

Running Head: Impacts of Perceived Discrimination

Impacts of Perceived Discrimination on African American Girls in the Transition
to Middle School

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African American middle school girls have been understudied in previous literature; thus, this study will examine the unique race, age and gender combination. Participants were 109 African American students (51 boys, 58 girls) who were assessed in 5th and 7th grade. School based racial discrimination was assessed using an adapted version of the school subscale of the Adolescent Discrimination Distress Index (ADDI; Fisher et al., 2000). Achievement outcomes were Language Arts and Math standardized test scores, Language Arts and Math classroom grades, and both student and teacher report of classroom engagement. Mean levels of discrimination were low in both 5th and 7th grade, and there were no significant differences in perceived discrimination from 5th to 7th grade or between girls and boys. Perceived discrimination was more negatively associated with achievement for girls, especially in 7th grade. Implications relate to potential interventions for middle school girls.

Early adolescence is a challenging time period for most, but the experience varies greatly based on gender, race, socio-economic status and other social identity factors. The experience of African American females has been neglected; they are understudied and not given the attention they deserve and need to thrive in academic settings (Frazier-Kouassi, 2002).

One impediment to success for African American middle school girls is discrimination. Discrimination is complex and ranges from exclusion to physical assault; it can be blatant or subtle (Brown & Bigler, 2005). However, in this study I am focusing on everyday perceived racial discrimination or racial daily hassles. American adults tend to differentiate between explicit, overt discrimination and this more subtle form (Williams et al., 1999). Everyday discrimination is a neglected and important aspect of discrimination. Williams (1999) suggests that major discrimination doesn't affect self-concept as much as everyday racism because it reflects upon ignorant individuals, while daily racism becomes psychologically ingrained. Further, everyday racism may not always be intentional. It is also important to note that everyday discrimination differs from institutional and societal discrimination, although these different types are all inextricably linked.

In this study, I addressed four major research questions relating to age and gender differences in the experience of everyday discrimination. First, in light of previous research on differences between late childhood and early adolescence (Eccles, 2009), I examined the change in perceived discrimination from fifth to seventh grade. Further, I investigated age differences in the relationship between perceived discrimination and

achievement outcomes, including whether fifth grade perceived discrimination predicted seventh grade achievement outcomes (controlling for fifth grade achievement.). I also tested for gender differences in perceived discrimination or in the change in perceived discrimination over time. Finally, I examined whether or not there were gender differences in the relationship of perceived discrimination to achievement outcomes.

Perceived Racial Discrimination

African American youth report racially biased treatment in the classroom as common (Chavous, et al., 2008; Fisher et al., 2000). African American students also face discrimination from peers. In a study by Chavous and colleagues (2008), African American adolescents reported, “being picked on or socially excluded due to race” (Chavous et al., 2008). Further, Rosenberg (1979) found that half of the African American children who attended desegregated junior high schools claimed that they had experienced teasing or exclusion based on race. Similar research found that many newly integrated African American students perceived both their teachers (Patchen, 1982) and peers (Schofield, 1980) to be discriminatory (Brown & Bigler, 2005). Fisher et al. also found that thirty two percent of African American students reported that they had been discouraged from joining advanced level classes, disciplined wrongly by teachers, or graded unfairly because of their race (Fisher et al., 2000).

Age and Level of Perceived Discrimination

In order to highlight the changes and stressors associated with adolescence, this study compared students in 5th and 7th grades. This study will examine how the transition from late childhood to early adolescence impacts level of perceived discrimination. It is

very important to understand youth's perceptions of discrimination to see how they are affecting them and what can be done about it (Brown & Bigler, 2005).

Children gradually develop more complex ideas about the nature of discrimination (Brown & Bigler, 2005). Developmental research shows that by age 10, children's perceptions of discrimination are fairly sophisticated and similar to those of adults, with the major exception of perceptions of societal or institutional discrimination (Brown & Bigler, 2005). As is to be expected, knowledge of discrimination, such as the understanding of how members of a group have been discriminated against in the past, is a significant predictor of perception of discrimination (Brown & Bigler, 2005), and since 7th graders have been exposed to more cultural and historical background about the experiences of their gender and racial groups, I expected that they would have greater knowledge of and thus greater perception of discrimination. Similarly, I expected to find that 7th graders perceive more discrimination, given that "adolescents have more highly developed cognitive abilities to perceiving discrimination in more complex, abstract and indirect ways, and this period also involves...heightened awareness of how they are viewed by others" (Chavous et al., 2008, p. 638). Further, 7th graders have a greater knowledge of stereotypes (Rowley et al., 2007), and as children acquire a greater number of sophisticated cognitive skills, they will be increasingly likely to perceive discrimination across a range of situations (Brown & Bigler, 2005). As children get older, they are increasingly likely to be able to characterize an authority figure's behavior as unfair, and thus perceive it as discrimination (Brown & Bigler, 2005). Additionally, by adolescence, students are more likely to recognize racial inequalities as being a result of institutional discrimination (Brown & Bigler, 2005), as opposed to just being unfair based

on ability or other legitimate reasoning. Thus, I expected 7th graders to perceive more discrimination from teachers and other school staff than 5th graders.

Gender and Level of Perceived Discrimination

Chavous et al. (2008) found no significant differences between boys and girls in the mean levels of discrimination reported in 8th grade. However, the results may be different for younger grades because the transition to middle school has been shown to be particularly vulnerable for girls. My study is important in that it captures what happens before middle school. In 11th grade, Chavous et al. (2008) did find that girls tend to experience subtler forms of gender-based discrimination, such as being ignored (Chavous et al., 2008) and my study will further explore how this plays out.

Impact of discrimination

Overall impacts of racial discrimination

Racial discrimination has many negative effects on African Americans. These include declines in social functioning and academics (believing that school is less important and that school performance is not relevant to their future), withdrawal, underperformance, and increases in problem behaviors (Neblett et al., 2006).

African American students also have to deal with racism and discrimination in their daily lives. Feelings of rejection due to cultural estrangement or feeling like a cultural misfit are correlated with lower levels of self-esteem and general life satisfaction, anxiety, and depression (Branscombe et al., 1999). An uncaring and unsupportive environment heightens the impact of racial discrimination (ong, Eccles & Sameroff, 2003).

Discrimination from teachers has a significant impact on African American

students. African American adolescents are more likely to have white teachers, and teachers in general are unlikely to have received a lot of training in multi-cultural education. Experiences of racial discrimination from teachers or peers predicts decline in grades, academic ability, academic value, mental health and increases in the proportions of one's friends who are not interested in school and have behavior problems. (Wong, Eccles & Sameroff, 2003) School is a place where children and adolescents spend a great deal of their time, so it is important to focus specifically on discrimination in the school and classroom. Most research on everyday discrimination is actually on adults; thus, we know relatively little about discrimination's effects on adolescents and how the effects of discrimination change in the transition from childhood to adolescence. However, discrimination is likely to affect the identity formation, peer relations, academic achievement, occupational goals, and mental and physical well being of early adolescents (Brown & Bigler, 2005).

This study will allow people to better understand how discrimination impacts African Americans, young adolescents and girls, and how race, age, and gender interact. Better information about how discrimination works could improve interventions and create better, more effective schools.

Gender Differences in the Impact of Discrimination

Gender differences are key in understanding the effects of perceived discrimination, but there is very little research on this issue. Socialization and stereotypically female characteristics are important to consider. Girls are socialized to be more concerned with relationships and gaining approval of others. Thus, girls' self-concepts around academics may be more dependent on treatment from valued others and

more vulnerable to racial discrimination. (Chavous et al., 2008). Evidence suggests that black girls, particularly gifted ones, are more likely than black boys to underachieve (Frazier-Kouassi, 2002), adopting negative academic strategies to avoid negative interactions with and treatment from peers and teachers (Chavous et al., 2008).

There are several developmental reasons why girls are especially at risk during early adolescence. Girls report lower self-esteem than boys in early adolescence, and demonstrate less positive gender identity and self worth at this age (DuBois et al., 2002). Girls seem more at risk for negative consequences as a result of the transition to middle school than boys, which may be in part due to the fact that the timing of middle school tends to directly coincide with puberty for girls.

Age Differences in the Impact of Discrimination

Young adolescents are particularly vulnerable to the negative effects of discrimination, and have been understudied in the past (Dubois et al., 2002). Wong et al. point out that there are many developmental risks threatening adolescents' success in academics (2003). Early adolescence brings general declines in motivation, including decreased interest in school, self concept, confidence in one's intellectual abilities; and increases in test anxiety, learned helpless responses to failure, and focus on self evaluation rather than task mastery (Eccles & Midgley, 1990). Early adolescence is characterized by increases in desire for autonomy, peer orientation, self-consciousness, salience of identity issues, concern over relationships, and capacity for abstract cognitive activity (Eccles & Midgley, 1990). The increased focus on identity issues and fitting in amplify the negative effects of discrimination in school settings, especially given that

adolescents' capacities and skills for coping with negative experiences are still evolving (Chavous et al., 2008.)

Thus, the transition to middle school is the “beginning of a downward spiral that leads some adolescents to academic failure and school dropout” (Eccles & Midgley, 1990, p. 134). The middle school years are crucial for individual development because of the developmental tasks faced and the amount of time spent in the environment, yet many people agree junior high is a wasteland – cesspool of American education.” (Eccles & Midgley, 1990 ((136). There are many proposed explanations for this decline. One is Cumulative Stress Theory, which states that the combination of developmental and internal changes of puberty associated with the school transition is stressful (Eccles & Midgley, 1990). The quality of the junior high school is a major explanation for the decline – junior high schools are not providing developmentally appropriate educational environments (Eccles & Midgley, 1990).

African American adolescents are clearly at risk during the transition to middle school. For example, in a study by Burchinal and colleagues (2008), the effect of social risk on achievement and behavioral outcomes was exacerbated by expectations of racial discrimination. In another study, experiences of racial discrimination from teachers or peers predicted decline in grades, academic ability, academic value, mental health and increases in the proportions of one's friends who are not interested in school and have behavior problems (Wong et al., 2003).

The Unique Case of African American Middle School Girls

Research with adults has shown that members of stigmatized groups are more likely to perceive discrimination (Brown & Bigler, 2005). Due to the compounding

factors of race and gender for African American females, I expected that this group will perceive the most discrimination. I predicted that the academic success of girls will suffer more than that of boys as a result of perceived discrimination. I also predicted that discrimination would have more negative impacts on early adolescents than in late childhood. In general, I expected to find that students who perceive more discrimination would have lower levels of academic success.

African American girls are a “special case” that is understudied. This may be because African American females perform better in school than African American males (Harris-Britt et al., 2007). However, African American females are at a high risk for underachievement (Harris-Britt et al.). Dubois et al. (2002) also found that low-income females are more at risk for underachievement, and African Americans are more likely than European Americans to be low income. Thus, black girls likely face more barriers to success than white girls.

This study is innovative in several ways. Very few studies span the transition to middle school and the movement between late childhood and early adolescence, particularly in a specific race and gender context. Research literature on African American adolescents’ academic outcomes pays relatively little attention to the factors that predict positive academic outcomes within African American adolescents. In this study, I hope to identify race-gender-age specific protective factors, and explore the experience of Black girls who are exposed to racial discrimination, and thus may be more sensitive and disadvantaged overall.

Method

Participants

The participants in this study were 109 African American students, 51 boys and 58 girls. We omitted those students who did not have complete data for both time points. On average, the 5th graders in the study were 11.15 years old ($SD = 9.12$ months). The 7th graders in the study were, on average, 13 years old ($SD = 8.4$ months).

The average family income score for 5th graders was between \$20,000 and \$30,000 per year, so the majority of these families are low income. The average family income for 7th graders was between \$30,000 and \$40,000 a year. In addition, parents had attained slightly above a high school diploma, on average. Less than 2% had less than a high school education, and about 13% had a college degree or higher.

Students were recruited from 6 predominantly Black elementary schools ranging from 67% to 86% African American enrollment ($M = 75.68\%$). The students were enrolled in 10 somewhat more diverse middle schools that ranged from 27% to 98% African American ($M = 68.99\%$). The middle schools were 15.03% white, on average. The elementary schools primarily served low income youth. About 82% of the fifth graders were eligible for free or reduced lunch. Forty nine point ninety eight percent of students in the middle schools from which we recruited our sample were eligible for free or reduced lunch,

Measures

Racial Discrimination. School racial discrimination was assessed using an adapted version of the school subscale of the Adolescent Discrimination Distress Index (ADDI; Fisher et al., 2000), which consists of 4 items and asks students to rate on a 5-

point scale (1= never, 2 =once or twice, 3=3–5 times, 4 = 6–10 times, 5 = more than 10 times) how often they have experienced each of the described events during the past 3 months. The survey items asked whether students were wrongly disciplined, earned a lower grade than they felt they deserved, felt excluded by other students, and were assumed to have poor English language abilities because of their race. Adolescents' responses to the items were averaged to yield a single score indicating the frequency of their discrimination experiences, with higher scores indicating greater levels of perceived discrimination. Fisher et al. (2000) reported strong test–retest reliability for the measure. Reliability for this measure was adequate at fifth ($\alpha = .75$) and seventh ($\alpha = .77$) grades.

Achievement. Achievement was measured in a few different ways: North Carolina End of Grade scores in Language Arts and Math and class grades in Language Arts and Math were obtained from transcripts. Unfortunately, test scores for science were not available. Scores used here were math and language arts percentile scores that represented children's performance relative to state norms as indicators of achievement, and relative standing within their grade at the state level.

Classroom Engagement. Students' classroom engagement was measured with a revised 15-item version of Skinner and Belmont's (1993) measure of classroom engagement and re-engagement after failure. Students reported their agreement with the statements using a 4-point Likert scale (1 = not at all true, 2= not very true, 3 = sort of true, 4 = very true). Children rated the extent to which each statement was true for them (e.g., "I work hard when we start something new in class" and "When I have trouble understanding something, I give up."). Negatively worded items were reverse-coded, and item scores were averaged to create a single aggregate measure of classroom engagement

for each time point (i.e., Grade 5 and Grade 7). Scales were shown to be reliable, with a Cronbach's Alpha score of $\alpha = .81$ at T1 in 5th grade and $\alpha = .77$ at T2 in 7th grade.

Teacher report of classroom engagement was also used. In Grade 5, each child's classroom teacher provided teacher reports. In Grade 7, Language Arts and mathematics teachers provided reports, and responses were averaged across the two teachers to provide composite Grade 7 teacher scores. Teacher ratings of children's classroom engagement were measured with the same 15 items that were used for child reports of classroom engagement. The only difference was that "this child" was substituted for "I." Negatively worded items were reverse-coded and item scores were averaged to yield an aggregate measure of teacher ratings of classroom engagement at each measurement point, $\alpha = 0.97$ for Grades 5 and 7.

Procedure

Students were recruited in the public elementary schools they attended, which are all located in the Southeastern United States. Students were recruited while in school and given consent forms to take home. Those students returning consent forms signed by a parent or guardian, and who also signed a student assent form, were surveyed during the school day. The participants were told that the surveys were meant to provide information about their thoughts and attitudes regarding their experiences in school. These interviews occurred in groups of varying size depending on the age of the students (middle school students were interviewed in larger groups than the elementary school students). In these sessions, research assistants followed a script explaining the directions for each measure. At times the research assistants read the questions aloud to accommodate students at

different reading levels. There was always a majority of African American research assistants during the survey administration. Those students who completed the survey received a \$5 gift certificate in the middle school sample and a toy from a grab bag in the elementary school sample.

Results

Preliminary analyses

Perceived Discrimination

Table 1 contains mean levels of perceived discrimination by child gender and grade. The average level of discrimination was relatively low at Time 1 ($M = 1.52$, $SD = .63$) and Time 2 ($M = 1.56$, $SD = .70$). These means suggest that, on average, participants experienced the events listed somewhere between never (1) and once (2) in the past 3 months. A paired samples t-test showed that although average ratings of perceived discrimination increased from 5th to 7th grade, this increase was non-significant ($t = .56$, $p > .05$). Moreover, independent samples t-tests showed no significant gender differences in perceived discrimination at 5th ($t = .76$, $p > .05$) or 7th ($t = -.57$, $p > .05$) grade. To consider whether changes in perceived discrimination over time differed by gender, I split the data file according to gender and ran the independent samples t-test. Time differences were non-significant for boys ($t = -.73$, $p > .05$) and girls ($t = 1.33$, $p > .05$)

Table 1

Descriptive statistics (Mean and Standard Deviation) for Perceived School Discrimination by child sex and grade.

	Male	Female	Total
Grade 5	1.47 (.54)	1.57 (.71)	1.52 (.63)
Grade 7	1.60 (.81)	1.52 (.59)	1.56 (.70)
Total	1.54 (.67)	1.54 (.65)	1.54 (.67)

Next, bivariate correlations were conducted to examine relationships between fifth and seventh grade discrimination scores and between discrimination scores and family demographics (i.e., family income and parent education level). Perceptions of discrimination were positively correlated across time ($r = .37, p < .01$). However, perceived discrimination was unrelated to family income or parent education level.

Primary Analyses

In this study, I examined the association between perceived discrimination and academic success, specifically whether perceived discrimination is related to more negative outcomes for girls or boys. Additionally, this investigated the interaction of gender and perceived discrimination across different grades, comparing fifth and seventh graders.

Table 2

Correlations between Perceived Discrimination and EOG scores, grades, and classroom engagement by gender in fifth grade.

	EOG Language Arts Time 1	EOG Math Time 1	Language Arts Grade Time 1	Math Grade Time 1	Engagement (Student Report) Time 1	Engagement (Teacher Report) Time 1
Discrimin- ation Time 1	-.14	-.12	-.17	-.13	-.29**	-.22*
Discrimin- ation Male Time 1	-.08	-.14	-.08	-.12	-.25	.12
Discrimin- ation Female Time 1	-.19	-.09	-.27	-.15	-.35**	-.47**

Table 3 Correlations between Perceived Discrimination and EOG scores, grades, and classroom engagement by gender in seventh grade

Impacts of Perceived Discrimination 17

	EOG Language Arts Time 2	EOG Math Time 2	Language Arts Grade Time 2	Math Grade Time 2	Engagement (Student Report) Time 2	Engagement (Teacher Report) Time 2
Discrimination Time 1	-.14	-.17	-.18	-.31**	-.26*	-.26*
Discrimination Male Time 1	-.17	-.19	.09	-.02	-.25	-.20
Discrimination Female Time 1	-.14	-.14	-.44**	-.59**	-.31*	-.35*
Discrimination Time 2	.01	-.14	-.13	-.11	-.26*	-.10
Discrimination Male Time 2	-.15	-.06	-.002	.10	-.13	.06
Discrimination Female Time 2	-.15	-.31*	-.32*	-.38*	-.42**	-.29*

Correlations

To examine the relation between perceived discrimination and the set of achievement outcomes, we conducted bivariate correlations. Correlations were conducted within grades (e.g., fifth grade perceived discrimination related to fifth grade achievement) and between grades (i.e., fifth grade perceived discrimination related to seventh grade achievement) for the full sample and separately by gender.

5th grade discrimination related to 5th grade achievement

Full Sample

For the full sample, 5th grade discrimination was unrelated to 5th grade Language Arts EOG, Math EOG, Language Arts grades, and Math grades. However, 5th grade discrimination was negatively associated with child report of classroom engagement ($r = -.29, p < .01$) and teacher report of classroom engagement ($r = -.22, p < .05$.)

Girls

For 5th grade girls, 5th grade discrimination was unrelated to Language Arts EOG, Math EOG, Language Arts grades, and Math grades. However, 5th grade discrimination was negatively associated with child reported classroom engagement ($r = -.35, p < .01$) and teacher report of classroom engagement ($r = -.47, p < .01$.)

Boys

For 5th grade boys, 5th grade discrimination was not related to any of the achievement outcomes.

7th grade discrimination related to 7th grade achievement

Full Sample

For the full sample, 7th grade discrimination was unrelated to 7th grade Language arts EOG scores, Math EOG scores, Language arts grade, Math grades and teacher report of classroom engagement. However, 7th grade discrimination was negatively associated with child report of classroom engagement ($r = -.26, p < .05$)

7th grade girls

For 7th grade girls, 7th grade discrimination was unrelated to 7th grade Language Arts EOG scores. However, 7th grade discrimination was negatively associated with Math EOG scores ($r = -.31, p < .01$), Language arts grades ($r = -.320, p < .05$), Math grades ($r = -.38, p < .05$), child report of classroom engagement ($r = -.42, p < .05$) and teacher report of classroom engagement ($r = -.29, p < .05$).

7th grade boys

For 7th grade boys, 7th grade discrimination was unrelated to achievement outcomes.

5th grade discrimination related to 7th grade achievement

Full Sample

For the full sample, 5th grade discrimination was unrelated to 7th grade Language Arts EOG, Math EOG scores, and Language Arts grades. However, 5th grade discrimination was negatively associated with 7th math grades ($r = -.31, p < .01$), child report of classroom engagement ($r = -.26, p < .01$) and teacher report of classroom engagement ($r = -.26, p < .05$).

Girls

For girls, 5th grade discrimination was unrelated to 7th grade Language Arts EOG scores, and Math EOG scores. However, 5th grade discrimination was negatively associated with Language Arts grades ($r = -.44, p < .01$), Math grades ($r = -.59, p < .01$),

child report of classroom engagement ($r = -.31, p < .05$) and teacher report of classroom engagement ($r = -.35, p < .05$).

Boys

For boys, 5th grade discrimination was unrelated to 7th grade achievement outcomes.

Assessing Directionality

As a final exploratory analysis, I wanted to investigate whether it was clear that perceived discrimination was leading to achievement outcomes, as opposed to the achievement outcomes predicting perceptions of discrimination. I then did a correlation between each of the achievement variables at Time 1 and perceived discrimination at Time 2. For the full sample, only child report of classroom engagement was negatively related to perceived discrimination ($r = -.32, p < .01$). For girls, both child and teacher reports of classroom engagement in 5th grade were negatively correlated with discrimination experiences in 7th grade, ($r = -.35, p < .01$) and ($r = -.44, p < .01$). For boys, there were no significant relationships.

Discussion

The results of this study identified the association of perceived discrimination on academic achievement and engagement in a longitudinal study of 5th and 7th grade boys and girls. The overall goal of the study was to focus on the understudied combination of race, gender and age of African American girls to determine whether or not discrimination is negatively associated with academic outcomes. The study had three goals. The first was to examine age and gender differences in perceptions of school-based racial discrimination. The second was to examine age and gender

differences in the relationship between perceived racial discrimination and achievement outcomes. A final key goal was to research African American girls, a historically understudied group.

Overall, I found that for both 5th and 7th graders, discrimination was negatively associated with classroom engagement, but not grades or end-of-grade test scores. However, examining the results by age and gender demonstrated that girls were more negatively affected by perceived discrimination than boys.

Differences in Perceptions of Discrimination by Age and Gender

The first set of questions addressed whether there were age or gender differences in students' perceptions of racial discrimination. There were no significant differences in perceived discrimination between 5th and 7th grade or between boys and girls. This was contrary to my original hypotheses based on prior research (Brown & Bigler, 2005; Chavous et al., 2008), which suggested that adolescents are more likely to perceive discrimination than younger children. There was very little prior research on perception of discrimination in this age group. The lack of difference in perception of discrimination between 5th graders (typically 10-11 years old) and 7th graders (typically 12-13 years old) may have occurred because seventh graders are still early adolescents. This lack of difference in perception may also reflect contextual factors not assessed in this study. The children in my study attended predominantly black schools, where race, and racial discrimination, may be less salient than in racially mixed schools. Future research should consider social and contextual factors. As society is racially integrated, it is important

that students do not feel discriminated against in racially mixed settings in addition to settings where they are surrounded primarily by people of their own race.

The lack of gender differences was also surprising given previous research. My hypothesis was that girls at this age would perceive more discrimination than boys. This expectation was based on previous research showing that girls are especially sensitive during this developmental period (Eccles & Midgley, 1999, Dubois et al., 2002), and more aware of others' judgments and perceptions of them due to the tendency to be more relational and seek approval from others, as compared to boys.

Age and Gender Differences in Impacts of Perceived Discrimination

The next set of research questions related to the relationship between perceived discrimination and achievement outcomes. I highlighted classroom engagement, grades and test scores as outcomes that may be especially affected by feelings of poor treatment in school. This study demonstrated, in line with previous research (Chavous et al., 2008, Burchinal et al., 2008), that perceived racial discrimination was negatively related with classroom engagement and grades, though the pattern was not completely consistent between and across grades. My study found that for all 5th graders, discrimination was negatively associated with both child and teacher reports of classroom engagement. For the 7th graders, discrimination was negatively associated with students' report of classroom engagement. In addition, fifth grade discrimination was negatively associated with 7th grade math grades as well as child and teacher reports of engagement, suggesting that early discrimination experiences have some bearing on later performance.

I expected that older youth would be more negatively affected by discrimination, based on prior research (Eccles & Midgley, 1990). My results, though, suggested that the pattern of correlations was similar at both time points. I found a negative relationship between 5th grade discrimination and both 5th and 7th grade classroom engagement. Seventh grade discrimination was also negatively associated with 7th grade self-reported classroom engagement (but not teacher report). This may be due to the fact that 7th grade teachers don't get to know their students as well because students go to multiple classes a day rather than staying predominantly with one teacher like in 5th grade.

In terms of gender, there were some clear differences. For boys, there were no significant relationships between perceived discrimination and any achievement outcomes. For girls, there were several significant relationships. First, within-grade relationships between discrimination and classroom engagement were strong at both grades. Second, correlations between discrimination and grades were also significant within seventh grade. Third, although fifth grade discrimination was not related to fifth grade grades and test scores, it was negatively related to seventh grade grades, test scores, and engagement. This suggests that girls are more negatively impacted by perceived discrimination than boys, in terms of both engagement and academic performance. This fits my hypothesis that girls are more at risk for the negative effects of discrimination due to vulnerability based on socialization as well as the developmental and social influences of the pre and early adolescent time period (Eccles & Midgley, 1990; Chavous et al. 2008). Further, the seemingly contrary findings of Chavous et al.'s study, that there are more negative impacts for Black males, particularly in the 11th grade, because of "their

looking more like adult men and being perceived of as being even more of a threat” (p. 649), may be due to the differences in age group focused on.

Directionality

The findings about directionality may have implications for how teachers are treating students. These findings show that the relationship between both self reported and teacher reported engagement and discrimination could be attributional, in that those students who are less engaged attribute their lack of success to discrimination (rather than their own performance.) Another possibility is that students who are less engaged are more likely to experience discrimination, and students who are more engaged are less likely to experience discrimination. That is, teachers may treat low performing students more negatively. It is important to note that this is only true for girls.

Focusing in on African American Middle School Girls

The results of my study highlight the importance of improving understanding of the experiences of African American girls around the transition to middle school. Other research suggests that girls may be more at risk for the negative consequences of the junior high/middle school transition than boys (Eccles & Midgley, 1990) and that girls’ valuing of social relations may make interpersonal discrimination, such as discrimination occurring in a school context, to be especially harmful (Chavous et al., 2008). Moreover, findings that girls and women may experience more subtle forms of discrimination may mean developing new methods of studying these issues (Irvine, 1986).

Explanation for Racial Achievement Gap

There are clearly long-term consequences of discrimination, as we have found relationships between 5th and 7th grades in terms of engagement. However, the fact that

the level of perceived discrimination impacts classroom engagement overall more than grades and test scores indicates that the students' perceptions of discrimination may not be the critical predictor of academic achievement, or fully explain the racial achievement gap that persists in the United States. These findings could be due to a few reasons. First, it may be that students at this age and developmental stage are not as aware of discrimination. In addition, every day perceived discrimination might be subtler, thus less apparent to children. Another possible explanation that I think is crucial to highlight is that the impacts of interpersonal discrimination may not be as significant as those of institutional and societal level discrimination. However, it is likely that lack of engagement early on will lead to performance issues later because engagement and grades are positively correlated. My findings differ from Wong et al., who found that children's perceptions of discrimination were, in fact, a predictor of achievement, thus, further research into how this relationship plays out is necessary.

Strengths of study

One valuable aspect of this study is that the data are longitudinal, as the same students were assessed in both 5th and 7th grades. Another strength of this study is that I included multiple indicators of academic achievement – some self-report, some teacher report, and some transcript data. Moreover, we had both teacher and students report level of classroom engagement. The teacher reports of classroom engagement were important measures to have. It is very significant that teachers are also reporting low levels of classroom engagement when students are. Teacher and student ratings were similar for both girls and boys.

Limitations of study

There were several limitations to this study. First, in 5th grade, students were in predominantly black schools, while in 7th grade the schools were more ethnically diverse. This results in a confounding of grade and diversity of schools: is change in perceived discrimination due to getting older or more diverse schools? In other words, does perceived discrimination have the same impact when a minority group is a minority versus a majority in the institution the sample is drawn from? In general, the make-up of schools is an important consideration, and the level of discrimination experienced as well as the impact of that discrimination would likely be affected. Brown and Bigler (2005) discuss this concept in saying that peoples' perceptions of discrimination are facilitated by whom they are comparing themselves to. Further, the race and background of the teachers is not identified, though this factor could have a significant impact.

Another problem was that the sample size was small. As I described above, the study was longitudinal, which is beneficial in many ways, but this meant I was more limited in the students I could count in my study, and thus the statistically significant conclusions I could arrive at.

Another limitation of the study is the lack of comparison to other races. It would have really added to the study to see how white students and students of other ethnic minorities performed in class and on standardized tests, and how they were rated in terms of classroom engagement.

Suggestions for future research

One of the primary implications for future research is investigation of factors that contribute to the academic performance gap between African American and white students. Since I found that, particularly for boys, perceived discrimination is not associated with academic performance, research into other causes is essential.

Another area of future research would be looking at what can be done in schools to decrease the impact of perceived discrimination. These involve looking at questions such as “How do teachers and schools as institutions treat girls differently?” and “How do teachers and schools treat African American students compared to other groups?” A final implication for future research is to look at the impact of socioeconomic status. In her book *Unequal Childhoods*, Lareau argues that social class often plays a bigger role than race in upbringing and life opportunities. Further, Chavous, et al. found that there is a stronger negative association between classroom discrimination and GPA among boys from lower SES backgrounds relative to those from higher SES backgrounds.

Conclusions

This is one of the few studies comparing late childhood and early adolescence, and it revealed that at both time periods, children are vulnerable to the effects of discrimination. One of the most significant findings from this study is that racial discrimination is related to decreased classroom engagement. This is in line with prior research (Neblett et al., 2006, Wong et al., 2003). This has many implications for further research and improvement in education policy, ranging from national to individual classroom based changes.

It is important to recognize that being the target of discrimination has negative consequences whether or not the child perceives the discrimination. For example: the academic achievement of African American children is undermined by teachers whose behavior is discriminatory, even if the children don't detect the discrimination (Neblett et al., 2006). It is also important to explore other forms of discrimination, particularly institutional, in order to fully understand the impact discrimination has on youth and what can be done about it.

African American middle school girls are in a unique position where they face both racial and gender based discrimination, and are overshadowed by the focus on Black boys and White girls in most prior research. For Black middle school girls to reach their full potential, experiences of discrimination on many levels must be understood and addressed. This also has further implications for closing the achievement gap and increasing educational equality, which is one of the key issues facing the United States today.

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Adolescent Discrimination Distress Index (in Fisher et. al 2000)