the country will be necessary. In doing so, there also should be consideration of the range of individual-, contextual-, and societal-level influences involved in perpetuating prejudice and discrimination toward youth from diverse backgrounds. This type of multifaceted approach will lead to more comprehensive understanding of race- and gender-related influences on youth development and thus facilitate effective approaches to intervention.

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REFERENCES


