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Black and Latino adolescents' perceptions of racial discrimination and school adjustment: Parent educational advocacy and friendship support as protective factors

A dissertation submitted in partial satisfaction of the

requirements for the degree Doctor of Philosophy

in Education

by

Aletha Marie Harven

2014

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ABSTRACT OF THE DISSERTATION

Black and Latino adolescents' perceptions of racial discrimination and school adjustment: Parent educational advocacy and friendship support as protective factors

By

Aletha Marie Harven

Doctor of Philosophy in Education

University of California, Los Angeles, 2014

Professor Sandra Graham, Chair

The purpose of this research was to explore Black and Latino adolescents' experiences with racial discrimination in school. First, a mediation model was utilized to examine the hypothesized path between teacher racial discrimination, academic goals, and school achievement – and the hypothesized path between peer racial discrimination, mental health, and school achievement. Second, moderated mediation was employed to examine the influence of parent educational advocacy on the hypothesized path between teacher racial discrimination, academic goals, and school achievement – and the influence of friendship support on the hypothesized path between peer racial discrimination, mental health, and school achievement. Structural Equation Modeling (SEM) was used to test all paths. Only mental health factors were found to mediate the relation between peer racial discrimination and school achievement for Black and Latino girls. However, moderated mediation revealed additional mediated paths that were not gender specific but were influenced by differing levels of the moderating variables. For instance, lower levels of parent educational advocacy were found to strengthen the negative impact of teacher racial discrimination on student achievement through mastery goals and

performance-avoidance goals for Latino youth. Similarly, lower levels of friendship support were found to strengthen the negative impact of peer racial discrimination on student achievement through depressive symptoms for Black youth. These findings suggest that the absense of parent educational advocacy and friendship support in adverse situations can have negative psychological and academic consequences for both Black and Latino students. Implications of the findings for promoting parent educational advocacy and friendship support were discussed. Also discussed was the notion that mediation cannot always be understood alone and that differing levels of a moderator can more effectively explain a unique path.

The dissertation of Aletha Marie Harven is approved.

Tyrone Howard

Daniel Solorzano

Jaana Juvonen

Sandra Graham, Committee Chair

University of California, Los Angeles

2014

Dedication

I dedicate my dissertation to my wonderfully loving parents, Ella Mae Harven and Al D. Harven Sr., whose unconditional love, support, and guidance have proved invaluable in my constant quest for knowledge.

I love you Mom and Dad! You're the most amazing people I know! I thank you for believing in me and for teaching me the importance of giving back to humanity!

Table of Contents

Abstract …….....ii

Committee Approval ……..iv

Dedication …….....v

Table of Contents ……...vi

List of Figures …….....vii

List of Tables …….....viii

Acknowledgements ……ix

Curriculum Vita ……..x

Introduction ……....1

Method ……..17

Results….. ……25

Discussion ……45

Appendices ……52

References ……77

List of Figures

Figure 1: Conceptual Model Demonstrating Moderated Mediation ……10

Figure 2: Mediation Model for the Hypothesized Path Between School Racial Discrimination, Psycholgical Adjustment, and GPA……...……34

Figure 3: Mediation Model for the Path Between Teacher Racial Discrimination, Achievement Goals, and GPA for Latino Students ……37

Figure 4: Mediation Model for the Path Between Peer Racial Discrimination, Mental Health, and GPA for Latino Girls ……..…..38

Figure 5: Mediation Model for the Path Between Teacher Racial Discrimination, Achievement Goals, and GPA for Black Students …….41

Figure 6: Mediation Model for the Path Between Peer Racial Discrimination, Mental Health, and GPA for Black Students ……42

Figure 7: Mediation Model for the Path Between Peer Racial Discrimination, Mental Health, and GPA for Black Girls ……..43

Figure 8: Mediation Model for the Path Between Peer Racial Discrimination, Mental Health, and GPA for Black Boys …….44

List of Tables

Table 1: School Profile Data for Participating High Schools…….…..….18

Table 2: Means and Standard Deviations of Study Variables by Race Using *t*-test Scores…….27

Table 3: Means and Standard Deviations of Study Variables by Gender Using *t*-test Scores…..28

Table 4: Bivariate Correlations between Main Study Variables for Girls...……...……...30

Table 5: Bivariate Correlations between Main Study Variables for Boys...……...……...31

Table 6: Bivariate Correlations between Main Study Variables for Black Students...…….……...32

Table 7: Bivariate Correlations between Main Study Variables for Latino Students...…..……...33

Table 8: Indirect Effects for Path Model between Peer Racial Discrimination, Mental Health, and GPA for Latino Girls ……...……..……...38

Table 9: Conditional Indirect Effects for Path Model between Teacher Racial Discrimination, Achievement Goals, and GPA for Latino Students …..……..……..40

Table 10: Indirect Effects for Path Model between Peer Racial Discrimination, Mental Health, and GPA for Black Girls ……...43

Table 11: Conditional Indirect Effects for Path Model between Peer Racial Discrimination, Mental Health, and GPA for Black Students ….…….…..…….45

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Curriculum Vita

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Sandoval, W. A., & **Harven, A. M.** (2010). Urban middle school students' perceptions of the value of

inquiry. *Journal of Science Education and Technology*, 20, 95-109.

Huang, D., La Torre, D., **Harven, A**., Huber, L., P., Jiang, L., Leon, S., & Oh, C. (2008). Identification of Key Indicators of Quality in Afterschool Programs. (CRESST Report 748). Los Angeles, CA: University of California, National Center for Research on Evaluation, Standards, and Student Testing (CRESST at UCLA).

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Does Failing the California High School Exit Exam Undermine Future Orientation Toward College? Poster Session at the Society for Research on Adolescence (SRA) Conference in Vancouver, Canada, 2012

The Relation between Adolescents' Perceptions of Racial Discrimination and their Achievement Goals: An Exploratory Study on African American Middle School Students. Panel Discussion Presented at the American Educational Research Association (AERA) Conference in New York, N.Y., 2008

Perceptions of Culturally Relevant Pedagogy: An Assessment Based on Ethnically Diverse Middle School Students. Panel Discussion Presented at the American Educational Research Association (AERA) Conference in Chicago, IL., 2007

Eyes on the Prize: Considering How Design Research Can Lead to Sustainable Innovation. Symposium Presented at the Educational Research Association (AERA) Conference in San Francisco, CA., 2006

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Black and Latino adolescents' perceptions of racial discrimination and school adjustment: Parent advocacy and friendship support as protective factors

I was raised in a predominately white suburb in Northern California, where my siblings and I were often the only faces of color in the schools we attended. There were times during my schooling when teachers tried to discourage me from taking advanced classes or peers would call me names because my skin color was darker than theirs. Nevertheless, my parents were always there to encourage and support me through these difficult times. They would speak on my behalf by calling meetings with my teachers and school principals and empowered me with the knowledge to effectively advocate for myself when they could not be present. My parents were my major source of support during adolescence, and it was the *type of support* they provided that helped me to stay motivated and successful in the face of adversity. I recognize that many of today's students of color, particularly those living in low-income, urban communities, might lack the level of parent advocacy that I experienced growing-up, and instead, have drawn healthy levels of support from other sources such as close friends, school counselors, community members, and the like. Therefore, I was not only interested in exploring the protective properties of parent educational advocacy - but of friendship support on the relation between Black and Latino adolescents' perceptions of racial discrimination in school and their mental health, academic motivation, and achievement.

Racial disparities in education

Black and Latino adolescents have continued to perform at a lower academic level than their White and Asian counterparts in subjects such as reading, writing, and mathematics (National Assessment of Educational Progress; NAEP, 2014). Boys have also been

reported to perform at a slightly lower academic level than their female counterparts, with Black and Latino boys performing at extremely low academic levels in school (NAEP, 2014). More alarming is the high school completion rate for Black and Latino students, especially Black and Latino males. During the 2009-2010 school year, the high school graduation rate across the nation was 78%, with 94% of graduates being Asian, 83% White, 71% Latino, and 66% Black (National Center for Education Statistics; NCES, 2014). Similar trends were seen in California during the 2010-2011 school year (NCES, 2014), with the Civil Rights Project reporting the lowest graduation rates for minority males in California (54% for Latino males and 50% for Black males; Losen & Wald, 2005). Noteworthy is how a large proportion of minority students attend schools in underperforming high poverty districts that are plagued by a number of problems such as racial isolation, a lack of Title 1 funding, and a school culture in which dropping out is the norm (Losen & Wald, 2005). Taken together, these data reveal how Black and Latino adolescents, particularly Black and Latino males, are at a greater risk for academic failure and school dropout.

While some scholars have attributed the underachievement of Black and Latino youth to home and community factors (e.g., single-parent homes, a lack of parent involvement, parent-student conflict, low-quality neighborhoods, and low levels of cognitive stimulation), other scholars have emphasized problematic factors at school (e.g., academic tracking, low teacher expectations, and special education placement and/or English Language Learning placement), as well as what they perceive as a lack of interest, low levels of engagement, and poor attendance among many Black and Latino youth. While study after study has provided thoughtful insight into the problems that have perpetuated the relatively low academic performance of Black and Latino youth, it seems as if an entangled web of risk factors has been revealed to demonstrate the complexity surrounding the education of students belonging to these two racial groups. In

recognizing the myriad of risk factors that continue to influence minority student achievement, Farkas (2003) has argued that racial prejudice and bias are what's truly at the root of the racial achievement gap. He reasoned that prejudiced attitudes have contributed to less successful learning environments for racially diverse youth, where they are presented with less advanced material and are overrepresented in lower curriculum tracks and ability groups, regardless of school type (e.g., urban vs. suburban). Both low-income and middle-class students of color are often "underrepresented among high achievers and overrepresented among students who get low grades and score poorly on standardized exams" (Ferguson, 2004, p. 347). Thus, prejudiced behavior on the part of school personnel has placed Black and Latino students at an academic disadvantage, creating what might be a self-fulfilling prophecy about the educability of racially diverse youth.

Given that race plays a particularly salient role in the lives of Black and Latino people, it was surprising to discover how racial discrimination was one of the most understudied risk factors among Black and Latino youth, particularly since Black and Latino adolescents' perceptions of racial discrimination have been negatively associated with their academic achievement (Wong, Eccles, & Sameroff, 2003; Eccles, Wong, & Peck, 2006; Alfaro, Umana-Taylor, Gonzales-Backen, Bámaca, & Zeiders, 2009; Huynh & Fuligni, 2010; Benner & Graham, 2013; Umana-Taylor, Wong, Gonzales, & Dumka, 2012). Given that racial discrimination appears to be an important risk factor to examine in understanding the persistent nature of the racial achievement gap, a major goal of the current study was to acquire a deeper understanding of how racial discrimination impacts both Black and Latino adolescents' school achievement, by exploring a number of factors that might perpetuate and mitigate this negative relation.

Racial discrimination and student adjustment

Perceiving one's social context as discriminatory can take a psychological toll on any adolescent, particularly if an adolescent does not possess strong psychological assets (e.g., a positive sense of self) or have access to positive social environmental resources (e.g., supportive peers) to thwart the negative feelings associated with discriminatory practices. Racial discrimination has been defined here as the *perceived unfair treatment of an individual due to his or her racial group*. Perceptions of racial discrimination were of particular importance, as personal experiences with racial discrimination are subjective and can influence students' psychological and academic functioning differently. While some individuals might argue that perceptions of racial discrimination are not always based on the reality of a situation – the current study maintains that students' perceptions of maltreatment are their reality and should be validated. For many Black and Latino adolescents, their perceptions of racial discrimination have continued to be an important risk factor for the emergence of mental health issues such as depression (Simons, Murry, McLoyd, Lin, Cutrona, & Conger, 2002; Wong et al., 2003; Sellers, Copeland-Linder, Martin, & Lewis, 2006; Huynh & Fuligni, 2010; Benner & Graham, 2013), distress (Fisher, Wallace, & Fenton, 2000; DuBois, Burk-Braxton, Swenson, Tevendale & Hardesty, 2002; Sellers et al., 2006; Huynh & Fuligni, 2010) increased anger (Wong et al., 2003), emotional problems (DuBois et al., 2002), decrements in psychological resiliency and self-esteem (Wong et al., 2003; Huynh & Fuligni, 2010; Benner & Graham, 2013), physical complaints (Huynh & Fuligni, 2010), problem behavior in school (e.g., being disobedient and disruptive; Wong et al., 2003; Umana-Taylor et al., 2012), and associating with deviant peers (e.g., friends who skip school, cheat on tests, get suspended, etc.; Wong et al., 2003; Umana-Taylor et al., 2012). Teacher racial discrimination was particularly predictive of Black students having friendships with peers who lacked positive characteristics (Wong et al., 2003). Further,

Gibbons, Gerrard, Cleveland, Wills, and Brody (2004) found distress (operationalized as depression and anxiety) to mediate (or help explain) the negative association between perceived racial discrimination and substance abuse in a sample of Black parents and their adolescent children. This particular finding suggests that the link between perceived racial discrimination and maladjustment might bring about greater conduct problems in Black youth. Also noteworthy is how at one high school, Black and Latino adolescents sought to harass their Asian counterparts due to their perceptions of favoritism on the part of their teachers (Rosenbloom & Way, 2004). Given the research discussed thus far, Black and Latino adolescents' perceptions of racial discrimination have not only been associated with psychological maladjustment but could lead to peer harassment.

Equally noteworthy is how perceptions of racial discrimination can have a harmful effect on Black and Latino adolescents' motivational patterns. For instance, Black adolescents who perceived more racial discrimination in school by both teachers and peers were more likely to devalue the importance and usefulness of school for future success (Wong et al., 2003; Eccles et al., 2006), to have less confidence in their academic abilities (Wong et al., 2003; Eccles et al., 2006; Chavous, Rivas-Drake, Smalls, Griffin, & Cogburn, 2008), and to endorse more negative attitudes toward school (Chavous et al., 2008). Also, Harven (2008) found that Black adolescents who perceived more racial discrimination in educational, peer, and societal contexts were less likely to endorse mastery goals in school where persistence, effort, and engagement were valued. Further, Latino students' general perceptions of racial discrimination (e.g., unfair treatment by store clerks) were found to negatively impact their academic motivation (e.g., effort in school; Alfaro et al., 2009). Interestingly, the *perceived likelihood* of racial discrimination and *the concern associated with it* were negatively associated with school importance, school value, and current and future feelings about school usefulness (Perreira, Fuligni, & Potochnick, 2010). To

further discuss the motivational consequences associated with racial discrimination, it is important to recognize how aspects of academic motivation (i.e., academic ability beliefs, school value, and effort) have been found to mediate (or help explain) the negative relation between racial discrimination and academic achievement. For instance, Eccles et al. (2006) found that as Black adolescents' perceived more racial discrimination in school from teachers and peers, they were more likely to devalue the usefulness of school for future success and to have less confidence in their academic abilities, which was further associated with a low GPA. In a similar study that was longitudinal, Alfaro et al. (2009) found that Latino boys' past and current perceptions of racial discrimination were negatively associated with their academic motivation (effort) and subsequent school functioning. Thus, Black and Latino adolescents' perceptions of racial discrimination have been found to undermine their academic motivation and subsequent school achievement.

In terms of protecting minority youth from the negative psychological and academic consequences associated with their perceptions of racial discrimination, the most commonly identified protective factor is a strong *racial identity*, which is a psychological asset residing within an individual. For instance, Black adolescents who perceived more racial discrimination in school, but were strongly connected to their racial group, were less likely to engage in problem behavior at school, surround themselves with deviant peers, devalue the usefulness of school for future success, doubt their academic abilities, and to have poor grades in school (Wong et al., 2003; Eccles et al., 2006). Similarly, Latino adolescent boys who perceived more racial discrimination in their lives, but held positive attitudes about their racial group (e.g., where they had high levels of ethnic identity affirmations), were less likely to exhibit externalizing behaviors (e.g., being disobedient and disruptive in school) and to perform poorly in school (as measured by GPA; Umana-Taylor & Guimond, 2010). Also noteworthy is how higher levels of

ethnic identity affirmations were associated with Latino students' perceptions of a positive school climate, which in turn, was associated with stronger academic motivation (Perreira et al., 2010). To further deconstruct the protective properties of having a strong racial identity, Sellers et al. (2006) found public regard - a dimension of racial identity referring to whether or not people feel others hold positive views of their racial group - to buffer the negative psychological effects of perceived racial discrimination for Black youth. That is, Black adolescents who felt other people held positive beliefs about Black people were less likely to feel depressed, stressed, and to experience decrements in their psychological well-being when faced with racial discrimination. Further, racial centrality - another dimension of racial identity referring to how important an individual's race is to his or her overall identity - has equally important protective features. For instance, having a race central identity was found to reduce the negative impact of perceived racial discrimination in societal institutions (e.g., by police officers and store clerks) on Black adolescents' endorsement of mastery-approach goals (Harven, 2008). Also, Black adolescent males higher in racial centrality were less likely to experience decrements in academic engagement due to teacher and peer racial discrimination in school (Chavous et al., 2008). Another significant moderator that has received little attention is engagement coping (e.g., talking with others). Edwards and Romero (2008) found that high levels of engagement coping weakened the negative relation between Latino students' perceptions of racial discrimination and their self-esteem. All in all, the scholarship here suggests that students who feel good about their racial group, feel others view their racial group positively, or whose identity is strongly tied to their racial group are less affected by their perceptions of racial discrimination in multiple contexts. Also, contextualizing one's race-related experiences through speaking with trusted individuals seems helpful for minority youth. A more thorough investigation is needed on the

ways in which differing protective factors might help Black and Latino youth to stay resilient in the face of adversity.

In regards to gender differences, Black and Latino adolescent males seem particularly vulnerable to acts of racial discrimination in and outside of the school context (Fisher et al., 2000; Rosenbloom & Way, 2004; Harven, 2008; Chavous et al., 2008; Umana-Taylor & Guimond, 2010). When compared to their female counterparts, Black and Latino adolescent boys have reported more experiences with racial discrimination in school from teachers and school personnel (Fisher et al., 2000; Harven, 2008; Chavous et al, 2008), peers (Fisher et al., 2000; Harven, 2008; Chavous et al., 2008), and from those within the larger social context (e.g., store clerks, police officers, etc.; Fisher et al., 2000; Rosenbloom & Way, 2004; Harven, 2008; Umana-Taylor & Guimond, 2010). The negative impact of racial discrimination on academic motivation also appears to be stronger for Black and Latino adolescent boys (Harven, 2008; Chavous et al., 2008; Alfaro et al., 2009). Black parents have even reported greater difficulty in the schooling of their Black sons due to teachers' negative perceptions of - and low expectations for - Black males, their use of microaggressions in the classroom, and ready acceptance of Black boys' underachievement in school (Reynolds, 2010). Research on Latino boys has emphasized similar schooling difficulties with the added acknowledgement that schools dishonor the cultural heritage and unique knowledge that Latino youth bring with them to the school-house (Saenz & Ponjuan, 2009; Hill & Torres, 2010). Also, Latino males are often segregated by racial, socio-economic, and immigrant characteristics, which has negatively impacted their educational outcomes (Saenz & Ponjuan, 2009). Together, these findings speak to the challenges faced by Black and Latino male students.

Given the limited psychological scholarship on Black and Latino adolescents' experiences with racial discrimination, particularly in the school context, more research is needed on (a) the impact that different sources of racial discrimination has on student adjustment, (b) the processes that underlie the negative relation between school racial discrimination and student achievement, (c) additional factors that might protect minority adolescents' mental health, academic motivation, and school achievement in the face of adversity, and on (d) how experiences with racial discrimination differ as a function of gender. The current study addressed these gaps in the literature by utilizing a moderated mediation approach.

The current study: A moderated mediation approach

The current study is guided by a social cognitive perspective, which provides a means for not only examining how students' interpret their experiences but for understanding how students' interpretations (or perceptions) influence their subsequent feelings, behavior, and cognitive abilities (Bandura, 1986, 1989). This study has not only examined the extent to which Black and Latino adolescents' attribute negative events (e.g., being put in a lower ability class) to racial discrimination - but has explored the ways in which Black and Latino students' perceptions of school racial discrimination have influenced their mental health (i.e., feelings of anxiety, depression, and loneliness), academic motivation (i.e., achievement goals), and school achievement (i.e., GPA). The study was also guided by resiliency theory (Zimmerman & Arunkumar, 1994; Fergus & Zimmerman, 2005). Resiliency theory states that promotive factors such as psychological assets (which reside within an individual; e.g., racial identity, self-esteem, etc.) and social environmental resources (which are external to an individual; e.g., parent support) help individuals to overcome the negative consequences associated with risk exposure.

For the current study, I was interested in examining how social environmental resources such as parent educational advocacy and friendship support might protect Black and Latino adolescents from the negative mental health, motivational, and academic consequences associated with racial discrimination in school. The study was focused on high school students, as middle adolescence (age 14-17) is undoubtedly a critical developmental period for studying the dynamics of racial discrimination among Black and Latino youth. Also, adolescence is a time when students explore their sense of self and how they fit into the world (see Bandura, 1986, 1989 for a thorough discussion).

Summary of the study questions and hypotheses. The mediating mechanisms and moderated paths that guide my research are shown in Figure 1

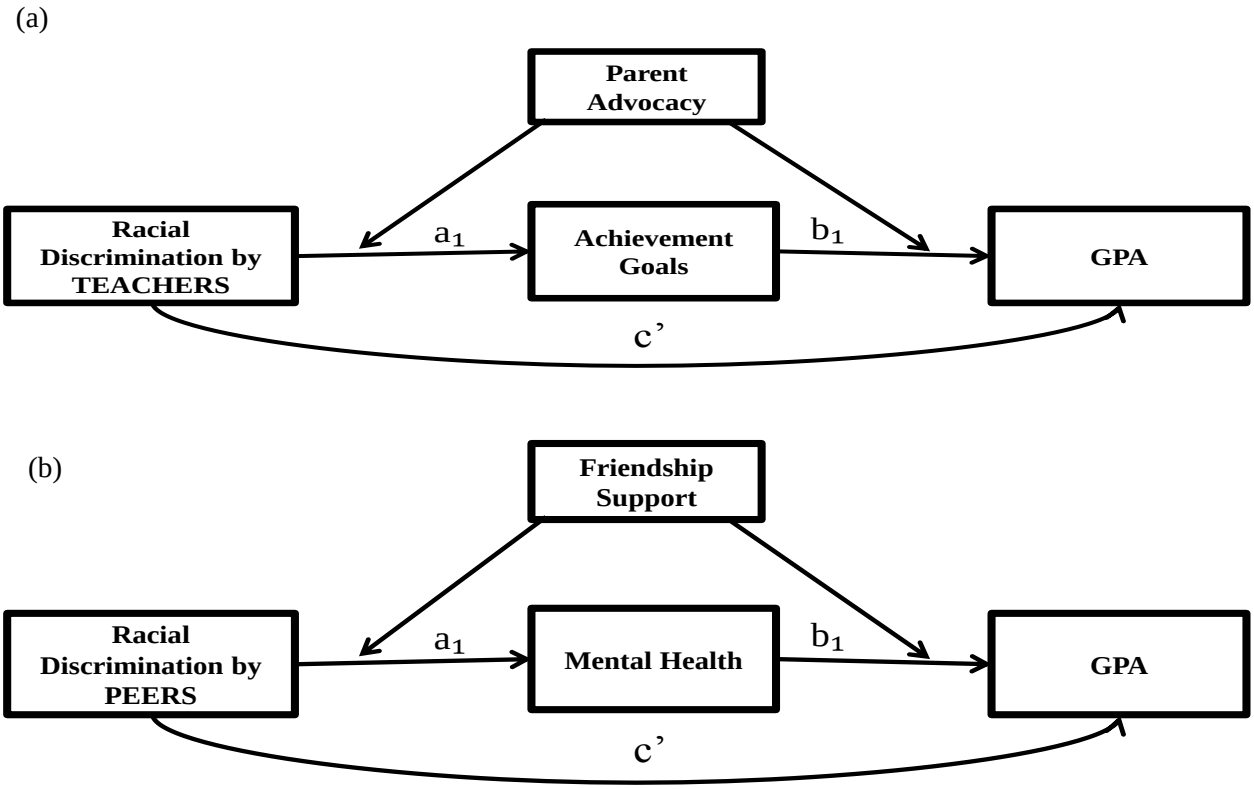


Figure 1. Conceptual model demonstrating moderated mediation on the hypothesized indirect paths between teacher racial discrimination and achievement (a) and peer racial discrimination and achievement (b).

Question 1a: How might Black and Latino adolescents' achievement goals mediate (or help explain) the relation between their perceptions of teacher racial discrimination in school and their academic achievement? This question was concerned with *process*, or the underlying mechanisms that link negative events to undesirable outcomes. Given that Benner and Graham (2013) found teacher racial discrimination to be a stronger predictor of Black and Latino adolescents' school engagement and academic achievement, it was hypothesized that as Black and Latino adolescents' perceived more racial discrimination in school from their teachers, they would be less likely to endorse mastery and performance-approach goals and more likely to endorse performance-avoidance goals, which in turn, would have a negative impact on their GPA.

Students' achievement goals were hypothesized to mediate this unique relation because academic goals are what drive achievement-related behavior (Ames & Archer, 1988; Elliot, McGregor, & Gable, 1999). Three goal-types were examined: mastery-approach goals (i.e., engagement in achievement behavior for skill building and understanding), performance-approach goals (i.e., engagement in achievement behavior to receive public recognition), and performance-avoidance goals (e.g., disengagement in achievement behavior to avoid looking incompetent or less-capable than one's peers; Ames, 1992; Elliot & Harackiewicz, 1996). Mastery-approach goals are positive and have been associated with intrinsic motivation (e.g., "I want to become more skilled in math") and a desire to learn (Ames & Archer, 1988). Students with a mastery orientation often demonstrate a great deal of effort and persistence on classroom tasks, and they process information on a deeper level (Ames & Archer, 1988; Elliot et al., 1999). Performance-approach goals are also positive in nature and have been linked to effortful and persistent behavior, as well as academic achievement (Elliot et al., 1999). However, students who endorse this goal-type often engage in surface learning where they engage in less

challenging tasks for external rewards (e.g., to receive an A grade; Ames, 1992, Elliot & Harackiewicz, 1996; Elliot et al., 1999). Performance-avoidance goals are negative in nature, as they are associated with disorganization and poor test performance (Elliot et al., 1999). It is noteworthy that negative classroom contexts can place youth at risk for school disengagement. For instance, Church, Elliot, and Gable (2001) found that students who perceived their classrooms to have a harsh and punitive focus were more likely to endorse performance-avoidance goals and less likely to endorse mastery goals. Similarly, Harven (2008) found that students who experienced more racial discrimination in school by teachers and school personnel were less likely to endorse a mastery orientation. Thus, a negative school environment can lead to poor school functioning.

Question 1b: How might Black and Latino adolescents' mental health mediate the relation between their perceptions of peer racial discrimination in school and their academic achievement? This question was also concerned with the underlying mechanisms that link negative events to undesirable outcomes. As with peer racial discrimination (Benner & Graham, 2013), peer victimization has been associated with low self-worth, depression, loneliness, and social anxiety among racially diverse adolescents (Graham & Jovonen, 1998; Jovonen, Graham, & Schuster, 2003; Bellmore, Witkow, Graham, & Jovonen, 2004). Given this information, it was hypothesized that as Black and Latino adolescents' perceived more racial discrimination in school from their peers, they would be more likely to experience feelings of social anxiety, depression, and loneliness, which would have a negative impact on their GPA.

***Question 2a*:** How might parent educational advocacy moderate (or influence) the hypothesized indirect path between teacher racial discrimination and GPA through achievement goals? Parent educational advocacy is an important social environmental resource that is

associated with parent academic involvement. Parent academic involvement has long been recognized by teachers, scholars, and other educators as an important component of students' academic success. However, there is disagreement among scholars on the type of parent behavior that positively influences the academic success of young people such as *parent-child communication* (e.g., providing assistance with homework, etc.), *home supervision* (i.e., regulating time engaged in homework, etc.), *communicating educational aspirations to children,* and *maintaining school contact and participation* (e.g., attends school functions, Fan & Chen, 2001; Hill & Taylor, 2004). While Black and Latino parents have been found to positively influence their children's academic achievement (Hill, Castellino, Lansford, Nowlin, Dodge, Bates, & Pettit, 2004; Hill & Torres, 2010), it is noteworthy that school personnel often view parents of color as being uninvolved, as many do not attend PTA meetings, volunteer at their children's school, attend school functions, or network with teachers and school personnel in the way that white parents typically do (McGarth & Kuriloff, 1999; Hill & Torres, 2010). For instance, McGarth and Kuriloff (1999) found white parents to engage in traditional activities associated with parent academic involvement, including advocating for their children's school success by networking with school personnel, while Black parental involvement and advocacy were found to be in response to – or in anticipation of - their children encountering school-related risk factors (e.g., teacher racial discrimination; see also Howard & Reynolds, 2008). As with Black parents, Latino parents value education and hold the school in high esteem, where they expect school staff to focus on their children's academic development, while they themselves focus on teaching their children morals, responsibility, and respect (Hill & Torres, 2010). While Latino parents might not be a presence in their children's schools, their in-home involvement (e.g., assisting with homework) has been positively associated with student academic motivation (e.g., increased aspirations and school value; Ibanez, Kuperminc, Jurkovic,

& Perilla, 2004). Also, Latino parent support has been found to buffer the negative relation between students' perceptions of school racial discrimination and their academic well-being, as measured by GPA, homework completion, academic performance satisfaction, and the likelihood for school dropout (DeGarmo & Martinez, 2006). Given that I feel parent educational advocacy is an important aspect of minority parent school involvement, it will be explored here, although the topic has received little attention in the psychological literature concerning racially diverse youth. ***Parent educational advocacy*** has been defined as parents who (a) speak on behalf of their children's right to a positive schooling experience, (b) ensure the fair treatment of their children by school staff, (c) help their children to navigate the educational system, and (d) teach their children how to advocate for their own success in school. Black and Latino parents who engage in these advocacy practices are believed to provide their children with a strong sense of security, protection, and guidance in the face of adversity, while keeping their children motivated and engaged in the learning process. Therefore, it was hypothesized that strong parent educational advocacy would counteract the hypothesized negative relation between teacher racial discrimination and GPA through mastery goals, performance-approach goals, and performance-avoidance goals.

Question 2b: How might friendship support moderate the hypothesized indirect path between peer racial discrimination and GPA through mental health factors? As with parent educational advocacy, high quality best friendships were expected to provide protection to students during difficult times. Berndt (2002) found high quality best friendships to be comprised of prosocial behavior (e.g., sharing and helping one another), praise (e.g., praising one another's successes), encouragement (e.g., encouraging one another after failures), intimacy (e.g., disclosing personal thoughts and feelings), loyalty (e.g., standing-up for one another), self-esteem support, and conflict resolution. Young people were found to value high-quality

friendships, as opposed to low-quality friendships marked by conflict, rivalry, and dominance (Berndt, 2002; see also Parker & Asher, 1993). In fact, low-quality friendships were found to increase disagreeable and disruptive behavior among students, while high-quality friendships improved students' interactions with their peers in social settings (Berndt, 2002). While boys' close friendships were marked by less caring, validation, intimacy, help, guidance, and ease with resolving issues - girls' close friendships were marked by more positive characteristics such as self-esteem support (Parker & Asher, 1993). Research on the protective nature of peer relationships is somewhat limited but has yielded some important findings. Schwartz, Dodge, Pettit, and Bates (2000) found that having multiple friendships reduced the negative impact of peer victimization on racially diverse youth, whereas students with fewer friendships were more likely to be victimized by their peers in school. Best friendships with a protective quality were also found to reduce the negative effects of peer victimization in school (Hodges, Boivin, Vitaro, & Bukowski, 1999). That is, students who exhibited internalizing behaviors (e.g., worried a lot, worked alone, etc.) were less likely to be victimized when they had a protective best friend who would "ward off aggressive attacks" from peers (Hodges et al., 1999). Also, merely having a best friendship reduced the impact of peer victimization on children exhibiting internalizing and externalizing behaviors (e.g., fighting; Hodges et al., 1999). Further, prosocial peer relationships were found to mitigate the negative link between relational peer victimization (e.g., the spreading of rumors) and loneliness (Storch & Masia-Warner, 2004). Also noteworthy is how higher levels of perceived friendship support predicted increases in self-esteem overtime in a sample of racially diverse adolescents (Way & Robinson, 2003). Lastly, DeGama and Martinez (2006) found that peer support reduced the negative relation between racial discrimination and academic well-being among Latino youth. In sum, large social networks and friendships characterized by prosocial, caring, and protective behaviors were found to reduce the negative impact of peer

victimization on students' mental health. Therefore, it was hypothesized that strong friendship support (or a high-quality best friendship) would mitigate the hypothesized negative effects of peer racial discrimination on GPA through social anxiety, depressive symptoms, and loneliness.

***Question 3*:** How do the hypothesized path models differ as a function of gender? This question was concerned with understanding how Black and Latino adolescent boys and girls experienced racial discrimination in school. We already know that minority males are more vulnerable to risk exposure when compared to their female counterparts (Fisher et al., 2000) – and that many minority males feel pressured to engage in risky behavior rather than in activities favoring school engagement and achievement (Curry & Spergel, 1992; Noguera, 2003; Saenz & Ponjuan, 2009). Therefore, it was hypothesized that Black and Latino adolescent males would be more vulnerable to acts of racial discrimination by both teachers and peers and that their perceptions of racial discrimination would have a stronger impact on their mental health, academic motivation, and achievement when compared to Black and Latino adolescent girls. Strong parent educational advocacy was expected to buffer the negative effects of teacher racial discrimination on GPA through academic motivation for all youth. It was unclear how parent educational advocacy would impact minority boys as opposed to minority girls. Given that friendship quality tends to be poorer among boys, it was predicted that Black and Latino adolescent boys would receive less support from friends when faced with adversity in school. Girls, on the other hand, were expected to have more supportive friendships that would protect them from the harmful effects of peer racial discrimination.

Method

A cross-sectional design was utilized, in which survey data were collected at one time point during the 2012-2013 school year. Students were asked to complete a survey packet, while their caregivers were asked to complete a demographic questionnaire and a parent educational advocacy questionnaire. To obtain students' grades, school record data were collected from the school district office. All data were analyzed using structural equation modeling (SEM), in which mediation and moderated mediation examined the impact of social environmental resources on the hypothesized negative path between school racial discrimination, psychological adjustment, and student achievement.

Participants

Participants included 427 Black and Latino adolescents (60% Female; 40% Male; 63% Black; 37% Latino; *Mage* = 15.73, *SD* = 1.15) and their primary caregivers (60% Female; 40% Male; *Mage* = 43.13, *SD* = 1.15). Students were recruited from three high schools in Los Angeles, California and were in grades 9 through 12, with the majority of participants in the 10^{th} and 11^{th} grades (*M* = 10.67, *SD* = 1.01). There were 209 students from School A (176 Black, 33 Latino), 168 students from School B (53 Black, 115 Latino), and 50 students from School C (40 Black, 10 Latino). The schools differed in terms of ethnic composition, socioeconomic status as measured by student eligibility for free or reduced priced lunch, and achievement level as measured by 2013 academic performance index (API) scores. API scores range from 200 to 800 with the district average being 750 (California Department of Education, 2014). School profile data can be seen in Table 1. Please note that School C had a high percentage of African American / Black students and a low level of achievement.

Table 1

School Profile Data for Participating High Schools

2012-2013 Academic Year	**High School A**	**High School B**	**High School C**
Total Enrollment	654	1761	780
African American/Black	82%	26%	59%
Latino/Hispanic	11%	63%	39%
Caucasian	5%	5%	0.6%
Asian	0.8%	4%	___
Filipino	0.3%	1%	___
Pacific Islander	0.2%	0.1%	0.4%
American Indian/ Alaskan Native	0.9%	0.3%	0.4%
Free or Reduced Price Lunch	46%	57%	82%
2013 API Score	704	741	589
10th graders who passed CASHEE	67%	77%	46%
11th graders who passed CASHEE	84%	84%	58%
12th graders who passed CASHEE	92%	92%	78%
12th graders A-G Requirements with C or Better	44%	37%	24%
Graduation Rate	63%	66%	52%
Attendance	94%	93%	84%
Total Suspensions	18	58	20
Total Expulsions	0	5	1
Total Number of Teachers	129	129	65
Teacher Racial Composition	40% White 32% Black 28% Other	50% White 18% Black 17% Latino 15% Other	59% Black 17% White 13% Latino 11% Other

Procedure

I carried out the data collection process alone, with the exception of receiving assistance from an undergraduate assistant at School B. Schools were recruited using demographic

information from the California Department of Education. Schools with a higher percentage of Black and Latino youth and that varied in terms of socioeconomic status and student achievement were selected for participation in order to capture student diversity. Upon receiving both verbal and written consent from school principals to collect data at their schools, English Language Arts (ELA) teachers were contacted and asked for permission to recruit students from their classrooms. ELA classrooms were selected for student recruitment since students are required to enroll in English classes. The study excluded students in ESL classes and special education classes but not students in gifted and talented programs. Five to ten minute presentations were given in each English classroom during each class period, where students were informed about the nature of the research and given a parent consent form. Attached to each parent consent form was a parent educational advocacy questionnaire and a demographic questionnaire for caregivers to complete. Students were asked to return their signed consent form and completed parent questionnaires within a week's time. A large envelope was left with each English teacher, so students could return their forms on a daily basis. Only students who had given their written assent and returned a consent form signed by a parent or guardian were allowed to participate. Of the roughly 2,000 students who were given parent consent forms with the parent educational advocacy questionnaire attached, the return rate was 32% (N = 635). Only 67% (N = 427) of those students were Black and Latino and completed surveys. Therefore, the current study used survey data from the 427 Black and Latino students and caregivers who participated.

Students were surveyed during their elective classes in a designated classroom, where they completed pencil and paper surveys. Surveys required about 40 to 50 minutes of students' time and consisted of several measures regarding students' mental health, academic achievement goals, and perceptions of school racial discrimination and friendship support. A demographic

questionnaire was also given to students to collect information on their race, gender, age, grade level, socioeconomic status, and the like. Each measure used a rating scale for which respondents were required to check the appropriate box for each item. I administered the survey to students by reading the instructions and questionnaire items aloud. Students were free to ask questions at any time. Surveys were collected separately, and students were thanked for their participation. Students' grades were formally requested from the school district office for the term in which data were collected. *See Appendices A and B for student and parent questionnaires.* To ensure participant confidentiality, all data associated with a particular student (e.g., student and parent surveys and school record data) received an identification number. All data were stored in a locked cabinet in which I only have access.

Efforts were made to increase student participation with an incentive. All students were eligible for entry into a large electronics raffle with prizes that included mp3 players, an iPod shuffle, Bluetooth headsets, Sony headphones, gift certificates, and the like. Students received two raffle tickets upon the return of their consent form and parent survey, along with two additional entry tickets for the completion of their own survey. Only students who completed each step of the data collection process were eligible for prizes. There were survey makeup days at each of the three schools for students who were absent on official survey administration days. Prizes were given to students after the data collection process was completed.

Measures

Demographic information. Students' gender, race, and socioeconomic status were measured using a demographic questionnaire. To determine *gender*, students were asked to place a check mark next to their appropriate gender category (e.g., male = 0 / female = 1). To determine *race/ethnicity*, students were asked to place a check mark next to their appropriate

race/ethnic category (e.g., Native American = 1, Black/African American = 2, Black/Other Country of Origin = 3, Pacific Islander = 4, Middle Eastern = 5, White = 6, Hispanic = 7, Asian/Asian American = 8, Multiethnic/Biracial = 9, Other = 10). To determine students' *socioeconomic status*, students were asked to indicate their *mother's level of education* by placing a check mark next to the appropriate category (e.g., less than high school = 1 to PhD / MD = 9). Students were also asked to specify their *household income* (e.g., under $10,000 yearly = 1 to over $100,000 yearly = 11). To ensure the accuracy of students' reports on their socioeconomic status, caregivers were asked to complete a similar demographic questionnaire to identify mother education and household income.

Racial discrimination. Perceptions of racial discrimination by teachers and peers were measured using a modified version of the Adolescent Discrimination Distress Index (ADDI: Fisher et al., 2000) with additional items from a measure used in the Maryland Adolescents Development in Context Study (MADICS) conducted by Eccles, Sameroff and their colleagues (Eccles, 1997). Both scales assessed the frequency with which adolescents' experienced negative treatment at their schools by teachers and peers because of their race. All items were rated on a 5 point likert scale ranging from *never* (1) to *a whole lot* (5). The discrimination by teachers scale included 8 statements asking about the frequency with which adolescents felt their teachers treated them unfairly when compared to other students from different racial groups. Statements included, *do you feel that teachers called on you less often than other students because your race* and *do you feel that teachers disciplined you more harshly than other students because of your race.* The discrimination by peer scale included 5 statements that asked about the frequency with which adolescents felt they *got into fights because of their race* and *were called insulting names by other students because of their race.* Numeric responses were summed and averaged across each subscale, with higher mean scores indicating greater perceptions of

teacher racial discrimination (α= 0.82) and peer racial discrimination (α = 0.80). Each subscale yielded strong internal consistency.

Grade point average. Student grade information was collected from students' fall 2012 report cards. Grades for all courses were coded on a 5-point scale (A = 4 to F = 0) and averaged to create a composite grade point average.

Achievement goals. Achievement goals were assessed using an adapted version of the Patterns of Adaptive Learning Scales (PALS: Midgley, 2000). Students were asked to rate 14 statements that focused on their achievement goals using a 5 point likert scale ranging from *not at all true* (1) to *very true* (5). Statements included, *it's important to me that I understand my class work very well* (mastery-approach), *one of my goals is to look smart in comparison to the other students in my class* (performance-approach), *and one of my goals is to keep others from thinking I'm not smart* (performance-avoidance). Numeric responses were summed and averaged across each subscale, with higher mean scores indicating a greater endorsement of mastery-approach goals (5 items; α=.83), performance-approach goals (5 items; α =.90), and performance-avoidance goals (4 items; α=.82). Each subscale yielded strong internal consistency.

Mental health. Three measures were used to assess adolescents' mental health. Social anxiety was measured using the Social Anxiety Scale for Adolescents (SAS-A: La Greca & Lopez, 1998), in which students rated 12 statements using a 5 point likert scale ranging from *not at all* (1) to *all the time* (5). Sample statements included, *I worry about what others think of me* and *I worry about what others say about me*. Numeric responses were summed and averaged with higher mean scores reflecting greater social anxiety. The Children's Depression Inventory (Kovacs, 1992) was used to measure adolescents' depressive symptoms. The measure was

comprised of 10 items, with each item consisting of three statements (e.g., *I am sad once in a while, I am sad many times,* and *I am sad all the time*). Students were asked to place a check mark next to the statement that most accurately assessed their feelings in the past two weeks. Higher mean scores across the 10 items indicated more depressive symptoms. Loneliness was assessed with Asher and Wheeler's (1985) Loneliness Scale (e.g., *I have nobody to talk to* and *I feel left out of things*). Ratings for the 16 statements ranged from *always true (1*) to *not true at all (5*) and some were reverse coded such that higher mean scores indicated more loneliness. These measures yielded strong internal consistency for social anxiety (12 items; $\alpha = .80$), depressive symptoms (10 items; $\alpha = .81$), and loneliness (16 items; $\alpha = .88$).

Parent educational advocacy. Parents' perceptions of their educational advocacy practices were measured using the Parent Educational Advocacy Questionnaire (PEAQ), which I developed to examine the school-related advocacy practices of racially diverse caregivers. Survey items consisted of statements that were derived from an adapted version of the Family Empowerment Scale (Singh, Curtis, Ellis, Nicholson, Villani, & Wechsler, 1995) the Parent Assessment of Knowledge and Advocacy Scale (Lian & Fontanez-Phelan, 2001), and additional items that I added to address the extent to which parents empowered their children with the knowledge to effectively advocate for themselves in school. All statements were rated on a 5 point likert scale, ranging from *strongly disagree* (1) to *strongly agree* (5). Sample statements for the parent survey included, *it is my responsibility to make sure my child is treated fairly* and *I make efforts to help my child learn, develop, and progress in school.* Pilot data were collected on the PEAQ in the spring of 2010, in which 71 surveys were completed by Black parents of adolescents during a PTA meeting at a local school and at two churches in the Los Angeles area. The response rate was 100%, as every parent who was asked to complete a survey did. Ratings on the 31 items were subjected to an exploratory factor analysis, using principal axis factors

extraction with oblique rotation. Kaiser's criterion of eigenvalues of 1.0 or greater and the scree plot test were used to determine the underlying structure of the data. Initial inspection of the factor patterns showed moderate to strong communalities. The main analyses were then carried out on all 31 items. Six items were dropped, because they crossloaded onto two or more factors. An additional item was dropped because it did not meet the minimum factor loading for an item. Four conceptually meaningful factors were extracted, accounting for 59% of the variance in parents' ratings. The final instrument was comprised of 23 items across four subscales; however, all items were collapsed across subscales to create a global variable for parent educational advocacy. Numeric responses were summed and averaged, with higher mean scores indicating greater parent educational advocacy (α = .93). The measure yielded strong internal consistency. *See Appendix C for PEAQ subscales, factor loadings, and reliability scores*.

Friendship support. Friendship support was assessed by determining the quality of students' best friend relationships. An adapted version of the Friendship Quality Questionnaire (FQQ; Parker & Asher, 1993) was used, in which high-quality best friendships were characterized by positive attributes such as caring and helping, while low-quality friendships were characterized by negative attributes such as conflict and betrayal. Students were first asked to name their best friend, by writing that person's name at the top of their questionnaire, so as to keep their best friend in mind while completing the survey. The measure had six dimensions consisting of 40 statements. Students were asked to rate the quality of their best friendship using a 5 point likert scale, ranging from *not at all true* (1) to *really true* (5). Sample statements included, *my friend and I help each other with schoolwork*, *my friend and I do fun things together*, and *my friend and I always tell each other our problems.* Items were collapsed across subscales to create a global friendship support variable, where numeric responses were summed

and averaged, with higher mean scores indicating strong friendship support (α=.93). The measure yielded strong internal consistency.

Results

Analytic strategy

Hypotheses were tested using mediation and moderated mediation in structural equation modeling (SEM) using Full Information Likelihood (FIML) estimation. SEM was chosen because it allows for the simultaneous testing of multiple paths within a given model. That is, SEM aids in understanding the "process underlying the joint distribution of a set of variables" (Bielby & Hauser, 1977, pg. 141). FIML was used because it is a great tool for working with missing survey data and it allows for statistical efficiency of the procedure. FIML is different from listwise deletion, mean imputation, and even pairwise deletion in that it uses all the information of the observed data including information about the mean and variance of missing portions of a variable based on the observed portions of other variables in the covariance matrix (Enders & Bandalos, 2001). Furthermore, FIML has greater statistical efficiency when computing standard errors from the available data (Wothke, 2000).

Mediation was utilized to examine the hypothesized paths between teacher racial discrimination, academic goals, and school achievement – and peer racial discrimination, mental health, and school achievement. To test for mediation, indirect effects from the predictor to the outcome through the mediator were calculated. Moderated mediation was employed to examine how different levels of a moderator could influence a proposed path. In this case, parent educational advocacy was tested for its influence on the hypothesized indirect path between teacher racial discrimination, academic goals, and school achievement, while friendship support

was tested for its influence on the hypothesized indirect path between peer racial discrimination, mental health, and school achievement.

Preliminary analysis

Descriptive analyses of the study variables are shown in Tables 2 and 3, in which t-test results revealed significant race and gender group differences. As stated in the method section, Black and Latino students (N = 427) had a mean age of 16 years and were primarily in the 10th and 11th grades. There was a higher percentage of Black and female participants (67% and 60%, respectively), and the average GPA for all students was 2.69. As shown in the tables, Black and male students were more likely to have college educated mothers, whereas Latino and female students were more likely to have mothers with only a high school education. Also, Black and male students lived in households with a higher annual income ($40,000 - $50,000) than female and Latino students ($35,000 - $40,000). Across gender and race, students' reports of the frequency with which they experienced racial discrimination in school by teachers and peers was below the midpoint, suggesting that while students did encounter racial discrimination in school, their experiences were infrequent. Further, students' endorsement of mastery-approach goals were above the midpoint, while their performance-approach goals and performance-avoidance goals were at the midpoint, suggesting a greater endorsement of mastery goals by all students. When compared to Latino students, Black students had a slightly higher endorsement of performance-avoidance goals, which have been linked to school disengagement. Students' reports of feeling socially anxious, depressed, and lonely were below the midpoint, suggesting that students did not experience a lot of mental health issues. In terms of the moderating variables, parents' perceptions of their educational advocacy practices were above the mid-point, indicating that all caregivers engaged in a fair amount of advocacy practices (e.g., speaking on

behalf of their children). However, more Black and male students' parents engaged in educational advocacy practices when compared to Latino and female students' parents. Students' perceptions of friendship support were above the midpoint, suggesting that students' friendships were marked by positive characteristics such as encouragement and care. Latino students reported having more positive peer friendships when compared to Black students. *See Appendix D for means and standard deviations of the study variables by school type.*

Table 2

Means and Standard Deviations of Study Variables by Race Using t-test Scores

	Black	Latino	Marginal		
Variables	M (SD)	M (SD)	Mean	t	df
Demographic Variables					
Socioeconomic Status Variables					
Mother Education	5.08 (2.04)	2.68 (1.98)	3.88	11.69***	415
Household Income	4.99 (3.32)	3.50 (1.95)	4.25	4.15***	279
Outcome Variable					
GPA	2.67 (0.84)	2.73 (0.82)	2.70	-0.68	362
Predictor Variables					
Racial Discrimination by Teachers (α =.82)	1.17 (0.37)	1.18 (0.38)	1.18	-0.03	421
Racial Discrimination by Peers (α =.80)	1.20 (0.43)	1.18 (0.49)	1.19	0.39	421
Mediating Variables					
Academic Motivation					
Mastery Approach Goals (α =.83)	4.57 (0.55)	4.51 (0.52)	4.54	1.18	420
Performance Approach Goals (α =.90)	3.13 (1.16)	2.97 (1.09)	3.05	1.36	420
Performance Avoidance Goals (α =.82)	3.38 (1.09)	3.14 (1.09)	3.26	2.22**	420
Mental Health					
Social Anxiety (α =.80)	2.00 (0.65)	2.02 (0.55)	2.01	0.25	420
Depressive Symptoms (α =.81)	1.27 (0.31)	1.27 (0.29)	1.27	0.20	421
Loneliness (α =.88)	1.83 (0.63)	1.84 (0.55)	1.84	-0.26	421
Moderating Variables					
Parent Educational Advocacy (α =.93)	4.32 (0.49)	3.99 (0.50)	4.16	6.24***	375
Friendship Support (α =.94)	3.90 (0.61)	4.04 (0.05)	3.97	-2.48**	421

*Note. * p < .05. **p < .01. ***p < .001.* [a] N=427. [b] Education, 1= less than high school, 2 = some high school, 3 = high school graduate/GED, 4 = 2 year college, 5 = 4 year college (no bachelor degree), 6 = bachelor degree, 7 = master's degree, 8 = advanced degree (e.g., PhD). [c] Household Income, 1= under $10,000 yearly to 11= over $100,000 yearly. [d] Depressive symptoms, 1 = low endorsement to 3 high endorsement. [e]All other variables, 1=low endorsement to 4/5= high endorsement.

Table 3

Means and Standard Deviations of Study Variables by Gender Using t-test Scores

	Male	Female	Marginal		
Variables	M (SD)	M (SD)	Mean	t	df
Demographic Variables					
Socioeconomic Status Variables					
Mother Education	4.48 (0.18)	4.04 (0.15)	4.20	1.80*	415
Household Income	4.59 (0.29)	4.37 (0.22)	4.45	0.60	279
Outcome Variable					
GPA	2.46 (0.07)	2.84 (0.05)	2.69	-4.42***	362
Predictor Variables					
Racial Discrimination by Teachers (α =.82)	1.20 (0.03)	1.16 (0.02)	1.17	1.06	421
Racial Discrimination by Peers (α =.80)	1.27 (0.04)	1.13 (0.02)	1.19	3.16**	421
Mediating Variables					
Academic Motivation					
Mastery Approach Goals (α =.83)	4.51 (0.04)	4.58 (0.03)	4.55	-1.44	420
Performance Approach Goals (α =.90)	3.09 (0.09)	3.05 (0.07)	3.07	0.34	420
Performance Avoidance Goals (α =.82)	3.31 (0.08)	3.27 (0.07)	3.29	0.37	420
Mental Health					
Social Anxiety (α =.80)	2.01 (0.04)	2.01 (0.04)	2.01	-0.06	420
Depressive Symptoms (α =.81)	1.22 (0.02)	1.31 (0.02)	1.27	-3.15**	421
Loneliness (α =.88)	1.80 (0.05)	1.85 (0.04)	1.83	-0.94	421
Moderating Variables					
Parent Educational Advocacy (α =.93)	4.25 (0.04)	4.16 (0.03)	4.19	1.60***	375
Friendship Support (α =.94)	3.73 (0.04)	4.11 (0.03)	3.95	-6.97	421

Note. * $p < .05$. ** $p < .01$. *** $p < .001$. [a] N=427. [b] Education, 1= less than high school, 2 = some high school, 3 = high school graduate/GED, 4 = 2 year college, 5 = 4 year college (no bachelor degree), 6 = bachelor degree, 7 = master's degree, 8 = advanced degree (e.g., PhD). [c] Household Income, 1= under $10,000 yearly to 11= over $100,000 yearly. [d] Depressive symptoms, 1 = low endorsement to 3 high endorsement. [e]All other variables, 1=low endorsement to 4/5= high endorsement.

Tables 4 through 7 present bivariate correlations between the study variables for female, male, Black, and Latino students. Separate correlation tables were generated to explore gender and racial group differences among the study variables. As shown across all tables, teacher racial discrimination and students' mastery-approach and performance-approach goals were not significantly correlated. However, teacher racial discrimination was significantly and positively associated with performance-avoidance goals for Latino and female students, suggesting that as these students' perceived more racial discrimination in school by teachers, they were more likely to be motivated by the desire to conceal low ability. For all students, both teacher and peer racial discrimination were significantly and positively associated with their mental health. That is, as students' perceived more racial discrimination in school by teachers and peers, they were more likely to feel socially anxious, depressed, and lonely. For Latino youth, peer racial discrimination only shared a significant and negative association with one mental health indicator, depression (see Table 7). Parent educational advocacy was significantly and positively associated with mastery-approach, performance-approach, and performance-avoidance goals for Black and male students, suggesting that as parent educational advocacy increased, these students were more likely to endorse both positive and negative educational goals. However, the correlation between parent educational advocacy and performance-avoidance goals was unexpected and in the opposite direction than was predicted. As with male and Black students, there was a significant and positive association between parent educational advocacy and performance-approach goals for female participants. Also, there was a significant and negative correlation between friendship support and mental health outcomes for all students. That is, students with positive friendships were less likely to report feelings of social anxiety, depression, and loneliness.

Table 4

Bivariate Correlations Between Main Study Variables for Girls

	1	2	3	4	5	6	7	8	9	10	11
1. GPA	-										
2. Teacher Discrimination	-.02	-									
3. Peer Discrimination	.07	.56***	-								
4. Mastery Goals	.17*	.00	.03	-							
5. Performance App. Goals	-.04	.10	.11	.10	-						
6. Performance Avoid. Goals	-.08	.18*	.17*	.14	.69***	-					
7. Social Anxiety	.02	.20*	.22**	-.05	.17*	.24***	-				
8. Depression	-.13	.41***	.33***	-.02	.06	.17*	.57***	-			
9. Loneliness	-.00	.22***	.21***	-.14	-.00	.07	.60***	.64***	-		
10. Educational Advocacy	-.07	.10	.11	.12	.17**	.15	-.03	-.03	-.09	-	
11. Friendship Support	-.05	.00	.12	.23	-.05	.04	-.39***	-.19*	-.47***	.19*	-

Note. * $p < .05$. ** $p < .01$. *** $p < .001$. N=427. [a] App. = Approach. [b] Avoid. = Avoidance.

Table 5

Bivariate Correlations Between Main Study Variables for Boys

	1	2	3	4	5	6	7	8	9	10	11
1. GPA	-										
2. Teacher Discrimination	-.13	-									
3. Peer Discrimination	-.05	.39***	-								
4. Mastery Goals	-.03	-.02	-.12	-							
5. Performance App. Goals	-.09	-.04	.06	.39***	-						
6. Performance Avoid. Goals	-.07	.06	.10	.35***	.63***	-					
7. Social Anxiety	-.07	.18*	.28**	-.25***	.12	.17*	-				
8. Depression	-.01	.24**	.23*	-.25***	-.09	-.03	.50***	-			
9. Loneliness	-.00	.22**	.18*	-.31	-.06	-.05	.67***	.67***	-		
10. Educational Advocacy	-.06	-.02	-.03	.16*	.22*	.34***	-.03	-.12	-.13	-	
11. Friendship Support	-.10	-.05	-.07	.16*	.06	.03	-.28**	-.22*	-.29***	.37***	-

Note. * $p < .05$. ** $p < .01$. *** $p < .001$. N=427. [a] App. = Approach. [b] Avoid. = Avoidance.

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Table 6

Bivariate Correlations Between Main Study Variables for Black Students

	1	2	3	4	5	6	7	8	9	10	11
1. GPA	-										
2. Teacher Discrimination	-.05	-									
3. Peer Discrimination	.02	.44***	-								
4. Mastery Goals	.01	-.03	-.07	-							
5. Performance App. Goals	-.10	-.01	.08	.23***	-						
6. Performance Avoid. Goals	-.03	.08	.10	.27***	.67***	-					
7. Social Anxiety	.06	.17**	.30***	-.15*	.14*	.18**	-				
8. Depression	-.03	.21**	.25***	-.12*	-.01	.01	.53***	-			
9. Loneliness	-.00	.22**	.25*	-.25***	-.01	-.04	.63***	.67***	-		
10. Educational Advocacy	-.06	-.05	-.01	.18*	.21**	.24**	-.08	-.11	-.16	-	
11. Friendship Support	.16	-.08	-.09	.20**	.01	.04	-.32***	-.14*	-.34***	.06	-

Note. * $p < .05$. ** $p < .01$. *** $p < .001$. N=427. [a]App. = Approach. [b]Avoid. = Avoidance.

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Table 7

Bivariate Correlations Between Main Study Variables for Latino Students

	1	2	3	4	5	6	7	8	9	10	11
1. GPA	-										
2. Teacher Discrimination	-.13	-									
3. Peer Discrimination	-.15	.49***	-								
4. Mastery Goals	.27	.02	-.06	-							
5. Performance App. Goals	-.01	.08	.09	.20*	-						
6. Performance Avoid. Goals	-.17	.02*	.17*	.10	.64***	-					
7. Social Anxiety	-.01	.22**	.13	-.08	.19*	.30**	-				
8. Depression	-.05	.51**	.21**	-.03	.03	.25**	.55***	-			
9. Loneliness	.06	.21**	.05	-.12	-.07	.15	.63***	.58***	-		
10. Educational Advocacy	-.12	.08	.11	.02	.14	.14	.06	.08	-.05	-	
11. Friendship Support	.10	.04	-.06	.27**	-.02	.04	-.34***	-.13	-.38***	.10	-

*Note. * p < .05. **p < .01. ***p < .001.* N=427. [a] App. = Approach. [b] Avoid. = Avoidance.

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Mediation and moderated mediation analyses

Mediation. Mediation analyses were conducted to determine how students' perceptions of teacher and peer racial discrimination influenced their psychological adjustment and subsequent school achievement. As seen in Figure 2, a three-mediator model was used to test multiple mediational processes (MacKinnon, 2008). For each path model, gender, socioeconomic status (mother education and household income), school type, and grade level were included as control variables. School and grade level variables were given dummy codes.

Direct Effects. Direct effects demonstrate a relation between two variables. As shown in Figure 2, paths coefficients a_1, a_2, and a_3 denote the slope coefficients of each mediating variable

regressed on the independent variable, respectively. The path coefficients b_1, b_2, and b_3 denote the conditional coefficients of GPA regressed on each mediator and independent variable, respectively. C prime (C') is the conditional direct effect (or total effect) and is equivalent to the effect of the independent variable on the dependent variable after adjustment for the three mediators.

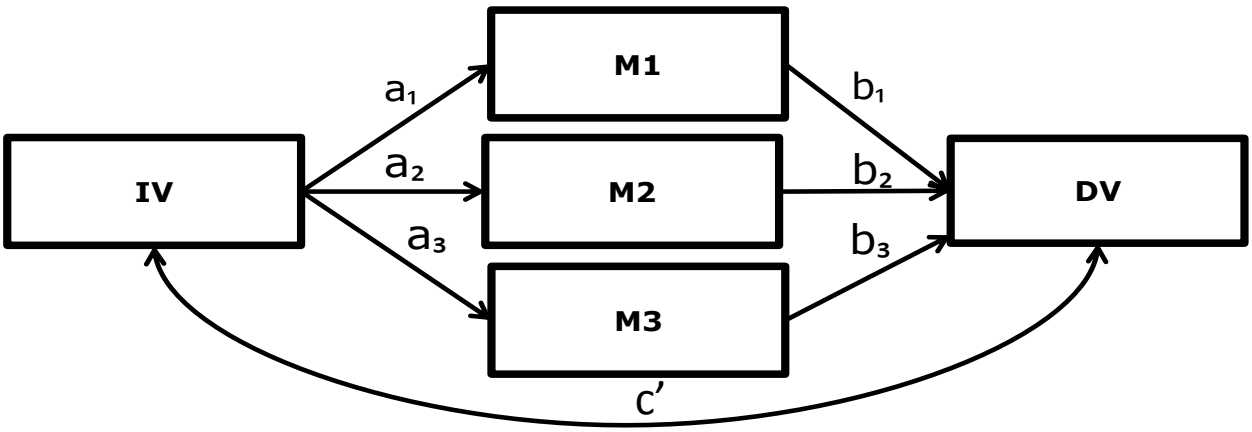


Figure 2. Mediation Model for the Hypothesized Path Between School Racial Discrimination, Psycholgical Adjustment, and GPA.

Indirect Effects. Indirect effects are the product of two coefficients: (e.g., a_1 **x** b_1; a_2 **x** b_2; a_3 **x** b_3). A significant indirect effect is the result of a significant association between an independent variable and a mediator – and an equally significant association between a mediator and a dependent variable. If an indirect effect is significant, then mediation has occurred. If an indirect effect is not significant, then mediation has not occurred. In regards to the latter, a hypothesized mediator might more appropriately serve as a covariate rather than a variable that helps to explain a particular relation between an independent variable and a dependent variable. Separate analyses were conducted to test for significant indirect (or mediated) effects on each path.

Moderated mediation. Moderated mediation analyses were conducted to determine how differing values of a moderating variable might influence an indirect effect. Moderated mediation implies that mediation cannot always be understood alone and that *different levels* of a *moderator* can help explain a particular relation. In other words, while a specified path might produce a significant indirect effect, the addition of a moderator could provide further insight on how path variables influence one another. Following the method of Aiken and West (1991), the change in the indirect path between teacher racial discrimination and GPA through students' achievement goals was examined when parent educational advocacy was one standard deviation above its mean (high value), at its mean (medium value), and one standard deviation below its mean (low value). Similarly, the change in the indirect path between peer racial discrimination and GPA through students' mental health was examined when friendship support was one standard deviation above its mean (high value), at its mean (medium value), and one standard deviation below its mean (low value). This procedure allowed for greater understanding of how differing values of the moderating variables (e.g., parent educational advocacy and friendship support) strengthened and/or weakened the effects of school racial discrimination on achievement through students' psychological adjustment. Conditional indirect effects were generated to demonstrate the impact of each moderating variable on its hypothesized path. Only path models with significant direct, indirect, and conditional indirect effects were discussed in the sections that follow.

Testing mediation for Latino students. Question 1a: how might Latino adolescents' achievement goals mediate the relation between their perceptions of teacher racial discrimination in school and their academic achievement? Path models, collapsing and separating by gender, had significant direct effects, but no significant indirect effects. Thus, achievement goals did not mediate (or help explain) the relation between teacher racial discrimination and student

achievement for Latino girls, x^2 (3) = 65.55, p<.000, and Latino boys, x^2 (76) = 33.20, NS. In regards to the direct effects, Figure 3 demonstrates how there was not a significant association between teacher racial discrimination and student achievement when gender was collapsed. However, when gender was separated, teacher racial discrimination had a significant and negative impact on Latino boys' academic performance in school, *b* = -.81 (.31), p<.01, when compared to Latino girls, *b* = -.12 (.13), NS. Also, there was a significantly positive association between teacher racial discrimination and students' performance-avoidance goals, which indicated that as Latino students' perceived more teacher racial discrimination in school, they were more likely to endorse achievement goals associated with school disengagement. This finding was particularly true for Latino girls, *b* = .62 (.26), p <.05, as opposed to Latino boys, *b* = .07 (.47), NS. Further, there were significant direct effects between students' achievement goals and their academic performance in school. For instance, mastery goals were significantly and positively associated with student GPA, which suggests that a persistent and effortful orientation in school could positively influence students' school achievement. This finding was stronger for Latino girls, *b* = .58 (.16), p<.001, than for Latino boys, *b* = .02 (.20), NS. Performance-approach goals also shared a significant and positive association with student GPA, suggesting that an orientation emphasizing public recognition could further improve students' academic performance in school. This finding was stronger for Latino males, *b* = .40 (.11), p<.001, than for Latino females, *b* = .07 (.10), NS. Performance-avoidance goals had a significant and negative impact on students' academic achievement, indicating that an academically disengaged orientation could negatively influence students' school performance. This finding was stronger for Latino boys, *b* = -.41 (.12), p<.001, than for Latino girls, *b* = -.27 (.11), p<.01. To sum, there were no significant indirect effects for the path models collapsing or separating by gender for Latino youth. Teacher racial discrimination had a strong influence on Latino girls' endorsement

of performance-avoidance goals and on Latino boys' academic achievement in school. Also, the endorsement of differing achievement goals by both Latino girls and boys had a unique impact on their academic performance in school.

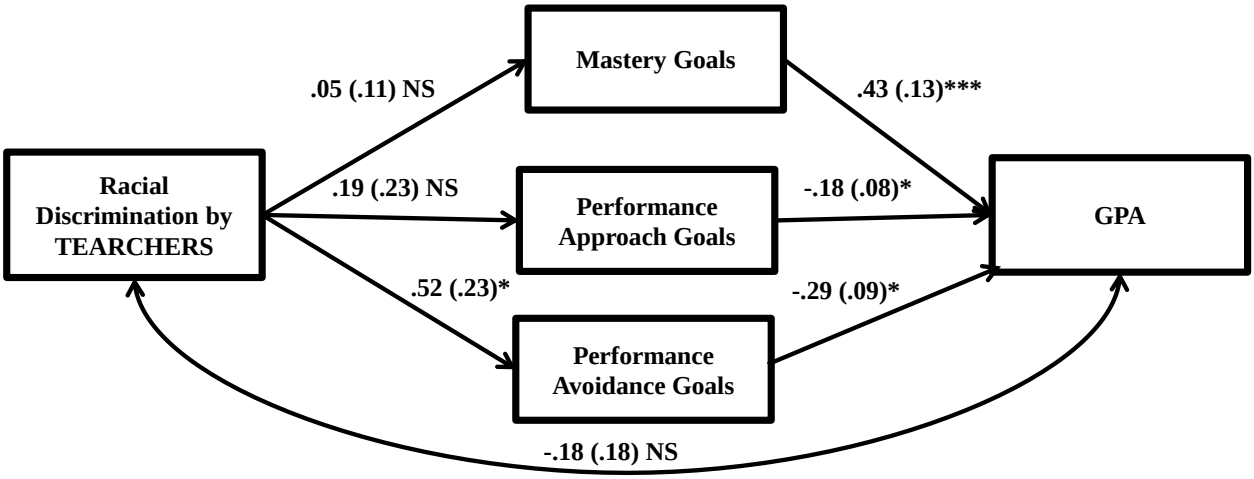


Figure 3. Mediation Model for the Path Between Teacher Racial Discrimination, Achievement Goals, and GPA for Latino Students (N=158), x^2 (3) = 88.89, p<.001.

**p<.05 **p<.01 ***p<.001*

Testing mediation for Latino students. Question 1b: how might Latino adolescents' mental health mediate the relation between their perceptions of peer racial discrimination in school and their academic achievement? There were no significant indirect effects for the models collapsing gender, x^2 (3) = 154.88, p<.000; however, there was a significant and direct association between peer racial discrimination and depressive symptoms for all Latino students, *b* = .13 (.04), p<.01. That is, as Latino students' perceived more racial discrimination in school from their peers, they were more likely to feel depressed. When gender differences were examined, depressive symptoms were found to significantly mediate the relation between peer racial discrimination and achievement for Latino girls (see Figure 4 and Table 8 below). Therefore, the impact of peer racial discrimination on students' feelings of depression was linked to a lower GPA for Latino girls. Also noteworthy is how peer racial discrimination was

significatly associated with an increase in Latino girls' feelings of social anxiety and lonliness. The path model for Latino males did not converge. Thus, for Latino girls, peer racial discrimination was associated with depressive symptoms, which in turn, was associated with low academic achievement.

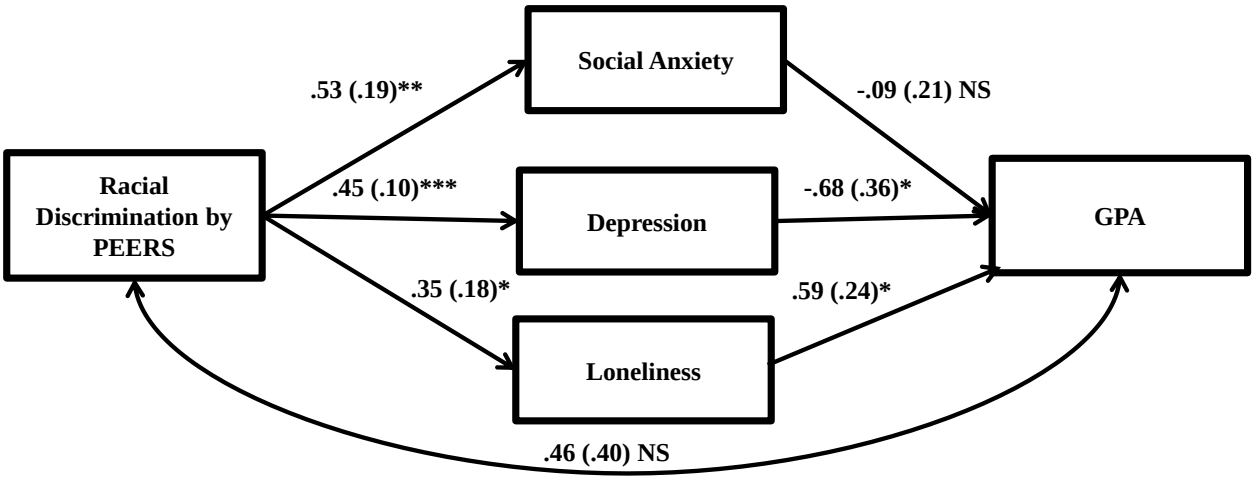


Figure 4. Mediation Model for the Path Between Peer Racial Discrimination, Mental Health , and GPA for Latino Girls (N=100), x^2 (3) = 97.17, p<.000.

**p<.05 **p<.01 ***p<.001*

Table 8

Indirect Effects for Path Model between Peer Racial Discrimination, Mental Health, and GPA for Latino Girls (N=100)

	Indirect Effect			
Mediator	*b*	SE	*z*	*p*
Social Anxiety	-.05	.11	-0.42	.68
Depressive Symptoms	-.37	.18	-2.01	**.04**
Loneliness	.21	.13	1.55	.12

Testing moderated mediation for Latino students. Question 2a: how might parent educational advocacy moderate the hypothesized indirect path between teacher racial discrimination and GPA through achievement goals? While the mediation models did not reveal any significant indirect effects between teacher racial discrimination and GPA through achievement goals for Latino youth, the moderated mediation results revealed how differing values of parent educational advocacy had a significant influence on this hypothesized path. Table 9 shows the impact of parent educational advocacy on the hypothesized indirect path between teacher racial discrimination and GPA through academic achievement goals. In regards to the path including students' mastery approach goals, the pattern of indirect effects not only increased in magnitude but became negative as parent educational advocacy decreased. Therefore, the negative conditional indirect effect of teacher racial discrimination on achievement through mastery goals was stronger and more negative when parent educational advocacy was average or low. In regards to the path including performance-approach goals, none of the conditional indirect effects were significant. In terms of the path including students' performance-avoidance goals, it is important to keep in mind that performance-avoidance goals were negatively associated with GPA, meaning that if parent educational advocacy is protective, then this negative relation will be reduced. Consistent with this protective role, the negative indirect effect between teacher racial discrimination and achievement through performance-avoidance goals was non-significant only when parent educational advocacy was high. Conversely, when parent educational advocacy was low, the aforementioned path was significant. Thus, the results in Table 9 demonstrate how the *absence of parent educational advocacy* can have a negative impact on Latino students' academic motivation and subsequent school achievement. In regards to gender differences, the moderated mediation models did not converge numerically for Latino girls and boys. In sum, the indirect effect between teacher racial

discrimination and GPA through achievement goals was significant for Latino youth but only when parent educational advocacy was added to the model.

Table 9

Conditional Indirect Effects for Path Model between Teacher Racial Discrimination, Achievement Goals, and GPA for Latino Students (N=158)

		Teacher Racial Discrimination on GPA			
Mediator	Moderator Level	Conditional Indirect Effect	SE	*z*	*p*
	Parent Educational Advocacy				
Mastery Approach Goals					
	High	.03	.02	1.32	.19
	Average	-.17	.06	-2.92	**.00**
	Low	-.35	.14	-2.53	**.01**
Performance-Approach					
	High	.14	.16	0.85	.40
	Average	.11	.06	-1.87	.06
	Low	.04	.02	-1.85	.06
Performance-Avoidance					
	High	-.10	.10	-0.96	.34
	Average	-.05	.02	-2.28	**.02**
	Low	.11	.04	-2.90	**.00**

Testing mediation for Black students. Question 1a: how might Black adolescents' achievement goals mediate the relation between their perceptions of teacher racial discrimination in school and their academic achievement? Figure 5 shows that there were no significant direct effects for the path model concerning teacher racial discrimination, achievement goals, and GPA for Black students. Also, no significant indirect effects were found. Thus, none of the achievement goals mediated the relation between teacher racial discrimination and achievement. Separate analyses were conducted to examine gender differences, in which significant results were found for Black girls, x^2 (3) = 103.58, $p<.001$. That is, Black girls' perceptions of teacher

racial discrimination had a positive influence on their performance-approach goals, b = .68 (.33), p<.05 and performance-avoidance goals, b = .67 (.33), p<.05. These findings suggest that while some Black girls might seek approval and recognition for their school work when experiencing teacher racial discrimination other Black girls might disengage from the learning process. No significant indirect effects were found in the model for Black girls.

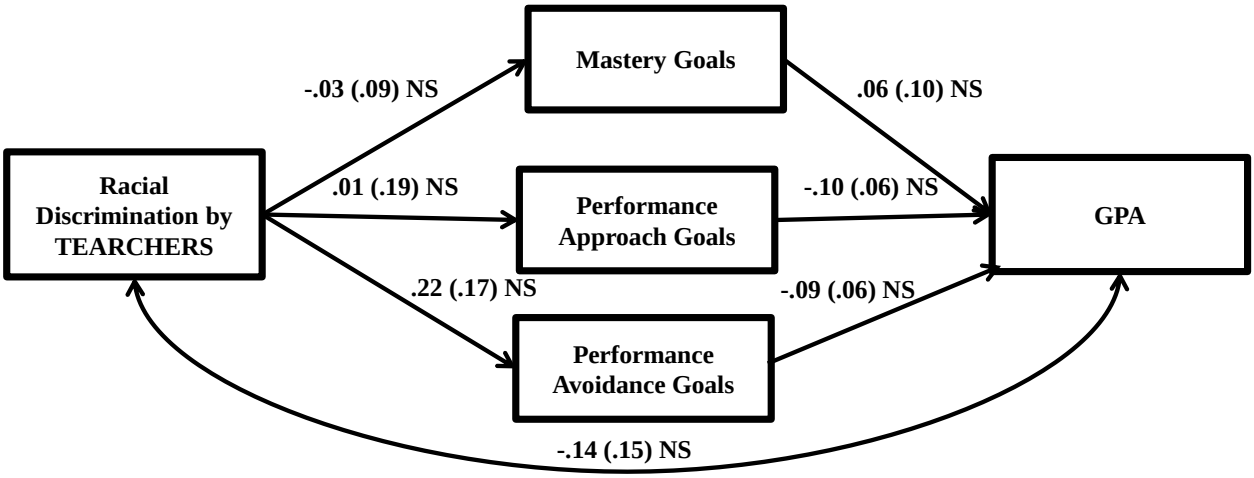


Figure 5. Mediation Model for the Path Between Teacher Racial Discrimination, Achievement Goals, and GPA for Black Students (N=269), x^2 (3) = 176.72, p<.000.

**p<.05 **p<.01 ***p<.001*

Testing mediation for Black students. Question 1b: how might Black adolescents' mental health mediate the relation between their perceptions of peer racial discrimination in school and their academic achievement? Black students' perceptions of peer racial discrimination were significantly associated with mental health issues (see Figure 6). However, none of the mental health factors significantly predicted student GPA nor was there a significant direct effect of peer racial discrimination on student achievement. While the path model collapsing gender had some significant direct effects, there were no significant indirect effects, meaning that mental health factors did not mediate the relation between peer racial discrimination and achievement for Black students.

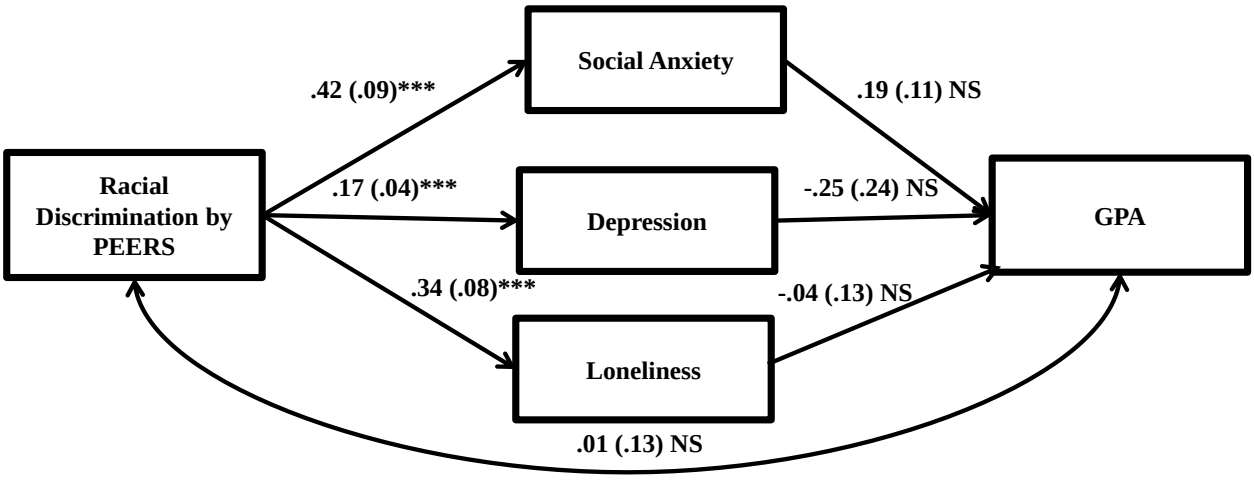


Figure 6. Mediation Model for the Path Between Peer Racial Discrimination, Mental Health, and GPA for Black Students (N=269), x^2 (3) = 265.45, p<.000.

**p>.05 **p>.01 ***p>.001*

As with Latino girls, Black girls' perceptions of peer racial discrimination was positively associated with depression, which in turn, was negatively associated with GPA. In other words, depression mediated the relation between peer racial discrimination and achievement for Black girls (see Figure 7 and Table 10). While the influence of peer racial discrimination on mental health factors was similar for Black boys (see Figure 8), there were no significant indirect effects in the model. That is, none of the mental health factors mediated the relation between peer racial discrimination and academic achievement for Black males. In sum, peer racial discrimination in school had a negative impact on the psychological adjustment of Black students. For Black girls in particular, peer racial discrimination was associated with depressive symptoms, which in turn, was associated with poor academic achievement.

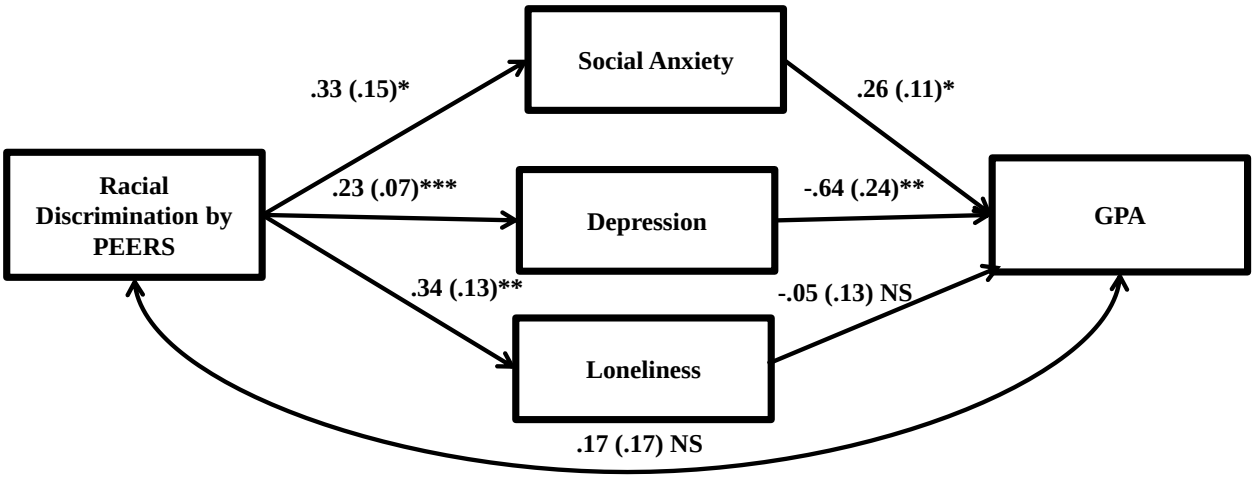


Figure 7. Mediation Model for the Path Between Peer Racial Discrimination, Mental Health, and GPA for Black Girls (N=154), x^2 (3) = 157.74, p<.000.

**p<.05 **p<.01 ***p<.001*

Table 10

Indirect Effects for Path Model between Peer Racial Discrimination, Mental Health, and GPA for Black Girls (N=154)

	Indirect Effect			
Mediator	*b*	SE	*z*	*p*
Social Anxiety	.09	.05	1.63	.10
Depressive Symptoms	-.15	.18	-2.07	**.04**
Loneliness	-.02	.13	-0.39	.67

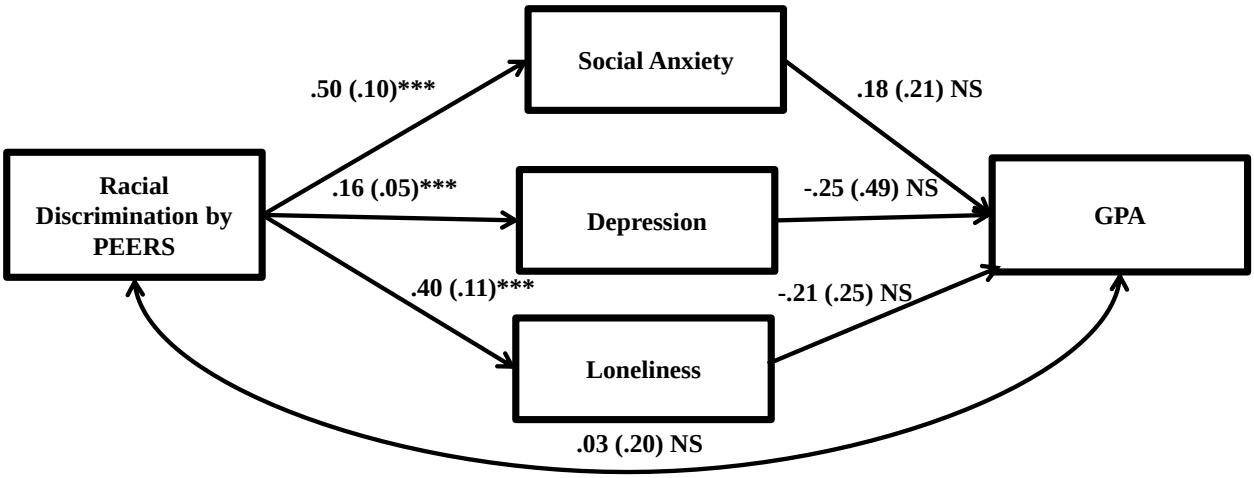


Figure 8. Mediation Model for the Path Between Peer Racial Discrimination, Mental Health, and GPA for Black Boys (N=115), x^2 (3) = 117.42, p<.000.

**p>.05 **p>.01 ***p>.001*

Testing moderated mediation for Black students. Question 2b**:** how might friendship support moderate the hypothesized indirect path between peer racial discrimination and GPA through mental health factors? Table 11 shows the impact of friendship support on the indirect path between peer racial discrimination and GPA through mental health factors. Please note the pattern of conditional indirect effects for the model regarding peer racial discrimination, depression, and GPA, where the magnitude of the coefficients increased as friendship support decreased, indicating that lower levels of friendship support strengthened the negative relation between peer racial discrimination, depressive symptoms, and GPA for all Black students. Additional analyses were conducted to examine gender differences; however, the results were mixed and unclear, so they were not discussed here. In regards to the model concerning students' feeling of loneliness, there were no significant findings. To sum, peer racial discrimination had a negative impact on the psychological adjustment of Black students. Also, depressive symptoms were found to mediate the relation between peer racial discrimination and achievement for Black

girls; however, the absence of positive and caring friendships strengthened this negative relation for all Black students.

Table 11

Conditional Indirect Effects for Path Model between Peer Racial Discrimination, Mental Health, and GPA for Black Students (N=269)

		Peer Racial Discrimination on GPA			
Mediator	Moderator Level	Conditional Indirect Effect	SE	*z*	*p*
	Friendship Support				
Social Anxiety	High	.41	.19	2.11	.04
	Average	.23	.11	2.20	.03
	Low	.10	.10	1.05	.29
Depressive Symptoms					
	High	-.22	.64	-0.35	.73
	Average	-.54	.37	-1.47	.14
	Low	-.69	.34	-2.05	**.04**
Loneliness					
	High	-.07	.38	-0.18	.86
	Average	.35	.33	1.06	.29
	Low	.98	.60	1.63	.10

Discussion

The results presented here support some of the hypothesized paths, where the absence of parent educational advocacy and friendship support had negative psychological and academic consequences for Black and Latino students. While Latino students' achievement goals did not *mediat*e the hypothesized negative relation between teacher racial discrimination and achievement, parent educational advocacy *moderated* this unique path such that lower levels of parent educational advocacy were found to strengthen the negative impact of teacher racial discrimination on student achievement through mastery goals and performance-avoidance goals. Similar findings were not revealed for Black students, suggesting the possibility of cultural differences in the type of support different groups of students need in their academic pursuits.

For Latino youth, *familism* or family has been found to play an important role in their social and academic lives (DeGarmo & Martinez, 2006; Saenz & Ponjuan, 2009). While some traditional forms of school involvement (e.g., being a presence in the school-house, volunteering in the classroom, attending PTA meetings, etc.) do not capture the parenting practices of all Latino parents, it is of note that many Latino parents do advocate for their children's academic success by helping their children to develop *ganos,* "the drive and will to succeed," *empenos,* "the dedication and commitment to the task or goal," and *estudios,* "the diligent study [and effort] that will bring success" (Hill & Torres, 2010). Latino parent support has been positively linked to students' academic aspirations, expectations, and perceived school value (Ibanez, Kuperminc, Jurkovic, & Perilla, 2004). Also, Latino parent support has been found to reduce the negative consequences associated with school racial discrimination (DeGarmo & Martinez, 2006). Family respect and obligation have further been found to increase Latino students' academic motivation and performance in school (Perreira et al., 2010). Therefore, educators must recognize the role of *familism* in the lives of Latino students and outreach to caregivers so as to encourage their continued academic involvement. A large number of Latino parents have reported a lack of cultural understanding in school-favored parenting practices (e.g., helping teachers in the classroom), as well as experiencing a lack of cultural understanding from educators about their school-related boundaries and family obligations (Hill & Torres, 2010). That said, educators must be culturally sensitive in their discussions with Latino parents, while also providing caregivers with additional strategies for promoting school success among their teens.

For Black and Latino girls, their perceptions of peer racial discrimination in school were associated with feelings of depression, which in turn, were associated with low academic achievement. Noteworthy was how lower levels of friendship support strengthened this negative

relation but for Black students only. Therefore, school peronnel and caregivers should encourage students' engagement in positive peer friendships, as peer support can help in combating the negative psychological and academic consequences associated with peer racial discrimination in school. Support for this finding is derived from the scholarship on peer harassment, where positive and supportive friendships, along with large peer networks, have been found to reduce the negative psychological impact of peer harassment in school (Hodges et al., 1999; Schwartz et al., 2000; Storch & Masia-Warner, 2004). Also, Black students' social networks with same-race peers could prove important for sharing and supporting one another's race-related experiences in school. Therefore, the role that friendship plays in Black students' psychological and academic adjustment deserves further exploration as it relates to school racial discrimination. Family support might be a more effective moderator on the relation between peer racial discrimination and school achievement through depression for Latino girls, given the importance of *familism* in the lives of Latino youth.

To sum, both Black and Latino boys and girls were not only vulnerable to acts of racial discrimination in school, but they were influenced in different ways by their perceptions of racial discrimination and by varying levels of social environmental resources. While the results underscore the negative psychological and academic consequences associated with low levels of social support, it is imperative that future research unpack the social support variables examined here in order to fully understand their protective properties. The scales for parent educational advocacy and friendship support have already undergone an exploratory factor analysis (EFA), in which each variable has yielded multiple dimensions, demonstrating variable complexity. *See Appendix C for the parent educational advocacy subscales.* In regards to the parent educational advocacy measure, which was developed for the current study, four subscales were derived from the EFA: *knowledge and ability* (e.g., I know what to do when I am concerned my child is being

treated unfairly at school), *parent and child rights* (e.g., it is my responsibility to make sure my child is treated fairly), *efficacy and empowerment* (e.g., I can help guide my child to a successful school experience), and *school interaction* (e.g., I call my child's school regularly about his/her progress). These subscales or dimensions might have differing effects on the path between teacher racial discrimination, achievement goals, and GPA. For instance, *parent and child rights* might be a more effective buffer than *school interaction or a global measure of advocacy*. The advocacy measure should also undergo further refinement so as to have a race-based focus. For instance, the item, *it is my responsibility to make sure my child is treated fairly*, could be re-stated as, *it is my responsibility to ensure my child is not mistreated in school because of his/her race.* A race-conscious measure will allow for greater understanding of how racially diverse parents support their children's education – and of how parent educational advocacy might protect students from school racial discrimination. Future research should also explore whether or not advocating for the academic success of one's child is a white middle class value. In one study, middle and upper-class white mothers were found to view their children's school as a valuable social network in which to advocate for their children's success by influencing what occurs within schools, such as increasing tracking to ensure their children have access to the best resources (McGarth & Kuriloff, 1999). Black parents, on the other hand, were found to favor other social networks (e.g., church friends, extended family, etc.), viewing schools as merely a place to educate their children (McGarth & Kuriloff, 1999; see also Howard & Reynolds, 2008). This finding provides additional support for measure refinement, race-conscious statements, and the need to explore dimensions of parent educational advocacy for class and racial group differences.

Similar to the aforementioned argument, the global variable of friendship support should also be deconstructed, so as to examine its six subscales, which range from *care* to *betrayal* (see

Parker & Asher, 1993, for a full description of each subscale). Three of the six subscales might have a particularly strong influence on the path between peer racial discrimination, mental health, and school achievement. These subscales include: *validation and caring* (e.g., my friend cares about my feelings), *help and guidance* (e.g., my friend gives me advice), and *intimate exchange* (e.g., my friend and I share our problems). Other subscales such as *conflict resolution* and *conflict and betrayal* might be less effective in serving as an appropriate buffer on the aforementioned path. Further, it seems necessary to explore additional social environmental resources such as mentors, counselors, therapists, coaches, and other school personnel who might help students to process their race-related experiences.

In regards to the psychological and academic consequences associated with racial discrimination, it was surprising that teacher racial discrimination had little impact on the Black students in this study. Perhaps teacher racial discrimination has become a normalized experience for some Black youth, where a strong sense of racial pride is all they need to combat racial discrimination by adults (Wong et al., 2003; Eccles et al., 2006; Sellers et al., 2006; Chavous et al., 2008; Harven, 2008). Also surprising was the low frequency with which students' experienced racial discrimination in school by both teachers and peers. While ratings on the discrimination measure were low, the discrimination variables still had a significant impact on student adjustment, suggesting that even one encounter with racial discrimination could have a negative impact on students' psychological and academic well-being. Low item response rates on the racial discrimination subscales also suggest that the items did not capture students' true experiences with racial bias in school. Perhaps a more qualitative approach to understanding racial discrimination is more appropriate for exploring adolescents' race-related experiences. It is equally possible that younger generations of Black and Latino students might not understand or even view racial discrimination in the same way that older generations do. That is, young

students might lack an awareness of the "dominant role that race and racism has played and continues to play in American society" (DeCuir & Dixson, 2004). Therefore, younger generations of students might not fully understand the nature of racism and have difficulty in identifying instances of racial discrimination in their lives. In the same vein, younger students might have a color-blind mentality, where they seek alternative explanations for racial bias and discrimination (Lewis, 2001), rather than accepting the reality of racism (DeCuir & Dixson, 2004).

Further, low student participation and item response rates could be a result of participant *trust.* That is, participants might lack confidence in the nature of the research or the way in which their information might be used (Burkett & Morris, in press). To address this issue, investigators should work to gain participant trust prior to data collection by spending time with potential participants in natural settings (e.g., the cafeteria), enlisting the assistance of a trusted individual that participants know (e.g., a school counselor, teacher, etc.), allowing participants to share their personal narratives in an organic way, and becoming a trusted friend (Burkett & Morris, in press). These strategies have been found to be particularly useful in research with people of color (Burkett & Morris, in press). Further, more effective methods for encouraging student participation should be found (e.g., the use of monetary compensation) so analytical power is preserved. Also, all survey items should undergo additional analyses for gender and cultural differences, as different groups of students might perceive the survey items in dissimilar ways.

In terms of the analytic procedure, the results revealed that mediation analysis has its limitations and that moderated mediation can more effectively explain an indirect path. While social class differences were not examined here, additional analyses regarding the experiences of low, middle, and high income students could further contextualize the results. In conclusion, the findings from this study suggest the need for caregivers and school educators to

become more vigilant of Black and Latino adolescents' experiences with racial discrimination in school. Caregivers should help their children to effectively process their race-related experiences in school, while school personnel should encourage advocacy practices among caregivers and the development of positive peer friendships among racially diverse youth.

Appendix A

UCLA

Adolescents' Experiences in High School Survey



Dear Student,

Thank you for agreeing to participate in the Adolescents' Experiences in High School Study. In this survey packet are questions about your experience in high school. The answers you give on this questionnaire are extremely important, as it will help us to improve the education high school students are receiving.

Please answer all questions as honestly as you can. (If any of the questions make you uncomfortable, or if there are questions that you would rather not answer, you may skip them.) **Remember: All of your answers are completely <u>confidential</u> and will not be shared with your parents, teachers, or peers.**

Thanks again for your participation in this study!

Demographic Questionnaire



1. **Fill in one:** _____ Male _____Female
2. **Age:** _____ **Grade Level:** _____
3. **Date of Birth:** _____
   Month Date Year

4. **Were you born in the United States?** _____Yes If No, where were you born? _____
   _____No → How old were you when you came to the United States?____

5. **Were your parents born in the United States?**
   a. **Mother:**
   If No, what country was she born in? _____
   _____Yes
   _____No →

   b. **Father:**
   _____Yes
   If No, what country was he born in? _____
   _____No →

5. What language(s) do you and your family speak at home? _____
(If you listed more than one language, circle the one you and your family speak most often.)

6. Do your parents speak English?
   a. Mother: _____No _____Some _____Yes
   b. Father: _____No _____Some _____Yes

About Your Family

<u>Who lives with you</u>? (Check all that apply)

___ mother ___ father ___ step-mother ___ step-father ___ grandmother

___ grandfather ___ brother(s) ___ sister(s)___ other relative (s); specify_____

___ group home ___ foster parent; specify _____

___ other living arrangements; explain _____

What's your <u>Mother's Education Level</u> (Check only one)

_____ Did not graduate from high school

_____ High school graduate or GED; Specify:_____

_____ Attended or completed a 2-year school course at a community college/vocational school

_____ Attended college, but did not complete a 4-year degree (Bachelor's degree)

_____ Graduated from college with a Bachelor's degree

_____ Master's degree or equivalent; specify _____

_____ Ph.D., M.D., or other advanced degree; specify_____

_____ Don't know

My Race/Ethnicity

What is your race/ethnicity? (Please mark only one group)

_____ American Indian
_____ Black/African-American
_____ Black/other country of origin (e.g., Belize, Guyana, Caribbean, West Indies)
_____ Pacific Islander (e.g., Samoan, Filipino)
_____ Middle Eastern (e.g., Persian, Lebanese, Syrian, Arab)
_____ White/Caucasian
_____ Latino/Hispanic

***Specify which of the following best describes you*.**

_____ Mexican/Mexican-American
_____ Central American (e.g., El Salvador, Guatemala, Costa Rica, Honduras, Nicaragua)
_____ South American (e.g., Brazil, Colombia, Peru, Chile, Argentina, Ecuador)
_____ Caribbean (e.g., Puerto Rico, Cuba)

_____ Asian-American/Asian

***Specify which of the following best describes you*.**

_____ East Asian (e.g., Chinese, Korean, Japanese)
_____ South Asian (e.g., Indian, Pakistani)
_____ Southeast Asian (e.g., Vietnamese, Cambodian, Thai, Laotian)

_____ Multiethnic/Biracial - Please specify _____
_____ Other - Please specify _____

SCHOOL EXPERIENCES

Sometimes people are treated unfairly because of their race or ethnicity (i.e., being Black, White, Latino, Asian, etc.). Below are some situations where students have said they were treated unfairly because of their race or ethnicity. Please indicate whether or not any of these things have happened to you in the last 6 months by placing an "X" in the box that best describes your experience.

During the last 6 months, do you feel that TEACHERS…

	Never	Once or Twice	A Few Times	A Lot	A Whole Lot
1. Called on you less often than other students because of your race?					
2. Disciplined you more harshly than other students because of your race?					
3. Thought you were not very smart because of your race?					
4. Gave you a lower grade than you deserved because of your race?					
5. Graded you harder than other students because of your race?					
6. Discouraged you from taking certain classes because of your race?					
7. Placed you in a lower ability class or group because of your race?					
8. Gave you school detention because of your race?					

During the last 6 months, do you feel that OTHER STUDENTS…

	Never	Once or Twice	A Few Times	A Lot	A Whole Lot
1. Called you insulting names because of your race?					
2. Threatened you because of your race?					
3. Did not want to hang out with you because of your race?					
4. Exclude you from certain teams or other school activities because of your race?					
5. How often have you gotten into fights with other students because of your race?					

Your Academic Goals

For each item, place an "X" in the box that best describes HOW TRUE a particular goal is for you.

	Not At All True	**Hardly-Ever True**	**Somewhat True**	**True Most Of The Time**	**Very True**
1. It's important to me that I learn a lot of new concepts this year.					
2. One of my goals in class is to learn as much as I can.					
3. One of my goals is to master a lot of new skills this year.					
4. It's important to me that I thoroughly understand my class work.					
5. It's important to me that I improve my skills this year.					
6. It's important to me that other students in my class think I am good at my class work.					
7. One of my goals is to show others that I'm good at my class work					
8. One of my goals is to show others that class work is easy for me.					
9. One of my goals is to look smart in comparison to the other students in my class.					

	Not At All True	Hardly-Ever True	Somewhat True	True Most Of The Time	Very True
10. It's important to me that I look smart in comparison to the other students.					
11. It's important to me that I don't look stupid in class					
12. One of my goals is to keep others from thinking I'm not smart in class.					
13. It's important to me that my teacher doesn't think that I know less than others in class					
14. One of my goals in class is to avoid looking like I have trouble doing the work.					

ABOUT ME

For each item, place an "X" in the box that best describes HOW TRUE the statement is for you.

	Not At All	Hardly Ever	Sometimes	Most of the Time	All the Time
1. I worry about what others think of me.					
2. I can count on my friends when things go wrong.					
3. I'm afraid that others will not like me.					
4. I worry about what others say about me.					
5. I worry that others don't like me.					
6. I am quiet when I'm with a group of people.					
7. If I get into an argument, I worry that the other person will not like me.					
8. I have friends with whom I can share my joys and sorrows.					
9. I'm afraid to invite others to do things with me because they might say no.					
10. I feel shy even with kids I know very well.					
11. It's hard for me to ask others to do things with me.					
12. I can talk about my problems with my friends.					

HOW HAVE YOU FELT IN THE PAST 2 WEEKS?

Think of how you have felt in the past two weeks. For each item, place an "X" by the statement that most accurately reflects how you've been feeling.

1. ___ I am sad once in a while
   ___ I am sad many times
   ___ I am sad all the time

2. ___ Nothing will ever work out for me
   ___ I am not sure if things will work out for me
   ___ Things will work out for me right

3. ___ I do most things right
___ I do many things wrong
___ I do everything wrong

4. ___ I hate myself
___ I do not like myself
___ I like myself

5. ___ I feel like crying everyday
   ___ I often feel like crying
   ___ I feel like crying once in a while

6. ___ Things bother me all the time
   ___ Things often bother me
   ___ Things bother me once in a while

7. ___ I look O.K.
___ There are some bad things about my looks
___ I look ugly

8. ___ I do not feel alone
___ I feel alone often
___ I feel alone all the time

9. ___ I have plenty of friends
   ___ I have some friends but I wish I had more
   ___ I do not have any friends

10. ___ Nobody really loves me
    ___ I am not sure if anybody loves me
    ___ I am sure that somebody loves me

HOW DO YOU FEEL AT SCHOOL?

	Always True	True Most Of The Time	Sometimes True	Hardly Ever True	Not True At All
1. It's easy for me to make new friends.					
2. I have nobody to talk to.					
3. I am good at working with other kids.					
4. It's hard for me to make friends.					
5. I have lots of friends.					
6. I feel alone.					
7. I can find a friend when I need one.					
8. It's hard to get other kids to like me.					
9. I don't have anyone to hang out with.					
10. I get along with other kids.					
11. I feel left out of things.					
12. There's nobody I can go to when I need help.					
13. I don't get along with other kids.					
14. I'm lonely.					
15. Kids in my class like me.					
16. I don't have any friends.					

ABOUT MY BEST FRIEND AT SCHOOL

Please write the name of your best friend at school: _____

Keep this friend in mind as you respond to the items below. For each item, you will place an "X" in the box that reflects HOW TRUE a particular quality is of your relationship with your best friend.

	Not At All True	**A Little True**	**Somewhat True**	**Pretty True**	**Really True**
1. My friend makes me feel good about my ideas.					
2. My friend tells me I am good at things.					
3. My friend and I make each other feel important and special.					
4. My friend tells me I am pretty smart.					
5. My friend says "I'm sorry" if s/he hurts my feelings.					
6. My friend sticks up for me if others talk behind my back.					
7. My friend has good ideas about fun stuff to do.					
8. My friend cares about my feelings.					
9. My friend would like me even if others don't.					
10. My friend doesn't tell others my secrets.					
11. My friend and I make up easily when we have a fight.					
12. My friend and I get over our arguments really quickly.					
13. My friend and I talk about how to get over being mad at each other.					
14. My friend and I argue a lot.					
15. My friend and I fight a lot.					
16. My friend and I get mad a lot.					

	Not At All True	A Little True	Somewhat True	Pretty True	Really True
17. My friend doesn't listen to me.					
18. My friend and I bug each other a lot.					
19. My friend sometimes says mean things about me to other kids.					
20. I can count on my friend to keep promises.					
21. My friend helps me so I can get [my work] done quicker.					
22. My friend and I help each other with schoolwork a lot.					
23. My friend gives advice with figuring things out.					
24. My friend and I can count on each other for good ideas on how to get things done.					
25. My friend and I come up with good ideas on ways to do things.					
26. My friend and I loan each other things all the time.					
27. My friend and I share things with each other.					
28. My friend and I do special favors for each other.					
29. My friend and I help each other with chores a lot.					
30. My friend and I always sit together at lunch.					
31. My friend and I always pick each other as partners for things [at school].					
32. My friend and I always hang out during free time or on breaks.					
33. My friend and I do a lot of fun things together.					
34. My friend and I hang out at each other's houses.					
35. My friend and I always tell each other our problems.					

	Not At All True	A Little True	Somewhat True	Pretty True	Really True
36. My friend and I talk about the things that make us sad or upset.					
37. I talk to my friend when I'm mad about something that happened to me.					
38. My friend and I tell each other secrets.					
39. My friend and I tell each other private things.					
40. My friend and I talk about how to make ourselves feel better if we are mad at each other.					

ABOUT YOUR PARENT'S LEVEL OF SCHOOL INVOLVEMENT

Write the name of the parent or caregiver who signed your consent form: _____
Keep this parent/caregiver in mind when responding to each item. For each item, place an "X" in the box that reflects your level of agreement.

MY PARENT…

	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
1. Knows what to do when I encounter problems at school (e.g., who to speak with, when to call meetings, etc.)					
2. Knows what to do when I am being treated unfairly at school					
3. Knows which steps to take when further action or assistance is needed regarding an issue I am dealing with at school (e.g., speaking with school staff and administrators, etc.)					
4. Is able to work with administrators, teachers, and other school staff to discuss my needs, behavior, and progress in school					
5. Is able to speak with school staff in order to better understand me					
6. Feels confident in his/her ability to help me progress in school					
7. Is a good parent					
8. Helps me learn, develop, and progress in school					
9. When I am faced with a problem, s/he decides what to do and then does it.					
10. Feels her/his opinion is just as important as the opinions of school staff in making decisions about my education					
11. Feels s/he has the right to approve all decisions concerning my education					
12. Stays in regular contact with school staff (e.g., teachers & principal)					

	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
13. Speaks on my behalf when I am being treated unfairly at school					
14. Will call meetings with school staff (teachers, other parents, etc.) when I am being mistreated by an adult or student at school					
15. Believes I should be able to take classes and participate in school activities without being harassed, discriminated against, or discouraged by others					
16. Feels responsible for making sure I am treated fairly at school					
17. Will challenge what s/he feels is wrong at my school					
18. Helps guide my school experience					
19. Contacts my school regularly (at least once a month) about my progress/behavior					
20. Meets with teachers (and other school staff) to discuss my progress and behavior at least once a year					
21. Taught me how the school system is organized					
22. Taught me how to stand-up for myself when I am being mistreated at school					
23. Taught me who to speak to when I am being mistreated in school (e.g., principal)					
24. Understands how the school system is organized					
25. Handles problems with me pretty well					
26. Has a good understanding of who I am					

	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
27. Feels her/his involvement is not necessary for my success in school					
28. Wants me to be successful in school					
29. Always asks me how my day was at school					
30. Taught me to take pride in my culture, values, and customs					
31. Tells school staff what s/he thinks about the education I'm receiving					

Appendix B

Parent Background Survey

What is your relationship to the student in this study?

_____ Mother
_____ Father
_____ Other relative (SPECIFY _____)
_____ Other non-relative (SPECIFY
_____)

Age: _____

How far did you go in school? (please check all that apply)

_____ Less than high school
_____ Some high school
_____ High school graduate
_____ GED
_____ Vocational or technical college degree or certificate
_____ 2-year/community college degree (AA, AS)
_____ College graduate (BA, BS)
_____ Master's degree
_____ Doctoral or professional degree (JD, MD, PhD, etc.)

Please indicate your household income before taxes. You may either report your YEARLY or WEEKLY income (or leave this item blank if you prefer not to answer).

YEARLY:	OR	WEEKLY:
_____ Under $10,000 yearly		_____ Under $200 weekly
_____ $10,000 to $19,999 yearly		_____ $200 to $399 weekly
_____ $20,000 to $29,999 yearly		_____ $400 to $599 weekly
_____ $30,000 to $39,999 yearly		_____ $600 to $799 weekly
_____ $40,000 to $49,999 yearly		_____ $800 to $999 weekly
_____ $50,000 to $59,999 yearly		_____ $1000 to $1199 weekly
_____ $60,000 to $69,999 yearly		_____ $1200 to $1399 weekly
_____ $70,000 to $79,999 yearly		_____ $1400 to $1599 weekly
_____ $80,000 to $89,000 yearly		_____ $1600 to $1799 weekly
_____ $90,000 to $99,999 yearly		_____ $1800 to $1999 weekly
_____ Over $100,000 yearly		_____ Over $2000 weekly

About My School Involvement

The following statements focus on your feelings regarding the school system and how comfortable you feel interacting with people at your child's school (e.g., teachers, administrators, and school personnel). For each statement, place an "X" in the box to indicate your level of agreement.

EXAMPLE

	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
It is important for the teacher to visit my home		**X**			

Remember to mark only 1 box for each of the following statements.

	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
1. I know what to do when problems arise with my child at school (e.g., who to speak with, when to call a meeting, etc.)					
2. I know what to do when I am concerned my child is being treated unfairly at school					
3. I know the steps to take when further action or assistance is needed regarding an issue my child is having at school (e.g., speaking with other school staff and administrators, etc.)					
4. I am able to work with administrators, teachers, and other school staff to discuss my child's needs, behavior, and progress at school					
5. I am able to speak with school staff to help me better understand my child					
6. I feel confident in my ability to help my child progress in school					
6. I feel I am a good parent					

	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
8. I make efforts to help my child learn, develop, and progress in school					
9. When faced with a problem involving my child, I decide what to do and then do it					
10. My opinion is just as important as the opinions of school staff in making decisions about my child's education					
11. I feel that I have a right to approve all decisions concerning my child (e.g., placement in remedial classes)					
12. I make sure I stay in regular contact with school staff who are providing services to my child and making decisions about his/her education					
13. I have the right to speak on my child's behalf when s/he is being treated unfairly at school					
14. I have the right to call a meeting with administrators, teachers, and other parents when I feel that my child has been mistreated by an adult or peer at school					
15. My child should be able to take classes and participate in school activities without being harassed, discriminated against, or discouraged					
16. It is my responsibility to make sure my child is treated fairly at school					
17. I should challenge what I feel is wrong in my child's school and with the education s/he is receiving					
18. I can help guide my child to a successful school experience					

	Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree
19. I contact my school regularly (at least once a month) regarding my child's progress and behavior					
20. At least once a year, I meet with teachers (and/or other school staff) to discuss my child's progress and behavior at school					
21. I have taught my child how the school system is organized					
22. I teach my child how to stand-up for him/herself when mistreated at school					
23. I tell my child who to speak to when s/he is mistreated at school					

Appendix C

Parent Educational Advocacy Questionnaire (PEAQ; Parent Version)

The variables comprising each factor and their factor loadings are shown in the table below. Variables are ordered and grouped by size of loading to facilitate interpretation. The first factor, labeled *knowledge and ability,* accounted for 33% of the variance (eigenvalue = 7.62) and included agreement with five statements such as, *I know what to do when I am concerned my child is being treated unfairly at school*. The second factor, labeled *parent/child rights*, accounted for 11% of the variance (eigenvalue = 2.57) and included agreement with eight statements such as, *it is my responsibility to make sure my child is treated fairly*. The third factor, labeled *efficacy/empowerment,* accounted for 8% of the variance (eigenvalue 1.85) and included agreement with six statements such as, *when faced with a problem involving my child, I decide what to do and then do it.* The fourth factor, labeled *school interaction*, accounted for 6% of the variance (eigenvalue = 1.5) and agreed with four statements such as, *I have taught my child how the school system is organized*. Reliability scores were generated, in which each sub-scale had adequate internal consistency. Knowledge and Ability (5 items, α=.88), Parent/Child Rights (8 items, α=.80), Efficacy/Empowerment (6 items, α=.85), and School Interaction (4 items, α=.67).

Table C1

Results from Exploratory Factor Analysis on the PEAQ (Parent Version)

	Factor Loadings			
Items	Factor 1 Knowledge/Ability	Factor 2 Parent/Child Rights	Factor 3 Efficacy/Emp.	Factor 4 School Interaction
I know steps to take when further assistance is needed regarding an issue with my child at school	**.747**	-.036	.092	-.064
I know what to do when problems arise with my child at school	**.706**	.249	.067	-.087
I am able to speak with school staff to better understand my child	**.706**	-.233	.190	.226
I know what to do when I am concerned my child is being treated unfairly at school	**.665**	.198	.237	-.096
I am able to work with administrators, teachers, and other school staff to discuss child's progress at school	**.640**	.217	.117	-.025
I should challenge what I feel is wrong in my child's school and with the education s/he is receiving	-.062	**.723**	-.148	.076
I have the right to call a meeting with administrators, teachers, and other parents when I feel my child has been mistreated at school	.119	**.694**	.108	.114
My child should be able to take classes and participate in school activities without being harassed, discriminated against, or discouraged	.038	**.633**	-.016	.025
It is my responsibility to make sure child is treated fairly at school	.000	**.552**	.038	.029
I have the right to speak on my child's behalf when s/he is being treated unfairly at school	.075	**.500**	.125	.199
I have a right to approve all decisions concerning my child (e.g., placement in remedial classes)	.190	**.492**	-.028	.026

Table C1 - continued

Results from Exploratory Factor Analysis on the PEAQ (Parent Version)

	Factor Loadings			
Items	Factor 1 Knowledge/Ability	Factor 2 Parent/Child Rights	Factor 3 Efficacy/Emp.	Factor 4 School Interaction
My opinion is just as important as school staff in making decisions about my child's education	-.080	**.419**	.243	-.110
At least once a year, I meet with teachers to discuss my child's progress and behavior at school	.294	**.330**	-.067	.322
When faced with a problem involving my child, I decide what to do and then do it	.036	-.020	**.789**	.058
I feel I am a good parent	-.115	.139	**.700**	-.034
I make efforts to help my child learn, develop, and progress in school	.166	-.001	**.676**	.082
I feel confident in my ability to help my child progress in school	.165	-.158	**.644**	.062
I can help guide my child to a successful school experience	.173	.113	**.553**	-.038
I tell my child who to speak to when s/he is mistreated at school	.218	.072	**.499**	.121
I have taught my child how the school system is organized	-.282	.058	.209	**.761**
I teach my child how to stand-up for him/herself when mistreated at school	.058	.036	.070	**.620**
I contact my school regularly regarding my child's progress and behavior	-.107	.121	-.206	**.511**
I stay in regular contact with school staff who are providing services to my child and making decisions about his/her education	.287	.000	.033	**.443**

Note. Values in boldface represent the highest loadings for each factor. Emp. = Empowerment.

Appendix D

Means and Standard Deviations of Study Variables by School Type Using Analysis of Variance

	School A	School B	School C		
Variables	M (SD)	M (SD)	M (SD)	F- Statistic	df
Demographic Variables					
Socioeconomic Status Variables					
Mother Education	4.81 (0.19)	3.47 (0.24)	4.18 (0.37)	20.1691***	414
Household Income	5.19 (0.30)	4.16 (0.26)	2.46 (0.33)	10.182***	278
Outcome Variable					
GPA	2.58 (0.08)	2.73 (0.07)	2.69 (0.15)	1.223	361
Predictor Variables					
Racial Discrimination by Teachers (α =.82)	1.17 (0.04)	1.19 (0.03)	1.22 (0.09)	386	420
Racial Discrimination by Peers (α =.80)	1.22 (0.05)	1.18 (0.04)	1.38 (0.14)	0.685	420
Mediating Variables					
Academic Motivation					
Mastery Approach Goals (α =.83)	4.62 (0.05)	4.49 (0.05)	4.31 (0.15)	8.098***	419
Performance Approach Goals (α =.90)	3.22 (0.11)	2.92 (0.11)	3.18 (0.22)	2.928	419
Performance Avoidance Goals (α =.82)	3.49 (0.10)	3.13 (0.11)	3.05 (0.23)	5.002**	419
Mental Health					
Social Anxiety (α =.80)	1.99 (0.06)	1.95 (0.05)	2.38 (0.15)	4.478*	419
Depressive Symptoms (α =.81)	1.25 (0.03)	1.28 (0.03)	1.42 (0.08)	1.894	420
Loneliness (α =.88)	1.75 (0.05)	1.81 (0.05)	2.25 (0.16)	7.160***	420
Moderating Variables					
Parent Educational Advocacy (α =.93)	4.32 (0.04)	4.04 (0.05)	4.17 (0.13)	12.609***	374
Friendship Support (α =.94)	4.01 (0.04)	4.04 (0.05)	3.77 (0.13)	9.755***	420

Note. * $p < .05$. ** $p < .01$. *** $p < .001$. [a] N=427. [b] Education, 1= less than high school, 2 = some high school, 3 = high school graduate/GED, 4 = 2 year college, 5 = 4 year college (no bachelor degree), 6 = bachelor degree, 7 = master's degree, 8 = advanced degree (e.g., PhD). [c] Household Income, 1= under $10,000 yearly to 11= over $100,000 yearly. [d] Depressive symptoms, 1 = low endorsement to 3 high endorsement. [e]All other variables, 1=low endorsement to 4/5= high endorsement.

References

Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions* (pp. 9-27). Newbury Park, CA: Sage

Alfaro, E. C., Umaña-Taylor, A. J., Gonzales-Backen, M. A., Bámaca, M. Y., & Zeiders, K. H. (2009). Latino adolescents' academic success: The role of discrimination, academic motivation, and gender. *Journal of Adolescence, 32*, 941-962.

Ames, C. & Archer, J. (1988). Achievement goals in the classroom: Students' learning strategies and motivation processes. *Journal of Educational Psychology*, 80, 260-267.

Ames, C. (1992). Classrooms: Goals, structures, and student motivation. *Journal of Educational Psychology,* 84, 261-271

Asher, S. R., & Wheeler, V. A. (1985). Children's loneliness: A comparison of rejected and neglected peer status. *Journal of Consulting and Clinical Psychology, 53*, 500-505.

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice- Hall, Inc.

Bandura, A. (1989). Social cognitive theory. In R. Vasta (Ed.), *Annals of child development. Vol. 6. Six theories of child development* (pp. 1-60). Greenwich, CT: JAI Press.

Bellmore, A. D., Witkow, M. R., Graham, S. & Juvonen, J. (2004). Beyond the individual: The impact of ethnic context and classroom behavioral norms on victims' adjustment. *Developmental Psychology*, 40, 1159-1172.

Benner, A. D., & Graham, S. (2013). The antecedents and consequences of racial/ethnic discrimination during adolescence: Does the source of discrimination matter?. *Developmental Psychology, 49*, 1602.

Berndt, T. J. (2002) Friendship quality and social development. *Current Directions in Psychological Science, 11, 7-10.*

Bielby, W. T., & Hauser, R. M. (1977). Structural equation models. *Annual Review of Sociology*, 3, 137-161.

Burkett, K. W., & Morris, E. J. (in press). Enabling trust in qualitative research with culturally diverse participants. Retrieved from http://www.sciencedirect.com

California Department of Education (CDE). 2012-2013 School Year Data. Retrieved from http://www.cde.ca.gov/ .

Chavous, T. M., Rivas-Drake, D., Smalls, C., Griffin, T., & Cogburn, C. (2008). Gender matters, too: The influences of school racial discrimination and racial identity on academic engagement outcomes among African American adolescents. *Developmental Psychology*, 44, 637-654.

Church, M. A., Elliot, A. J., & Gable, S. L. (2001). Perceptions of classroom environment, achievement goals, and achievement outcomes. *Journal of Educational Psychology*, 93, 45-54.

Curry, G. D., & Spergel, I. A. (1992). Gang involvement and delinquency among Hispanic and African-American adolescent males. *Journal of Research in Crime and Delinquency*, *29,* 273-291.

DeCuir, J. T., & Dixson, A. D. (2004). "So When It Comes Out, They Aren't That Surprised That It Is There": Using Critical Race Theory as a Tool of Analysis of Race and Racism in Education. *Educational Researcher*, 26-31.

DeGarmo, D. S., & Martinez, C. R. (2006). A culturally informed model of academic well-being for Latino youth: The importance of discriminatory experiences and social support. *Family Relations*, 55, 267-278.

DuBois, D. L., Burk-Braxton, C., Swenson, L. P., Tevendale, H. D., & Hardesty, J. L. (2002). Race and gender influences on adjustment in early adolescence: Investigation of an integrative model. *Child Development*, 73, 1573-1592.

Eccles, J. S. (1997) MADICS study of adolescent development in multiple contexts, 1991-1998. Retrieved from http://hdl.handle.net/1902.1/01066.

Eccles, J. S., Wong, C. A., & Peck, S. C. (2006). Ethnicity as a social context for the development of African-American adolescents. *Journal of School Psychology*, 44, 407-426.

Edwards, L. M., & Romero, A. J. (2008). Coping with discrimination among Mexican descent adolescents. *Hispanic Journal of Behavioral Sciences*, 30, 24-39.

Elliot, A. J., & Harackiewicz, J. M. (1996). Approach and avoidance achievement goals and intrinsic motivation: A mediational analysis. *Journal of Personality and Social Psychology*, 70, 461-475.

Elliot, A. J., McGregor, H. A., & Gable, S. (1999). Achievement goals, student strategies, and exam performance: A meditational analysis. *Journal of Educational Psychology*, 91, 549-563.

Enders, C. K., & Bandalos, D. L. (2001). The relative performance of full information maximum likelihood estimation for missing data in structural equation models. *Structural Equation Modeling*, 8, 430-457.

Fan, X. & Chen, M. (2001). Parental involvement and students' academic achievement: A meta-analysis. *Educational Psychology Review,* 13, 1-22.

Farkas, G. (2003). Racial disparities and discrimination in education: What do we know, how do we know it, and what do we need to know? *Teachers College Record,* 105, 1119-1146.

Fisher, C. B., Wallace, S. A., & Fenton, R. E. (2000). Discrimination distress during adolescence. *Journal of Youth and Adolescence,* 29, 679-695.

Ferguson, R. F. (2001). A diagnostic analysis of Black-White GPA disparities in Shaker Heights, Ohio. In D. Ravitch (Ed.), *Brookings Papers on Education Policy 2001* (pp. 347-414). Cambridge, MA: The Civil Rights Project, Harvard University.

Fergus, S. & Zimmerman, M. A. (2005). Adolescent resilience: A framework for understanding healthy development in the face of risk. *Annual Review of Public Health*, 26, 399–419.

Gibbons, F. X., Gerrard, M., Cleveland, M. J., Wills, T. A., & Brody, G. (2004). Perceived discrimination and substance use in African American parents and their children: A panel study. *Journal of Personality and Social Psychology,* 86, 517-529.

Graham, S. & Juvonen, J. (1998). Self-blame and peer victimization in middle school: An attributional analysis. *Developmental Psychology*, 34, 587-538.

Harven, A. M. (2008, April). The relation between adolescents' perceptions of racial discrimination and their achievement goals: An exploratory study on African American middle school students. Panel Discussion conducted at the American Educational Research Association (AERA) in New York, NY.

Hill, N. E., Castellino, D. R., Lansford, J. E., Nowlin, P., Dodge, K. A., Bates, J. E., & Pettit, G. S. (2004). Parent academic involvement as related to school behavior, achievement, and aspirations: Demographic variations across adolescence. *Child Dev*elopment, 75, 1491–1509.

Hill, N. E. & Taylor, L. C. (2004). Parental school involvement and children's academic achievement: Pragmatics and issues. *Current Directions in Psychological Science*, 13, 161-164.

Hill, N. E., & Torres, K. (2010). Negotiating the American dream: The paradox of aspirations and achievement among Latino students and engagement between their families and schools. *Journal of Social Issues*, 66, 95-112.

Howard, T. & Reynolds, R. (2008). Examining parent involvement in reversing the underachievement of African American students in middle-class schools. *Educational Foundations*, 22, 79- 98.

Hodges, E.V.E., Boivin, M., Vitaro, F., Bukowski, W.M. (1999). The power of friendship: Protection against an escalating cycle of peer victimization. *Developmental Psychology*, 35, 94–101.

Huynh, V. W., & Fuligni, A. J. (2010). Discrimination Hurts: The Academic, Psychological, and Physical Well-Being of Adolescents. *Journal of Research on Adolescence*, 20, 916-941.

Ibañez, G. E., Kuperminc, G. P., Jurkovic, G., & Perilla, J. (2004). Cultural attributes and adaptations linked to achievement motivation among Latino adolescents. *Journal of Youth and Adolescence*, 33, 559-568.

Juvonen, J., Graham, G. & Schuster, M. A. (2003). Bullying among young adolescents: The strong, the weak, and the troubled. *Journal of Pediatrics*, 112, 1231-1237.

Kovacs, M. (1992). *Children's Depressive Inventory*. North Towanda, NY: Multi-Health Systems.

La Greca, A. M., & Lopez, N. (1998). Social anxiety among adolescents: Linkages with peer relations and friendships. *Journal of Abnormal Child Psychology*, 26, 83-94.

Lewis, A. E. (2001). "There is no “race” in the schoolyard: Color-blind ideology in an (almost) all-white school." *American Educational Research Journal*, 38, 781-811.

Lian, M. G. J., & Fontnez-Phelan, S. M. (2001). Perceptions of Latino parents regarding cultural and linguistic issues and advocacy for children with disabilities. *Research and Practice for Persons with Severe Disabilities*, 26, 189-194.

Losen, D. & Wald, J. (2005). *Confronting the graduation rate crisis in California.* Cambridge, MA: The Civil Rights Project, Harvard University. Retrieved from http://www.civilrightsproject.harvard.edu/research/dropouts/dropouts05.pdf.

McGrath, D. J. & Kuriloff, P. J. (1999). They're going to tear the doors off this place: Upper-middle-class parent school involvement and the educational opportunities of other people's children. *Educational Policy*, 13, 603- 629.

Migdley, C. (2000). Manual for the Patterns of Adaptive Learning Scales. Retrieved from http:www.unich.edu/~pals/.

National Center for Education Statistics (NCES; 2014). 2009-2010 and 2010-2011 School Year Data. Washington, DC: U.S. Department of Education. Retrieved from http://nces.ed.gov.

National Assessment of Educational Progress (NAEP; 2014). 2009, 2011, 2013 Student data. Washington, DC: U.S. Department of Education. Retrieved from http://nces.ed.gov/nationsreportcard.

Noguera, P. (2003). The trouble with Black boys: The role and influence of environmental and cultural factors on the academic performance of African American males. *Urban Education*, 38, 431-459.

Parker, J. G. & Asher, S. R. (1993). Friendship and friendship quality in middle childhood: Links with peer group acceptance and feelings of loneliness and social dissatisfaction. *Developmental Psychology*, 29, 611-621.

Perreira, K. M., Fuligni, A., & Potochnick, S. (2010). Fitting in: The roles of social acceptance and discrimination in shaping the academic motivations of Latino youth in the US Southeast. *Journal of Social Issues*, 66, 131-153.

Reynolds, R. (2010). They think you're lazy, and other messages Black parents send their Black sons: An exploration of critical race theory in the examination of educational outcomes for Black males. *Journal of African American Males in Education*, 1, 144-163.

Rosenbloom, S. R., & Way, N. (2004). Experiences of discrimination among African American, Asian American, and Latino adolescents in an urban high school. *Youth & Society*, 35, 420-451.

Saenz, V. B., & Ponjuan, L. (2009). The vanishing Latino male in higher education. *Journal of Hispanic Higher Education*, 8, 54-89.

Schwartz, D, Dodge, K. A., Pettit, G. S. & Bates, J. E. (2000). Friendship as a moderating factor in the pathway between early harsh home environment and later victimization in the peer group. *Developmental Psychology*, 36, 646-662.

Sellers, R. M., Copeland-Linder, N., Martin, P. P., & Lewis, R. L. H. (2006). Racial identity matters: The relationship between racial discrimination and psychological functioning in African American adolescents. *Journal of Research on Adolescence,* 16, 187-216.

Simons, R. L., Murry, V., McLoyd, V., Lin, K.-H., Cutrona, C., & Conger, R. D. (2002). Discrimination, crime, ethnic identity, and parenting as correlates of depressive symptoms among African American children: A multilevel analysis. *Development and Psychopathology,* 14, 371-393.

Singh, N. N., Curtis, W. J., Ellis, C. R., Nicholson, M. W., Villani, T. M., & Wechsler, H. A. (1995). Psychometric analysis of the family empowerment scale. *Journal of Emotional and Behavioral Disorders*, 3, 85-91.

Storch, E. A., & Masia-Warner, C. (2004). The relationship of peer victimization to social anxiety and loneliness in adolescent females. *Journal of Adolescence*, 27, 351-362.

Umaña-Taylor, A. J., Wong, J. J., Gonzales, N. A., & Dumka, L. E. (2012). Ethnic identity and gender as moderators of the association between discrimination and academic adjustment among Mexican-origin adolescents. *Journal of Adolescence*, 35, 773-786.

Umana-Taylor, A. J., & Guimond, A. B. (2010). A longitudinal examination of parenting behaviors and perceived discrimination predicting Latino adolescents' ethnic identity. *Developmental Psychology*, 46, 636-650.

Way, N. & Robinson, M. G. (2003). A longitudinal study of the effects of family, friends, and school experiences on the psychological adjustment of ethnic minority, low-SES adolescents. *Journal of Adolescent Research,* 18, 324- 346.

Wong, C. A., Eccles, J.S., & Sameroff, A. (2003). The influence of ethnic discrimination and ethnic identification on African American adolescents' school and socioemotional adjustment. *Journal of Personality*, 71, 1197-1232.

Wothke, W. (2000). Longitudinal and multigroup modeling with missing data.

Zimmerman, M. A. & Arunkumar, R. (1994). Resiliency research: Implications for schools and policy. *Social Policy Report*, 8, 1-20.