

THE RELATIONSHIP BETWEEN TEACHER-BASED DISCRIMINATION,  
ACADEMIC ADJUSTMENT, PSYCHOLOGICAL WELL-BEING,  
AND STUDENT-TEACHER RELATIONSHIP QUALITY AMONG  
AFRICAN AMERICAN ADOLESCENTS

BY

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DISSERTATION

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## Abstract

The present study investigated the nature of perceived teacher-based racial and gender discrimination among young African American adolescents ((N=248; 50.8% female) and simultaneously examined associations between perceived racial and gender discrimination, academic adjustment, psychological well-being, and student-teacher relationship quality. Additionally, the study explored adolescents' beliefs about personality as a moderator between perceived discrimination and adjustment. In line with hypotheses, adolescents perceived more racial discrimination from teachers. However, African American boys perceived more gender discrimination than girls. When perceived racial and gender discrimination were considered simultaneously, racial discrimination was more strongly linked to teacher-student relationship quality; where as, gender discrimination was linked to academic adjustment and psychological well-being. Among girls, perceived racial discrimination was negatively associated with student-teacher relationship quality. Students perceiving both forms of adjustment evidenced lower levels of adjustment compared to students perceiving only one type of discrimination. Personality beliefs only moderated the relationship between perceived discrimination and student-teacher relationship quality

The findings from this study greatly contribute to our understanding of early adolescents' perceived racial and gender discrimination in educational contexts. Through examination of both gender and race-related discrimination the present study provides important insights into the nature and importance of discrimination for a comprehensive understanding of young African American adolescents' academic, psychological, and social adjustment in the classroom.

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## **Chapter 1**

### **Introduction**

Despite considerable gains, African American students continue to struggle with academic success, as evidenced by standardized test scores, high school graduation rates, and postsecondary attainment. Several decades of research consistently shows a gap in the academic achievement of European American and African American students with African American students lagging behind their European American peers (Alexander & Entwisle, 1988; Jencks & Phillips, 1998; McCall et al., 2006; Steele, 1992). The unique experiences of African American youth may explain the academic challenges and striking differences in educational outcomes. Unlike their European American counterparts, African American adolescents often face racial and ethnic discrimination in their daily lives (Fisher, Wallace, & Fenton, 2000). Such discriminatory experiences influence African American adolescents' academic motivation, achievement, and psychological well-being (Chavous et al., 2008; Graham & Hudley, 2005; Roeser, et al, 2000). Perceptions of racial discrimination are linked to decreased academic achievement, diminished school engagement, as well as increased depressive symptoms and low self-esteem (Chavous et al., 2008; Dotterer et al., 2009; Seaton, et al., 2010a; Smalls et al., 2007; Thomas et al., 2009).

While there is burgeoning interest in adolescents' racial discriminatory experiences, there is a dearth of scholarship on the influence of both racial and gender discrimination on the academic and psychological adjustment of African American youth (e.g. Cogburn et al., 2011). Although prior research suggests that racial and ethnic attributions are the predominant attributions for discrimination among African American youth, (Matthews et

al., 2005) adolescents also ascribe discrimination to gender (Seaton, et al., 2010a). Guided by Garcia-Coll's (1996) integrative model of development of ethnic minority children, the present study explores African American adolescents' perceptions of racial and gender discrimination. The integrative model emphasizes understanding how social position variables (i.e. race, ethnicity, gender) are mediated through social stratification processes, such as discrimination, which is considered to be a normative and frequent occurrence for youth of color. The effects of discrimination operate through the creation of segregated contexts, which include economic, social, and psychological dimensions. In turn, the interplay of social position, social stratification, and segregation create the unique challenges youth of color encounter and directly influence their developmental pathways (Garcia-Coll et al., 1996). Accordingly, this study will examine how perceptions of teacher-based racial and gender discrimination are associated with academic adjustment, psychological well-being, and student-teacher relations.

This introduction begins by noting the key contributions of the current research study, followed by a review of the relevant literature. I begin the literature review with a brief discussion of teacher-based discrimination to highlight the importance of examining perceived discrimination within this context. Next, I consider the research on racial and gender discrimination and the influence of teacher-based discrimination on adolescents' psychological and academic adjustment. I then summarize research on differences in perceptions of discrimination between African American girls and boys and potential differential outcomes. Additionally, I discuss the prospect of personality beliefs as protective factors against perceived racial and gender discrimination. I conclude with research questions and a delineation of study hypotheses.

### *Significance of Present Study*

The present study makes several significant contributions to the theoretical and empirical research on adolescent perceptions of discrimination. A major contribution of this study is the investigation of adolescents' experiences with racial and gender discrimination in school. The vast majority of studies on adolescent discrimination examine either racial discrimination or gender discrimination, but given that students may experience both forms of discrimination simultaneously, it is important to concurrently assess the role of both for a comprehensive understanding of adolescents' perceptions of discrimination and their relation to adjustment. Employing such an approach can elucidate the relations among reported discrimination experiences, as well as unique and possible interactive effects of each type of discrimination on adjustment.

Another novel contribution is the examination of perceived discrimination in relation to the quality of relationships students have with their teachers. Extant research indicates that there is an increased risk for negative socio-emotional outcomes when adolescents perceive lack of support or respect from teachers (Eccels et al., 1993; Wentzel, 1997). Accordingly, when students perceive discrimination from teachers, student-teacher relations can be negatively affected. Thus, in addition to exploring psychological adjustment, which has been the focus of previous investigations (e.g., Chavous et al., 2008; Eccles, Wong, & Peck, 2006; Seaton et al., 2010a,b), I examine several facets of student-teacher relationship quality to provide a more complete understanding of African American adolescents' perceived discrimination from teachers in school contexts.

An additional contribution of the present study is the exploration of gender variation in perceptions of discrimination and relations between perceived teacher

discrimination and adjustment. This is important because African American boys and girls are known to perceive different levels of racial discrimination in the classroom (Chavous et al., 2008), evidence disparities in academic achievement (Mickelson & Greene, 2006), and are socialized differently around race and gender (Hill, 2002; Hughes et al., 2006). Therefore, it is critical to explore gender differences in perceived racial and gender discrimination and the relations between perceived discrimination and adjustment.

Most studies of discrimination and adjustment focus on older adolescents and adults. Thus, another contribution is exploration of these issues in young adolescents. The impact of racial and gender discrimination can be significant during early adolescence, as this is a critical period for the development of ethnic identity and gender intensification (Crouter, Manke, & McHale, 1995; Galambos, Almeida, & Peterson, 1990; Phinney, 1989; Phinney, 1990). During this stage of development, youth become more aware of personal and societal discrimination and negative racial and gender stereotypes (Brown & Bigler, 2005; Quintana & Vera, 1999; Ruble & Martin, 1998). Furthermore, adolescents have more advanced cognitive abilities, which enable them to have a more nuanced conceptualization of discrimination (Brown & Bigler, 2005; Quintana & Vera, 1999). Investigating the influence of perceived racial and gender discrimination for early adolescents is critical to devising interventions tailored to meet their distinct developmental needs and aid in identifying factors that buttress efforts to overcome racial and gender barriers.

The research on African American adolescents' experiences with discrimination is replete with empirical studies highlighting the adverse effects of discrimination, yet research is lacking in exploring factors that protect youth from the negative consequences associated with discrimination. Several studies indicate that ethnic identity is a protective



factor (e.g. Chavous et al., 2008; Eccles, Wong, & Peck, 2006; Greene, Way, & Pahl, 2006; Sellers et al., 2006) as well as racial socialization and parental expectations (Brown et al., 2009; Brown & Tylka 2011; Harris-Britt et al., 2007; Neblett et al., 2006; Wood et al., 2007). However, few studies employ adolescents' personality beliefs as a moderator between adjustment and perceived discrimination. Given that assumptions about personality influences judgments one makes of others and how one reacts to negative social behaviors (Dweck, Chiu, & Hong, 1995) the current study explores whether students' assumptions about the stability of personality offer protection from the possible harms of perceived discrimination from teachers.

#### *Teacher-based Discrimination*

Adolescents' discriminatory experiences often occur in school settings and such experiences have the potential to undermine academic and psychological outcomes, thus it is an important context within which to study adolescents' perceptions of discrimination (Chavous, et al., 2008; Roeser, Eccles, Sameroff, 2000; Wong, Eccles, & Sameroff, 2003). A common source of discrimination in educational settings is teachers (Fisher, Wallace, & Fenton, 2000; Greene, Way, & Pahl, 2006) and for African American students, teachers are often racially dissimilar. Furthermore, gender mismatch between teachers and African American boys is likely since most teachers are white women. The racial and gender incongruence can influence student-teacher interactions and affect students' perceptions of discrimination (Irvine 1986; Pigott & Cowen, 2000). In fact, African Americans students do report experiencing discrimination from teachers (Chavous et al., 2008; Fisher, Wallace, & Fenton, 2000; Greene, Way, & Pahl, 2006). For example, youth report receiving lower grades and being disciplined more harshly by teachers due to race (Fisher, Wallace, and

Fenton, 2000). These discriminatory experiences with teachers can lead students to devalue school, mistrust teachers, and perceive teachers as uncaring and ineffective, (Fordham & Ogbu, 1986; Leaper & Brown, 2008; Rosenbloom & Way, 2004; Taylor et al., 1994) which can increase the likelihood that academic, psychological, and social adjustment will be adversely affected (Goodenow & Grady, 1993; Wentzel, 1997).

### *Racial Discrimination*

The deleterious effects of perceived racial discrimination on adolescents' psychological well-being are widely documented (Fisher, Wallace, & Fenton, 2000; Greene, Way, & Pahl, 2006; Seaton & Yip, 2009; Wong, Eccles, & Sameroff, 2003). For example, among African-American adolescents, perceptions of racial discrimination are associated with lower levels of self-esteem and life satisfaction (Greene, Way, & Pahl, 2006, Seaton & Yip, 2009). Perceived racial discrimination is also linked to increased depressive symptoms among African American and Caribbean Black adolescents (Seaton et al., 2010b). In a sample of middle school students, Roeser, Eccles, & Sameroff (2000) found that differential treatment from teachers based on race negatively affected African American students' mental health. Due to the significant influence that perceived racial discrimination has on the lives of African American adolescents, it is important to expand our knowledge of adolescents' experiences with discrimination and understand how students that perceive discrimination differ from those that do not.

While there are several studies that examine the associations between perceived discrimination and psychological adjustment, there are fewer studies that explore relations between perceived discrimination and academic adjustment, which can provide insight into the link between race-related experiences and academic achievement. The salience of

deprecating beliefs about particular groups is likely to increase the likelihood of negative academic outcomes. Findings from Steele and Aronson (1995) support this idea. Steele and Aronson (1995) found that when African American students experience an intellectual task, they face the threat of confirming negative stereotypes about their academic abilities. This fear of confirming pejorative stereotypes about one's group is known as stereotype threat. This threat leads students to experience anxiety and perform poorly on academic tasks. Overtime, incidents of stereotype threat are likely to lead to "disidentification" with school, which can result in lower levels of academic motivation, lower grades, and dropping out of school (Steele, 1992).

Perceived racial and ethnic discrimination are negatively associated with various academic outcomes. For example, perceived racial discrimination from teachers is linked to diminished academic achievement, as well as academic self-concept and school engagement (Chavous et al., 2008; Thomas et al., 2009; Wong et al., 2003). Taylor et al (1994) found that perceptions of a discriminatory job ceiling were negatively related to importance of schooling and school engagement among African American adolescents. Research also suggests that students' reports of racial discrimination in educational contexts are related to decreased levels of academic persistence, academic curiosity, and increased negative school behaviors (Smalls et al., 2007). Given that adolescents' perceptions of discrimination relate to particular educational outcomes, further study of the relations between perceived racial discrimination and other indicators of academic adjustment is needed to broaden our knowledge of race-related experiences and academic outcomes.

## *Gender Discrimination*

In the United States, women and girls are members of a low status group; therefore, research on gender discrimination and sexism often focuses on girls and women. Empirical evidence suggests that women and girls are more likely to perceive gender discrimination, (Brown et al., 2010; Inman & Baron, 1996; Levin et al.2002) which can be detrimental to psychological well-being. Among a predominantly European American sample of college women, gender discrimination contributed to increased physical and psychiatric symptoms (Klonoff, Landrine, & Campbell, 2000). Similarly, perceived sexism predicts psychological distress among African American women (Szymanski & Stewart, 2010).

In studies of children and adolescents, reports of sexism and gender discrimination are linked to poor psychological and academic adjustment (Brown, Bigler, & Chu, 2010; Leaper & Brown, 2008; Roeser, Eccles, & Sameroff, 2000). For example, among girls, perceived gender discrimination is associated with decreased self-efficacy, value of mathematics, and overall school value (Leaper & Brown, 2008; Roeser, Eccles, & Sameroff, 2000). Additionally, research exploring the sociological phenomenon, stereotype threat among females, has shown that the salience of stereotypes about the performance of one's subgroups can negatively affect academic performance (Steele, 1997).

Very few studies have examined perceived gender discrimination among girls *and* boys, especially, among ethnic or racial minorities. Given that both African American girls and boys are victims of negative stereotypes and gender discrimination, it is important to examine girls and boys' perceptions of gender discrimination. In one study of African American boys and girls, gender discrimination was linked to higher depressive symptoms and lower school importance (Cogburn et al., 2011). Moreover, African American boys in

the same study reported higher levels of gender discrimination. Extending research on African American youth's perceived gender discrimination will advance our understanding of the effects of perceived gender discrimination and illuminate gender differences.

#### *Gender Differences in Perceptions of Discrimination among African American Adolescents*

Gaining a thorough understanding of African American adolescents' perceptions of racial and gender discrimination requires consideration of the intersection of gender and race, which may result in gender differences in perceived discrimination among African American adolescents. According to intersectionality theory, to understand gender experiences, one must take into account the role of other social categories, such as race or ethnicity (Collins, 1998). Seaton and her colleagues (2010a) advise that discrimination is based on the intersection of multiple social group categories such as race, ethnicity, and gender. Moreover, research illustrates that race and gender intersect to produce differences in perceptions of racial and gender discrimination (Brown & Bigler, 2004, Chavous, et al. 2008; Inman & Baron, 1996). Gender and racial stereotypes often place African-American males at a disadvantage (Graham, Taylor, & Hudley, 1998). Prevalent stereotypes suggest that African American males are threatening and aggressive (Noguera, 2008). The pervasiveness of these stereotypes can result in African American boys being targeted more for discrimination and perceiving greater levels of discrimination. There is in fact evidence, which suggests that African American boys do report more classroom racial discrimination and gender discrimination compared to girls (Casteel, 1998; Chavous, et al. 2008; Cogburn et al., 2011; Roeser, Eccles, & Sameroff, 2000). African American girls and boys' different encounters with discrimination and perceptions of discrimination are likely to result in different academic, psychological, and social outcomes. For example, classroom

discrimination is significantly related to decreased GPA and school importance for boys, but the same associations were not found among girls in the same study.

However, African-American girls may also experience vulnerability in the classroom. Among adults, scholars tested the double-jeopardy hypothesis, which suggests that because African American women are targets of both gender and racial discrimination, they will be more disadvantaged compared to African American men. Conversely, there is a competing hypothesis, which is known as the ethnic-prominence hypothesis. According to this idea, African American men and women will experience similar levels of disadvantage because ethnic or racial discrimination will be more salient for both groups (Levin et al., 2002). Levin and her colleagues (2002) found support for the ethnic-prominence hypothesis in their study of perceived discrimination with adults. However, Cogburn and her colleagues (2011) did not find support for the ethnic-prominence hypothesis nor the double jeopardy hypothesis among African American adolescents. More research is needed to test both hypotheses and explain how they operate in different samples.

#### *Implicit Theories of Personality as a Protective Factor*

Implicit theories of personality potentially influence how adolescents' interpret and make sense of their teachers' discriminatory behaviors and can thus moderate the relationship between perceived discrimination from teachers and adjustment. Implicit theories of personality are an extension of Dweck's implicit theories of intelligence, which are strongly linked to academic motivation and academic performance (Dweck, 2002; Dweck & Leggett, 1988). Dweck (1999) identified two principal beliefs about intelligence: an incremental belief and an entity belief. An incremental view of intelligence suggests that

intelligence is malleable while an entity view of intelligence is based on the belief that intelligence is fixed. These same beliefs have been extended to personality. Implicit theories about personality influence the ways in which individuals understand and respond to the behaviors of others (Dweck, Chiu, & Hong, 1995). Given that students' beliefs about intelligence relate to their academic behaviors and how they make sense of their academic successes and failures, it is likely that students' personality views relate to how they interpret their teachers' behaviors and in turn, their academic, psychological, and social adjustment.

Implicit theories encompass two assumptions individuals make with regard to personality traits. One assumption is that personality is fixed and cannot be changed, while another notion is that personality is malleable, can be changed and developed (Dweck, Chiu, & Hong, 1995). Entity theorists believe that personality traits are stable and consistent across situations while incremental theorists believe that traits can change and vary across different contexts (Dweck, Chiu, & Hong, 1995). Entity theorists then use traits as causal explanations for behaviors and then use this information to predict future behavior. There is compelling evidence that entity theorists predict greater stability of negative behavior over time (Erdley & Dweck, 1993). Adolescents subscribing to an entity view may hold that their teachers' personality traits are fixed and the discrimination they experience from their teacher will never change. This may then lead to feelings of helplessness and disengagement from school and ultimately declines in academic motivation and achievement.

Conversely, students with an incremental view are likely to believe that their teachers' personality traits and behaviors can change over time. Individuals holding an

incremental view of personality are more willing to learn and are likely to confront challenges (Dweck, 1999). Walton and Cohen (2007) conducted a study aimed at increasing African-American college students' expectations of acceptance in a predominately White institution. When students were told that people's perceptions can change overtime, they sought more challenging courses, were more resilient, and experienced more favorable academic outcomes. Given the findings from this study, African-American students holding the belief that personality is malleable may experience academic success despite race-related and gender-related incidents that occur in school settings. Incremental theorists are also more likely to understand a person's actions based on behavioral or psychological mediators (Dweck, Chiu, & Hong, 1995). In other words, a person's behaviors are not attributed to fixed personality traits, but are explained by other factors. Students adopting an incremental view of personality may find it easier to cope with gender and racial discrimination and attribute the teachers' behaviors to situational factors and factors unrelated to race or gender. These students are then able to remain engaged because they believe that the teachers' personality can change. Students holding this assumption are then able to overcome teachers' negative perceptions of their academic ability and seek to change the teacher's negative judgments. As a result, students' holding an incremental belief will be protected from the detriment that is often associated with racial and gender discrimination.

### *Research Questions and Hypotheses*



This study expands previous research through its simultaneous examination of perceived racial and gender discrimination from teachers among African American adolescents. The study research questions and hypotheses are outlined below:

*RQ 1: What is the extent of perceived teacher-based discrimination in a young African American adolescent sample?*

*H1:* I expect that young African-American adolescents will perceive more racial discrimination compared to gender discrimination given that race tends to be more salient for this racial and ethnic group. It is also expected that African-American boys will perceive more racial and gender teacher-based discrimination as gender and racial stereotypes often place African-American males at a disadvantage (Graham, Taylor, & Hudley, 1998) and prior research has found that African-American boys report more school-based discrimination than African-American girls (Chavous et al., 2008).

*RQ 2: What are the associations between perceived racial discrimination from teachers and adjustment and perceived gender discrimination from teachers and adjustment?*

*H2:* Based on previous research (Fisher, Wallace, & Fenton, 2000; Greene, Way, & Pahl, 2006; Wong Eccles, & Sameroff, 2003) that has demonstrated the deleterious effects of racial discrimination on adults and adolescents adjustment, I hypothesize that perceived racial discrimination will be negatively associated with students' academic adjustment, psychological well-being, and student-teacher relationship quality. I also expect that adolescents perceiving gender discrimination will report

decreased levels of psychological well-being and evidence weaker student-teacher relations and lower levels of academic adjustment.

*RQ3: Are there gender differences in the associations between teacher-based perceived discrimination and adjustment?*

*H3:* Prior research suggests that African American boys and girls respond and are affected differently by perceived discrimination. Thus, I expect that associations between teacher-based racial and gender discrimination, academic beliefs, achievement, psychological well-being, and student-teacher relations will be dissimilar for boys and girls. The differential treatment that African-American boys experience in the classroom is likely to result in negative outcomes, such as “disidentification” with academics (Osborne, 1997). Therefore, it is further posited that the relationships between gender and racial discrimination and adjustment will be more negative for males compared to females.

In contrast, African American girls may be socialized in ways that protect them from the adverse outcomes associated with perceived discrimination. For example, African American parents are likely to send racial barrier messages to their sons and racial pride messages to their daughters (Hughes et al., 2006) and this racial socialization may result in different academic outcomes between boys and girls. Girls may be more likely to succeed academically when faced with discrimination. Conversely, girls are socialized to seek approval from others and foster close relationships (Oyserman et al., 2001). These messages may result in increased susceptibility to the effects of discrimination from highly regarded adults (i.e.

teachers). Thus, I expect that perceptions of discrimination will negatively affect student-teacher relations among girls.

*RQ4: When considered jointly, what are the associations of perceived racial discrimination and gender discrimination with academic adjustment, psychological well-being, and student-teacher relationship quality?*

*H4:* I expect that when students experience both types of discrimination, they will report lower levels of adjustment compared to students that perceive only one type of teacher-based discrimination. Being targeted based on two social group identities may be more difficult, resulting in decreased academic adjustment, psychological well-being, and student-teacher relationship quality.

*RQ5: Do adolescents' beliefs about the stability of personality moderate the relationships between perceptions of teacher-based discrimination and adjustment?*

*H5:* I anticipate that students' beliefs about personality will moderate the relationship between teacher-based discrimination and aspects of academic and emotional adjustment. Students holding an incremental belief will be protected from the detriment that is often associated with gender and ethnic discriminations as these students are likely to believe that personality can be changed and will attribute the teachers' behaviors to temporary situational factors (Dweck, Chiu, & Hong, 1995). Furthermore, evidence suggests that when students hold incremental beliefs about personality in school settings, they experience academic success (Walton and Cohen, 2007).

## **Chapter 2**

### **Method**

The data from the current study were taken from a larger longitudinal study comparing the academic and social adjustment of early adolescents in K-8 and middle schools in the Midwest. The larger study included 996 fifth and seventh graders from 14 Midwestern schools participated in the study. Letters describing the study and permission slips were sent home with all students to give to their parents. Parents returned permission slips only to decline their child's participation in the study. Less than 5% of parents declined to have their child participate in the study.

#### *Procedure*

Surveys were administered to study participants in their classrooms. The principal investigator and trained research assistants read the instructions and survey items aloud while students circled their responses to survey items using a five-point Likert scale. Students were given a blank sheet of paper to cover their answers as they completed they surveys. Students were informed that the purpose of the survey was to find out about students' academic and social beliefs and behaviors. Students were also told that the survey was not a test and participation was voluntary. Survey administration lasted approximately 45 minutes. Participants received school supplies for their participation.

#### *Sample*

The data reported here include the African American seventh grade participants (N=248; 50.8% female;  $M_{age}=12.32$ ,  $SD=.92$ ) from six schools. Two of the sample schools were large middle schools and the four remaining schools were K-8 schools. Sixty-eight percent of the study participants attended the large middle schools and 32% of participants

attended one of the four K-8 schools. Five of the six schools were in the same school district. In the school district, 91.8% of teachers were white and 78.9% were female. Approximately, 69.5% of students in this school district were low-income students and 72% of the current sample received free or reduced lunch based on school records. The schools are similar with regard to racial/ethnic diversity. The schools are racially diverse with about 40-45% European-American students and 40-45% African-American students. The demographics of the sixth school were similar to those of the five schools described above.

### *Measures*

#### *Perceived Racial Discrimination*

The Perceived Racial Discrimination scale was developed to assess students' perceptions of racial discrimination from teachers. The measure was adapted from measures from Eccles, Wong, & Peck (2006) and Way (1997). The Eccles et al. (2006) measure was developed by staff of the Maryland Adolescent Development in Context Study (MADICS), a longitudinal study that examined the influence of social context on developmental trajectories from middle childhood through adolescence and into young adulthood. The study was also one of the first longitudinal studies of normative development among Black adolescents in the United States. The measure assesses the frequency with which adolescents experience negative treatment from teachers due to race. Previous research (Chavous et al., 2008; Wong, Eccles, & Peck, 2006) with the scale used in the MADICS showed high scale reliability among African American adolescents ( $\alpha = .84$  and  $\alpha = .88$ , respectively).

The measure developed by Way (1997) and colleagues (Green, Way, & Pahl, 2006; Pahl, & Way, 2006; Roosenbloom & Way 2004) assesses the extent to which youth attribute unfair treatment from adults in their school to ethnicity or race. In previous studies (Green, Way, & Pahl, 2006; Rivas-Drake, Hughes, & Way, 2009; Pahl & Way, 2006) the scale evidenced high reliability ( $\alpha = .93$ ,  $\alpha = .91$ ,  $\alpha = .92$ , respectively).

The Perceived Racial Discrimination scale used in this study consisted of five items that measured students' perceptions of negative treatment by teachers due to race. Students responded using a 5-point scale ranging from 1=*never* to 5=*often*. A sample item is "At school how often do you feel that teachers grade you harder because of your race?" The internal consistency of the scale was .95.

#### *Perceived Gender Discrimination*

The Perceived Gender Discrimination Scale was developed to measure students' perceptions of gender discrimination from teachers. The measure was created based on the

Perceived Racial Discrimination scale used in this study. Similarly, it consisted of five items and assessed students' perceptions of negative treatment by teachers due to gender. Students responded using a 5-point scale ranging from 1=*never* to 5=*often*. A sample item is "At school how often do you feel that teachers grade you harder because of your gender?" The internal consistency of the scale was .95.

Given that each of the discrimination measures was adapted from two existing measures, principal axis factor analysis with varimax rotation was conducted to assess the construct validity of each measure. The analysis included the items from the measures of perceived racial discrimination and perceived gender discrimination. As expected, the analysis yielded two factors. Each factor had an eigenvalue greater than 1.0, which was

used as the criterion for extraction. In the analysis of the ten discrimination items, the two-factor solution accounted for 80.23% of the total variance. Factor loadings were above .76.

#### *Academic Adjustment*

Academic adjustment was assessed using grades, standardized test-scores, and a measure of academic self-efficacy. Grades and test scores are commonly used as indicators of achievement and are likely to be affected by teacher-based discrimination. Academic self-efficacy taps into students' motivational beliefs and research suggests that when students perceive low expectations from teachers and lack of support, they are at increased risk for lower academic achievement and motivation (Chavous et al., 2008; Roeser et al., 2000; Wong et al., 2003).

#### *Academic Self-Efficacy*

A five-item measure from the PALS (Patterns of Adaptive Learning Survey (PALS; Midgley et al., 1996) was used to measure self-efficacy. Self-efficacy assesses students' judgments of their capability to complete their work successfully. Students responded to each item using a five-point Likert scale ranging from 1=*not at all true* to 5=*very true*. A sample item is "I'm certain I can master the skills taught in school this year." Reliability of the scale has been widely demonstrated. Midgley et al. reported a Cronbach's alpha of .78 and Patrick et al. (2007) reported a Cronbach's alpha of .85. The internal consistency of the scale in the present study was .85.

#### *Grades*

Grades were collected from students' school records and were used to measure academic performance. Grades ranged from 1.0-4.0.

#### *Standardized Test Scores (ISAT Scores)*

Standardized test scores were collected from students' school records and were utilized as an indicator of academic performance. Scores ranged from 184-299.

### *Psychological Well-Being*

School belonging and self-esteem were used as indicators of psychological well-being. School belonging is a context specific measure of well-being, while self-esteem is a global indicator. Prior research indicates a strong association between psychological well-being and perceived discrimination (Fisher et al., 2000; Greene, Way, & Pahl, 2006; Seaton & Yip, 2009). Using both measures of psychological well-being allows for assessing whether perceived teacher discrimination affects well-being in school and in general.

### *School Belonging*

School belonging was assessed using a 5-item measure. The measure assessed the extent to which students perceive themselves as members of their school community. Students responded using a 5-point Likert scale ranging from 1=*not at all true* to 5=*very true*. The measure was adapted from Goodenow's (1993) Psychological Sense of School Membership scale and Anderman's (2002) measure of school belonging. The scales are reliable among adolescents (see Anderman, 2002; Goodenow, 1993). A sample item is "I feel proud of belonging to this school." The reliability of the adapted version of the scales used in this study was .81.

### *Self-Esteem*

The Rosenberg Self-Esteem Scale (Rosenberg, 1965) was used to measure students' global self-esteem. The scale is one of the most widely used measures of self-esteem. Students responded to the ten-item measure using a 5-point Likert scale ranging from 1=*not at all true* to 5=*very true*. A sample item is "On the whole I am satisfied with



myself.” This scale has been found to be reliable in various samples, including African American adolescents, with reliabilities ranging from of .72 to .85 (see Harris-Britt et al., 2007; Seaton et al., 2010b; Seaton & Yip, 2009;). The reliability of the scale in the current sample was .78.

#### *Student-Teacher Relationship Quality*

Student-teacher relationship quality was assessed using three measures. Relatedness to teacher captures whether students feel important to their teacher; where as, self-worth around teacher taps into how students feel about themselves around their teacher and teacher support relates to teachers’ interest in students, encouragement, and assistance in the classroom. The use of the three measures provides insight into how teachers make students feel and their interactions with students, which are potentially related to perceived teacher-discrimination.

#### *Relatedness to Teacher*

A four-item measure adapted from Furrer and Skinner (2003) was used to assess sense of relatedness to teacher. Students responded using a 5-point Likert scale ranging from 1=*not at all true* to 5=*very true*. Students were asked to think about a teacher of a specific academic discipline (e.g. language arts, math, science) when responding to the items. A sample item is “When I am with this teacher, I feel accepted.” Among a sample of early adolescents, Furrer and Skinner (2003) reported a Cronbach’s alpha of .79. The reliability in the present sample was .82.

#### *Self-worth Around Teacher*

Self-worth around teachers was assessed using a subscale of Harter’s (1998) Relational Self-Worth Scale. Self-worth around teachers (5 items) measures the extent to

which students like or dislike the kind of person they are around their teacher. Students responded using a 5-point Likert scale ranging from 1=*not at all true* to 5=*very true*. A sample item is “ I’m happy with the way I am around my teachers.” The scale evidences high reliability (see Harter et al., 1998; Harter & Whitesell 2003). The reliability of the scale in the current study was .79.

#### *Teacher Support*

Three items adapted from the teacher support subscale from the widely used Classroom Environment Scale (Trickett & Moos, 1973) and Way, Reddy, & Rhodes, (2007) were utilized to measure teacher support. Teacher support referred to the belief that the teachers cared about the student and was willing to provide assistance. A sample item is “Teachers take a personal interest in students.” Both scales are reliable among early adolescents (see Way, Reddy, & Rhodes, 2007). The reliability of the teacher support scale used among the current sample was .77.

#### *Implicit Theories of Personality*

A three-item measure was used to assess an individual’s implicit theory of personality, which is the extent to which an individual believes that personality is fixed or malleable (Dweck, Chiu, & Hong, 1995). A sample item is, “The kind of person someone is, is something very basic about them and can’t be changed very much.” A higher score indicates a stronger entity view of personality. The scale has shown high internal consistency ranging from .90-.96 (see Dweck, Chiu, & Hong, 1995). In the present study, the reliability was .68.

### *Analysis Plan*

*RQ 1: What is the extent of perceived teacher-based discrimination in a young African American adolescent sample?*

Analysis of the data will begin with an examination of descriptive statistics for the entire sample as well as separately for boys and girls, which will allow me to address RQ 1 and assess the nature of, perceived racial and gender discrimination. Chi-square analyses will also be employed to explore gender differences in the frequency of perceptions of racial and gender discrimination given that perceived discrimination and gender were nominal variables.

*RQ 2: What are the associations between perceived racial discrimination from teachers and adjustment and perceived gender discrimination from teachers and adjustment?*

If there is low endorsement of perceived discrimination, responses to the discrimination measures will be dichotomized and two groups will be created for each measure: *no discrimination* and *some discrimination*. Pearson's product-moment correlations will then be calculated to examine bivariate relationships among study variables. Next, one-way ANOVA analyses will be conducted to explore the group differences in adjustment between students perceiving no racial discrimination and some racial discrimination. The same analyses will be performed between adolescents perceiving no gender discrimination and some gender discrimination. Additionally, simultaneous regression analyses will be conducted to assess the associations between perceptions of teacher-based racial and gender discrimination, academic adjustment, psychological well-being, and student-teacher relations.

*RQ3: Are there gender differences in the associations between teacher-based perceived discrimination and adjustment?*

Interaction terms will be created to explore whether gender moderates the relationship between perceptions of discrimination and adjustment. Multiple regression analyses will then be performed to explore gender differences in the associations between perceived discrimination, academic adjustment, psychological well-being, and student-teacher relationship quality.

*RQ4: When considered jointly, what are the associations of perceived racial discrimination and gender discrimination with academic adjustment, psychological well-being, and student-teacher relationship quality?*

Groups will be created to reflect whether students perceived only one form of discrimination or both racial and gender discrimination. Next, a one-way ANOVA will be used to compare differences in adjustment between students perceiving one form of discrimination versus both racial and gender discrimination.

*RQ5: Do adolescents' beliefs about the stability of personality moderate the relationships between perceptions of teacher-based discrimination and adjustment?*

Regression analyses, which are commonly used in testing moderation, will be conducted to examine whether students' beliefs about the stability of personality moderate the relationship between perceptions of teacher-based discrimination and adjustment.

## Chapter 3

### Results

All measures were reliable in the current sample. The scale reliability for each measure is listed in Table 1. Means and standard deviations for each measure are displayed in Table 2. Exploratory data analysis revealed that the distribution of responses for each of the perceptions of racial discrimination and perceptions of gender discrimination measures were skewed such that there were more low scores than high scores.

*RQ1 What is the extent of perceived teacher-based discrimination in a young African American adolescent sample?*

Overall, most adolescents do not perceive discrimination from teachers. For each item, most adolescents endorsed “never”. Item frequencies are displayed in Table 3 and Table 4. When adolescents did perceive discrimination from teachers, they perceived more racial discrimination than gender discrimination. Given that responses were skewed on both discrimination measures, the variables were transformed into categorical variables. Various categorical configurations were created. For example, in one configuration, responses were divided into three categories, which included low, medium, and high discrimination and in another configuration, groups were created for participants reporting no discrimination, low discrimination, and high discrimination. After inspection of the various categories, 2 categories were retained for each discrimination measure based on the sample sizes of the groups and frequency of perceived discrimination. Due to low endorsement of discrimination and a small sample size, responses were dichotomized and participants endorsing any of the discrimination items were coded as perceiving discrimination. Using the two categories allowed for examining differences between

students that perceive discrimination and students that do not. The categories utilized for data analysis were: “No Discrimination” and “Some Discrimination” for both perceptions of racial discrimination and perceptions of gender discrimination.

Figures 1 and 2 display the frequencies of perceived discrimination. 58.5% of participants perceived racial discrimination from teachers and 45.1% of participants perceived gender discrimination from teachers. As shown in Figure 3, 35% of the sample perceived both racial and gender discrimination. 21% of participants only perceived racial discrimination and 9% of the sample perceived only gender discrimination.

Fifty-nine percent of girls and 57.9% of boys perceived racial discrimination from teachers. Conversely, 31.9% of girls and 59.1% of boys perceived gender discrimination from teachers. Figure 4 and Figure 5 display frequencies of boys and girls’ perceptions of racial and gender discrimination. Chi-square analyses were employed to explore gender differences in perceptions of racial and gender discrimination. As shown in Table 5 there were not any significant gender differences in perceptions of racial discrimination.

Conversely, boys were more likely to perceive gender discrimination compared to girls as shown in Table 6. Means and standard deviations of the study variables for boys and girls are displayed in Table 7. Boys perceived greater levels of teacher-based gender discrimination and evidenced lower GPA and relatedness to teacher compared to girls.

*RQ 2: What are the associations between perceived racial discrimination from teachers and adjustment and perceived gender discrimination from teachers and adjustment?*

Pearson’s product-moment correlations were calculated to examine bivariate relationships among study variables. Results are displayed in Table 8. Perceptions of racial discrimination and perceptions of gender discrimination were positively correlated ( $r=.38$ ).

Both indicators of academic achievement (GPA and ISAT scores) were positively correlated. School-belonging and self-esteem were positively related. All of the indicators of student-teacher relations were also positively correlated.

Next, correlations between perceived discrimination and adjustment were examined. Perceptions of racial discrimination significantly related to academic achievement, psychological well-being, and student-teacher relations. Among all students, perceptions of racial discrimination were negatively correlated with GPA, self-esteem, school belonging, relatedness to teacher, self-worth around teacher, and teacher-support. Perceived racial discrimination was not significantly related to academic efficacy or standardized test scores (ISAT scores). There was a positive relationship between racial discrimination and beliefs about the stability of personality such that greater perceived racial discrimination was related to the notion that personality is stable. Perceptions of gender discrimination were negatively correlated with GPA, school-belonging, self-esteem, relatedness to teacher, self-worth around teacher, and teacher support. There was not a significant relationship between perceived gender discrimination and academic efficacy, standardized test scores, or personality beliefs.

One-way ANOVA analyses were conducted to explore group differences in adjustment between students perceiving no racial discrimination and some racial discrimination. Group means are displayed in Table 9 and the results from the ANOVA analysis are shown in Table 10. GPA, school belonging, self-esteem, and student-teacher relations were significantly lower among students that perceived racial discrimination. Groups did not differ significantly on academic efficacy and ISAT scores. Similar analyses were used to examine differences between students that did not perceive gender

discrimination and students that did perceive gender discrimination from teachers. Results are shown in Table 11 and Table 12. Students that perceived gender discrimination from teachers showed significantly lower GPAs and decreased levels of school belonging, self-esteem, and student-teacher relations. The mean difference in ISAT scores was marginally significant between the two groups. Groups did not significantly differ in levels of academic efficacy. Overall the results indicate that compared to students that do not perceive discrimination, students that do perceive gender or racial discrimination from teachers report decreased academic achievement, psychological well-being, and student-teacher relations. However, there are no differences in beliefs about ability to master educational skills and complete academic tasks (academic efficacy).

Simultaneous regression analyses were conducted to assess the relationship between perceptions of teacher-based racial and gender discrimination, academic adjustment, psychological well-being, and student-teacher relations. Results are shown in Table 13. Perceptions of racial discrimination were not significantly associated with academic efficacy, GPA, or standardized test scores. Similarly, perceptions of gender discrimination were not significantly associated with academic efficacy or standardized test scores. However, when controlling for perceived racial discrimination, perceptions of gender discrimination were negatively associated with GPA.

Regression analyses were also employed to examine whether perceptions of discrimination were associated with indicators of psychological well-being and student-teacher relations. Results are displayed in Table 14. Again, both perceptions of racial and gender discrimination were entered into the model. Above and beyond perceptions of gender discrimination, perceptions of racial discrimination were associated with poor



student-teacher relations. Teacher-based perceptions of racial discrimination were associated with diminished relatedness to teacher, self-worth around teacher, and teacher support. Thus, when students perceive racial discrimination from teachers, relationships between students and teachers are likely to be weakened. Perceptions of gender discrimination were more associated with decreased psychological well-being and achievement. Students perceiving gender discrimination from teachers reported a decreased sense of school-belonging and self-esteem and evidenced lower GPA. Taken together, the results suggest that perceptions of racial and gender discrimination are differentially linked to academic achievement, psychological well-being and student-teacher relations.

*RQ3: Are there gender differences in the associations between teacher-based perceived discrimination and adjustment?*

Interaction terms were created to explore whether gender moderated the relationship between perceptions of discrimination and adjustment. Four significant interactions were found and are depicted in Figures 6-9. The first interaction indicated that perceptions of gender discrimination were more harmful to girls' standardized test scores (ISAT scores). Similarly, the second interaction showed that perceptions of racial discrimination were associated with decreased self-worth around teacher among girls. As shown in the third interaction, perceived racial discrimination was also associated with lower levels of relatedness to teachers for girls. Conversely, perceptions of gender discrimination were associated with greater relatedness to teacher among girls as displayed in the fourth interaction. A fifth interaction (Figure 10), which was marginally significant, suggests that perceived gender discrimination is associated with higher levels of teacher support among girls.

*RQ4: When considered jointly, what are the associations of perceived racial discrimination and gender discrimination with academic adjustment, psychological well-being, and student-teacher relationship quality?*

Given that 35% of the sample perceived both racial and gender discrimination, another aim of the current study was to compare groups of students perceiving one form of discrimination versus two forms of discrimination. A one-way ANOVA was used to compare the adjustment of students perceiving one form of discrimination versus both racial and gender discrimination. The results are displayed in Table 15 and Table 16. Results indicated that students perceiving both racial and gender discrimination from teachers evidenced lower levels of academic efficacy, GPA, standardized test scores (ISAT), school belonging, and self-esteem. Interestingly, there were no group differences in student-teacher relations. In other words, students that perceived one form of discrimination and students that perceived both racial and gender discrimination showed similar levels of relatedness to teacher, self-worth around teacher, and teacher-support. Taken together, the findings highlight the importance of examining the combined effects of perceived racial and gender discrimination.

*RQ5: Do adolescents' beliefs about the stability of personality moderate the relationships between perceptions of teacher-based discrimination and adjustment?*

Regression analyses were conducted to examine whether students' beliefs about the stability of personality moderated the relationship between perceptions of teacher-based discrimination and adjustment. Results are displayed in Tables 17-20. Findings from the analyses indicated that personality beliefs do not moderate the relationship between perceptions of discrimination and academic beliefs, academic achievement, or

psychological well being. However, there is evidence that personality beliefs moderate the relationship between perceptions of discrimination and student-teacher relations.

Interactions are presented in Figures 11-13. Contrary to the research hypothesis, among students believing personality is malleable, perceived racial discrimination was associated with lower levels of teacher support. Students that perceived gender discrimination and endorsed the belief that personality is malleable also evidenced lower levels teacher support. Students that perceived gender discrimination and endorsed the belief that personality is malleable also showed lower levels of relatedness to teacher. The results suggest that students' beliefs about the stability of personality influence the strength of the relationship between teacher-based perceptions of discrimination and student-teacher relations.

## **Chapter 4**

### **Discussion**

By examining both gender and race-related discrimination the present study provides important insights into the nature and importance of discrimination for a comprehensive understanding of young African American adolescents' academic, psychological, and social adjustment in the classroom. Overall, most African American adolescents did not report perceived discrimination from teachers. However, when students did perceive discrimination from teachers, reports of racial discrimination were more frequent than gender discrimination. Further, boys reported higher levels of gender discrimination compared to girls. Regardless of gender, reports of either type of discrimination were negatively related to academic adjustment, psychological well-being, and student-teacher relations. Students perceiving both forms of adjustment evidenced lower levels of adjustment compared to students perceiving only one type of discrimination. When perceived racial and gender discrimination were considered simultaneously, racial discrimination was more strongly linked to teacher-student relationship quality; whereas, gender discrimination was linked to academic adjustment and psychological well-being.

#### *Extent of Perceived Discrimination*

The results indicate that the majority of African American adolescents did not perceive racial and gender discrimination from teachers. However, when they did report discrimination, students reported higher levels of perceived racial discrimination compared to gender discrimination. This finding supports the ethnic-prominence hypothesis, which is based on the notion that racial and ethnic minorities are more apt to attribute discrimination

to race or ethnicity (Levin et al., 2002). This result is also in line with prior scholarship suggesting that race/ethnicity is the most frequent attribution for discrimination among African American and Caribbean Black adolescents (Seaton et al., 2010b). A possible explanation for the greater frequency of racial discrimination in this study is the likely racial/ethnic mismatch between African American adolescents and their teachers. Perhaps this racial incongruence heightens racial awareness and increases the likelihood of perceived racial discrimination from teachers.

In the current sample, boys perceived gender discrimination more often, while boys and girls similarly endorsed racial discrimination. This finding is consistent with previous research (Cogburn et al., 2011; Fisher et al., 2000). This finding may be attributed to injurious gender stereotypes about African American males, which influences teachers' beliefs and interactions with African American boys (Nooguera, 2002). African American boys are more likely to receive racial barrier messages from their parents, while African American girls receive racial pride messages (Hughes et al., 2006). The gender differences in racial and ethnic socialization and the salience of negative stereotypes may then influence perceptions of discrimination and result in boys perceiving greater levels of gender discrimination.

#### *Associations Between Perceived Discrimination and Adjustment*

As hypothesized, perceptions of teacher-based racial and gender discrimination were negatively associated with adjustment, regardless of gender. When group differences between students that perceived racial discrimination from teachers and those that did not were examined, differences were found in GPA and psychological well-being. These results were expected given that previous research involving adolescents indicates that

perceived racial discrimination is associated with decreased GPA, self-esteem, and school bonding (Chavous et al., 2008; Dotterer et al., 2009; Greene, Way, & Pahl, 2006; Seaton et al., 2008). Differences were also evident in the quality of student-teacher relations.

Adolescents that perceived racial discrimination from teachers reported lower levels of self-worth around teacher, relatedness to teacher, and teacher support. This was expected because teachers were the source of the discrimination. The results suggest that if students perceive discrimination from teachers, student-teacher relations are likely to be tenuous. This is in line with Rosenbloom & Way's (2004) qualitative study of Latino and African American adolescents' experiences of discrimination, in which students perceived discrimination from teachers and subsequently, teachers were perceived as uncaring, emotionally distant, and ineffective.

While there were group differences in GPA, psychological well-being, and student-teacher relationship quality, there was not strong evidence for differences in standardized test scores. ISAT scores and grades are widely used indicators of achievement; however, teachers assign grades that comprise a student's GPA while standardized tests scores are given by agencies that the students do not interact with directly. This may explain why grades were more affected by perceived discrimination from teachers than standardized test scores in the present sample. Surprisingly, differences in academic efficacy did not emerge between the two groups. Findings from previous research suggest that African American adolescents are able to respond to racial discrimination in ways that enable them to protect their academic self-concept (Oyserman et al., 2001; Taylor et al., 2004). For example, racial identity promotes academic efficacy among African American adolescents and for

boys, awareness of racism positively contributes to academic efficacy (Oyserman, et al., 2001).

Similarly, adolescents that perceived gender discrimination from teachers were maladjusted compared to students that did not. This finding suggests that perceiving racial discrimination or gender discrimination is detrimental to GPA, psychological well-being, and student-teacher relationships. When comparing students that do not perceive discrimination with students that do, students that perceive discrimination will evidence lower levels of adjustment whether it be racial or gender discrimination.

#### *Gender Differences in Associations Between Perceived Discrimination and Adjustment*

Perceptions of gender and racial discrimination differentially affected boys and girls' adjustment. Perceptions of gender discrimination were more harmful to girls' standardized test scores, whereas perceptions of racial discrimination were negatively associated with self-worth around teacher and relatedness to teacher for girls. The lower levels of student-teacher relationship quality may be attributed to gender socialization. Research shows that girls are socialized to seek approval from others and develop and maintain relationships with valued others (Oyserman et al., 2001). Consequently, perceiving discrimination from teachers may be more detrimental to girls' relationships and interactions with their teachers. Interestingly, gender discrimination was not associated with decreased student-teacher relationship quality among girls. Possibly, race is more salient for girls given that racial dissimilarity is more likely than gender differences between girls and their teachers. Prior research supports the idea that race is more prominent among women of color rather than gender (Levin et al. 2002; Rodriguez, 2008).

For boys, perceiving gender discrimination from teachers had a significant negative association with sense of relatedness to teacher. This is consistent with research that indicates that boys feel a lower sense of relatedness to teacher, regardless of race or ethnicity (Furrer and Skinner, 2003). This is likely due in part to the fact that the majority of teachers are female. Although the interaction was marginal, gender discrimination was also associated with lower perceptions of teacher support. Similarly, Noguera (2001) found that African American males were least likely to perceive that their teachers were supportive and cared about their academic success. The findings from the current study illustrate that perceived gender discrimination is more harmful for boys' student-teacher relationship quality. When boys perceive gender discrimination from teachers they are less likely to relate to their teachers and perceive them as supportive and caring, which has important implications for their academic achievement, motivation, and engagement.

Surprisingly, when girls' perceived gender discrimination from teachers their sense of relatedness and perceived teacher support increased (marginally significant). Perhaps, girls are interpreting the gender discrimination as higher expectations, which could result in positive perceptions of student-teacher relations. When teachers hold high expectations for some students and students perceive these expectations, students achieve more and experience other favorable outcomes (Eccles et al., 1993). The teachers are also likely to share the same gender and while there is perceived gender discrimination, the higher expectations are interpreted as a form of support from teachers. Future research should examine teacher gender, student gender, and relations to perceived gender discrimination.



### *Simultaneous Examination of Perceived Racial and Gender Discrimination*

Adolescents who perceived both types of discrimination were not as well-adjusted as those who perceived only one form of discrimination. In previous analyses, academic efficacy and grades were not significantly related to perceived discrimination; however, when adolescents perceived both racial and gender discrimination from teachers, decreased academic efficacy, standardized test scores, and grades were reported. School-belonging and self-esteem were also lower among students the perceived racial and gender discrimination from their teachers. These findings demonstrate the importance of examining the combined effects of racial and gender discrimination. It should be noted that differences in student-teacher relationship quality were not present which may suggest that when adolescents perceive gender discrimination, racial discrimination, or both teacher-students relations will be affected in similar ways.

When perceived racial and gender discrimination were considered jointly, racial discrimination was more strongly linked to decreased student-teacher relationship quality while perceptions of gender discrimination were more closely associated with lowered GPA, school belonging, and self-esteem further supporting the assertion that perceived racial and gender discrimination are differentially linked to adjustment. In the present sample, students were potentially racially dissimilar from teachers. Accordingly, perceived racial discrimination was more detrimental to adolescents' sense of relatedness to teacher, self-worth around teacher, and teacher support. Research does suggest that students fare better when matched with teachers of the same race. When African American students are

taught by teachers who share their race, they experience more favorable outcomes (Dee, 2004).

Previous research showed that perceived racial discrimination was related to decreased GPA (Cogburn et al., 2011). However, in the present study gender discrimination was associated with GPA. The greater frequency of gender discrimination, gender and racial mismatch, and lower GPA among boys may explain this finding.

Adolescents' sense of school belonging and self-esteem were also adversely influenced by teacher-based gender discrimination. Thus, gender discrimination was more associated with psychological outcomes. Prior evidence indicates that perceived racial discrimination is negatively linked to psychological well-being among African American adolescents. (Chavous et al., 2008; Cogburn 2011; Fisher, 2000; Green, et al., 2006; Wong, et al., 2003) However, many of the previous studies did not concurrently examine perceived racial and gender discrimination. More research is needed to disentangle the unique effects of racial and gender discrimination on psychological well-being to draw a full conclusion and elucidate the mechanisms underlying the differential effects of racial and gender discrimination on psychological outcomes.

#### *Personality Beliefs as a Moderator*

Students' beliefs about personality influenced the extent to which perceived discrimination from teachers affected student-teacher relations. Unexpectedly, when African American adolescents perceived gender discrimination from teachers and subscribed to the belief that personality is malleable, their perceptions of teacher support decreased. The same pattern emerged when adolescents perceived racial discrimination from teachers. Among the current sample, personality beliefs also moderated the

relationship between perceptions of gender discrimination and relatedness to teacher. Perceived gender discrimination and holding an incremental view of personality were associated with lower levels of relatedness to teacher. These findings were not in line with the hypothesis, which suggested that holding a malleable view of personality would be protective for adolescents' adjustment. The results suggest that an entity view of personality combined with perceived discrimination is likely to influence student-teacher relationship quality.

Conversely, personality beliefs failed to protect adolescents' academic adjustment or psychological well-being from perceived racial and gender discrimination from teachers. The idea that theories of personality, teacher discrimination, teacher support, and relatedness to teacher all center on social interactions and relationships could explicate the observed patterns. It should be noted that theories of personality did not moderate the relationship between perceptions of discrimination and self-worth around teacher. Teacher support and sense of relatedness to teacher are more concerned with perceiving teachers as caring, respectful, and accepting, while self-worth relates to an individual's evaluation of their worth when around their teacher.

The present study is one of the first to explore theories of personality as a buffer against the detriments associated with adolescents' perceived discrimination experiences. More empirical studies are needed to highlight the role adolescents' views of personality and the manner in which those views influence perceived discrimination and its consequences. However, the results have important implications. Adolescents' general beliefs about others' behaviors and personalities provide meaningful insights into how adolescents perceive discrimination from teachers which can shape how adolescents cope

with discrimination and inform interventions directed at reducing discrimination in classrooms.

### *Limitations*

While the current study makes several significant contributions to the literature on African American adolescents' discriminatory experiences, there are some limitations that require consideration. First, the study employs a cross-sectional design, which prevents inferring causality and assessing how perceptions of discrimination change over time. Second, the measures of perceived discrimination utilized in the study do not capture all possible forms of teacher-based discrimination that occur in the classroom. Also, students' responses were dichotomized. Thus, individuals that perceived multiple incidents of discrimination were included with students that perceived one incident, which prevents drawing conclusions about how varying levels of discrimination are associated with academic adjustment, psychological well-being, and student-teacher relations. Small numbers precluded such analyses, but this is especially important because adolescents perceiving multiple incidents of discrimination may be at an increased risk.

Third, self-reports were used to measure racial and gender discrimination. Adolescents may falsely attribute incidents to discrimination and respond to items in bias ways. However, teachers may underreport discrimination and it is not socially desirable to admit one discriminates. Utilizing self-reports of discrimination allows researchers to capture incidents of discrimination that are subtle and unintended.

Lastly, the sample consisted of 240 African American adolescents. Thus, findings cannot be generalized to all African American adolescents and adolescents of other racial and ethnic groups. However, the results of the present study can facilitate our

understanding of adolescents' gendered experiences with discrimination in the classroom and the unique effects of gender and racial discrimination.

#### *Future Directions and Conclusion*

The present study not only provides further evidence for the negative consequences associated with perceived discrimination, but this study also highlights the unique effects of gender and racial discrimination. Future research should continue to examine the differential effects of various forms of perceived discrimination on adolescents' development. While there are several studies that consistently show that perceived discrimination is detrimental to adjustment, there is a lack of research that explores how adolescents cope with perceived discrimination in the classroom. More research that examines coping mechanisms is critical to reducing the risks associated with perceived discrimination. For example, peers have the potential to provide support and aid in overcoming perceived discrimination. It is also important to conduct longitudinal studies to explore how perceptions change over time and disentangle the direction and associations of perceived discrimination and indicators of adjustment. As adolescents continue to develop and matriculate through school, their perceptions are likely to change as well as their levels of academic and psychological adjustment. Also, new measures of adolescents' perceptions of discrimination are needed to capture more instances of discrimination and various forms of discrimination.

The present study provides an impetus for studying within group differences in African American adolescents' perceptions of teacher-based racial and gender discrimination. Adolescents continue to face discrimination in educational settings, thus it is imperative that parents, researchers, and school administrators understand how

adolescents can overcome discrimination and experience positive academic, psychological, and social development.

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## **Appendix A**

### **List of Measures**

#### **Perceived Racial Discrimination**

How often do you feel teachers call on you less because of your race?  
How often do you feel teachers grade you harder because of your race?  
How often do you feel teachers discipline you more because of your race?  
How often do you feel teachers think you are not smart because of your race?  
How often do you feel teachers think you will not do well in school because of your race?

#### **Perceived Gender Discrimination**

How often do you feel teachers call on you less because of your gender?  
How often do you feel teachers grade you harder because of your gender?  
How often do you feel teachers discipline you more because of your gender?  
How often do you feel teachers think you are not smart because of your gender?  
How often do you feel teachers think you will not do well in school because of your gender?

#### **Academic Self-Efficacy**

I'm certain I can master the skills taught in school this year  
I can do even the hardest schoolwork if I try.  
Even if my schoolwork is hard, I can learn it.  
I'm certain I can figure out even the most difficult schoolwork.  
I can do all my work if I don't give up.

#### **School Belonging**

I feel like a real part of this school.  
I feel proud of belonging to this school.  
I feel close to people at this school.  
I wish I were in a different school.  
Sometimes I feel as if I don't belong here.

#### **Self-esteem**

On the whole, I am satisfied with myself.  
I feel I have a number of good qualities.  
I feel I do not have much to be proud of.  
I am able to do things as well as most other people.  
All in all, I am inclined to feel that I am a failure.  
I feel like I am a person of worth, at least on an equal plane with others.  
I take a positive attitude toward myself.  
I wish I could have more respect for myself.  
I certainly feel useless at times.  
At times I think I am not good at all.

**Relatedness to Teacher**

*Now think about your [school subject] teacher:*

When I am with this teacher, I feel accepted.

When I am with this teacher, I feel respected.

When I am with this teacher, I feel ignored.

When I am with this teacher, I feel unimportant.

**Self-Worth Around Teacher**

I'm happy with the way I am around my teachers.

I like the kind of person I am around my teachers.

I am generally pleased with myself around my teachers

I am generally pleased with myself around my teachers

I often wish I could change the way I act around my teachers.

I am disappointed with myself around my teachers.

**Teacher Support**

Teachers take a personal interest in students.

Teacher go out of their way to help students.

If students want to talk about something, teachers will find time do it.

**Personality Theories**

The kind of person someone is, is something basic about them and it can't be changed very much.

People can do things differently, but the important parts of who they are can't really be changed.

Everyone is a certain kind of person and there is not much they can do to really change that.

## Appendix B

### Tables

Table 1

*Reliability Statistics of Study Measures*

---

Racial Discrimination	$\alpha=.95$
Gender Discrimination	$\alpha=.93$
Academic Efficacy	$\alpha=.85$
Relatedness to Teacher	$\alpha=.82$
School Belonging	$\alpha=.81$
Self-esteem	$\alpha=.78$
Self-worth Around Teacher	$\alpha=.79$
Teacher Support	$\alpha=.77$
Personality Beliefs	$\alpha=.68$

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Table 2

*Means and Standard Deviations of Study Variables*

	<i>M</i>	<i>SD</i>
<b>Racial Discrimination</b>	.59	.49
<b>Gender Discrimination</b>	.49	.40
<b>Academic Adjustment</b>		
Academic Efficacy	4.17	.85
GPA	3.54	.77
ISAT Scores	237.34	20.84
<b>Psychological Well-Being</b>		
School Belonging	3.40	1.06
Self-Esteem	4.07	.69
<b>Student-Teacher Relations</b>		
Relatedness to Teacher	3.94	1.06
Self-Worth around Teacher	3.87	.93
Teacher Support	3.53	1.01
<b>Personality Beliefs</b>	3.37	1.05

Table 3

*Frequency of Responses to Perceptions of Racial Discrimination Scale Items*

	1. Call on you less	2. Grade you more harshly	3. Discipline you more harshly	4. Think you are NOT smart	5. Think you will NOT do well
Never	123	129	122	138	135
A little	25	25	25	21	23
Sometimes	44	42	41	37	36
Often	18	20	19	11	15
Always	27	20	30	29	28

*Note.* How often do you feel teachers...because of your race?

Table 4

*Frequency of Responses to Perceptions of Gender Discrimination Scale Items*

	1. Call on you less	2. Grade you more harshly	3. Discipline you more harshly	4. Think you are NOT smart	5. Think you will NOT do well
Never	153	167	147	168	167
A little	32	22	25	19	20
Sometimes	35	28	39	24	23
Often	8	8	10	9	9
Always	7	7	10	12	11

*Note.* How often do you feel teachers...because of your gender?

Table 5

*Chi-Square Analysis of Perceptions of Racial Discrimination Among Boys and Girls*

	Boys	Girls	Total	$X^2$	$p$
No Racial Discrimination	48	50	98	.01	.906
Some Racial Discrimination	67	72	139		
Totals	115	122	237		

Table 6

*Chi-Square Analysis of Perceptions of Gender Discrimination Among Boys and Girls*

	Boys	Girls	Total	X <sup>2</sup>	p
No Gender Discrimination	46	81	127	17.88	<b>.000</b>
Some Gender Discrimination	69	39	108		
Total	115	120	235		

Table 7

*Means and Standard Deviations for Boys and Girls on Study Variables*

	Boys		Girls	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
<b>Racial Discrimination</b>	.58	.50	.59	.49
<b>Gender Discrimination*</b>	.60	.49	.33	.47
<b>Academic Adjustment</b>				
Academic Efficacy	4.13	.91	4.21	.79
GPA*	3.36	.70	3.72	.80
ISAT Scores	235.88	22.52	238.78	19.06
<b>Psychological Well-Being</b>				
School Belonging	3.48	.95	3.33	1.17
Self-Esteem	4.01	.65	4.13	.72
<b>Student-Teacher Relations</b>				
Relatedness to Teacher*	3.80	1.07	4.08	1.04
Self-Worth around Teacher	3.80	.88	3.93	.98
Teacher Support	3.47	1.00	3.58	1.01
<b>Personality Beliefs</b>	3.42	1.03	3.32	1.07

\* Means are significantly different

Table 8

*Correlations of Perceptions of Discrimination, Academic Adjustment Psychological Well-Being, Student-Teacher Relations, and Personality Beliefs*

	Racial Discrim.	Gender Discrim.	Academic Efficacy	GPA	ISAT Scores	School Belonging	Self-Esteem	Relatedness to Teacher	Self-worth (Teacher)	Teacher Support	Personality Beliefs
Racial Discrim.	1										
Gender Discrim.	.38**	1									
Academic Efficacy	-.05	-.07	1								
GPA	-.19*	-.22**	.20**	1							
ISAT Scores	-.10	-.14	.24**	.56**	1						
School Belonging	-.21**	-.22**	.16*	.22**	.15*	1					
Self-esteem	-.17**	-.27**	.36**	.32**	.30**	.40**	1				
Relatedness to Teacher	-.23**	-.17**	.14*	.14	.09	.18**	.28**	1			
Self-worth (Teacher)	-.21**	-.19**	.14*	.33**	.24**	.21**	.44**	.34**	1		

Table 8 (continued)

Teacher Support	-.22**	-.13*	.29**	.05	-.09	.38**	.26**	.31**	.26**	1	
Personality Beliefs	.18**	.09	.22**	.02	-.15*	-.11	.03	.04	.05	.17**	1

\*p<.05, \*\*p.01, \*\*\*p<.001



Table 9

*Means and Standard Deviations Comparing Participants Perceiving No Racial Discrimination and Some Racial Discrimination*

		<i>n</i>	<i>M</i>	<i>SD</i>
<b>Academic Adjustment</b>				
Academic Efficacy	No Racial Discrimination	98	4.22	.88
	Some Racial Discrimination	137	4.13	.84
	Total	235	4.17	.85
GPA	No Racial Discrimination	82	3.72	.70
	Some Racial Discrimination	106	3.44	.77
	Total	188	3.56	.75
ISAT Scores	No Racial Discrimination	85	239.78	18.97
	Some Racial Discrimination	111	235.60	22.22
	Total	196	237.41	20.92
<b>Psychological Well-Being</b>				
School Belonging	No Racial Discrimination	97	3.65	.88
	Some Racial Discrimination	137	3.20	1.14
	Total	234	3.39	1.06
Self-Esteem	No Racial Discrimination	98	4.21	.65
	Some Racial Discrimination	136	3.98	.69
	Total	234	4.07	.68

Table 9 (continued)

<b>Student-Teacher Relations</b>				
Relatedness to Teacher	No Racial Discrimination	97	4.24	1.01
	Some Racial Discrimination	135	3.74	1.08
	Total	232	3.95	1.08
Self-worth around Teacher	No Racial Discrimination	97	4.12	.87
	Some Racial Discrimination	136	3.72	.94
	Total	233	3.89	.93
Teacher Support	No Racial Discrimination	94	3.80	.92
	Some Racial Discrimination	137	3.35	1.03
	Total	231	3.53	1.01

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Table 10

*One-Way Analysis of Variance Summary Table Comparing Groups with No Perceptions of Racial Discrimination and Some Perceptions of Racial Discrimination*

Source	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>p</i>
<b>Academic Adjustment</b>					
Academic Efficacy					
Between groups	1	.50	.50	.69	.407
Within groups	233	170.37	.73		
Total	234	170.87			
GPA					
Between groups	1	3.62	3.62	6.61	<b>.011</b>
Within groups	186	101.80	.55		
Total	187	105.42			
ISAT Scores					
Between groups	1	840.03	840.03	1.93	.167
Within groups	194	84537.16	435.76		
Total	195	85377.19			
<b>Psychological Well-Being</b>					
School Belonging					
Between groups	1	11.29	11.29	10.44	<b>.001</b>
Within groups	232	250.81	1.08		
Total	233	262.10			
Self-Esteem					
Between groups	1	3.13	3.13	6.86	<b>.009</b>
Within groups	232	105.92	.46		
Total	233	109.05			
<b>Student-Teacher Relations</b>					
Relatedness to Teacher					
Between groups	1	14.24	14.24	12.92	<b>.000</b>
Within groups	230	253.49	1.10		
Total	231	267.73			

Table 10 (continued)

Self-worth Around Teacher					
Between groups	1	9.19	9.19	11.05	<b>.001</b>
Within groups	231	192.26	.83		
Total	232	201.46			
Teacher Support					
Between groups	1	11.26	11.26	11.61	<b>.001</b>
Within groups	229	221.95	.97		
Total	230	233.21			

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Table 11

*Means and Standard Deviations Comparing Participants Perceiving No Gender Discrimination and Some Gender Discrimination*

		<i>n</i>	<i>M</i>	<i>SD</i>
<b>Academic Adjustment</b>				
Academic Efficacy	No Gender Discrimination	126	4.22	.89
	Some Gender Discrimination	107	4.10	.81
	Total	233	4.17	.86
GPA	No Gender Discrimination	107	3.70	.76
	Some Gender Discrimination	80	3.37	.71
	Total	187	3.56	.75
ISAT Scores	No Gender Discrimination	111	239.94	19.19
	Some Gender Discrimination	84	232.24	22.79
	Total	195	237.48	20.95
<b>Psychological Well-Being</b>				
School Belonging	No Gender Discrimination	124	3.60	1.04
	Some Gender Discrimination	108	3.13	1.03
	Total	232	3.38	1.06
Self-Esteem	No Gender Discrimination	125	4.24	.64
	Some Gender Discrimination	107	3.87	.68
	Total	232	4.07	.68

Table 11 (continued)

<b>Student-Teacher Relations</b>				
Relatedness to Teacher	No Gender	123	4.12	1.06
	Discrimination			
	Some Gender	107	3.74	1.07
	Discrimination			
	Total	230	3.94	1.08
Self-worth around Teacher	No Gender	125	4.04	.94
	Discrimination			
	Some Gender	106	3.69	.89
	Discrimination			
	Total	231	3.88	.93
Teacher Support	No Gender	123	3.65	.97
	Discrimination			
	Gender Discrimination	106	3.38	1.04
	Total	229	3.53	1.01

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Table 12

*One-Way Analysis of Variance Summary Table Comparing Groups with No Perceptions of Gender Discrimination and Some Perceptions of Gender Discrimination*

Source	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>p</i>
<b>Academic Adjustment</b>					
Academic Efficacy					
Between groups	1	.82	.82	1.11	.292
Within groups	231	169.33	.73		
Total	232	170.15			
GPA					
Between groups	1	5.17	5.17	9.56	<b>.002</b>
Within groups	185	100.17	.54		
Total	186	105.35			
ISAT Scores					
Between groups	1	1552.891	1552.89	3.58	.060
Within groups	193	83629.80	433.32		
Total	194	85182.69			
<b>Psychological Well-Being</b>					
School Belonging					
Between groups	1	12.56	12.56	11.73	<b>.001</b>
Within groups	230	246.26	1.07		
Total	231	258.82			
Self-Esteem					
Between groups	1	7.84	7.84	18.09	<b>.000</b>
Within groups	230	99.66	.43		
Total	231	107.50			
<b>Student-Teacher Relations</b>					
Relatedness to Teacher					
Between groups	1	8.04	8.04	7.12	<b>.008</b>
Within groups	228	257.47	1.13		
Total	229	265.52			

Table 12 (continued)

Self-worth Around Teacher

Between groups	1	6.88	6.88	8.17	<b>.005</b>
Within groups	229	192.81	.84		
Total	230	199.69			

Teacher Support

Between groups	1	4.04	4.04	4.03	<b>.046</b>
Within groups	227	227.63	1.00		
Total	228	231.67			

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Table 13

*Summary of Regression Results for Perceptions of Discrimination and Academic Adjustment*

	Academic Adjustment								
	Academic Efficacy			GPA			ISAT Scores		
	B	SE	$\beta$	B	SE	$\beta$	B	SE	$\beta$
Model 1									
Racial Discrimination (RD)	-.06	.12	-.03	-.18	.12	-.12	2.58	3.26	-.06
Gender Discrimination (GD)	-.10	.12	-.06	-.27	.12	<b>-.18*</b>	-4.72	3.26	-.11
Model 2									
Racial Discrimination (RD)	.06	.18	.03	-.32	.17	.21+	-6.54	4.77	-.16
Gender Discrimination (GD)	-.08	.18	-.04	.03	.17	.02	3.02	4.79	.07
Gender (GEN)	.22	.19	-.13	.36	.17	.24*	4.33	4.81	.10
RDXGEN	-.25	.25	-.13	.19	.23	.12	6.59	6.58	-.14
GDXGEN	.01	.26	.01	-.42	.24	-.20	-14.48	6.86	<b>-.25*</b>

\*p<.05, \*\*p<.01, \*\*\*p<.001

+marginally significant

Table 14

*Summary of Regression Results for Perceptions of Discrimination, Psychological Well-Being, and Student-Teacher Relationship Quality*

	Psychological Well-Being						Student-Teacher Relationship Quality								
	School Belonging			Self-Esteem			Relatedness to Teacher			Self-Worth Around Teacher			Teacher Support		
	B	SE	$\beta$	B	SE	$\beta$	B	SE	$\beta$	B	SE	$\beta$	B	SE	$\beta$
Model 1															
Racial Discrimination (RD)	-.28	.15	-.13+	-.09	.10	-.06	-.40	.15	<b>-.18**</b>	-.30	.13	<b>-.16*</b>	-.39	.14	<b>-.19**</b>
Gender Discrimination (GD)	-.36	.15	<b>-.17*</b>	-.34	.09	<b>-.25***</b>	-.22	.15	-.10	-.23	.13	-.12	-.12	.14	-.06
Model 2															
Racial Discrimination (RD)	-.25	.21	-.12	.08	.14	.06	-.11	.22	-.05	.05	.19	-.03	-.17	.21	-.09
Gender Discrimination (GD)	-.43	.21	<b>-.20*</b>	-.35	.14	<b>-.26**</b>	-.53	.22	<b>-.25*</b>	-.46	.19	<b>-.25*</b>	-.38	.21	-.19+
Gender (GEN)	-.30	.23	-.14	.16	.14	.12	.25	.23	.12	.20	.20	.11	.03	.22	.02

Table 14 (continued)

RDXGEN	.03	.30	.01	-.32	.19	-.22	-.67	.31	<b>-.29*</b>	-.70	.27	<b>-.34**</b>	-.45	.29	-.21
GDXGEN	-.07	.31	-.02	.03	.20	.02	.79	.31	<b>.27**</b>	.48	.27	.19	.56	.30	.21+

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\*p<.05, \*\*p<.01, \*\*\*p<.001  
 +marginally significant

Table 15

*Means and Standard Deviations Comparing Groups Perceiving One Form of Discrimination and Both Forms of Discrimination*

		<i>n</i>	<i>M</i>	<i>SD</i>
<b>Academic Adjustment</b>				
Academic	One	74	4.31	.85
Efficacy	Both	85	4.04	.80
	Total	159	4.16	.83
GPA	One	60	3.61	.76
	Both	63	3.31	.71
	Total	123	3.46	.75
ISAT Scores	One	63	240.77	20.06
	Both	66	232.27	23.12
	Total	129	236.42	22.01
<b>Psychological Well-Being</b>				
School	One	73	3.50	1.07
Belonging	Both	86	3.03	1.08
	Total	159	3.25	1.09
Self-esteem	One	73	4.19	.62
	Both	85	3.82	.69
	Total	158	3.99	.68
<b>Student-Teacher Relations</b>				
Relatedness to	One	72	3.74	1.19
Teacher	Both	85	3.74	1.03
	Total	157	3.74	1.10
Self-worth	One	72	3.78	1.00
around Teacher	Both	85	3.67	.89
	Total	157	3.72	.94
Teacher Support	One	73	3.57	.99
	Both	85	3.28	1.04

Table 16

*One-Way Analysis of Variance Summary Table Comparing Groups Perceiving One Type of Discrimination Compared to Both Types of Discrimination*

Source	df	SS	MS	F	p
<b>Academic Adjustment</b>					
Academic Efficacy					
Between groups	1	2.85	2.85	4.20	<b>.042</b>
Within groups	157	106.37	.68		
Total	158	109.22			
GPA					
Between groups	1	2.83	2.83	5.20	<b>.025</b>
Within groups	121	65.84	.54		
Total	122	68.67			
ISAT Scores					
Between groups	1	2331.37	2331.37	4.96	<b>.028</b>
Within groups	127	59689.02	469.99		
Total	128	62020.40			
<b>Psychological Well-Being</b>					
School Belonging					
Between groups	1	8.62	8.62	7.50	<b>.007</b>
Within groups	157	180.42	1.15		
Total	158	189.04			
Self-Esteem					
Between groups	1	5.48	5.48	12.6	<b>.000</b>
Within groups				9	
Total	156	67.40	.43		
	157	72.88			
<b>Student-Teacher Relations</b>					
Relatedness to Teacher					
Between groups	1	.001	.001	.001	.980
Within groups	155	189.05	1.22		
Total	156	189.05			

Table 16 (continued)

Self-worth Around Teacher

Between groups	1	.420	.420	.48	.492
Within groups	155	137.02	.88		
Total	156	137.44			

Teacher Support

Between groups	1	3.27	3.27	3.15	.078
Within groups	156	162.13	1.04		
Total	157	165.40			

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Table 17

*Summary of Regression Results for Perceptions of Racial Discrimination, Personality Beliefs and Academic Adjustment*

	Academic Adjustment								
	Academic Efficacy			GPA			ISAT		
	B	SE	$\beta$	B	SE	$\beta$	B	SE	$\beta$
Racial Discrimination (RD)	-.17	.11	-.10	-.26	.11	<b>-.18*</b>	-3.50	3.06	-.08
Personality Beliefs (PB)	.14	.09	.16	.04	.08	.05	-1.72	2.19	-.08
RDXPB	.14	.11	.12	.02	.11	.02	-2.10	3.02	-.07

\*p<.05, \*\*p<.01, \*\*\*p.001

Table 18

*Summary of Regression Results for Perceptions of Gender Discrimination, Personality Beliefs, and Academic Adjustment*

	Academic Adjustment								
	Academic Efficacy			GPA			ISAT		
	B	SE	$\beta$	B	SE	$\beta$	B	SE	$\beta$
Gender Discrimination (GD)	-.17	.11	-.10	-.34	.11	-.23***	-5.52	3.02	-.13+
Personality Beliefs (PB)	.14	.07	.17*	.05	.07	.07	-1.41	1.91	-.07
GDXPB	.16	.11	.12	-.01	.11	-.01	-3.50	3.05	-.11

\*p<.05, \*\*p<.01, \*\*\*p.001

+ marginally significant



Table 19

*Summary of Regression Results for Perceptions of Racial Discrimination, Personality Beliefs, Psychological Well-Being, and Student-Teacher Relationship Quality*

	Psychological Well-Being						Student-Teacher Relationship Quality								
	School Belonging			Self-Esteem			Relatedness to Teacher			Self-Worth Around Teacher			Teacher Support		
	B	SE	$\beta$	B	SE	$\beta$	B	SE	$\beta$	B	SE	$\beta$	B	SE	$\beta$
Racial Discrimination (RD)	-.40	.14	-.19	-.24	.09	<b>-.17**</b>	-.49	.14	<b>-.23***</b>	-.43	.12	<b>-.23***</b>	-.49	.13	<b>-.24***</b>
Personality Beliefs (PB)	.03	.10	.02	.02	.07	.02	.11	.11	.10	.05	.09	.06	.01	.10	.01
RDXPB	-.20	.14	-.14	.05	.09	.05	-.03	.14	-.02	.06	.12	.05	.33	.13	<b>.24**</b>

\*p<.05, \*\*p<.01, \*\*\*p<.001

Table 20

*Summary of Regression Results for Perceptions of Gender Discrimination, Personality Beliefs, Psychological Well-Being, and Student-Teacher Relationship Quality*

	Psychological Well-Being						Student-Teacher Relationship Quality								
	School Belonging			Self-Esteem			Relatedness to Teacher			Self-Worth Around Teacher			Teacher Support		
	B	SE	$\beta$	B	SE	$\beta$	B	SE	$\beta$	B	SE	$\beta$	B	SE	$\beta$
Gender Discrimination (GD)	-.42	.14	<b>-.20***</b>	-.38	.09	<b>-.27***</b>	-.37	.14	<b>-.18**</b>	-.34	.12	<b>-.19**</b>	-.28	.13	<b>-.14*</b>
Personality Beliefs (PB)	-.03	.09	-.03	-.01	.06	-.02	-.07	.09	-.07	-.01	.08	-.01	.02	.09	.26
GDXPB	-.18	.14	.14	.11	.09	.10	.31	.14	<b>.19*</b>	.15	.12	.10	.34	.13	<b>.22**</b>

\*p<.05, \*\*p<.01, \*\*\*p<.001

## Appendix C

### Figures

Figure 1.

*Frequency of Perceptions of No Racial Discrimination and Some Racial Discrimination*

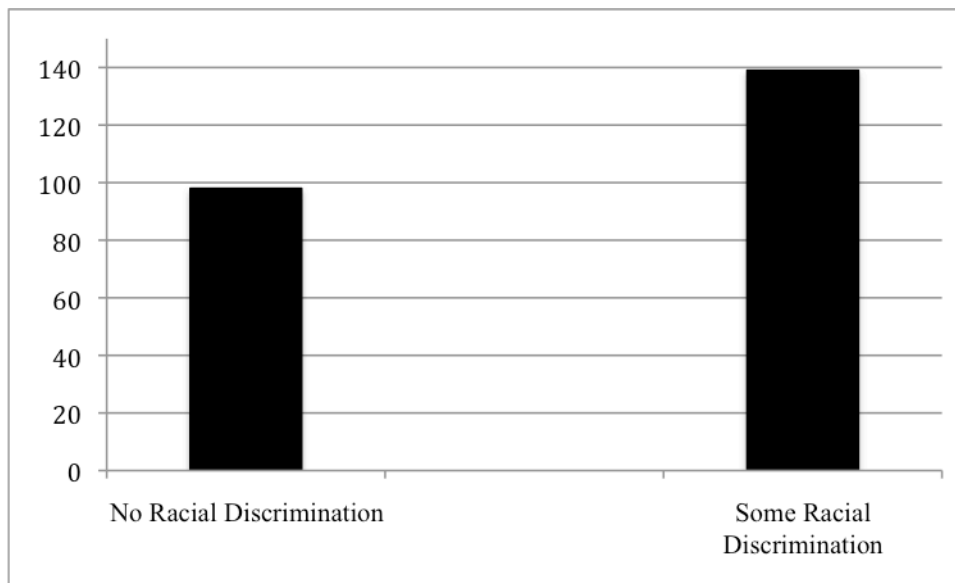


Figure 2.

*Frequency of Perceptions of No Gender Discrimination and Some Gender Discrimination*

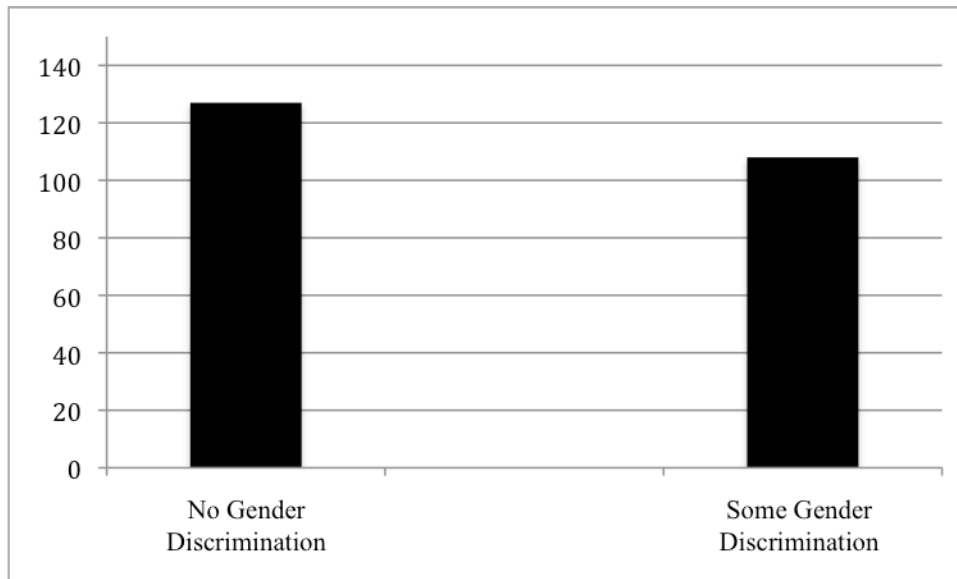


Figure 3.

*Frequency of Perceptions of Racial and Gender Discrimination*

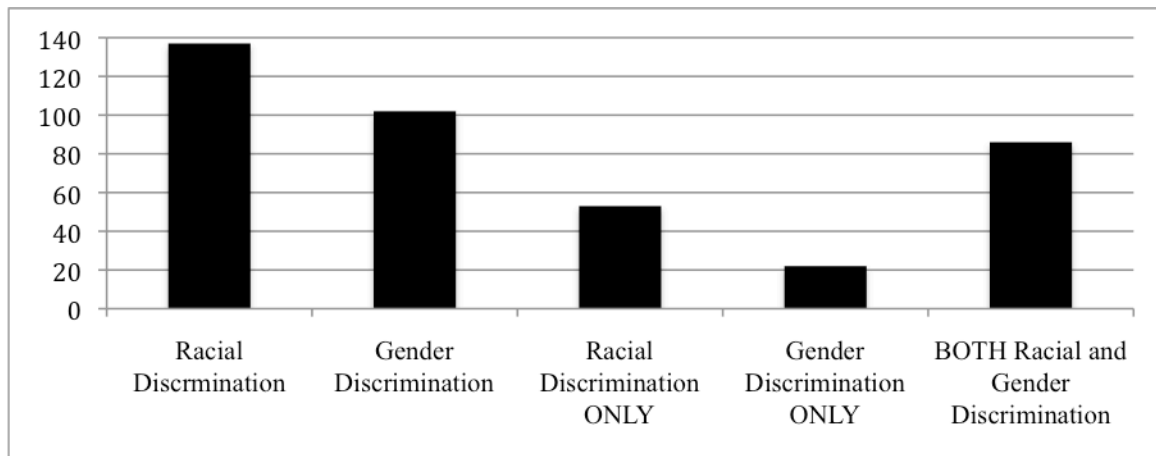


Figure 4.

*Frequency of Girls and Boys Perceiving No Racial Discrimination and Some Racial Discrimination*

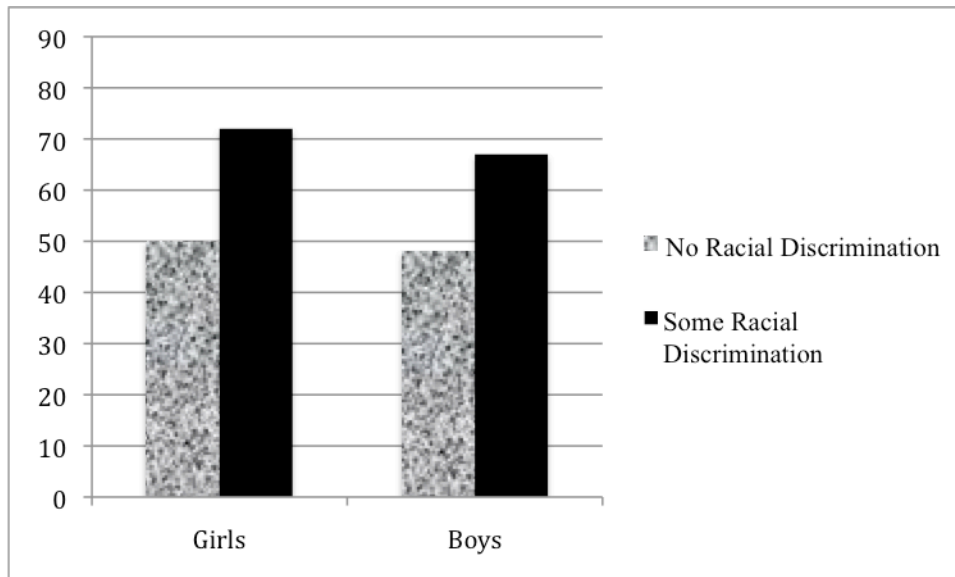


Figure 5.

*Frequency of Girls and Boys Perceiving No Gender Discrimination and Some Gender Discrimination*

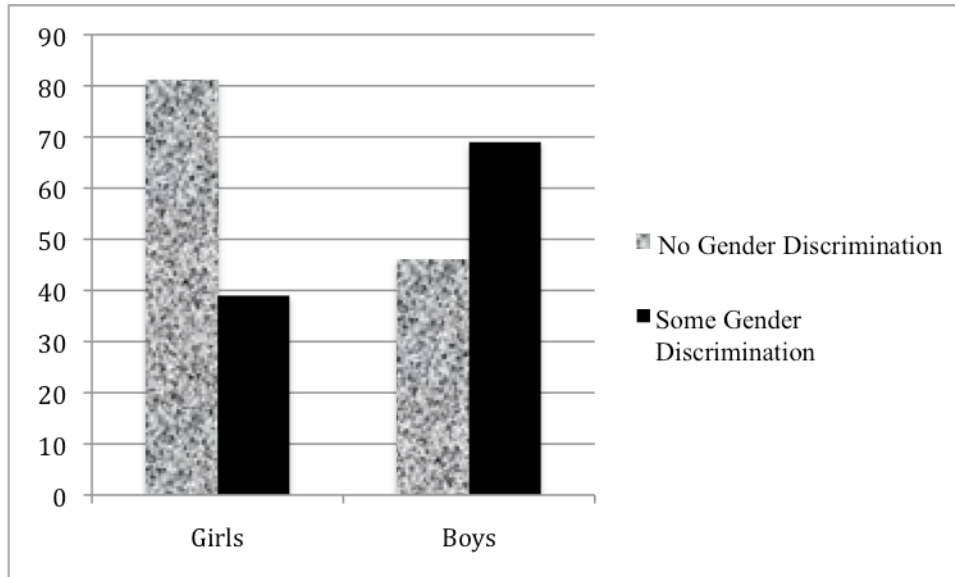


Figure 6.

*Graph of Interaction between Perceived Gender Discrimination and Gender on Standardized Test Scores (ISAT scores)*

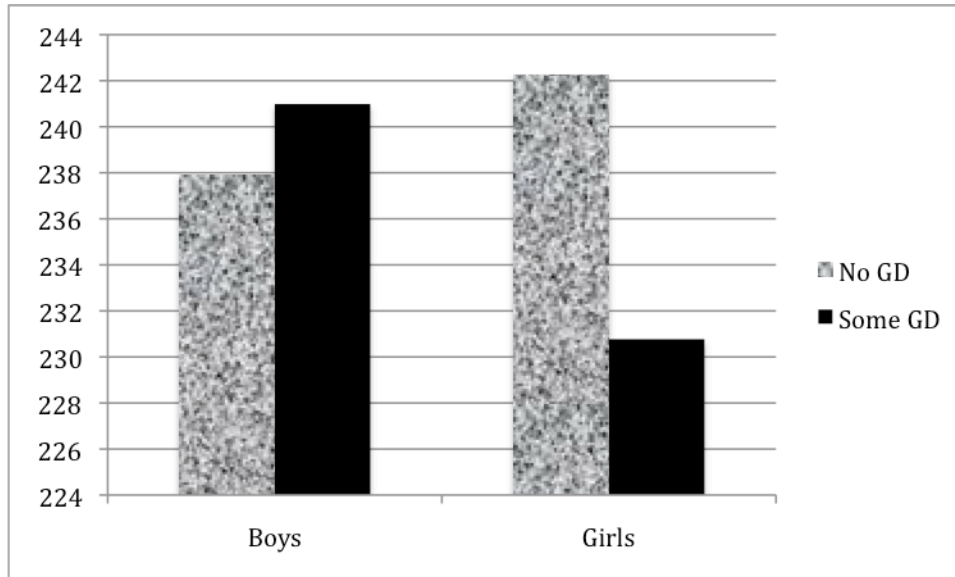




Figure 7.

*Graph of Interaction between Perceived Racial Discrimination and Gender on Self-worth around Teacher*

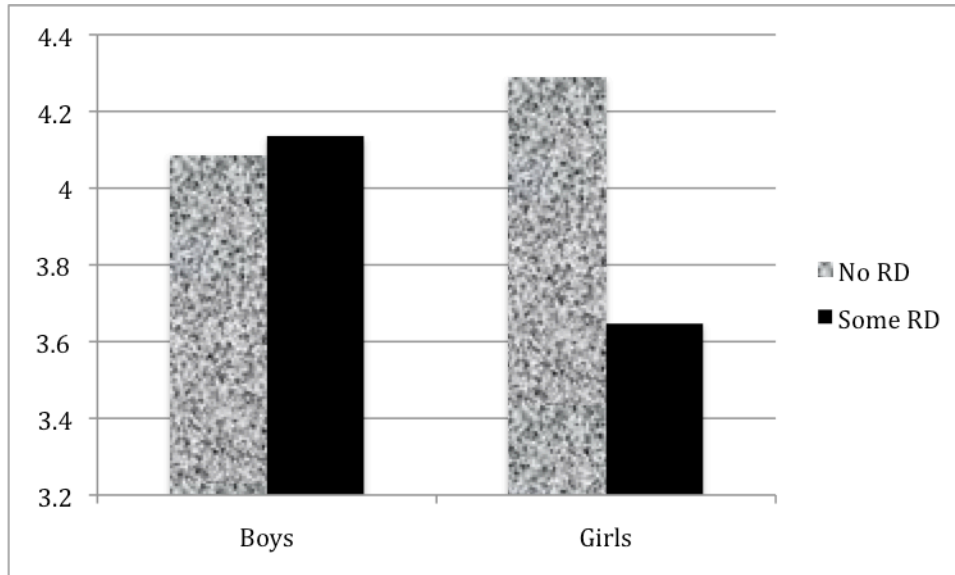


Figure 8.

*Graph of Interaction between Perceived Racial Discrimination and Gender on Relatedness to Teacher*

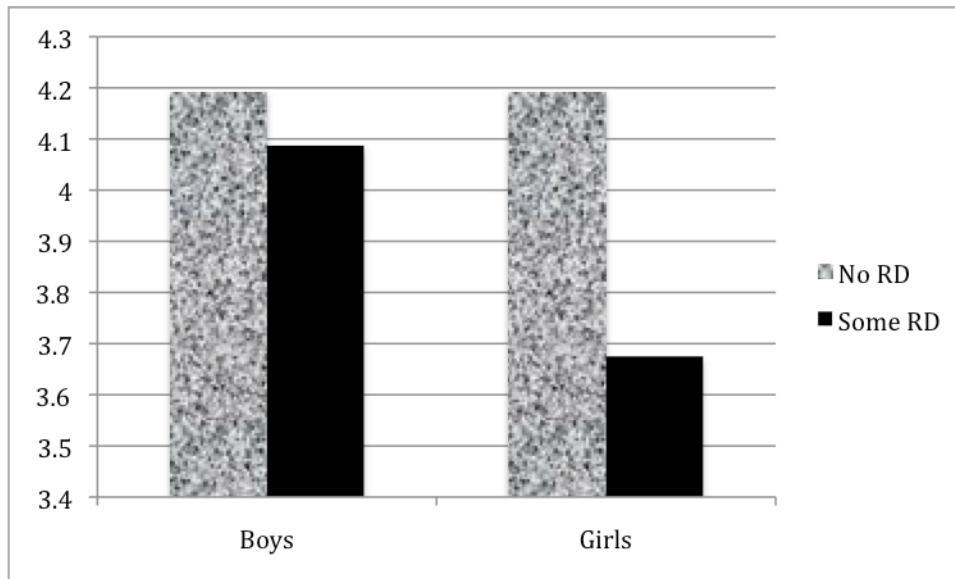


Figure 9.

*Graphs of Interaction between Perceived Gender Discrimination and Gender on Relatedness to Teacher*

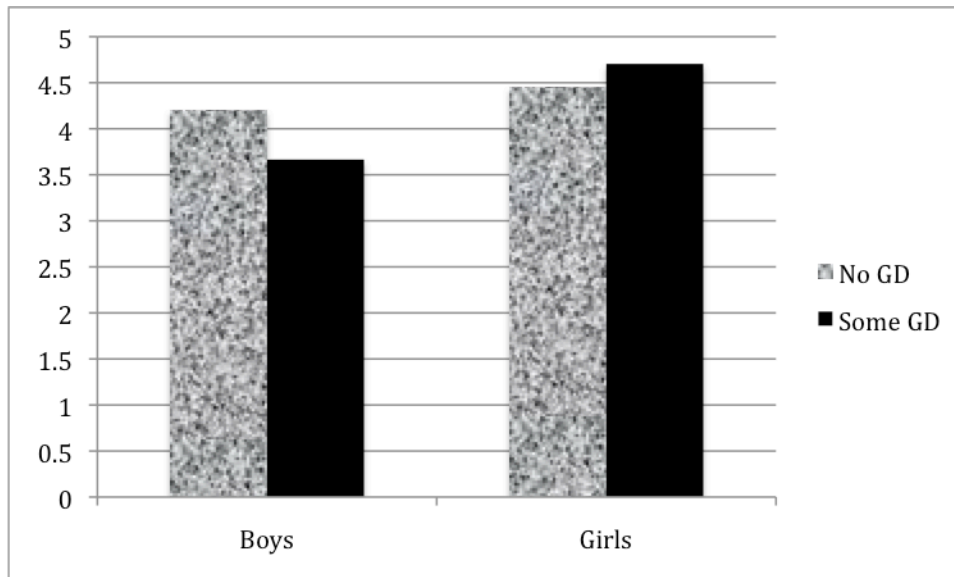


Figure 10.

*Graph of Interaction between Perceived Gender Discrimination and Gender on Teacher Support*

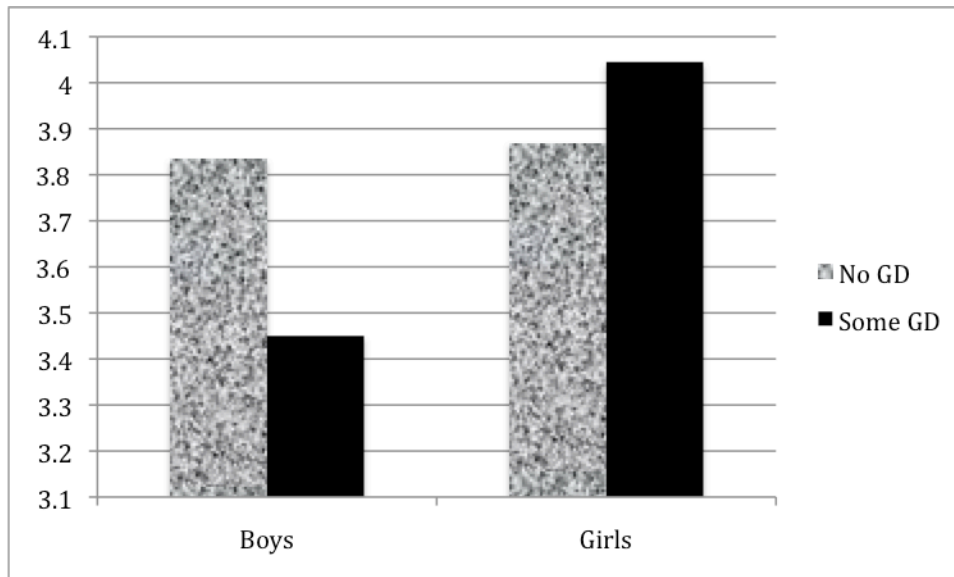


Figure 11.

*Graph of Interaction Between Perceived Racial Discrimination and Personality Beliefs on Teacher Support*

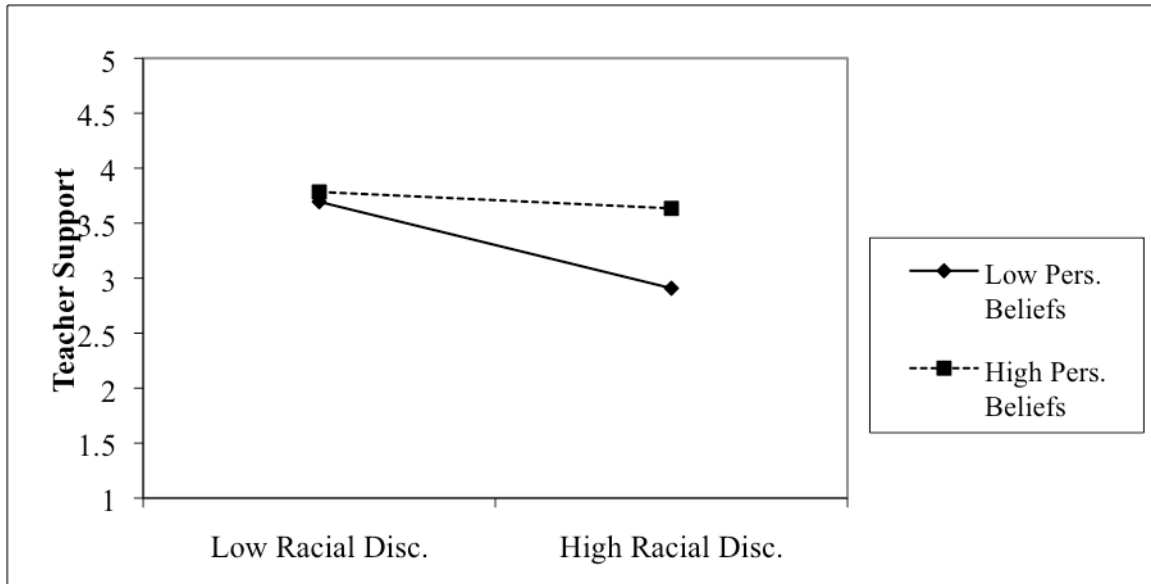


Figure 12.

*Graph of Interaction Between Perceived Gender Discrimination and Personality Beliefs on Teacher Support*

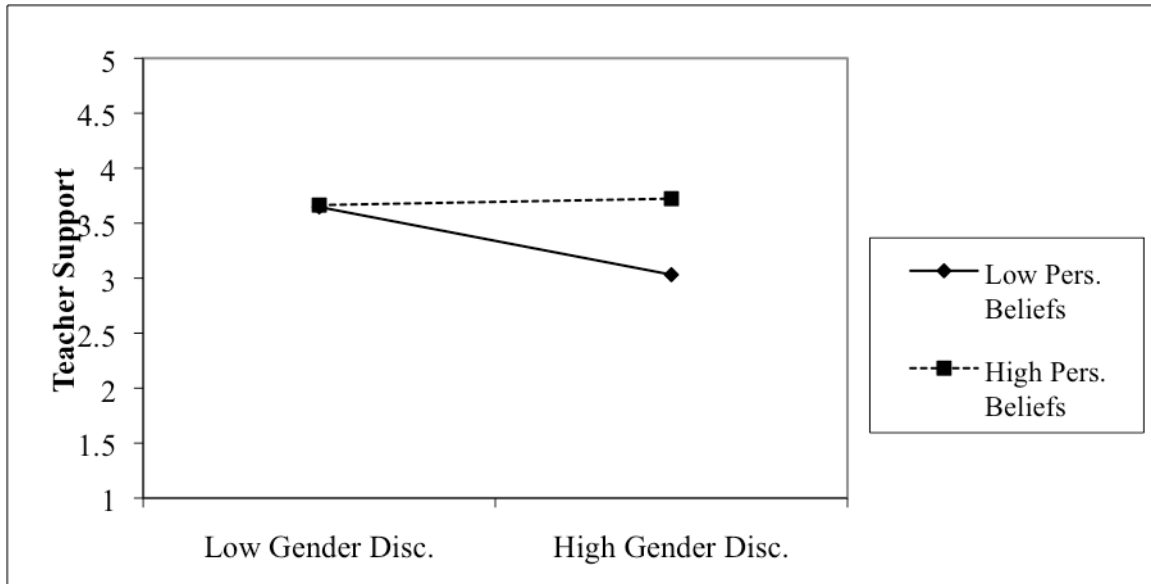


Figure 13.

*Graph of Interaction Between Perceived Gender Discrimination and Personality Beliefs on Relatedness to Teacher*

