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The role of socially prescribed perfectionism in the link between perceived racial discrimination and African American adolescents' depressive symptoms

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Abstract

Research examining the social origins of perfectionism has focused on negative evaluative experiences in the family, with less attention to negative social evaluations in other contexts and situations relevant for African American adolescents. The experience of racial discrimination is common for African American youth, and may trigger maladaptive perfectionistic beliefs if the youth perceive that they do not meet others' standards (socially prescribed perfectionism) or internalize discriminatory messages. Thus, the present study examined longitudinal associations among racial discrimination, socially prescribed perfectionism, and depressive symptoms among a community sample of urban and predominantly low income African American adolescents ($n = 492$; 46.7% female). In each of grades 7, 8 and 9, participants reported their experiences with racial discrimination, perfectionistic beliefs, and depressive symptoms. Analyses revealed that experiences with racial discrimination in grade 7 were associated with socially prescribed perfectionism in grade 8 which, in turn, was linked with depressive symptoms in grade 9. Results suggest that prospective associations between the experience of racial discrimination and depressive symptoms are due, in part, to increased socially prescribed perfectionism. Implications for interventions targeting depression in African American are discussed.

Keywords

Racial discrimination; perfectionism; depressive symptoms

Current conceptualizations of perfectionism highlight its multidimensional nature (e.g., Frost, Marten, Lahart, & Rosenblate, 1990; Hewitt & Flett, 1991) and distinguish between adaptive and maladaptive perfectionism, noting that high performance standards for one's own behavior may be maladaptive only when these standards are excessive, impose a high cost to achieve, and/or are inflexible (Hewitt & Flett, 1991; Stoeber & Otto, 2006). Because negative self-focused perfectionistic beliefs have been linked with depressive symptoms and disorders in children and adolescents (e.g., Hewitt et al., 2002; Huggins, Davis, Rooney, & Kane, 2008; McCreary, Joiner, Schmidt, & Ialongo, 2004), there has been heightened interest in understanding origins of perfectionistic beliefs in order to inform intervention efforts targeting depression. While prior research has identified interpersonal experiences in

the family, particularly attachment relationships (e.g., Rice, Lopez, Vergara, 2005), that have relevance for perfectionistic beliefs, other types of social experiences have received less attention. This is of concern given adolescents' increasing time spent in contexts outside the family as they develop (Collins & Steinberg, 2006).

Of considerable relevance to African American adolescents' developmental outcomes and depression symptom development is the experience of racial discrimination (García Coll et al., 1996). A considerable body of literature indicates that racial discrimination is a common experience for these youth (Seaton, Caldwell, Sellers, & Jackson, 2008) and occurs in multiple extra-familial contexts (e.g., Rosenbloom & Way, 2004). Given the negative social evaluative messages underlying discriminatory events, it seems possible that such experiences have implications for youth's perfectionistic beliefs either directly or indirectly, as a consequence of depressive symptoms. Thus, the present study examines the role of racial discrimination in the association between African American adolescents' socially prescribed perfectionism and depressive symptoms with perfectionism conceptualized two ways: as part of a vulnerability to depressive symptoms and as a consequence of depressive symptoms.

Dimensions of Perfectionism and Symptoms of Depression in Youth

While the dimensions of perfectionism vary across theorists, an important distinction for understanding the association between perfectionism and depression it is that between perfectionism related to others' standards for one's behavior, socially prescribed perfectionism, and self-oriented perfectionism, having high personal standards for one's own performance (Frost et al., 1990; Hewitt & Flett, 1991). Although perfectionistic beliefs may focus on others' behavior (e.g., other-oriented perfectionism; Hewitt & Flett, 1991), socially prescribed and self-oriented perfectionism have particular relevance for depressive symptoms because for each, perfectionistic expectations focus on the individual. It has been suggested that socially prescribed perfectionistic beliefs may have a stronger association with depressive symptoms than self-prescribed perfectionism because these focus on perceptions of expectations imposed by others; thus, socially prescribed perfectionism may be experienced as less controllable and, as such, more of a risk for depression than self-oriented perfectionistic beliefs (Chang & Rand, 2000). Because it is possible for individuals to change standards or expectations for their own behavior, self-oriented beliefs may be experienced as more controllable (Hewitt & Flett, 1991) and therefore pose less risk for depression. Relatedly, Hewitt and Flett (1991) have proposed that socially prescribed perfectionism may reflect a more extrinsic motivation characterized by limited ability to control others' evaluative standards, while self-oriented perfectionism may be more intrinsic and related to personal control and striving for perfection. This conceptualization overlaps with Self-Determination Theory (Deci & Ryan, 1985, 1991), wherein self-oriented perfectionism parallels self-determined motivation and socially prescribed perfectionism parallels non-self-determined or external motivation. Non-self-determined motivational orientation has been empirically linked to anxious and depressive symptomatology (Ryan & Deci, 2000).

Findings from studies of community and clinical samples of adults generally indicate that socially prescribed perfectionism is more strongly linked with depressive symptoms than self-oriented perfectionism (see Shafran & Mansell, 2001 for a review). The comparatively less research with child and adolescent samples has yielded nonequivocal findings regarding the role of socially prescribed and self-oriented perfectionism depression. McCreary and colleagues (2004) found that both socially prescribed and self-oriented perfectionism were positively associated with depressive symptoms within a sample of African American youth (McCreary et al., 2004). Both self-oriented and socially prescribed perfectionism were

positively associated with depressive symptoms in Hewitt and colleagues' (2002) community sample of youth ages 10–15, although neither displayed unique associations with depressive symptoms after controlling for anxiety and anger (Hewitt et al., 2002). In another study, school children with clinically significant depressive symptoms had significantly higher socially prescribed and self-oriented perfectionism than youth with subclinical depressive symptoms, but only socially prescribed perfectionism was predictive of diagnostic status (Huggins et al., 2008). Similarly, Donaldson and colleagues (2000) found that socially prescribed but not self-oriented perfectionism was positively associated with hopelessness among a sample of adolescent suicide attempters (Donaldson, Spirito, & Farnett, 2000). Taken together, the literature focusing on socially prescribed and self-oriented perfectionism in youth with clinically significant depression appears to follow a similar pattern as in adults, with socially prescribed more consistently associated with depression than self-oriented.

Research linking perfectionism with later depressive symptoms is consistent with cognitive vulnerability models of depression which highlight negative cognitions in the etiology and maintenance of depressive symptoms (e.g., Abramson, Metalsky, & Alloy, 1989). Scar and complication models (Bagby, Quilty, & Ryder, 2008; Lewinsohn, Steinmetz, Larson, & Franklin, 1981), on the other hand, suggest that the experience of depression predicts cognitions or changes in personality traits; according to this perspective, depressive symptoms precede and contribute to changes in perfectionism over time. While vulnerability models have been predominant in the perfectionism literature, several studies have found support for the cognitive scar hypothesis, with depressive symptoms predicting maladaptive cognitions (e.g., LaGrange et al., 2011; McCarty, Stoep, & McCauley, 2007; McGrath & Repetti, 2002). In addition, vulnerability and scar models are not mutually exclusive, as demonstrated by reciprocal causality models highlighting bidirectional associations between self-critical perfectionism and depressive symptoms (McGrath et al., 2012; Shahar, Blatt, Zuroff, Kuperminc, & Leadbeater, 2004). Research has yet to examine bidirectional associations between socially prescribed perfectionism and depressive symptoms.

Social Evaluative Origins of Socially Prescribed Perfectionism

Prior research has highlighted social and interpersonal influences as important for understanding the origins of perfectionism (Flett, Hewitt, Oliver, & Macdonald, 2002). Rice and colleagues' (2005) relational model for understanding the origins of adaptive and maladaptive perfectionism posits that perfectionism derives from internalizations of one's expectations of worthiness based on experiences in interpersonal relationships (Rice et al., 2005). Similarly, many have focused on attachment-related processes, and parenting behaviors and expectations to understand origins of perfectionism (Flett et al., 2002; Rice & Mirzadeh, 2000). This research generally indicates that parents of youth with maladaptive coping styles are critical, controlling, and demanding with their children; rarely satisfied with their child's attempts to meet their high standards for performance; and maintain these high expectations in the context of authoritarian parenting or parent-child relationships low in warmth and acceptance (Flett et al., 2002). Thus, perfectionistic beliefs seem to derive, in part, from others' expectations for performance and behavior, and negative social evaluation. Similar concerns about performance expectations and negative social evaluation may arise from experiences in other contexts, such as from experiences with racial discrimination. In fact, Flett and colleagues (2002) note that perfectionistic beliefs may arise not only from expectations and contingent regard from significant others such as family, teachers, and peers, but also from broader social pressures and evaluation (Flett et al., 2002).

Encounters with racial discrimination are common for African American youth (Seaton et al., 2008) and research suggests that African American youth experience racial

discrimination more than youth of other backgrounds (e.g., Coker et al., 2009; Fisher, Wallace, & Fenton, 2000). This is particularly troubling because youth experiences with racial discrimination have been linked with several adverse physical, emotional, and behavioral difficulties, including depressive symptoms (e.g., Gaylord-Harden & Cunningham, 2009; Simons et al., 2002). Implicit in racial discrimination is a social evaluation by the antagonist that the target's race is inferior (Jones, 1997). In addition to this social disapproval is the message that the target's behavior does not meet the standards of the antagonist. Thus, youth's encounters with racial discrimination may increase their perception that others have high standards for their behavior and their perception of externally-driven pressure to perform, possibly increasing socially prescribed perfectionistic beliefs. To date, whether and how experiences with racial discrimination are linked with socially prescribed perfectionism has not been examined.

Linking Racial Discrimination, Socially prescribed Perfectionism, and Depressive Symptoms

The proposition that socially prescribed perfectionism may be a mechanism linking experiences with racial discrimination with depressive symptoms is in line with vulnerability (Bagby et al., 2008) and competence-based models of depression, according to which youth evaluate themselves in ways that reflect how others regard them (e.g., Cole, 1991). Youth who receive negative evaluations from the environment, as is the case with racial discrimination, may develop negative self-perceptions which in turn, increase their risk for depressive symptoms. Racial discrimination also may impact socially prescribed perfectionistic beliefs indirectly, through depressive symptoms. Prior prospective research has identified associations between youth's experience of racial discrimination and later depressive symptoms (e.g., Brody et al., 2006; Gibbons, Gerrard, Cleveland, Wills, & Brody, 2004), and as described above, socially prescribed perfectionistic beliefs may be a consequence of depressive symptoms.

Adding to the complexity in understanding longitudinal associations between racial discrimination, perfectionism, and depressive symptoms, there is evidence of gender differences in adolescents' experiences with racial discrimination, cognitive vulnerability to depressive symptoms, and responses to racial discrimination; therefore, the associations between racial discrimination, socially prescribed perfectionism, and depressive symptoms may vary for boys and girls. Adolescent boys report more experiences with racial discrimination (e.g., Seaton et al., 2008). Consequently, boys may be socialized to prepare for such experiences and to not internalize such experiences. For example, Stevenson and colleagues (2002) found that boys received more messages about alertness to racial discrimination than girls; such messages may protect boys from adverse effects of racial discrimination on self perceptions and depressed mood. If so, one would expect associations between racial discrimination and negative self cognitions and depressive symptoms to be less for boys than for girls. In addition, given adolescent girls' heightened social-evaluative concerns (e.g., Rudolph & Conley, 2005), the associations between racial discrimination, socially prescribed perfectionism, and depressive symptoms may be more apparent for girls than for boys. In addition, girls are more likely to respond to stressors with depression than boys (Hankin, Mermelstein, & Roesch, 2007); thus, the association between racial discrimination and depression may be stronger for girls than boys.

The Present Study

There is increasing recognition that stressors unique to racial minorities have implications for their vulnerability to depression (e.g., Williams, 2000). However, prior research has not carefully examined how issues related to race and ethnicity might be associated with

perfectionism, limiting our understanding of environmental factors that may be involved in the development of perfectionistic beliefs and depressive symptoms among African American youth. Thus, the current study examined concurrent and prospective associations between experiences with racial discrimination, socially prescribed perfectionism, and depressive symptoms in a community sample of African American adolescents. Given prior evidence of reciprocal associations between perfectionism and depressive symptoms, vulnerability and scar models were examined. It was hypothesized that racial discrimination experiences, socially prescribed perfectionism, and depressive symptoms would be associated concurrently, and that each would demonstrate stability across one-year intervals. Given prior research highlighting bidirectional associations between self-critical perfectionism and depressive symptoms, we expected bidirectional associations also would be evident for socially prescribed perfectionism. However, based on prior research suggesting that cognitions mediate the association between racial discrimination and depressive symptoms (e.g., Lambert, Herman, Bynum, & Ialongo, 2009), it was hypothesized that there would be greater support for perfectionism as a vulnerability than a scar of depressive symptoms. Finally, given gender differences in socialization about race, cognitive vulnerability to depression, and stress reactivity, we hypothesized that associations between experiences with racial discrimination, perfectionism, and depressive symptoms would be stronger for girls than boys.

Method

Participants

Data are drawn from a community sample of children initially assessed in the fall of first grade as part of a randomized trial of two school-based universal preventive interventions provided during their first grade year (Ialongo et al., 1999). The original sample consisted of 678 children and families representative of students entering first grade in nine Baltimore City public elementary schools. Three first grade classrooms in each of nine elementary schools were randomly assigned to one of the intervention conditions or a control condition. The Family-School Partnership intervention and the Classroom-Centered intervention sought to reduce aggressive and disruptive behavior and improve academic achievement by targeting parent discipline practices and classroom behavior management practices, respectively. The interventions were provided over the first grade year only, following a pretest assessment in the early fall.

Of the 678 children who participated in the original study in the fall of 1993, 585 were African American. Of these 585 African American youth, approximately 84% ($n = 492$) participated in follow-up assessments during grades 7, 8, or 9. These 492 children (46.7% female) comprised the sample of interest. As an indicator of socioeconomic status, approximately 71% of the current sample received free or reduced-priced lunch (FARMS). At the 7th grade assessment, youth ranged in age from 12.15 to 14.14 years old ($M = 12.75$, $SD = .35$). Chi-square tests showed no differences in gender, percentage receiving FARMS, or intervention condition between the 492 participants included in this study and the 93 in original sample who did not provide data at follow-up assessments in grades 7, 8, and 9 ($ps > .05$).

Assessment Design

Data for this study were collected in the spring of participants' 7th grade year and the 2 subsequent years. A face-to-face interview was used to gather data from youth at the annual assessments, and for the majority of the participants (90%), data were collected at school. Each year, youth reported about their experiences with discrimination, perfectionism, and depressive symptoms. This study was approved by the University's Institutional Review

Board. Written informed consent was obtained from parents and verbal assent was obtained from the youth.

Measures

Experiences with racial discrimination—Seven items drawn from the Racism and Life Experiences Scales (RaLES; Harrell, 1997a, 1997b) were used to assess experiences with racism and discrimination. The RaLES assesses how often youth have experienced racism or negative events associated with his or her race (e.g., “How often have you been ignored, overlooked, or not given service in a restaurant, store, etc.?”; “How often have you been treated rudely or disrespectfully because of your race?”). Youth respond to each item using a six-point frequency scale (1 = “never,” 2 = “less than once a year,” 3 = “a few times a year,” 4 = “about once a month,” 5 = “a few times a month,” 6 = “once a week or more”). A summary score was created by taking the mean of the seven items, and higher scores indicate more experiences with racism. Coefficient alpha for the 7-item scale ranged from .78–.85 in grades 7, 8, and 9.

Perfectionism—Socially prescribed perfectionism was assessed using items drawn from the Child and Adolescent Perfectionism Scale (CAPS; Flett, Hewitt, Boucher, Davidson, & Munro, 2000), based on items identified in McCreary and colleagues’ (2004) factor analysis of the CAPS in a sample of urban African American youth. Thus, socially prescribed perfectionism was assessed with five items regarding beliefs about others’ imposition of unrealistic demands on the self (e.g., “Other people expect me to be perfect”). Youth rated each item using a 4-point scale ranging from 1 (“not at all true of me”) to 4 (“very true of me”), and a summary score was created by taking the mean of the items. Cronbach’s alpha for socially prescribed perfectionism ranged from .77 to .78 in grades 7, 8, and 9.

Depressive symptoms—Depressive symptoms were assessed using the Baltimore How I Feel-Adolescent Version, Youth Report (BHIF-AY; Ialongo, Kellam, & Poduska, 1999), a youth self-report measure of depressive and anxious symptoms. The BHIF was designed as a first-stage measure in a two-stage epidemiologic investigation of the prevalence of child and adolescent mental disorders as defined in the Diagnostic and Statistical Manual of Mental Disorders (4th ed, rev.; DSM-IV; American Psychiatric Association 1994). Items for the depression scale were generated directly from DSM-IV criteria or drawn from existing child self-report measures, such as the Children’s Depression Inventory (M. Kovacs 1983, unpublished manuscript) and the Depression Self-Rating Scale (Asarnow & Carlson, 1985). Youth report the frequency of depressive symptoms over the last 2 weeks on a four-point scale (1 = “never,” 4 = “most times”), recoded such that items are scored 0–3 and a score of 0 indicates no symptoms. A summary score may be created by taking the mean of the items, and higher scores indicate more depressive symptoms. Chronbach’s alpha for the Depression scale ranged from .83–.88 in grades 7, 8, and 9.

Analytic Strategy

Path analysis was used to examine the hypothesized associations among discrimination, perfectionism, and depressive symptoms. These analyses were conducted with *Mplus* 6.12 (Muthén & Muthén, 1998–2011) using full information maximum likelihood estimation. This approach allows for missing data under missing at random (MAR; Little & Rubin 1990) assumptions, and students who have data on at least one study variable are included in the analysis. Model fit was evaluated using multiple indices of fit: the Comparative Fit Index (CFI), the Standardized Root Mean Square Residual (SRMR), and the Root Mean Square Error of Approximation (RMSEA). CFI values above .90 represent acceptable fit, with values .95 and above indicating good fit (Hu & Bentler, 1999). RMSEA values .08 or less represent acceptable fit, and values less than or equal to .05 indicate good fit (MacCallum,

Brown, & Sugawara, 1996). SRMR values less than .08 generally indicate good fit (Hu & Bentler, 1999).

Of primary interest were indirect pathways linking racial discrimination with socially prescribed perfectionism and depressive symptoms. Because mediation requires temporal precedence from the independent variable to the mediator to the outcome, we tested the following mediation pathways: racial discrimination experiences in grade 7 → perfectionism in grade 8 → depressive symptoms in grade 9 and racial discrimination experiences in grade 7 → depressive symptoms in grade 8 → socially prescribed perfectionism in grade 9. The longitudinal mediation models were tested using the autoregressive model outlined by Cole and Maxwell (2003). This model controls relationships between the same variable over time (e.g., depressive symptoms in 7th grade → depressive symptoms in 8th grade) to account for the stability of each construct over time. In addition, this model controls for correlations among the independent variable, mediator, and outcome within waves. Together, these controls allow a more stringent test of whether racial discrimination experiences predict increases in the hypothesized mediator, and whether the hypothesized mediator is associated with changes in the outcome. In light of evidence of reciprocal associations between perfectionistic beliefs and depressive symptoms, a reciprocal causality model was embedded into the longitudinal mediation model, with bidirectional paths between socially prescribed perfectionism and depressive symptoms.

Results

Descriptive Statistics

Bivariate associations among discrimination, perfectionism, and depressive symptoms in grades 7, 8, and 9 are presented in Table 1. Significant positive associations between each construct at adjacent years suggest stability in racial discrimination experiences, socially prescribed perfectionism, and depressive symptoms in grades 7 to 9. Within each grade, racial discrimination was significantly positively associated with socially prescribed perfectionism and depressive symptoms.

Path Analysis

Path analyses were conducted to test two possible indirect pathways linking racial discrimination with socially prescribed perfectionism and depressive symptoms. In line with cognitive vulnerability models, we examined grade 7 racial discrimination → grade 8 socially prescribed perfectionism → grade 9 depressive symptoms; in line with scar models, we examined grade 7 racial discrimination → grade 8 depressive symptoms → grade 9 socially prescribed perfectionism. To control for the possibility that the stability of the constructs over time or concurrent associations among the variables accounted for a significant indirect effect, the following pathways were included: 1.) regression of each construct in grade 8 and grade 9 on the same construct in the prior year; and 2.) correlations among racial discrimination, perfectionism, and depressive symptoms within each grade (Cole & Maxwell, 2003). Intervention status was controlled in the analyses.

The longitudinal autoregressive model provided an adequate fit to the data (CFI = .91, SRMR = .06, RMSEA = .09). Consistent with the bivariate correlations, there was stability of racial discrimination, socially prescribed perfectionism, and depressive symptoms from grade 7 to grade 8, and from grade 8 to grade 9 as evidenced by the significant path coefficients between adjacent grades for each construct. Within grade correlations were significant with two exceptions; in grade 9, racial discrimination was only marginally associated with socially prescribed perfectionism and was not associated with depressive symptoms (see Figure 1). Intervention status was significantly associated with grade 9

depressive symptoms, but no other variables. Although 8th grade depressive symptoms were associated with 9th grade socially prescribed perfectionism, 7th grade racial discrimination did not predict increases in depressive symptoms in 8th grade, indicating no indirect effect. Racial discrimination in 7th grade predicted increases in socially prescribed perfectionism in 8th grade ($B = .07, p < .05$), and eighth grade socially prescribed perfectionism predicted increases in depressive symptoms ($B = .06, p < .05$). However, the indirect effect was not significant, and a model including the direct effect of 7th grade discrimination on 9th grade depressive symptoms had a significantly improved fit over the model without the direct effect ($\chi^2_{diff}(1) = 7.20, p < .01$).

Multiple group analyses were conducted to determine whether the associations between experiences with racial discrimination in grade 7 and socially prescribed perfectionism in grade 8, or the association between socially prescribed perfectionism in grade 8 and depressive symptoms in grade 9 varied for boys and girls. For these analyses, a model with the path freely estimated for boys and girls was compared to a model in which the path was constrained to be equal for boys and girls. A significant decrement in model fit for the constrained model over the freely estimated model suggests moderation by gender. Model comparisons were based on changes in CFI because the ΔCFI has proved superior to chi-square difference tests (Cheung & Rensvold, 2002); ΔCFI less than $-.01$ suggest invariance between the freely estimated and constrained models. The model with the path from 7th grade experiences with racial discrimination to 8th grade socially prescribed perfectionism constrained to be equal for boys and girls was not significantly different than the freely estimated model ($\Delta CFI = -.01$). The model constraining the path from 8th grade socially prescribed perfectionism to 9th grade depressive symptoms did not differ from the model with this path freely estimated ($\Delta CFI = 0$).

Discussion

There is increasing empirical evidence documenting depressive symptoms among African American youth who have experienced racial discrimination (e.g., Gaylord-Harden & Cunningham, 2009; Simons et al., 2002); however, research focusing on processes that explain longitudinal associations between experiences with racial discrimination and subsequent depressive symptoms has been limited. Results from the present study revealed that experiences with racial discrimination are associated with African American adolescents' socially prescribed perfectionistic beliefs one year later, and socially prescribed perfectionism is linked with subsequent depressive symptoms. The strength of these pathways did not differ for boys and girls in this study, suggesting that boys and girls similarly perceive racial discrimination as an external pressure to perform to another's standard, and this other-imposed expectation is equally damaging to boys' and girls' psychological well-being. These results highlight the significance of racial discrimination experiences in the development of perfectionism, and help clarify the means through which discriminatory encounters impact African American adolescents' psychological well-being. However, because the effect of racial discrimination on depressive symptoms persisted even after accounting for perfectionism, results suggest that multiple processes likely explain why African American adolescents' experiences with racial discrimination are linked with consequent depressive symptoms.

Racial Discrimination, Perfectionism, and Depressive Symptoms

As hypothesized, experiences with racial discrimination were associated with increased socially prescribed perfectionism which in turn, was associated with increased depressive symptoms in this community sample of African American adolescents. The association between past year experiences with racial discrimination and socially prescribed

perfectionism indicates that this negative social evaluative experience can have implications for youth's perceptions of others' expectations for them. This finding is consistent with Flett and colleagues' (2002) model of the development of perfectionism in which characteristics of the child, parent, and broader social context influence socially prescribed perfectionism (Flett et al., 2002). That socially prescribed perfectionism was positively associated with depressive symptoms in this sample is consistent with findings from other community samples of youth (e.g., Hewitt et al., 2002) and in line with prior theory and research highlighting the conceptual similarity of socially prescribed perfectionism to external locus of control. Research with young adult samples indicates that self esteem (Preusser, Rice, & Ashby, 1994), unconditional self acceptance (Scott, 2007), and contingent self-worth (Sturman, Flett, Hewitt, & Rudolph, 2009) mediate the association between socially prescribed perfectionism and depression. Socially prescribed perfectionism also may confer vulnerability to depression in African American youth through these or similar mechanisms. Nonetheless, it is important to note that some youth, while cognizant of external pressure to be perfect, will not report problems with depression related to these stressors. Instead, they may respond with hostility and anger, or rebel against external pressures to behave or perform in a particular way (Hewitt et al., 2002). For example, Hewitt and colleagues (2002) found that socially prescribed perfectionism was associated with anger expression and less suppression of anger; while these behaviors can range from normative to problematic, each has been linked with depression and self-harm (Kerr & Schneider, 2008).

That the significant longitudinal association between experiences with racial discrimination and depressive symptoms remained even after accounting for socially prescribed perfectionism suggests that there are other mechanisms involved in the link between racial discrimination and depressive symptoms. Prior research has revealed that other cognitive responses to experiences with racial discrimination (e.g., decreased perceived control; Lambert et al., 2009) mediate the association between experiences with racial discrimination and depressive symptoms. In addition, youth's affective and behavioral responses to racial discrimination may be important in explaining the link between racial discrimination and depressive symptoms. A more comprehensive model including these varied types of responses to racial discrimination is likely necessary to understand the processes through which racial discrimination impacts youth's psychological well-being. Consideration of the type of racial discrimination events experienced also may help to clarify associations between racial discrimination and socially prescribed perfectionism. For example, racial discrimination events associated with performance or competence, such as by teachers about students' performance, might be more strongly associated with socially prescribed perfectionism than events related to social exclusion.

Clinical Implications

Results from this study add to the growing empirical evidence that African American youth are particularly vulnerable to depression related to socioecological factors (Tandon & Solomon, 2009), and augment the literature identifying causal mechanisms underlying depressive symptomatology among African American youth. That the experience of racial discrimination predicts socially prescribed perfectionism suggests that clinicians should examine whether discriminatory experiences are a source of other-imposed perfectionistic standards, and how these encounters may interact with other external pressures to increase youth's distress. As well, a range of possible responses to socially prescribed standards should be explored, as some youth may externalize their distress related to these external pressures. Because not all youth who experience racial discrimination will respond with increased maladaptive perfectionistic beliefs or depressive symptoms, it is important to assess not only youth's experience of racial discrimination but also their appraisal of these experiences as stressful and their capacity for managing discrimination stress. As African

American youth have been found to be especially responsive to cognitive-behavioral interventions (e.g., LeSure-Lester, 2002; Liddle, Dakof, Turner, Henderson, & Greenbaum, 2008), tailoring these interventions to be attuned to racial discrimination and related issues is important. For example, in examining the relevance and contributive role of experiences with discrimination to African American youth's depressive symptoms, interventions also must attend to the controllability of experiences with discrimination.

Some dimensions of racial identity have been found to be protective for African American youth and allow them to better manage experiences with racial discrimination (Sellers, Copeland-Linder, Martin, & Lewis, 2006). Although the role of racial identity has not explicitly been examined with regard to negative cognitions, African American youth who tend to adopt socially prescribed perfectionistic beliefs might offset this tendency if their sense of racial identity was strong. Similarly, adolescents' racial socialization experiences may equip them with strategies for dealing with discriminatory encounters in ways other than internalizing others' expectations for their behavior (Hughes et al., 2006). Future research should assess the utility of incorporating racial identity and racial socialization in interventions designed for the prevention and treatment of depression with African American adolescents.

Strengths, Limitations, and Future Directions

Importantly, this research revealed that African American adolescents' experiences with racial discrimination are associated with increased socially prescribed perfectionism, which in turn, is linked with depressive symptoms. The use of a longitudinal design to examine the effects of racial discrimination and its effects increases our confidence in the temporal ordering of these constructs, and extends prior research focusing on the psychological consequences of discrimination. In addition, understanding contextual factors that precipitate perfectionistic beliefs is important for the development of relevant prevention and treatment interventions for African American youth.

These study strengths should be evaluated in the context of some limitations. Although youth are well equipped to report on their perceptions, beliefs, and mood (Grant, Compas, Thurm, & McMahon, 2004), multiple data sources would alleviate concerns related to shared method variance. For example, alternative measurements of racial discrimination have been used successfully in other research with adolescents (e.g., Cyberball; Williams, Cheung, & Choi, 2000) and reports of adolescents' depressive symptoms by meaningful others also are considered valid (Kosterman, Hawkins, Herrenkohl, Lengua, & McCauley, 2009). While the community sample of African American adolescents is a significant strength of this study, results from this study only generalize to urban African American youth from similar socioeconomic and geographic contexts. Furthermore, participants in this study were part of a preventive intervention trial when they were in the first grade; although the students were representative of students entering first grade throughout Baltimore City, their intervention status also may limit generalizability. In addition, the mean number of discriminatory events reported was low. While other research utilizing self report measures to assess African American adolescents' experience racial discrimination has found similarly low mean levels (e.g., Brody et al., 2006; Dotterer, McHale, & Crouter, 2009; Neblett et al., 2006), there is growing evidence that the available self report measures may underestimate African American adolescents' experiences with racial discrimination because they may not include the full range of experiences which African American youth may label as racial discrimination (Berkel et al., 2009; Rosenbloom & Way, 2004). Youth's reports of discrimination also may have been low due to their residence in predominantly African American neighborhoods where experiences with racial discrimination may have been less than in other settings (Borrell, Kiefe, Diez-Roux, Williams, & Gordon-Larsen, 2012; Hunt, Wise, Jipguep, Cozier, & Rosenberg, 2007).

Future studies should examine associations between discrimination, perfectionism, and depressive symptoms in African American youth of varied socioeconomic backgrounds to capture the diversity in African American adolescents' experiences with and responses to discrimination. In addition, in future research, it will be important to examine experiences with racial discrimination together with other factors that may predispose youth to having higher perfectionistic behaviors during adolescence. Herman and colleagues (2011) found that youth's early oppositional, hyperactive, and inattentive behaviors were associated with an increased likelihood of endorsing maladaptive perfectionistic beliefs during adolescence. It is possible that the degree to which experiences with racial discrimination are linked with problematic perfectionistic beliefs depends partly on these behaviors (Herman et al., 2011). Future research also should consider the conditions under which racial discrimination is linked with perfectionism and the conditions under which perfectionism predicts depressive symptoms. For example, the effects of socially prescribed perfectionism may be most pronounced in youth who have a strong need for the approval of others or youth who fear negative evaluation, and the effects of perfectionism may be most evident under conditions of stress (Hewitt et al., 2002). Thus, future research should examine whether socially prescribed perfectionism is better conceptualized as part of a diathesis-stress model than as part of an indirect pathway linking race-related stress and depression for African American youth (Hewitt et al., 2002).

While the experience of racial discrimination has a strong social evaluative component that is in line with socially prescribed perfectionism, future research examining associations between experiences with racial discrimination and perfectionism also should consider adaptive and maladaptive aspects of self-oriented perfectionism. For example, the experience of racial discrimination may increase youth's self-critical beliefs about their performance to the extent that they internalize discriminatory messages; on the other hand, the experience of racial discrimination also could conceivably result in greater striving to prove oneself. For some, such striving behaviors can lead to positive outcomes, such as academic motivation and school achievement (e.g., Miquelon, Vallerand, Grouzet, & Cardinal, 2005; Stoeber & Rambow, 2007), and are not necessarily associated with youth depressive symptoms (McCreary et al., 2004). Finally, it is not yet clear whether the source of perfectionistic striving is relevant for understanding the degree to which striving perfectionistic beliefs are adaptive versus problematic. Understanding the circumstances under which racial discrimination may be linked with adaptive beliefs will provide useful information for interventions targeting African American youth.

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Figure 1.
Indirect pathway from perceived racial discrimination to depressive symptoms through socially prescribed perfectionism

Table 1
Means, Standard Deviations, and Correlations for Discrimination, Perfectionism, and Depressive Symptoms

		Grade 7			Grade 8			Grade 9		
		RDIS	SPP	DEP	RDIS	SPP	DEP	RDIS	SPP	DEP
Grade 7	Racial discrimination									
	Socially prescribed perfectionism	.21***								
Grade 8	Depressive symptoms	.29***	.39***							
	Racial discrimination	.36***	.05	.13**						
Grade 9	Socially prescribed perfectionism	.17***	.51***	.24***	.17***					
	Depressive symptoms	.16**	.28***	.54***	.18***	.36***				
Grade 9	Racial discrimination	.31***	.09+	.08+	.36***	.13**	.14**			
	Socially prescribed perfectionism	.18***	.46***	.23***	.16**	.58***	.30***	.17***		
Grade 9	Depressive symptoms	.23***	.28***	.56***	.22***	.30***	.61***	.18***	.38***	
	Mean	1.73	1.78	.64	1.78	1.75	.59	1.91	1.78	.61
Grade 9	SD	.87	.74	.46	.84	.72	.46	.92	.73	.50

Note. RDIS = Racial discrimination; SPP = Socially-prescribed perfectionism; DEP = Depressive symptoms.

p < .001.

**
p < .01.

*
p < .05.

+
p < .10.