

Examining Black Adolescents' Perceptions Of In-School Racial Discrimination:  
The Role Of Gender, Socioeconomic Status And Perceptions Of Teacher Support  
On Academic Outcomes

by

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## **DEDICATION**

I dedicate this dissertation to my late grandmother, Dulcina “Ma” Gale, who sacrificed so that her children and grandchildren could have more than she did. She taught me that there is strength in quiet dignity.

“Trust in the Lord with all thine heart; and lean not unto thine own understanding. In all thy ways acknowledge him, and he shall direct thy paths.” (Proverbs 3: 5-6, The King James Version)

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## **ABSTRACT**

In-school racial discrimination is a risk factor for Black adolescents as it is negatively associated with their academic outcomes including grades and persistence. Scholars have sought to identify protective factors that lessen in-school racial discrimination's harmful effects. Protective factors consider personal, family and environmental contexts. This dissertation is guided by risk and resilience frameworks, which propose that protective factors help individuals to achieve positive outcomes even in the presence of risk. The present study investigates whether teacher support, an environmental protective factor, buffers the harmful effects of in-school racial discrimination on adolescents' grades and academic persistence. This dissertation also examines whether teacher support buffering effects differs based on gender or SES. This study used cross-sectional methodology in a sample of three hundred and sixty-four Black seventh grade students (51% female; Mean age= 12.5 years old, SD = 0.6) from three schools located in the suburbs of a Midwestern state. Results did not support study hypotheses as teacher support did not moderate the association between in-school racial discrimination from teachers or from peers and grades or academic persistence. In regards to study hypotheses on gender and SES differences, female adolescents and lower SES adolescents were more negatively impacted by experiences with in-school racial discrimination than their counterparts. In addition, teacher support was positively related to academic outcomes for higher SES Blacks, but not for lower SES Blacks. Implications for social work practice, school interventions and school policy are discussed.

## **CHAPTER I**

### **Introduction**

#### **Statement of Problem**

For many Black<sup>1</sup> adolescents, experiences with racial discrimination are an all too common experience (Caldwell, Kohn-Wood, Schmeelk-Cone, Chavous, & Zimmerman, 2004; Fisher, Wallace, & Fenton, 2000; Romero & Roberts, 1998). Racial discrimination experiences include being called a racially pejorative name or being falsely accused or suspected of wrongdoing because of one's race. Experiencing instances of racial discrimination is related to a host of negative outcomes including increased substance use (Brodish, Cogburn, Fuller-Rowell, Malanchuk, & Eccles, 2011) and violent behavior (Caldwell, Kohn-Wood, Schmeelk-Cone, Chavous, & Zimmerman, 2004). Furthermore, while research has suggested that Black adolescents experience racial discrimination in a variety of contexts (e.g., restaurants, shopping malls, etc.), schools often top the list when researchers inquire about the places in which adolescents most experience racial discrimination (e.g., Fisher, Wallace, Fenton, 2000; Pachter, Bernstein, Szalacha, & García Coll, 2010; Sellers, Copeland-Linder, Martin, & Lewis, 2006).

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<sup>1</sup> Within the literature on race and racial discrimination, the term "Black" has been used to identify individuals with African ancestry including those born in the United States and those who are foreign-born. On the other hand, the term "African American" is less inclusive and is typically used to describe only individuals born in the United States with African ancestry. While there are some differences in the way racial discrimination operates for self-identified Black adolescents as compared with self-identified African-Americans, research has shown that racial discrimination has a deleterious effect on outcomes (e.g., Seaton, Caldwell & Jackson, 2009).

In this dissertation, the term Black will be used as it is inclusive and participants identify themselves as "Black/African American". When referencing studies, the terminology utilized by the authors will be used to describe the participants.

Indeed, research has indicated that as many as ninety percent of Black students report that they have encountered racial discrimination in their schools (Sellers et al., 2006; Sellers & Shelton, 2003). Because schools are compulsory during adolescence, in-school racial discrimination may be more difficult to avoid than discrimination in other settings (e.g., restaurants and shopping malls).

### **Racial Discrimination and Adolescents' Academic Outcomes**

A number of empirical studies have shown that Black adolescents' experiences with racial discrimination are negatively related to their academic outcomes (e.g., grades and academic engagement) (Neblett, Philip, Cogburn, & Sellers, 2006; Neblett, White, Ford, Philip, Nguyen, & Sellers, 2009; Smalls, White, Chavous, & Sellers, 2007; O'Hara, Gibbons, Weng, Gerrard, & Simons, 2012). While research examining racial discrimination has found that discriminatory experiences are linked to academic outcomes, less attention has been paid to racial discrimination occurring within the school setting.

Developmental researchers suggest that negative experiences, such as discrimination, which occur in a particular context (e.g., school) may create significant obstacles to adaptation and the achievement of positive outcomes within that same context than experiences outside of that context. DuBois, Burk-Braxton, Swenson, Tevendale, & Hardesty (2002) suggest that risk within a particular context may lead to challenges to adaptation that make it more difficult for individuals to successfully acquire skills needed to be successful in that context. As such, in-school racial discrimination may be an especially potent threat to Black adolescents' academic success.

As it relates to racial discrimination, Chavous, Rivas-Drake, Smalls, Griffin, & Cogburn (2008) suggested that experiences with racial discrimination within one's schools (e.g., having

an unfair teacher) are more likely to impact one's school-related outcomes than experiences with racial discrimination that occur outside of the school (e.g., being overlooked or not given service at a restaurant). Chavous and colleagues' proposal makes sense as racial discrimination has been shown to negatively impact academic-related behaviors (2008). Therefore, one would expect that in-school racial discrimination, more so than racial discrimination in other settings, would have a particularly strong influence on academic outcomes. Studies have demonstrated that in-school racial discrimination is negatively associated with academic outcomes such as lower grades and academic disengagement (Benner & Graham, 2013; Chavous et al., 2008; Wong, Eccles, & Sameroff, 2003).

Within the literature on in-school racial discrimination experiences of Black adolescents, researchers have generally differentiated between racial discrimination perpetrated by adults (i.e., teachers and staff) from racial discrimination perpetrated by peers (Benner & Graham, 2013; Chavous et al., 2008; Wong, Eccles, & Sameroff, 2003). Findings have indicated that racial discrimination from teachers and from peers are negatively associated with academic outcomes (Benner & Graham, 2013; Chavous et al., 2008; Wong, Eccles, & Sameroff, 2003).

Reports of racial discrimination by Black adolescents within their schools are alarming, because schools play an important role in youth's social and cognitive development (Christian, Bachnan, & Morrison, 2001; Eccles, Midgley, Wigfield, Buchanan, & MacIver, 1993). Racial discrimination's negative effects on Black adolescents' academic outcomes are also concerning because these outcomes are robust predictors of important long-term social and economic outcomes. Since experiencing racial discrimination is associated with negative academic outcomes such as grades, by extension, it represents a threat to other important life outcomes that are in part dependent on academic success such as college attendance and stable employment

(Grogan-Kaylor & Woolley, 2010; Hout, 2012; National Bureau of Economic Research, 2013).

Given concerns about the risks associated with experiencing racial discrimination, scholars have sought to uncover factors to reduce these harmful effects on outcomes (e.g., Fergus & Zimmerman, 2005; Garmezy, 1993; Smalls, White, Chavous, & Sellers, 2007; Sellers et al., 2006).

### **Risk, Promotive and Protective Factors**

Risk factors refer to factors an individual is exposed to that increase the likelihood that a negative outcome will occur (Fergus & Zimmerman, 2005; Garmezy, 1993; Zimmerman, Stoddard, Eisman, Caldwell, Aiyer, & Miller, 2013). For example, researchers have demonstrated that racial discrimination is a risk factor for Blacks as it is negatively associated with physical (e.g., cardiovascular disease) and psychological wellbeing (e.g., depression) (Kessler, Mickelson, & Williams, 1999; Landrine & Klonoff, 1996; Neblett, Philip, Cogburn, & Sellers, 2006; Wong, Eccles, & Sameroff, 2003). In contrast to risk factors are promotive and protective factors which help to promote positive outcomes for youth. Promotive factors refer to factors which directly impact and improve outcomes. For instance, prior research has demonstrated that parent involvement is a promotive factor for adolescents that is positively associated with their academic outcomes (Froiland, Peterson, & Davison, 2012; Jeynes, 2005, 2007).

Protective factors are those factors that help individuals to overcome the negative effects of risk exposure, cope successfully with traumatic experiences, and buffer against the negative life outcomes associated with being exposed to risk (Fergus & Zimmerman, 2005; Garmezy, 1993; Zimmerman, Stoddard, Eisman, Caldwell, Aiyer, & Miller, 2013). An example of a protective factor against the negative effects of experiencing racial discrimination is parent racial

socialization (i.e., messages that parents use to teach their children about race). Brown & Tylka (2011) found that parent racial socialization, specifically racial social messages about appreciating one's culture, were protective factors for Black students' wellbeing in the face of racial discrimination. That is, parent racial socialization messages reduced the strength of the negative association between racial discrimination and students' outcomes.

Benard (1991) classified protective factors for children exposed to risk into three categories: personal, family and environmental. These categories are drawn, in part, from developmental theory regarding the ways in which an individual's personal characteristics and people within the context come to influence their outcomes. Bronfenbrenner & Morris (2006) propose that individuals' experiences within the contexts that they inhabit may influence their development. These contexts may be more proximal (i.e. those influences closest to the child in which the child has frequent contact and occur over an extended period of time) or more distal (i.e. important influences that are not as close to the child as distal influences). More proximal contexts include the home and more distal contexts include schools (Bronfenbrenner & Morris, 2006). As children grow into adolescents, family and home becomes less influential and schools become an increasingly important context (Eccles, Midgley, Wigfield, Buchanan, Reuman, Flanagan, & Mac Iver, 1993; Hamm & Zhang, 2010). Benard's categorization of contexts into personal, family and environmental protective factors seeks to capture some of the different ways in which protective factors may buffer against risk.

Personal protective factors are behaviors and beliefs that individuals possess which allow them to be resilient in the face of risk. Illustratively, Benard (1991) notes that children who had better problem solving skills were better able than their peers to navigate risk and become healthy adults. Personal protective factors may also be beliefs that children hold about



themselves or their environment that help them be resilient. For instance, studies have found that some dimensions of racial identity (i.e., a type of belief regarding one's race) buffer against the negative effects of racial discrimination on adolescents' grades and academic engagement (Bynum, Best, Barnes, & Burton, 2008; Smalls, White, Chavous, & Sellers, 2007; Stevenson & Arrington, 2009). Smalls and colleagues (2007) found that adolescents who endorsed a minority ideology (i.e., the belief that Blacks should emphasize their ethnic minority group status in the context of a shared experience and history of oppression with other ethnic minority groups) reported being less fearful of being viewed as academically-oriented and more academically persistent in the face of challenges.

Family protective factors refer to attributes of the immediate caregiving environment that help children to navigate risk through its positive association with adolescents' behaviors or beliefs. Family protective factors may also help children to overcome risk through parent behaviors which act as buffers against risk (Benard, 1991; Fergus & Zimmerman, 2005; Quin, 2016). Research has found that for children and adolescents who have been exposed to risk (e.g., alcoholic parent), social relationships with caring, supportive and affectionate parents or caregivers act as protective factors. Benard (1991) suggests that even in a cases of an extremely dysfunctional home environment, "a supportive and caring relationship with one parent provides a substantial protective effect (p. 11)."

Studies have shown that parent racial socialization messages act as protective factors against racial discrimination's negative effects (Brown & Tylka, 2011; Harris-Britt, Kurtz-Costes & Rowley, 2007; Wang & Huguley, 2012). Harris-Britt et al. (2007) found that racial socialization messages of preparation for racial bias from parents buffered adolescents' self-esteem against the negative effects of racial discrimination. In this example, parents' behaviors

act as a buffer by influencing children's beliefs (i.e., awareness) and behaviors (i.e., coping strategies). Racial socialization researchers suggest that preparation for racial bias messages are most effective as buffers when parents teach children how to be aware of racial discrimination as well as strategies to cope with discrimination (Hughes, Rodriguez, Smith, Johnson, Stevenson, & Spicer, 2006).

Family protective factors are also behaviors from parents or caregivers which may directly influence risk by directly intervening within the setting (Benard, 1991; Fergus & Zimmerman, 2005). For instance, a number of studies have found that various forms of parent involvement (e.g., attending parent-teacher meetings and homework help) are linked to resilience for children who face risk in their schools (e.g., difficult home environment). These researchers propose that when parents are involved in their children's schooling they communicate the importance of doing well in school, are better able to coordinate home teaching efforts with school curriculum, and like their children's teachers better (Rowley, Kurtz-Costes, & Cooper, 2010). In this example, parent behaviors are directly promoting resilience by intervening with teachers on their children's behalf.

Finally, environmental protective factors refer to behaviors from adults outside of the immediate caregiving environment who exhibit characteristics similar to family protective factors (e.g., support from teachers). That is, like family protective factors, environmental protective factors lead to resilient outcomes both indirectly by impacting children and adolescents' beliefs and behaviors and directly through adult behaviors which buffer against risk (Benard, 1991). For example, studies have shown that supportive teachers serve as buffer against the negative effects of risk on adolescents' psychological outcomes (Lee, 2012; Wang & Dishion, 2012). Scholars suggest that increased supportive teacher behaviors (e.g., showing

concern and providing encouragement) leads to increases in adolescents' positive school experiences and liking of school. The positive association between teacher support and adolescents' positive school experiences leads to improvements in adolescents' academic outcomes.

Relatively little is known about environmental protective factors, because few studies have focused on personal and family protective factors (e.g., Harris-Britt et al., 2007; Sellers et al., 2006). The focus on personal and family protective factors means that. Moreover, the limited focus on environmental protective factors may send the message to Black adolescents and their families that it is their responsibility as targets of racial discrimination to find ways to overcome this risk. It is important to explore the role that schools play in the lives of adolescents. As children grow into adolescents, they spend more time in schools and often spend the majority of their waking hours in the school context (Hamm & Zhang, 2010). The increase in time spent in school is also important because schools are a specific context in which Black adolescents' experience racial discrimination (Fisher, Wallace, Fenton, 2000; Pachter et al., 2010). Yet, despite this pattern of findings, there has been surprisingly little research examining protective factors within Black adolescents' schools.

### **School Social Climate and Teacher Support**

Given the prominent role that teachers play in shaping adolescents' experiences and school environment, and in light of the risk posed by experiencing racial discrimination in schools, this dissertation will consider ways in which teachers can promote resilience for Black adolescents. A growing literature has examined adolescents' perceptions of school social climate as promotive of adolescents' outcomes (Cohen et al., 2009; Thapa, Cohen, Higgins-Alessandro, & Guffrey, 2012; Way, Reddy, & Rhodes, 2007; Zullig & Patton, 2011). In general, perceptions

of school climate refer to the views that individuals have about norms regarding various aspects of their school. Although there is no consensus within the literature about the dimensions of school social climate, a common thread across studies of this construct is that perceptions of school social climate encompass adolescents' views regarding specific aspects of the social environment within their school (Anderson, 1982; Hoover-Dempsey, Bassler, & Brissie, 1987; Schueler, Capotosto, Bahena, McIntyre & Gehlbach, 2013; Zullig, Koopman, Patton, & Ubbes, 2010). Some of the dimensions assessed within the literature on school social climate include: safety, teaching and learning, relationships with peers and teachers, teacher support, peer support, order and discipline, student autonomy, school connectedness, and clarity and consistency in school rules (Cohen, McCabe, Michelli, & Pickeral, 2009; Holding & Fraser, 2013; Thapa et al., 2012; Way, Reddy, & Rhodes, 2007; Zullig & Patton, 2011).

Among the various dimensions of school social climate, adolescents' perceptions of teacher support have emerged as a consistent correlate of adolescents' psychological and academic outcomes (e.g., Kuperminc, Leadbeater, & Blatt, 2001; Holding & Fraser, 2013; Klem & Connell, 2004; Quin, 2016). Teacher support refers to the extent to which teachers help, befriend and shows interest in students (Holding & Fraser, 2013). Indeed, findings from a number of studies indicate that teacher support is positively related to adolescents' academic outcomes. These studies show that adolescents who perceive more teacher support tend to have higher grades, are more engaged, exhibit less disruptive behavior and have lower school dropout rates than their peers who perceive less support (Bottiani, Bradshaw, & Mendelson, 2016; Lee, 2012; Hopson & Lee, 2011; Hopson & Weldon, 2013; Way, Reddy, & Rhodes, 2007).

Scholars propose that teacher support bolsters adolescents' outcomes through its promotion of positive academic beliefs and behaviors (Klem & Connell, 2004; Lee, 2012;

Roorda, Koomen, Spilt, & Oort, 2011). For instance, research has shown that adolescents with supportive teachers are more likely to be behaviorally and emotionally engaged (Lee, 2012). Relatedly, research has found that behavioral and emotional engagement are linked to better academic outcomes, therefore increases in positive academic related behaviors and beliefs may lead to more positive academic outcomes including higher grades and test scores for adolescents (Hughes, Luo, Kwok, & Loyd, 2008; O'Connor & McCartney, 2007).

#### *Teacher Support as an Environmental Protective Factor*

In addition to research demonstrating direct effects of teacher support on adolescents' academic outcomes, studies have suggested that teacher support may serve as a protective against a number of risks and negative outcomes including violence, risky sexual behavior, and drug use (Kuperminc et al., 2001; Malecki & Demaray, 2007; Wang & Eccles, 2012). In addition, researchers have found that teacher support is a protective factor against the negative effects of risk on adolescents' academic engagement and grades (Hopson & Lee, 2011; Kuperminc et al., 2001).

Despite research demonstrating the benefits of teacher support for adolescents' outcomes, to my knowledge, no studies have examined whether these perceptions serve as a protective factor for Black adolescents exposed to in-school racial discrimination. Scholars suggest that teacher supports' protective effects are likely due to its connection to adolescents' behaviors and beliefs (Lee 2012; Malecki & Demaray, 2007). That is, for adolescents who have been exposed to risk, teacher support helps to negate harmful effects of risk by activating adaptive beliefs and behaviors and generally increasing their enjoyment of their school (Lee 2012; Malecki & Demaray, 2007). It is plausible that Black adolescents experiencing in-school racial discrimination, may benefit from perceiving support from their teachers. Support from teachers

may help adolescents to develop skills and behaviors that help them to be academically successful despite exposure to risk. This dissertation will contribute to the current understanding of the ways in which the teacher support as a protective factor for Black adolescents. It investigates whether teacher support buffers against the negative effect of racial discrimination experiences on academic outcomes.

### **Sociodemographic Factors and Black Adolescents' Schooling Experiences**

This dissertation also investigates whether sociodemographic factors are related to perceptions of the teacher support's proposed protective role. Sociodemographic factors include characteristics of the individual such as gender and socioeconomic status (SES). Indeed, there is evidence to suggest that if teacher support acts as a protective factor, it may operate differently based on sociodemographic factors. Several studies have found that Black adolescents' gender and SES are consequential sociodemographic factors, because they are related to many life outcomes (Bradley & Corwyn, 2002; Crosnoe & Huston, 2007; Hill, 2006; Hochschild, 2003; Mandara, Varner, Greene, & Richman, 2009; Orr, 2003). In particular, researchers have shown that Black males and females, and Black adolescents from lower and higher SES often have different experiences within their schools.

### **Gender and Black Adolescents' School Experiences**

A number of studies have demonstrated that many Black males feel less welcome and less supported, feel that events are unfair and are more likely than their peers to have teachers view them as disruptive (Howard, 2008). Black female adolescents also fare better in most academic and behavioral outcomes than their male peers (Bradley & Corwyn, 2002; Crosnoe & Huston, 2007). In general, research indicates they have higher grades and test scores, are more

likely to feel connected to their schools and are related as better behaved by teachers (Kuperminc, Leadbeater, Emmons, & Blatt, 1997).

Scholars have suggested that differences in stereotypes likely contribute to differential school experiences that Black male adolescents and lower SES Black adolescents have relative to Black female and higher SES adolescents, respectively. These stereotypes tend to cast Black males and lower SES Blacks in a more negative light than their counterparts (Essed, 1991). Negative racial stereotypes about Black students may lead adults and children within the school to treat these students unfairly. Negative stereotypes about Black males include images of them as lazy, unintelligent, violent and threatening (Cunningham, 1993; Swanson, Cunningham, & Spencer, 2003; Sidanius & Veniegas, 2000). The effects of these differences in stereotypes and differences in treatment are reflected in the literatures on in-school racial discrimination and teacher support.

### **Gender Differences in In-school Racial Discrimination, and Teacher Support**

#### *Gender and Racial Discrimination*

Research findings from the literature on racial discrimination demonstrate that Black adolescents' gender is related to the ways in which they experience, and are affected by in-school racial discrimination (e.g., Brody, Chen, Murry, Simmons, Gibbons, & Cutrona, 2006; Chavous et al., 2008; Richardson et al., 2014; Sellers & Shelton, 2003; Smith & Fincham, 2015). Indeed, studies have found that Black males tend to report more in-school racial discrimination than Black females (Chavous et al., 2008; Greene, Way, & Pahl, 2006; Smith & Fincham). For instance, Chavous and colleagues (2008) found that Black 8<sup>th</sup> and 11<sup>th</sup> grade males reported more in-school racial discrimination from their teachers and peers than their Black female counterparts. Similarly, Richardson et al. (2014) also examined perceptions of in-school racial

discrimination from their teachers and peers for a group of early- to mid-adolescent Black students and found that male participants reported more in-school racial discrimination than their female peers.

Additionally, studies have shown that gender moderates the association between racial discrimination and adolescents' outcomes. Studies have found that Black adolescent males' outcomes are more negatively influenced by their experiences with racial discrimination than are Black adolescent females' outcomes (e.g., Chavous et al., 2008; Smith & Fincham, 2008). For example, Chavous and colleagues (2008) found that Black adolescent males' experiences with in-school racial discrimination had a greater negative effect on their grades and school importance beliefs than on Black females' outcomes.

#### *Gender and Teacher Support*

Stereotypes not only influence negative treatment such as racial discrimination, they also likely contribute to the extent to which Black adolescents receive positive treatment. The literature on school social climate has demonstrated that teacher support differs based on adolescents' gender. A number of studies have found that female adolescents tend to view the climate in their school more positively and also perceive more support than their male counterparts (Cohen et al., 2009; Kuperminc et al., 2001; Thapa, Cohen, Higgins-Alessandro & Guffrey, 2012; Wang & Dishion, 2012; Way, Reddy, & Rhodes, 2007; Zullig & Patton, 2011). For instance, Wang & Dishion (2012) found that female adolescents reported more academic support, better school behavior management, and more teacher social support than their male peers. In addition, scholars have demonstrated that when teacher support has been found to be a protective factor, its effects are stronger for males than for females (Kuperminc et al., 1997). Illustratively, Kuperminc and colleagues (1997) found that increased perceptions of teacher



support reduced the association between risk and teacher reports of behavioral issues for the males but not the females in their study.

### **SES and Black Adolescents' School Experiences**

Within social science research, SES is generally conceptualized as a measure of income, education, occupation or some combination of these factors (Sirin, 2005). This construct is meant to represent access to various types of capital (Bourdieu, 1986). Bourdieu proposed that there are various forms of capital or resources: economic capital (i.e., access to money), cultural (i.e., knowledge and familiarity with the cultural practices of the dominant culture) and social capital (i.e., social networks which can provide access to other types of capital) (Bourdieu, 1986). Scholars have been particularly interested in the ways in which differential access to capital is related to outcomes. Similar to gender, a number of studies have demonstrated that Black adolescents' SES is related to differences in school experiences. For example, the experiences of Black adolescents from lower SES backgrounds often parallel Black males' experiences. That is, lower SES Black adolescents are more likely than their more affluent peers to feel less welcome and connected and to be rated as less engaged than adolescents from more affluent circumstances (Bradley & Corwyn, 2002). Differential access to resources may lead to differences in adolescents' race-related experiences within their schools. This connection between resources and experiences is related to the fact that resources influence the nature of individuals' experiences and influences the contexts they inhabit.

Black adolescents from lower SES backgrounds may have different experiences than their Black peers from higher SES backgrounds who engender more White middle class values and behaviors (Adair, 2002). These differences may be related to individual variations in styles of dress, linguistic patterns or other perceivable physical attributes which may influence the way

they are treated (Majors & Billson, 1993; Majors et al, 1994). For instance, participants in Adair's, 2002 study described some of the ways in which poorer students were viewed and treated differently from their higher SES peers. Adair (2002) notes, "we were read as unworthy, laughable, and often dangerous. Our schoolmates laughed at our "ugly shoes," our crooked and ill-serviced teeth... teachers publicly excoriated us for our unethical behavior when we tried to take more than our share of "free lunch" (p. 457). Adair's participants exemplify the experiences that many poor Black students have may be compounded by their low SES.

In addition to SES differences in school experiences related to access to resources and physical differences in comportment, Clark, Anderson, Clark & Williams (1999) propose that SES differences in school experiences may be related to differences in the racial composition of the context. That is, Blacks from higher SES backgrounds are likely to have more frequent experiences with racial discrimination than Blacks from lower SES backgrounds based on the former's proximity to Whites. Clark and colleagues (1999) note that lower SES Blacks are more likely to live in racially segregated and majority Black areas as well as work in jobs with other Blacks. On the other hand, these scholars note, Blacks from higher SES backgrounds are more likely to inhabit racially heterogeneous settings. The increased contact with individuals from other races is proposed to lead to higher SES Blacks reporting more racial discrimination than their Black peers from lower SES backgrounds.

### **SES Differences in In-school Racial Discrimination, and Teacher Support**

#### *SES and Racial Discrimination*

Within the literature on racial discrimination, there is empirical evidence indicating that the ways in which Black adolescents' experience in-school racial discrimination differs by their SES. Higher SES Black adolescents reported more racial discrimination than their lower SES

counterparts (Brody et al., 2006; Chavous et al., 2008; Dailey, Kasl, Holford, Lewis, & Jones, 2010; García Coll, Lamberty, Jenkins, Mcadoo, Crnic, Wasik, & García, 1996; Smith & Fincham, 2015). For example, a longitudinal study by Brody et al. (2006) indicated that Black adolescents from higher SES backgrounds, as indexed by family income and primary caregiver's educational level, reported more racial discrimination than their lower SES peers. In keeping with Clark and colleagues' proposal, these researchers suggested that adolescents from higher SES backgrounds reported more racial discrimination because of their proximity to other races.

Clark and colleagues (1999) suggest that Blacks from lower SES backgrounds will be more negatively impacted by racial discrimination than Blacks from higher SES backgrounds because they have fewer resources to overcome this risk factor (e.g., leave job with discriminatory coworkers). Relatedly, scholars have found that SES moderates the association between racial discrimination and academic outcomes (Chavous et al., 2008; Smith & Fincham, 2015). Chavous et al. (2008) provide empirical evidence for Clarke's proposal. They assessed the in-school racial discrimination experiences of a sample of Black adolescents from varying SES backgrounds and found a greater negative association between racial discrimination from teachers and GPA for lower SES Blacks. Chavous and colleagues also found a greater negative association between racial discrimination from teachers and school importance than for lower SES Blacks.

### *SES and Teacher Support*

Finally, there is tenuous evidence demonstrating that low SES youth report less teacher support than their higher SES peers. Most of the studies have actually found no SES differences. One reason for these findings may be the nature of the SES measure used. The majority of the studies on SES differences in teacher support have used eligibility for free or reduced-price lunch

status as a proxy for SES (e.g., Kuperminc et al., 1997; Kuperminc et al., 2001; Malecki & Demaray, 2007). Scholars propose that eligibility for free or reduced-price lunch is not a valid indicator of SES as it is an inadequate representation of household resources (Harwell & Lebeau, 2010). Notably, studies showing differences usually include income or parents' education level as measures of SES. These studies, though few, have typically found that lower SES adolescents tend to perceive less teacher support than their higher SES peers (Bottiani, Bradshaw, & Mendelson, 2016; Way, Reddy, & Rhodes, 2007). More research utilizing SES measures other than free and reduced-price lunch is needed to establish whether SES differences in teacher support exist.

### *Section Summary*

There is mounting evidence indicating that adolescents have vastly different experiences in their school depending on their gender and SES. Findings from empirical studies demonstrate both gender and SES differences in adolescents' perceptions of racial discrimination and teacher support. Gender differences are thought to be connected to differences in stereotypes which often portray Black males as more threatening than Black females. Similarly, SES differences are thought to be connected to access to resources as well as differences in stereotypes. Here, lower SES Blacks are stereotyped more negatively and have less access to resources than higher SES Blacks.

Taken together, these findings suggest that risk (i.e., racial discrimination) and protective factors (i.e., teacher support) differ based on gender and SES and raise the possibility that protective factors may also operate differently based on these sociodemographic factors. In this dissertation, I examine teacher support as a protective factor for Black adolescents who have experienced in-school racial discrimination. To my knowledge, no studies have examined

whether teacher support, acting as a protective factor, operates differently across gender and SES.

### **Guiding Framework**

Risk and resilience frameworks provide the guiding framework for this dissertation. Risk and resilience frameworks suggest that exposure to risk increases the likelihood that individuals will have negative outcomes. However, risk may be reduced by protective factors within the individual's life (Fergus & Zimmerman, 2005; Garmezy, 1991; Masten, 2001; Zimmerman et al., 2013). As previously noted, protective factors are factors that promote resilience by buffering against the negative life outcomes associated with being exposed to risk. Fergus & Zimmerman (2005) refer to the process of overcoming risk as resilience, and note that a key component of resilience is the presence of both risks and protective factors that either help bring about a positive outcome or reduce or avoid a negative outcome (Fergus & Zimmerman, 2005). These frameworks have aided scholars in conceptualizing, examining and interpreting the ways in which individuals who have been exposed to risk are able to be resilience. Fergus & Zimmerman (2005) have identified three models of resilience. These models are: compensatory, protective and challenge.

In the compensatory model, a promotive factor counteracts the negative effects of risk on an outcome by having an opposite, direct, and independent effect on that outcome (Zimmerman, Stoddard, Eisman, Caldwell, Aiyer, & Miller, 2013, p. 1). For example, studies have found that “youths with friends who got into fights (i.e., risk factor) were more likely to engage in violent behaviors themselves, however mothers’ support compensated for this risk factor because it predicted less violent behavior independent of friends’ behavior (Zimmerman, Stoddard, Eisman, Caldwell, Aiyer, & Miller, 2013, p. 2).” The challenge model describes a process in which

adolescents who are exposed to moderate levels of risk are confronted with enough of the risk factor to learn how to overcome it but are not exposed to so much of it that overcoming risk is impossible. For instance, “interpersonal conflict that is resolved amicably can help youths overcome social tensions to avoid a violent response in a later, more heated social disagreement (Zimmerman et al., 2013, p. 4).” Finally, in the protective factor model (see Figure 1), specific factors are thought to buffer the effect of a risk factor on an outcome. Fergus & Zimmerman (2005) suggest that a protective factor model is in operation when, for instance, a negative association between racial discrimination and adolescents’ grades is reduced for adolescents who perceive more teacher support.

Although each of three models within the risk and resilience framework is plausible in explaining these the ways in which protective factors lead to resilience, the focus in this dissertation is on environmental protective factors (e.g., teacher support) and their effects on Black adolescents’ academic outcomes. The protective factor model is the most appropriate model for this dissertation, because it seeks to uncover buffers for already established risk-outcome relationships. Previous research has established that racial discrimination is a risk factor which negatively influences adolescents’ academic outcomes (Neblett, Philip, Cogburn, & Sellers, 2006; Sellers & Shelton, 2003; Smalls, White, Chavous, & Sellers, 2007).

### **The Present Study**

Utilizing data from Black seventh grade students, this dissertation examines the effect of both risk and protective factors within the school environment. Past studies have found in-school racial discrimination to be negatively associated with adolescents’ grades as well as behaviors that are pivotal for their academic success (i.e., academic persistence) (Neblett, Philip, Cogburn, & Sellers, 2006; Sellers & Shelton, 2003; Smalls, White, Chavous, & Sellers, 2007). On the

other hand, researchers have found that when adolescents perceive support from teachers, they tend to have more positive academic outcomes (Shirley & Cornell, 2011). Studies have also found that for adolescents who have been exposed to risk, teacher support reduces the influence of risk on their outcomes (Cohen et al., 2009; Kuperminc, Leadbeater, Emmons, & Blatt, 1997). This dissertation synthesizes these findings by investigating whether teacher support serves as an environmental protective factor, buffering against the harmful effects of in-school racial discrimination (risk) on Black adolescents' academic outcomes.

In keeping with previous research, the measure of racial discrimination used in the present study assesses in-school racial discrimination from teachers and from peers (Chavous et al., 2008; Wong et al., 2003). Teacher support is measured from adolescents' perspective (Bottiani, Bradshaw, & Mendelson, 2016; Hopson & Lee, 2011; Koth, Bradshaw, & Leaf, 2008; Way, Reddy, & Rhodes, 2007). Students' self-reported grades and academic persistence (i.e., extent to which one persists at academic tasks in the face of problems) are the two academic outcomes examined in this dissertation (Neblett, Philip, Cogburn, & Sellers, 2006).

This dissertation examines whether sociodemographic factors play a role in Black adolescents' experiences with risk and protective factors. Specifically, I investigate their perceptions of teacher support and their experiences with in-school racial discrimination. Previous research on protective factors has paid relatively little attention to the role of sociodemographic factors on protective factors (Benard, 1991). However, it is important for researchers to establish how protective factors operate for different groups as this may assist in developing appropriate and effective interventions for adolescents exposed to risk. Therefore, the second goal of this dissertation is to examine whether sociodemographic factors play a role in Black adolescent experiences with in-school racial discrimination and teacher support. In

particular, I examine whether teacher support and its proposed protective effects differ based on adolescents' gender or SES.

The present study addresses three sets of research questions. The first set of questions examines the direct association between in-school racial discrimination and teacher as well as the proposed moderating effect of teacher support within the entire sample. They include the following:

- 1a. Does teacher support moderate the association between in-school racial discrimination from teachers and grades?
- 1b. Does teacher support moderate the association between in-school racial discrimination from peers and grades?
- 1c. Does teacher support moderate the association between in-school racial discrimination from teachers and academic persistence?
- 1d. Does teacher support moderate the association between in-school racial discrimination from peers and academic persistence?

The next set of questions examine whether the association between in-school racial discrimination and teacher support differ by gender. They also examine whether the proposed moderating effects of teacher support are different for the males and females within the sample.

These questions are:

- 2a. Does teacher support moderate the association between in-school racial discrimination from teachers and grades differently for male versus female adolescents?
- 2b. Does teacher support moderate the association between in-school racial discrimination from teachers and academic engagement differently for male versus female adolescents?



2c. Does teacher support the association between in-school racial discrimination from peers and grades differently for male versus female adolescents?

2d. Does teacher support moderate the association between in-school racial discrimination from peers and academic engagement differently for male versus female adolescents?

The final set of questions examine whether the association between in-school racial discrimination and teacher support differ by SES. Additionally, the final set of research questions examine whether the proposed moderating effect of teacher support is different for the high SES and low SES adolescents within the sample. The final set of research questions examined in this dissertation is as follows:

3a. Does teacher support moderate the association between in-school racial discrimination from teachers and grades differently for adolescents from high versus low SES backgrounds?

3b. Does teacher support moderate the association between in-school racial discrimination from teachers and academic engagement differently for adolescents from high versus low SES backgrounds?

3c. Does teacher support moderate the association between in-school racial discrimination from peers and grades differently for adolescents from high versus low SES backgrounds?

3d. Does teacher support moderate the association between in-school racial discrimination from peers and academic engagement differently for adolescents from high versus low SES backgrounds?

*Dissertation Road Map*

The remainder of this dissertation is organized as follows: Chapter 2 reviews the literature on in-school racial discrimination and highlights some of the ways that this literature has addressed protective factors. It then addresses the specific aims of the current study. In Chapter 3 I describe methods. In Chapter 4, I report the results from data analysis. Finally, discussion of findings and implications are then presented in Chapter 5.

## **CHAPTER II**

### **Literature Review**

In this chapter, I review research on Black adolescents' experiences with in-school racial discrimination as well as research that has linked these experiences to Black adolescents' academic outcomes. I then discuss research on protective factors for Black adolescents who experience in-school racial discrimination. Specifically, I highlight some gaps within the literature on protective factors and describe how this dissertation addresses these gaps. I describe ways in which school social climate may be a protective factor for Black students' academic outcomes in the face of in-school racial discrimination. Finally, I provide this dissertation's specific research aims and hypotheses.

### **Conceptual Framework**

As noted in the previous chapter, this dissertation is guided by a risk and resilience framework in general, and a protective factor model in particular. In the protective factor model, a protective factor is theorized to buffer against the harmful effects of a particular risk factor on an outcome (Fergus & Zimmerman, 2005). In the current study, in-school racial discrimination from teachers and from peers are conceptualized as risk factors for Black adolescents. That is, in-school racial discrimination is hypothesized to negatively influence adolescents' grades and academic persistence (e.g., Chavous et al., 2008; Wong et al., 2003).

In keeping with Benard's classification of protective factors, teacher support is conceptualized as an *environmental* protective factor. Benard (1991) suggested that environmental protective factors are behaviors from adults outside of the immediate caregiving

environment that may lead to positive outcomes for adolescents in the face of risk.

Within the school environment, scholars have found that teachers may act as buffers against the harmful influence of risk on outcomes (Benard, 1991; Bottiani, Bradshaw, & Mendelson, 2016; Hopson & Lee, 2011; Hopson & Weldon, 2013; Koth, Bradshaw, & Leaf, 2008; Lee, 2012; Way, Reddy, & Rhodes, 2007). For example, studies have shown that supportive teachers serve as buffer against the negative effects of risk on adolescents' psychological outcomes (Lee, 2012; Wang & Dishion, 2012). Perceiving support may buffer Black adolescents who encounter in-school racial discrimination from its negative effects on their academic outcomes.

### **Racial Discrimination and Black Americans**

Racial discrimination refers to any behavior that denies members of a particular group fair treatment because of race or phenotypic characteristics (e.g., skin color) (Clark, Anderson, Clark, & Williams, 1999; Fiske, 2000; Jones, 1972; Landrine & Klonoff, 1996; Ridley, 1995; Romero & Roberts, 1998; Stroebe & Insko, 1989). Much of the foundational research on racial discrimination experienced by Blacks has been conducted using adult samples. This research has found that while most Black adults report that they have some experiences with racial discrimination within their lifetime, these experiences are a relatively infrequent occurrence (i.e., only happen a few times a year) (see Harrell, Hall, & Taliaferro, 2003; Williams & Mohammed, 2009; Williams & Williams-Morris, 2000 for review). Despite the low rates of racial discrimination reported by Black adults, research findings consistently indicate that racial discrimination is associated with negative mental and physical health outcomes for this group (Brondolo, Ver Halen, Pencille, Beatty, D., & Contrada, 2009; Clark, Anderson, Clark, & Williams, 1999; Jackson, Brown, Williams, Torres, Sellers & Brown, 1996; Pascoe & Smart Richman, 2009; Williams, Neighbors, & Jackson, 2003). Indeed, empirical studies have

demonstrated that experiencing racial discrimination is associated with negative physical (e.g., cardiovascular disease) and psychological well-being (e.g., depression) of Black adults (Brondolo, Ver Halen, Pencille, Beatty, D., & Contrada, 2009; Clark, Anderson, Clark, & Williams, 1999; Jackson, Brown, Williams, Torres, Sellers & Brown, 1996; Pascoe & Smart Richman, 2009; Williams, Neighbors, & Jackson, 2003).

For example, Kessler, Mickelson, & Williams (1999) examined the racial discrimination experiences of 339 Black adults (age 25-74 years). These results indicated that more than 60% of Black adults reported that they had encountered racial discrimination at some point in their lives. On the other hand, only 24% of the sample reported that they had experienced racial discrimination often. The majority of the sample reported that they had only sometimes experienced racial discrimination. Despite the low rates of racial discrimination reported by Black adults in their study, Kessler and colleagues (1999) found that racial discrimination was positively associated with depression and with anxiety. Finally, Sellers, Caldwell, Schmeelk-Cone & Zimmerman's (2003) findings were similar to previous findings. Although participants, 555 Black adults, reported low rates of racial discrimination, racial discrimination was positively associated with violent behavior.

### **Adolescence as a Critical Developmental Period for Examining Racial Discrimination**

Adolescence is a period of important and rapid physical, social and cognitive changes that have implications for an individual's developing sense of identity as well as their engagement with the world. Researchers have suggested that the rapid nature of these changes make adolescence an especially vulnerable time within the lives of many individuals (Caldwell, Kohn-Wood, Schmeelk-Cone, Chavous, & Zimmerman, 2004; Erickson, 1968; Spencer, Dupree

& Hartmann, 1997; Spencer, Fegley, Harpalani, & Seaton, 2004). For many Black adolescents, negotiation of these changes is accompanied by adaptation to the effects of racial discrimination.

Developmental theory such as Brown & Bigler's (2005) developmental model suggest that adolescence marks the first life-stage in which individuals are able to use cognitive skills to perceive events, even subtle experiences, as discriminatory. During adolescence, individuals begin to demonstrate advanced cognitions around understanding not only race but also concepts such as moral reasoning, social comparisons, and classification and categorization. Scholars also suggest that there is a mismatch between adolescents' ability to perceive occurrences as discriminatory and their strategies to cope with the negative emotions associated with perceiving discrimination (Quintana, 2012; Van der Graaff, Branje, De Wied, Hawk, Van Lier, & Meeus, 2014). This mismatch leaves adolescents especially vulnerable to the long-term effects of discrimination, as they are only gradually developing more adaptive coping skills that help them better manage their experiences of racial discrimination.

For Black adolescents, the cognitive, physical and social changes that characterize adolescence take place within a country that is often hostile and unwelcoming to their race. Black adolescents must deal with the normative changes and challenges of adolescence while also dealing with the negative effects of racial discrimination. Among middle school students and early adolescents (i.e., 12-13 years old), the consequences of exposure to racial discrimination at this age may be especially consequential to their long-term outcomes. Given evidence showing that the negative effects of racial discrimination are likely cumulative, these early experiences likely set the tone for how individuals negotiate experiences with racial discrimination well into adulthood (Chavous et al., 2008; Greene et al., 2006; Harrell, Hall, & Taliaferro, 2003; Williams & Mohammed, 2009; Williams & Williams-Morris, 2000).

## **Racial Discrimination and Black Adolescents**

Research findings on Black adolescents' experiences with racial discrimination have been similar to Black adult findings. Like Black adults, most Black adolescents, as many as 90%, report that they have experienced racial discrimination at some point within their lifetime. But, as with Black adults, the frequency of these experiences is typically relatively low (i.e., only a few times a year). Among Black adults and adolescents, there have been low reported frequencies of racial discrimination experiences and these experiences tend to be associated with psychological outcomes (e.g., Brody, Chen, Murry, Simmons, Gibbons, & Cutrona, 2006; Bynum, Best, Barnes, & Burton, 2008; Greene, Pahl & Way, 2006; Sellers, Caldwell, Schmeelk-Cone, & Zimmerman, 2003; Sellers & Shelton, 2003; Sellers, Copeland-Linder, Martin, & Lewis, 2006).

Illustratively, Greene et al. (2006) examined adolescents' experiences with racial discrimination in a sample of 136 adolescents. Racial discrimination was measured using a 7-item scale developed on the basis of qualitative findings from in-depth, semi-structured interviews with over 150 Black, Latino, and Asian American adolescents (Rosenbloom & Way, 2004; Way, 1998). Response options for that scale ranged from *1 = never encountered discrimination* to *5 = encountered discrimination all the time* (e.g., How often are you treated unfairly by adults because of your race or ethnicity?). The results indicated that while participants' reports of racial discrimination were relatively infrequent (i.e.,  $M = 1.60$ ), experiencing racial discrimination was negatively related to psychological well-being.

Studies conducted by Sellers and colleagues had similar findings in regards to the association between infrequently-reported racial discrimination and Black adolescents' outcomes (Sellers, Caldwell, Schmeelk-Cone, & Zimmerman, 2003; Sellers, Copeland-Linder, Martin, & Lewis, 2006; Sellers & Shelton, 2003). These studies investigated adolescents' experiences

within racial discrimination using a daily racial hassles scale which assesses the frequency of discrimination experiences. Daily racial hassles are a form of racial discrimination comprised of subtle racial slights and insults that occur on an almost daily basis. Instances of daily racial hassles include being ignored or overlooked while waiting in line, being mistaken for someone who serves others (e.g., maid, bellboy), and being followed while in public without cause (Harrell, 1997).

Sellers, Caldwell, Schmeelk-Cone, & Zimmerman (2003) examined the association between perceived racial discrimination and adolescents' reports of psychological distress and stress in a sample of 555 African Americans in their late adolescent years (mean age = 17.8 years). Participants reported how often they had experienced each of 20 daily racial hassles within the last year. Adolescents reported whether they had experienced each hassle within the last year and then recorded how often they had experienced that hassle on the response scale (0=never; 5= once a week or more). The mean score for racial discrimination was 0.78 on the response scale indicating that, on average, experiencing any one of racial hassle was an infrequent event. As in previous research, despite low rates, experiencing racial hassles was positively related to psychological distress and perceived stress.

Using the same daily racial hassles scale, Sellers and colleagues (2006) investigated racial daily hassle experiences among a sample of 314 African American students in elementary, middle and high school. The mean score for across hassles was 1.74 on the response scale (0=never; 5= once a week or more) indicating that, on average, experiencing any one of the racial hassles was an infrequent event. Similar to prior studies, results indicated that racial discrimination was positively associated with depressive symptoms and perceived stress.



Studies have also found that there are differences in adolescents' experiences with racial discrimination. Specifically, studies have indicated that older adolescents (16-18 years) report more racial discrimination than younger adolescents (12-15 years) (Greene, Way, & Pahl, 2006; Priest, Paradies, Trenerry, Truong, Karlsen, & Kelly, 2013). However, these differences tend to be relatively small. It is important to note that only a few studies have examined the racial discrimination experiences of Black middle school students. Thus, compared to adults and older adolescents, relatively little is known about the racial discrimination experiences of early adolescent Black students.

### *Racial Discrimination and Academic Outcomes*

A burgeoning literature has found that experiences with racial discrimination are negatively associated with academic outcomes (Neblett et al., 2006; Neblett et al., 2009; O'Hara et al., 2012; Smalls et al., 2007). Similar to research findings on the negative association between racial discrimination and adolescents' academic outcomes, scholars have found that despite low reported rates, experiences with racial discrimination are negatively associated with academic outcomes. For instance, using the racial hassles scale developed by Harrell (1997), Neblett and colleagues (2006) found that Black adolescents' reports of racial discrimination were negatively related to participants' academic engagement. Similarly, in their study of 390 Black adolescents in grades 7 through 10, Smalls and colleagues (2007) found that racial discrimination was negatively associated with school engagement. Smalls and colleagues (2007) also used the racial hassles scale developed by Harrell (1997). Although a growing literature has investigated the link between racial discrimination and academic outcomes, there still remains a sizeable gap in the current knowledge on this association. Specifically, it is unclear the extent to which school experiences, especially racial discrimination experiences occurring in the school, are associated

with academic outcomes. This dissertation addresses that gap by assessing the association between in-school racial discrimination and adolescents' academic outcomes.

### *Schools and Racial Discrimination*

Ecological and developmental theories suggest that adolescent development is driven, in part, by adolescents' interactions within the most proximal contexts in their lives (e.g., schools and families, peer groups, neighborhoods (Bronfenbrenner & Morris, 2006). Schools are a major proximal context in which adolescents experience racial discrimination (Fisher et al., 2000; Patcher et al., 2010). Using interview methods, Patcher and colleagues (2010) asked Black students to list the places where they felt that they had experienced the most racial discrimination. Participants in that study, 277 children and adolescents ranging in age from 8 to 18 years, reported that their schools were places where they often encountered racial discrimination.

Although research has shown that schools are a primary context in which Black adolescents experience racial discrimination, few studies examining adolescents' racial discrimination experiences examine racial discrimination occurring within schools. This gap in the literature is seen clearly in the composition of the survey measures used to assess racial discrimination, even in school aged populations and when academic outcomes are assessed. Indeed, the majority of studies investigating Black adolescents' racial discrimination experiences have used measures that capture experiences with racial discrimination without regard to differences in the setting. These measures include the Daily Racial Hassles Scale, the Perceived Racial Discrimination Scale and the Schedule of Racist Events (Harrell, 1994; Harrell, 1997; Landrine & Klonoff, 1996; Sellers & Shelton, 2003). Less attention has been paid to where discrimination occurs. Scholars have suggested that experiences within a particular context are

more likely to affect outcomes within that context than experiences outside of that context (DuBois, Burk-Braxton, Swenson, Tevendale, & Hardesty, 2002). Wong et al. (2003) proposed that experiences with racial discrimination within the school (e.g., being punished unfairly by a teacher) are more likely to impact school-related outcomes than experiences with racial discrimination that occur outside of the school (e.g., being overlooked or not given service at a restaurant). The current student builds upon Wong and colleagues (2003) study and examines in-school racial discrimination.

### *In-school Racial Discrimination and Black Adolescents' Outcomes*

Scholarship on in-school racial discrimination has demonstrated that Black adolescents experience racial discrimination from their teachers as well as from their peers and that these experiences tend to have a deleterious impact on adolescents' academic outcomes (Benner & Graham, 2013; Chavous et al., 2008; Fisher et al., 2000; Pachter, Bernstein, Szalacha, & García Coll, 2010; Sellers et al., 2006; Wong, Eccles, & Sameroff, 2003). In-school racial discrimination from teachers includes adolescents' perceptions that their teachers discipline them more unfairly and grade their work more harshly than their peers from other races (Benner & Graham, 2013; Chavous et al., 2008; Thomas, Caldwell, Faison, & Jackson, 2009; Wallace, Goodkind, Wallace, & Bachman, 2008). In-school racial discrimination by peers includes adolescents' perceptions of physical harassment, assault, verbal insults, being called racially derogatory names, and social exclusion enacted by peers (e.g., Benner & Graham, 2013; Felix & You, 2011; Graham & Juvonen, 2002; Greene et al., 2006; Rosenbloom, & Way, 2004; Seaton, Neblett, Cole, & Prinstein, 2013; Verkuyten & Jochem, 2006).

Despite evidence suggesting that in-school racial discrimination from teachers and from peers are comprised of different behaviors, studies have found no differences in the effects of

discrimination from either source on academic outcomes (Chavous et al., 2008; Cogburn, Chavous, & Griffin, 2011; Richardson et al., 2014; Smith & Fincham, 2015; Wong, Eccles & Sameroff, 2003). That is, in-school racial discrimination from both sources are negatively associated with academic (e.g., grades) and psychological outcomes (e.g., psychological well-being) (Chavous et al., 2008; Cogburn et al., 2011; Richardson et al., 2014; Smith & Fincham, 2015; Wong et al., 2003).

The majority of the research linking Black adolescents' in-school racial discrimination experiences to their outcomes has used the same dataset- the Maryland Adolescent in Contexts Study (MADICS). The MADICS, a community based longitudinal study of junior high students and their families based in Prince Georges (PG) County, Maryland, a suburb of Maryland located near Washington, DC, investigated factors influencing the social development of Black adolescents in a predominantly Black school population. This location was chosen because of heterogeneity within household socioeconomic status of the community and the variability in neighborhood settings (e.g., including low- income, high-risk urban neighborhoods; middle-class suburban neighborhoods; and rural, farm-based neighborhoods) (Eccles, Wo, & Peck, 2006; Wong, Eccles & Sameroff, 2003).

Utilizing the MADICS dataset, Chavous et al. (2008), Cogburn et al. (2011), Richardson et al. (2014) and Wong et al. (2003) found low frequencies of Black adolescents' perceptions of in-school racial discrimination from teachers and from peers in Black adolescents from 7<sup>th</sup>, 8<sup>th</sup> and 11<sup>th</sup> grade. These frequencies ranged from 1.43 for 11<sup>th</sup> graders to 1.62 for 11<sup>th</sup> graders on the response scale (1 = never to 5 = everyday). Similar to research assessing racial discrimination outside of the school, these researchers also found associations between in-school racial discrimination and academic outcomes including: grades (Chavous et al., 2008; Richardson et

al., 2014), school importance (Chavous et al., 2008; Cogburn et al. 2011), academic self-concept (Richardson et al., 2014), achievement motivation and academic self-competency beliefs (Wong et al., 2003).

Recent studies by Benner & Graham (2013) and Dotterer, McHale, & Crouter (2009) provide some evidence for the validity of findings from MADICS studies. Benner & Graham (2013) found that experiences of in-school racial discrimination from teachers and from their peers were negatively associated with their grades and student reports of school engagement in a racially/ethnically diverse (61% Latino (primarily of Mexican origin), 24% African American, and 15% Asian American (primarily Korean, Chinese)) sample of 876 eleventh grade students. Within a sample of 148 Black sixth through twelfth graders, Dotterer et al. (2009) found that perceptions of discrimination by peers and teachers were related to lower academic engagement (measured by school self-esteem and school bonding). However, these studies were dissimilar to research using the MADICS. Indeed, neither of these studies utilized the MADICS measure of in-school racial discrimination or did not focus on early adolescents as in the Benner & Graham (2013) study.

Undoubtedly, research findings on in-school racial discrimination has contributed to our understanding of how these experiences relate to adolescents' outcomes. Yet, there are limitations to the current research literature. While there is some evidence outside of MADICS research supporting the finding that in-school racial discrimination is associated with Black adolescents' academic outcomes, given the unique racial makeup of the school population, it is possible that findings from the MADICS may not be replicated in different Black adolescents. More research is needed to confirm findings regarding the association between in-school racial discrimination and adolescents' academic outcomes.

The current study builds on previous research and contributes to the literature on Black adolescents' in-school racial discrimination experiences. I examine the association between in-school racial discrimination from teachers and peers and adolescents' self-reported grades and the association between in-school racial discrimination and adolescents' reports of academic persistence in a sample of Black adolescents. The sample assessed the racial discrimination of adolescents that are not from the MADICS and thus advances the literature on Black adolescents' in-school racial discrimination experiences.

### **Protective Factors and In-school Racial Discrimination**

In keeping with risk and resilience frameworks, researchers have sought to identify factors that protect adolescents from the negative effects of racial discrimination (Brown & Tylka, 2011; Smalls et al., 2007; Sellers et al., 2006). As noted in the previous chapter, scholars have classified protective factors into three categories: personal, family and environmental (Benard, 1991). As discussed in the previous chapter, although scholars have identified multiple categories of protective factors, this literature is limited because it has focused primarily on personal and family protective factors (Benard, 1991). A review of the literature on protective factors by Fergus and Zimmerman (2005) suggests that few studies have sought to identify environmental protective factors. There has also been a dearth of research on protective factors within the school environment. Given the vital role that schools play in the lives of children and adolescents (e.g., Dobbie & Fryer, 2011), it is important to consider ways that schools can protect students from the negative effects of racial discrimination on academic outcomes. When compared to the research on protective factors at the personal and family level, relatively little research has examined environmental protective factors. The limited focus on protective factors in the environment means that relatively little is known about the ways that schools may disrupt

the link between in-school racial discrimination and adolescents' outcomes. More research assessing possible environmental protective factors in schools is needed.

### *Teacher Support and Adolescents' Academic Outcomes*

In the current study, I examine whether the teacher support dimension of school social climate is an environmental protective factor within schools. A burgeoning research literature has examined adolescents' perceptions of school social climate, including their perceptions about whether their teachers support them (Cohen et al., 2009; Kuperminc, Leadbeater, Emmons, & Blatt, 1997; Lee, 2012; Thapa et al., 2012). These findings indicate that teacher support is an important component of adolescents' perceptions of school social climate. Adolescents' perceptions of teacher support refer to their views about the ways in which teachers help, befriends and shows interest in student. In addition, because adolescence is a time when individuals spend more time away from home and away from their parents, relations with non-parent adults (e.g., coaches and teachers) increase in their importance and influence on adolescent development (Eccles, Midgley, Wigfield, Buchanan, Reuman, Flanagan, & Mac Iver, 1993; Hamm & Zhang, 2010).

Several studies have found that teacher support is positively associated with self-concept, school adjustment and grades (Hopson & Weldon, 2011; Kuperminc, Leadbeater, & Blatt, 2001; Way, Reddy, & Rhodes, 2007; Zullig, Huebner, & Patton, 2011). For example, Way, Reddy, & Rhodes (2007) examined the role of perceptions of various aspects of school social climate including teacher support on adolescents' outcomes in a sample of 1451 middle school students. Findings indicated that adolescents who perceived more teacher support had more positive psychological and behavioral adjustment. Similarly, a study by Kelly & Zhang (2016) found that

teacher support was positively associated with adolescents' engagement in math and science courses in a nationally representative sample of 25,210 students in 9<sup>th</sup> and 11<sup>th</sup> grade.

Much of the research examining adolescents' perceptions of school social climate in general, and teacher support in particular, has been conducted with predominantly White samples (e.g., Kuperminc et al., 2001; Hopson & Lee, 2011; Way et al., 2007; Zullig et al., 2011).

Research that has included Black students suggests that Black adolescents perceive their teachers as less supportive than their White peers perceive them to be (Bottiani, Bradshaw, & Mendelson, 2016). For example, a recent study by Bottiani, Bradshaw, & Mendelson (2016) examined whether there were racial differences in adolescents' perceptions of support from adults in their school among a group of Black and White high school students (N = 19,726, 35.8 % Black). Specifically, these researchers examined the extent to which adolescents perceived adults in the school, including teachers and school administrators as caring, equitable and had high expectations for students in the school. The findings from this study indicated that Black adolescents perceived that adults in the school were less supportive than their White peers.

Despite racial differences in adolescents' perceptions of teacher support, evidence suggests that teacher support is positively associated with White and Black adolescents' academic outcomes (Konold, Cornell, Shukla, & Huang, 2016; Kuperminc et al., 2001; Kuperminc et al., 1997). For instance, Zullig, Huebner, & Patton (2011) assessed the association between each of eight dimensions of school social climate, including student-teacher relationships, a construct that is conceptually similar to teacher support, and adolescents' reports of school satisfaction for a sample of 2,049 middle and high school students (White/Non-Hispanic 84.0%), Other (5.4%), Black (2.3%), and Asian (2.2%). Findings from this study



indicated that student-teacher relationships explained more variance in adolescents' school satisfaction reports than any of the other dimensions of school social climate.

### *Teacher Support as a Protective Factor*

Adolescents' perceptions of teacher support have been found to be a protective factor for adolescents exposed to risk (Cohen et al., 2009; Hopson & Lee, 2011; Kuperminc et al., 2001; Wang & Eccles, 2012). Much of the research showing that teacher support is a protective factor has focused on the ways in which it disrupts the association between risk and adolescents' behavior and psychological outcomes. Specifically, studies have found that when adolescents who have been exposed to risk perceive more teacher support, they have better behavioral outcomes than their at-risk peers who perceive less support. For instance, a study by Hopson & Lee (2011) found that for adolescents who perceived their teachers as supportive, the association between living in poor neighborhoods and behavior was smaller than for adolescents who perceived less teacher support.

Similarly, research by Kuperminc and colleagues (2001) found that teacher support serves as a protective factor for adolescents exposed to psychological risk. Kuperminc and colleagues (2001) found that adolescents' perceptions of the teacher support moderated the effects of self-criticism on both internalizing and externalizing problems in sample of sixth- and seventh-grade students. Finally, research by Wang & Dishion (2012) provide further evidence of teacher support as a buffer between risk and adolescents' behavior. These researchers found that teacher support moderated the association between deviant peer affiliation and adolescent problem behavior in a sample of 1,030 8<sup>th</sup> graders. Specifically, Wang & Dishion found that the association between deviant peer affiliation and adolescent problem behavior was reduced for adolescents who perceived more teacher support.

Most of the research on teacher support's protective effects has focused on the ways in which it mitigates the association between risk and adolescents' psychological outcomes and behavior. On the other hand, there is some research suggesting that adolescents' perceptions of support from people within the school serves as a buffer between risk and their academic outcomes. Illustratively, a study by Malecki & Demaray (2007) found that support from parents and classmates served as a buffer between the risk associated with poverty status and adolescents' grades. In their study, Malecki & Demaray (2007) examined whether social support moderated the association between SES and adolescents' grades in a sample of 164 middle school students. While teacher support was not a buffer in Malecki & Demaray's (2007) study, their finding that support from classmates was a buffer provides some indication that adolescents' beliefs about support from people within their school serve as buffers provides some indication that buffers exist within the school context. Additionally, although findings on teacher support do not specifically address teacher support's role as a protective factor for academic outcomes, the link between psychological outcomes/ behavior and adolescents' grades suggest that teacher support may be a protective factor for adolescents' outcomes. That is, past research has found behaviors such as internalizing and externalizing are linked to grades, so reductions in these negative behaviors increase the likelihood of improvements in adolescents' academic outcomes.

### *Conclusion*

The literature on Black adolescents' school experiences provides compelling evidence that in-school racial discrimination is a risk factor for academic outcomes (Chavous et al., 2008; Cogburn et al., 2011; Richardson et al., 2014; Smith & Fincham, 2015; Wong et al., 2003). Past studies have demonstrated that teacher support is beneficial to adolescents' grades and academic

engagement (Bottiani, Bradshaw, & Mendelson, 2016; Lee, 2012; Hopson & Lee, 2011; Hopson & Weldon, 2013; Way, Reddy, & Rhodes, 2007). There is also growing evidence that teacher support may serve as a protective factor for adolescents exposed to risk in their schools. Indeed, studies have shown that teacher support is a significant environmental protective factor for adolescents exposed to risk. Teacher support is related to increases in students' liking of school and improves students' achievement outcomes (Lee, 2012) and reduces the negative impact of risk on psychological outcomes (Cohen et al., 2009; Hopson & Lee, 2011; Kuperminc et al., 2001; Wang & Eccles, 2012).

To date, research has not examined empirically whether teacher support serves as a protective factor for adolescents exposed to in-school racial discrimination. This dissertation seeks to address this gap in the literature by examining whether Black adolescents' perceptions of teacher support, specifically the teacher support dimension, serves as a protective factor for their grades and academic persistence in the face of in-school racial discrimination from teachers and from peers. This study contributes to the literature on the role of environmental protective factors within the school setting.

### **Risk, Protective Factors and Sociodemographic Factors**

As noted in Chapter 1, sociodemographic factors such as gender and SES influence adolescents' experiences in their school. Gender differences in Black adolescents' schooling experiences may be due to gender differences in societal stereotypes and SES differences may be connected to differential access to resources as well as negative stereotyping (Cunningham, 1993; Swanson et al., 2003; Sidanius & Veniegas, 2000). These differences are represented both in the literature on teacher support and in-school racial discrimination. These findings provide evidence to suggest that the ways in which teacher support operates as a potential protective

factor may be different for Black males versus Black females. These findings suggest that teacher support may operate differently as a protective factor for lower SES adolescents as compared to their higher SES counterparts. Thus, an additional goal of this dissertation is to examine whether teacher support's proposed protective effects varied by adolescents' gender or SES.

#### *Gender and In-school Racial Discrimination*

Black male adolescents tend to perceive more in-school discrimination than Black female adolescents (Chavous et al., 2008; Cogburn et al., 2011; Richardson et al., 2014; Smith & Fincham, 2015; Thomas et al., 2009). This finding has been consistent for Black adolescents in middle and high school. For instance, Richardson et al. (2014) found that Black male adolescents reported more racial discrimination from peers and teachers than female participants in a sample of 491 eighth and eleventh grade students. Similarly, Cogburn, and colleagues (2011) examined in-school racial discrimination among Black adolescents in the 8<sup>th</sup> and 11<sup>th</sup> grades and found that males reported more instances of being graded and disciplined more harshly by their teachers than females. Furthermore, males, more than females, believed that others thought of them as less smart because they were Black. Yet, as noted earlier, these findings need to be replicated as the only studies demonstrating gender differences have used the MADICS dataset.

In addition, though somewhat limited, there is evidence that perceptions of racial discrimination's negative influence on outcomes varies by gender (Brody et al., 2006; Chavous et al., 2008; Smith & Fincham, 2008). For instance, Chavous et al. (2008) found that Black adolescents' experiences with in-school racial discrimination were more strongly associated with Black males' academic self-concept and school importance beliefs than for Black females. There is also evidence that gender moderates the association between racial discrimination, outside of

the school, and adolescents' outcomes. Specifically, Brody et al. (2006) found a significant association between racial discrimination and conduct disorder for Black adolescent males in their study but not for Black adolescent females. However, as noted previously, Brody and colleagues did not measure in-school racial discrimination or academic outcomes. This pattern of findings fits into a larger trend in school research in which Black males tend to have more negative experiences in their school than their female adolescent counterparts. Additionally, these findings also underscore the need for more research assessing the moderating role of gender within the association between in-school racial discrimination and academic outcomes.

### *Gender and Teacher Support*

A number of studies have found that gender differences exist in adolescents' perceptions of school social climate, including differences in their perceptions of teacher support. In particular, studies have found that male students tend to perceive the school social climate less positively (Hopson & Lee, 2011; Leadbeater, Sukhawathanakul, Thompson, & Holfeld, 2015; Wang & Dishion, 2012; Way, Reddy, & Rhodes, 2007). For instance, Wang & Dishion (2012) examined several dimensions of school social climate including teacher social support within a sample of 1070 adolescents (54% female and 76% White). The results indicated that female adolescents reported more academic support, better school behavior management, and more teacher support.

Way and colleagues (2007) also found an association between gender and adolescents' perceptions of school social climate. These researchers examined four dimensions of school social climate (i.e., teacher support, peer support, student autonomy in the classroom, and clarity and consistency in school rules and regulations) in a sample of 1,451 adolescents in sixth grade

(54% female and 91% White). Their findings indicated that across all four dimensions of school social climate, female participants had more positive perceptions than their male peers.

Finally, a study by Kuperminc and colleagues (1997) provides evidence that: 1) gender moderates the association between school social climate and adolescents' outcomes and 2) school social climate's protective effects operate differently for Black male adolescents than for Black female adolescents (Kuperminc et al., 1997). First, Kuperminc and colleagues (1997) found that multiple dimensions of school social climate, including teacher support, were related to greater gains in Black males' academic performance but not Black females' academic performance. Second, results indicated that teacher support moderated the association between poverty and teacher reports of behavioral problems for males but not for females. These findings may suggest that although Black males tend to report less support from teachers, they may benefit from perceiving teacher support more than their female peers.

### *Conclusion*

There is growing empirical evidence demonstrating that Black adolescents have somewhat different experiences in their schools depending on their gender. This evidence includes findings that adolescents differ in their perceptions of racial discrimination, the effects of discrimination perceptions on outcomes, and in their perceptions of teacher support (Bottiani et al., 2016; Chavous et al., 2008; Greene, Way, & Pahl, 2006; Smith & Fincham). Moreover, there is evidence that when teacher support serves as a protective factor, its protective effects only operate for Black males (Kuperminc et al., 1997). However, this literature has not examined teacher support's protective effects for academic outcomes (Malecki & Demaray, 2007). To my knowledge, no research has examined teacher support as a protective factor for Black adolescents' academic outcomes. Taken together, past findings suggest that if Black adolescents'

perceptions of teacher support act as a protective factor for academic outcomes, as proposed here, these protective effects may operate differently depending on adolescent gender. Yet, to my knowledge, no studies have examined whether teacher support's protective effects operate differently for male adolescents as compared to Black female adolescents. This dissertation addresses this gap and is the first to investigate whether gender is related to protective factors for in-school racial discrimination.

### *SES Differences in Racial Discrimination and Teacher Support*

Studies on Black adolescents' schooling experiences have found some SES differences in in-school racial discrimination and teacher support (Bottiani, Bradshaw, & Mendelson, 2016; Brody et al., 2006; Chavous et al., 2008; Cohen et al., 2009; Smith & Fincham, 2015). As discussed in the previous chapter, these SES differences represent differences in adolescents' overall school experiences and are likely linked to variations in access to resources.

### *SES and In-school Racial Discrimination*

Scholars have found SES differences in Black adolescents' experiences with in-school discrimination from teachers and from peers (Brody et al., 2006; Chavous et al., 2008; Smith & Fincham, 2015). For example, a longitudinal study by Brody et al. (2006) examined the effect of racial discrimination on the psychological functioning of 714 self-identified African American adolescents from differing socioeconomic backgrounds and racial discrimination was measured using a 13-item daily racial hassles scale. In Brody and colleagues' study, family annual income was used as a proxy for family SES. Results indicated that participants from higher-SES families were more likely to experience racial discrimination at wave 1 when they were 10-12 years old.

Similarly, a study by Smith & Fincham (2015) found SES differences in Black adolescents' experiences with in-school racial discrimination from peers and from teachers.

These researchers examined adolescents' perceptions of in-school racial discrimination in a sample of 711 Black adolescents. In-school racial discrimination from teachers and from peers were measured using a 5-item scale developed by the MADICS research team. The results of Smith and Fincham's study indicated that participants from higher SES backgrounds reported more in-school racial discrimination from both sources than their peers from lower SES backgrounds.

Paradoxically, studies have also found that while Blacks adolescents from lower SES backgrounds report less racial discrimination, these adolescents are more likely to be negatively impacted by racial discrimination than their more privileged counterparts. For instance, Chavous and colleagues (2008) examined the in-school racial discrimination experiences of a sample of Black adolescents from varying SES backgrounds, a composite of family income and primary caregiver's highest level of education. These researchers found that for Black adolescents from lower SES backgrounds, there was a stronger negative association between racial discrimination from teachers and GPA and between racial discrimination from teachers and school importance than for higher SES Blacks. Scholars suggest that Blacks from lower SES backgrounds will be more negatively impacted by racial discrimination than Blacks from higher SES backgrounds because they have fewer resources to deal with risk (Clark et al., 1999).

### *SES and Teacher Support*

Although there is compelling evidence showing gender differences in Black adolescents' perceptions of teacher support, findings on SES differences in teacher support have been somewhat mixed. While some studies have found SES differences in adolescents' perceptions of teacher support, a number of studies have found no differences (Hopson & Lee, 2011;



Kuperminc et al., 1997; Kuperminc et al., 2001; Malecki & Demaray, 2007). One reason for these mixed findings may be related to the fact that SES has been measured in a variety of ways. Studies which have found no SES differences in perceptions of teacher have often used eligibility for a free or reduced-price lunch as a proxy for adolescents' SES. For instance, Hopson and Lee (2011) found that SES was not associated with perceptions of teacher support in a group of 639 adolescents. Likewise, research by Kuperminc et al. (1997), Kuperminc et al. (2001) and Malecki & Demaray (2007) also indicated that SES was not associated with Black adolescents' perceptions of school social climate including their perceptions of teacher support. Harwell & Lebeau (2010) suggest that eligibility for free or reduced-price lunch has limited validity as an indicator of SES as it is a poor representation of household or family resources. Furthermore, students who do not meet eligibility for free or reduced-price lunch does not necessarily have access to significantly more resources than their peers.

Harwell & Lebeau (2010) suggest that income and education are more valid indicators of household resources than eligibility for free or reduced-price lunch. In line with this argument, studies that have showed SES differences in Black adolescents' perceptions of teacher support have used other measures of SES including family income and parents' highest level of education. These studies indicate that adolescents from lower SES backgrounds tend to perceive the climate at their schools less positively than their peers from higher SES backgrounds (Bottiani, Bradshaw, & Mendelson, 2016). Illustratively, the results of a study by Bottiani et al. (2016) examining adolescents' perceptions of support from adults in their school among a group of Black and White high school students (N = 19,726, 35.8 % Black) indicated that adolescents from higher SES backgrounds reported more teacher support than their lower SES peers. Here,

SES was a measure of mother's educational level. This finding was significant for the Black and White adolescents in the sample.

### *Conclusion*

Though not as voluminous as evidence within the literature on gender differences, empirical research has showed that Black adolescents have different schooling experiences based on their SES. Research findings show SES differences in adolescents' perceptions of racial discrimination, the impact of racial discrimination on outcomes and their perceptions of teacher support (Bottiani, Bradshaw, & Mendelson, 2016). Taken together, these findings provide evidence that if Black adolescents' perceptions of teacher support act as a protective factor for academic outcomes, as proposed in this study, these protective effects may operate differently depending on adolescents' SES. Nonetheless, to my knowledge, no studies have tested whether teacher supports' protective effects operate differently across SES. The present study addresses this gap in the literature and is the first to investigate the role of SES on protective factors.

### **Research Questions and Hypotheses**

The current study addresses three sets of research questions. In line with risk and resilience frameworks, the first set of research questions examine whether teacher support serves as a protective factor. Specifically, I test whether the teacher support dimension of school social climate moderates the association between in-school racial discrimination and academic outcomes. This study tests a protective factor model. A protective factor model is typically measured statistically by testing whether a proposed protective factor moderates the association between a risk factor and an outcome. Using this strategy proposed for testing a protective model by Fergus & Zimmerman (2005), I examine whether Black adolescents' perceptions of teacher

support moderates the association between in-school racial discrimination and their academic outcomes.

I hypothesize that teacher support will moderate the association between in-school racial discrimination from teachers and adolescents' grades and academic persistence (i.e., extent to which one persists at academic tasks in the face of problems). Similarly, I hypothesize that teacher support will moderate the association between in-school racial discrimination from peers and adolescents' grades and academic persistence. Prior research has demonstrated that adolescents' perceptions of school social climate, including their perceptions of teacher support, are related to their psychological and academic outcomes (e.g., Cohen et al., 2009; Kuperminc et al., 2001; Thapa, Cohen, Higgins-Alessandro & Guffrey, 2012; Wang & Dishion, 2012; Way, Reddy, & Rhodes, 2007; Zullig & Patton, 2011). Studies have also shown that perceptions of teacher support serve as a protective factor for adolescents' psychological outcomes against risk (e.g., Hopson & Lee, 2011; Kuperminc et al., 2001; Leadbeater et al., 2015; Wang & Dishion, 2012; Way et al., 2007). However, to my knowledge, no studies have examined whether teacher support is a protective factor for adolescents' academic outcomes.

Given research suggesting that adolescents who perceive their teachers as more supportive, even adolescents who have been exposed to risk, have better psychological outcomes than their peers who perceive less support, it is plausible that teacher support may be a protective factor relative to adolescents' academic outcomes. Past studies have found that grades and academic persistence are particularly susceptible to the negative influence of in-school racial discrimination. On the other hand, prior research has also shown that these outcomes are positively associated with teacher support. Therefore, in this study, I examine teacher support is a protective factor for adolescents' grades and academic persistence.

The next set of research questions assessed whether adolescents' gender plays a role in teacher support's proposed protective effects. These questions enquired about whether the proposed moderating effects of teacher support were different for males as compared to the females. I expect that the males in the sample will benefit from positive perceptions of teacher support more than the female adolescents. Specifically, I anticipate that teacher support will moderate the associations between in-school racial discrimination from teachers/peers and both academic outcomes for the males, but not the females in the sample. Prior research has shown that Black males and females have different experiences in their schools (Chavous et al., 2008; Wang & Dishion, 2012; Way, Reddy, & Rhodes, 2007). These studies have demonstrated that, in general, Black males tend to receive harsher treatment in their schools including experiencing more in-school racial discrimination from teachers and from peers and perceive less teacher support (Chavous et al., 2008; Kuperminc et al., 1997; Wang & Dishion, 2012; Way, Reddy, & Rhodes, 2007). Kuperminc and colleagues (1997) suggest that being treated harshly may make Black males more attuned to their teachers and therefore more responsive to both negative (e.g., unfair punishment) and positive experiences (e.g., teacher support). Illustratively, Kuperminc et al. (1997) found that teacher support moderated the association between risk associated with poverty and teacher reports of behavioral for males but not for females in their study. This dissertation builds upon Kuperminc and colleagues work.

The final set of research questions assess whether the hypothesized protective effects of teacher support were different for Black adolescents from lower SES backgrounds as compared to their peers from higher SES backgrounds. I anticipate that Black adolescents' perceptions of teacher support will moderate the association between in-school racial discrimination and academic outcomes for adolescents from lower SES backgrounds but not their higher SES peers.

Studies have demonstrated that adolescents from higher SES backgrounds tend to report more in-school racial discrimination, but they also have more teacher support than their lower SES Black peers (Cohen et al., 2009; Kuperminc et al., 2001; Thapa et al., 2012; Wang & Dishion, 2012; Way et al., 2007; Zullig & Patton, 2011). On the other hand, the strength of the association between in-school racial discrimination and academic outcomes has been found to be stronger for lower SES Black adolescents than their peers from higher SES backgrounds (Chavous et al., 2008; Smith & Fincham, 2015). As noted previously, Clark and colleagues (1999) suggested that Blacks from lower SES backgrounds are more negatively affected by in-school racial discrimination likely suggests that these students have less access to resources than their high SES peers. Finally, while no studies have examined whether teacher support's protective effects differed based on adolescents' SES, it is plausible that Black adolescents from lower SES backgrounds will benefit from perceiving more teacher support.

## CHAPTER III

### Methods

Data for this dissertation came from a subsample of a longitudinal study conducted by researchers at the Center for the Study of Black Youth in Context (CSBYC) at the University of Michigan. The central aim of the longitudinal study was to investigate the ecological, cultural, racial, and familial contexts that influence the social development of Black middle and high school students from three racially and economically different communities within Southeastern Michigan. These data were collected from three middle and three high schools located in three suburban school districts near a large Midwestern city. Schools were chosen based on their varying racial and socioeconomic composition among the student population.

#### *Participants*

Data were collected over 4 years (2011-2014) with 365 seventh grade students completing surveys: 60 in year 1, 90 in year 2, 109 in year 3, and 105 in year 4. The mean age of the sample was 12.5 years (SD=0.6, Range= 12-14 years old). The sample for the current study consisted of 180 males (49%) and 185 females (50.7%). These data were collected with three middle schools with different varying racial and socioeconomic composition.

#### *School 1*

During the first year that data were collected, 538 students were enrolled in School 1. The majority of students at School 1 were Black- 93% African-American or Black, 4% were White, 1% were Asian, 1% were Hispanic and 1% were Multiracial. Two hundred and seven students in

the current sample attended School 1. Twenty percent of parents from school 1 who took the survey reported that they had at least a bachelor's degree.

### *School 2*

During year 1 of data collection, seven hundred and thirty-five students were enrolled in School 2. There were almost equal numbers of Black and White students in School 2. Thirty-nine percent of the students were African-American or Black students, 44% were White, 12 % were Asian, 3% were multiracial and 1 % were Hispanic (source: MI Dept of Education, 2012-2013). One hundred and three students from the current sample used in this dissertation attended School 2. Fifty-five percent of parents from school 2 who took the survey reported having at least a bachelor's degree.

### *School 3*

School 3 has an enrollment of 776 students at the start of data collection. This school had the least number of African-American students (20%). Sixty-three percent of the students attending School 3 were White, 9 % were Asian, 6 % were Hispanic, 2% were Multiracial and 1 % were American Indian/Alaska Native (source: MI Dept of Education, 2012-2013). Of the students taking part in this dissertation study, fifty-four attended School 3. Forty-four percent of parents from school 3 who took the survey reported that they had at least a bachelor's degree.

## **Procedure**

Participants for this study self-identified as African American/Black and were recruited through a variety of methods: emails to parents, during students' lunch periods in classrooms, and consent forms sent home and distributed at PTA meetings. Consent from parents and assent from adolescents were collected before survey administration. Data were collected from students and their parents through self-administered questionnaires. Surveys were completed online at

school or elsewhere and took approximately forty-five minutes to complete. All student participants received \$20 gift cards for completing the survey.

## Measures

Data for each of the following measures were collected through self-report questionnaires. A summary of each measure is provided below.

***Perceptions of in-school racial discrimination.*** Students were asked to report on their experiences of racial discrimination at school with subscales assessing discrimination by peers and discrimination by teachers. This scale was developed by the research team from the Maryland Adolescent Development in Context study (Wong, Eccles, & Sameroff, 2003) and they have been used in previous studies (Chavous et al., 2008; Cogburn et al., 2011; Richardson et al., 2014).

Student perceptions of in-school discrimination from *peers* were measured using a three-item scale. Participants received the prompt: “At school, how often do you feel that”. This prompt was followed by the statements: “you get in fights with some kids because you are Black”, “you are not picked for certain teams or other school activities because you are Black”, and “kids do not want to hang out with you because you are Black”. Adolescents’ perceptions of in-school discrimination from *teachers* were measured using a four-item scale. The items in this scale included: “Teachers call on you less often than they call on other kids because you are Black?”, “Teachers grade you harder than they grade other kids because you are Black?”, “You get disciplined more harshly by teachers than other kids do because you are Black?”.

For both scales, participants responded to prompts using a 5-point Likert-type scale with response options ranging from 1 (*Never*) to 5 (*Almost every day*). Composite scores for the perceptions of in-school racial discrimination from peers and from teachers were created by



computing the means of the three items and of the four items respectively. Higher scores are suggestive of more experiences with discrimination from peers or from teachers respectively. Previous research utilizing these scales reported a Cronbach's alpha of 0.86 for the in-school racial discrimination from peers scale and an alpha of 0.88 for the teacher discrimination scale (Wong, Eccles, & Sameroff, 2003). In the current study, the Cronbach's alpha for the discrimination from peers composite scale was 0.88 and 0.91 for the discrimination from teachers composite scale.

***Perceptions of teacher support.*** Participant perceptions of teacher support, a measure of how well the students felt supported by teachers, were measured using a composite scale, which consisted of six-items. These items were taken from a 45-item scale meant to assess various aspects of school climate and included a measure of teacher support (Brand, Felner, Shim, Seitsinger, & Dumas, 2003). The six items used in this study were specific to teacher support: "Teachers go out of their way to help students", "If students want to talk about something, teachers will find time to do it", "Teachers help students to organize their work", "Students really enjoy their classes", "Teachers take a personal interest in students", "Teachers have high expectations of all students". Participants responded using a 5-point Likert scale from 1 (*Never*) to 5 (*Always*). Previous research has found moderate to high internal consistency using this subscale (Thapa et al., 2012). The Cronbach's alpha for this teacher support measure in the current sample was .86.

***Academic outcomes.*** Grades and academic persistence were assessed as academic outcomes.

***Grades.*** Students reported their grades by responding to a single question, which asked- "Which category best describes your average grade last year?" Students responded by using a 9-

point scale where “A (93-100)” was the highest grade a student could report to “D (69 or below)”, the lowest grade a student could report.

*Academic persistence.* Academic persistence was a measure of the extent to which the participant persisted with academic tasks in the face of difficulty or initial failure (Wellborn, 1991). This construct was measured using a four-item scale. The items for this scale were, “If I can't get a problem right the first time, I just keep trying”; “When I do badly on a test, I work harder next time”; “If I don't understand something right away, I stop trying”; “When I have trouble understanding something, I give up.” The response options for this measure ranged from 1 (*Not at all true*) to 4 (*Very true*). All items were coded so that higher scores were indicative of more persistence. A composite score was then created by calculating the mean of these items. Previous research has found moderate to high Cronbach's alphas using this subscale (Neblett, Philip, Cogburn, & Sellers, 2006; Smalls, White, Chavous, & Sellers, 2007). The Cronbach's alpha for this composite scale in the current sample was 0.71.

*Socioeconomic status.* Parents' highest level of education of the parent who responded to the survey was used as a proxy for family SES. Parents reported their highest level of education using a scale ranging from 1 (*Junior high or less*) to 6 (*Ph.D./M.D./J.D.*). For all analyses, I dichotomized parents' highest level of education where parents who had Bachelor's degree or higher were in the higher SES group and parents who did not have a Bachelor's degree were included in the lower SES group.

Family SES is generally conceptualized and measured as an index of income, education and occupation and is meant to represent access to various types of resources. These resources include money, knowledge and familiarity with the cultural practices of the dominant and social networks that can provide access to other resources (Bourdieu, 1986). Previous research has

shown that parents' education is an appropriate proxy for family SES because it operates similarly as other measure of family SES including family income in terms of indexing access to important resources and its impact on their children's outcomes (Davis-Kean, 2005; Entwistle & Alexander, 1995; Entwistle, Alexander, & Olson, 1997). A review article by Sirin (2005) notes that parent education is considered one of the most stable aspects of family SES because it is typically established at an early age and tends to remain unchanged over time. Researchers have also found that like composite measures of family SES (i.e., some combination of family income, parent education and occupational prestige), parent education is associated with their children's academic outcomes including their grades, test scores and academically related behaviors (e.g., Davis-Kean, 2005). For instance, a review by Entwistle, Alexander, & Olson (2010) suggested that across parents from different races composite measures of family SES that included income, parent education and occupational prestige were associated with academic outcomes including grades and standardized test scores. Similarly, research by Davis-Kean (2005) demonstrated that parent's highest level of education was related to their children's standardized test scores in a sample of eight hundred and sixty-eight 8-12-year-olds (49% White and 47% African American). Therefore, there is adequate evidence to suggest that the measure of SES used in this dissertation is a valid indicator of traditional measures of SES.

Within the present study, utilizing and dichotomizing the parent education measure into a Bachelor's and No Bachelor's group provided the opportunity to examine differences among adolescents from families who may have appreciable differences in access to resources. More access to resources provided by parents' educational level may mean that adolescents from higher SES backgrounds may have different experiences than their peers from lower SES backgrounds (Bourdieu, 1986; Entwistle, Alexander, & Olson, 2010). For example, studies have

shown that higher SES is related to greater access to socially and cognitively enriching activities such as family trips to museums, zoos, science centers, historical sites and the purchase of books, games, and computers as well as access to higher quality schools (Davis-Kean, 2005; Entwisle & Alexander, 1995; Entwisle, Alexander, & Olson, 1997).

## **CHAPTER IV**

### **Results**

This chapter presents analyses performed to examine whether Black adolescents' perceptions of teacher support served as a protective factor against the negative effects of in-school racial discrimination on academic outcomes. In addition, the analyses examined whether these protective effects were different for Black adolescent males and females and for participants from lower and higher SES backgrounds. In this chapter, I first present the results of descriptive statistics of key study constructs (i.e., in-school racial discrimination from peers and in-school racial discrimination from teachers, teacher support, academic persistence and grades). I then present the results of the study's main research questions, which examined whether teacher support moderated the association between in-school racial discrimination and academic outcomes. Lastly, I present the findings from analyses that examined whether teacher support's proposed protective effects differed by gender. I then present findings that investigated whether teacher support's proposed protective effects differed by SES.

#### **Descriptive Analysis**

One-way analysis of variance (ANOVA) models were used for preliminary descriptive analyses. Given that data were collected from three different schools, the first set of analyses assessed whether there were school level differences in key study constructs (i.e., peer and in-school racial discrimination from teachers, teacher support, academic persistence and grades). A summary of these results is reported in Table 1. The means for the overall sample were (mean= 1.75) in-school racial discrimination from teachers and (mean= 1.49) from peers on the response

scale (1 (*Never*) to 5 (*Almost every day*)). Nearly half (49%) of participants reported that they had experienced racial discrimination from teachers and 40% from peers.

Analyses indicated that participants from School 2 (mean= 1.90) and School 3 (mean= 2.14) reported significantly more in-school racial discrimination from teachers than School 1 (mean= 1.56) ( $F(2, 350) = 7.568, p = .001$ ), the school with the highest percentage of Black participants. Also, participants attending School 3 reported significantly less teacher support than School 2 and School 1 ( $F(2, 336) = 6.661, p = .001$ ). Participants in School 3 (mean= 6.34) reported significantly lower grades than School 2 (mean= 7.24) and School 1 (mean= 7.20) ( $F(2, 355) = 4.343, p = .014$ ). To account for school-level differences in in-school racial discrimination and teacher support, I created a dummy variable for schools and used as a control variable in all regression analyses.

In addition, since data were collected over four different years, ANOVAs were conducted to determine if the year the survey was taken had any impact on key study constructs. By and large, there were few differences in key study constructs related to survey. Results showed that only in-school racial discrimination from peers differed between year 3 and year 4 (see Table 2). Therefore, none of the subsequent analyses included the survey year.

### *In-school Racial Discrimination*

Male participants reported significantly more in-school racial discrimination from peers (mean = 1.62 for males to 1.33 for females) ( $F(1, 349) = 6.270, p < .05$ ) and from teachers (mean = 1.89 for males and 1.53 for females) than female participants ( $F(1, 350) = 7.137, p < .01$ ). Participants from higher SES backgrounds (mean = 6.96) also reported higher grades than their counterparts (mean = 7.40),  $F(1, 340) = .091, p = .05$  (see Table 3).

### *Teacher Support*

The mean for the teacher support scale was 3.49 on the response scale (1 (*Never*) to 5 (*Always*)). Analyses revealed no significant differences between males and females ( $F(1, 336) = .047, p > .05$ ) or by SES ( $F(1, 321) = 1.529, p > .05$ ).

#### *Academic Outcomes*

The mean score for the academic persistence scale was 3.29 on a four-point scale. There were no significant gender differences in reports of academic persistence ( $F(1, 360) = .094, p > .05$ ) or SES ( $F(1, 345) = .091, p > .05$ ). Participants in this sample reported a relatively high mean for grades and there were no significant gender differences ( $F(1, 355) = 2.409, p > .05$ ) or SES ( $F(1, 340) = .091, p > .05$ ) in participants' grades.

#### *Correlations*

Pearson product-moment correlations among key study variables were conducted for the overall sample separately by gender (see Tables 5 & 6) and SES subgroups (see Tables 7 & 8). Within the overall sample, the bivariate analyses indicate several significant relationships among key variables in this study.

#### *Correlations between Academic Outcomes and In-school Racial Discrimination*

Among female participants, there were significant correlations between in-school racial discrimination from teachers and academic persistence ( $r = -.362, p < .01$ ) and between in-school racial discrimination from teachers and grades ( $r = -.234, p < .01$ ). For male participants, the correlation between in-school racial discrimination from teachers and academic persistence was significant ( $r = -.395, p < .01$ ). Also among male participants, in-school racial discrimination from teachers was not significantly correlated with grades ( $r = -.074$ ).

In-school racial discrimination from teachers was significantly related to academic persistence ( $r = -.384, p < .01$ ) and ( $r = -.345, p < .01$ ) for both SES groups. For participants from

higher SES backgrounds, in-school racial discrimination from teachers was negatively associated with grades ( $r = -.367, p < .01$ ). Conversely, the correlation between in-school racial discrimination from teachers and grades for participants from lower SES backgrounds was non-significant ( $r = -.060$ ). A similar pattern emerged for in-school racial discrimination from peers such that in-school racial discrimination from peers was negatively associated with grades among participants from higher SES backgrounds ( $r = -.318, p < .01$ ), but the correlation between in-school racial discrimination from peers and grades for participants from lower SES backgrounds was non-significant ( $r = .032$ ).

#### *Correlations between Teacher support and In-school Racial Discrimination*

Pearson product-moment correlations conducted to examine the association between teacher support and study variables revealed notable correlations. For female participants, there were significant correlations between in-school racial discrimination from peers and teacher support ( $r = -.192, p < .01$ ) and in-school racial discrimination from teachers and teacher support ( $r = -.262, p < .01$ ). Similarly, for male participants, the correlation between in-school racial discrimination from teachers and teacher support was significant ( $r = -.253, p < .01$ ). However, the correlation between in-school racial discrimination from peers and teacher support was not significant ( $r = -.144$ ). Among participants from higher SES backgrounds, there was a significant correlation between in-school racial discrimination from teachers and teacher support ( $r = -.222, p < .01$ ). Likewise, among participants from lower SES backgrounds, the association between in-school racial discrimination from peers and teacher support was significant ( $r = -.266, p < .01$ ).

#### *Correlations between Teacher support and Academic Outcomes*

Analyses revealed notable correlations between teacher support and the two academic outcomes examined. Among male and female participants, there were positive correlations



between teacher support and academic persistence for male ( $r = .223, p < .01$ ) and for female ( $r = .233, p < .01$ ) participants. There were also significant correlations between teacher support and grades among male ( $r = .170, p < .05$ ) and female participants ( $r = .221, p < .01$ ). For participants from lower SES backgrounds, there was a positive correlation between teacher support and academic persistence ( $r = .221, p < .01$ ). There was also a positive association between teacher support and grades ( $r = .216, p < .01$ ). Finally, among participants from higher SES backgrounds, there was a positive correlation between teacher support and academic persistence ( $r = .256, p < .01$ ). Conversely, there was a non-significant correlation between teacher support and grades among participants from higher SES backgrounds ( $r = 0.123$ ).

#### *Summary of Preliminary Analyses*

Preliminary analyses supported previous research which indicated that in-school racial discrimination differed between males and females (e.g., Chavous et al, 2008). Specifically, males reported more in-school racial discrimination from teachers as well as from peers than did females. On the other hand, participant reports of in-school racial discrimination from either teachers or peers did not appear to differ by SES background. Correlations between teacher support and academic outcomes also support findings from past studies, which showed teacher support to be positively correlated with academic persistence and grades in males and females, and in participants from lower and higher SES backgrounds.

#### *Teacher Support, In-school Racial Discrimination and Academic Outcomes*

Several hierarchical linear regressions were used to address the main study aims. In hierarchical linear regression, variables are entered into the regression in multiple steps. This method allows researchers to ascertain whether constructs of interest explained any variance over and above that already explained by the controls. In each of the regressions, I used procedures

outlined by Aiken and West (1991) and Cohen and Cohen (1983) to examine the higher order interactions. Key study independent variables were mean centered before they were entered into the regression models. For each regression, the school variable was dummy coded and entered into the regression as a statistical control.

Hierarchical linear regressions were used to examine whether teacher support moderated the association between each of the in-school racial discrimination measures (i.e., in-school racial discrimination from peers and in-school racial discrimination from teachers) and the two academic outcomes (i.e., academic persistence and grades). One regression was conducted to examine whether teacher support moderated the association between in-school racial discrimination from peers and grades or the association between in-school racial discrimination from teachers and grades. Another regression was conducted to assess whether teacher support moderated the association between in-school racial discrimination from peers and academic persistence or the association between in-school racial discrimination from teachers and academic persistence. Finally, since the present study was interested in ascertaining whether there were gender or SES differences in teacher support's proposed protective effects, separate regressions were conducted for males and females and then for lower SES participants and higher SES participants.

#### *Teacher support, In-school Racial Discrimination and Academic Persistence*

The first regression examined whether teacher support moderated the association between in-school discrimination from peers and teachers and academic persistence (see Table 9). Gender, SES, and the dummy coded school variable were entered into the regression as statistical controls in the first step of the regression while academic persistence was the dependent variable. Only 3 % of the variance in academic persistence ( $F(4, 305) = .029, p = .064$ ) was explained by

the first step and none of the main effects were significant. The next step of the regression assessed in-school racial discrimination from peers, in-school racial discrimination from teachers, and teacher support as predictors of academic persistence. This step was significant and accounted for an additional 19% of the variance in academic persistence ( $F(7, 298) = 24.004, p < .01$ ). In-school racial discrimination from peers, but not from teachers, was negatively associated with academic persistence ( $\beta = -.372, p < .01$ ). Finally, teacher support was positively associated with academic persistence ( $\beta = .151, p < .01$ ).

To examine whether teacher support moderated the association between in-school racial discrimination and academic persistence, interaction terms for in-school racial discrimination from peers and teacher support as well as for in-school racial discrimination from teachers and teacher support were computed and entered into the final step of the regression as independent variables. This step was not significant and explained only an additional 1% of the variance in academic persistence ( $F(9, 296) = 1.697, p = .185$ ). Contrary to the current study's hypotheses, teacher support did not moderate the association between in-school racial discrimination from peers and in-school racial discrimination from teachers and academic persistence.

#### *Teacher support, In-school Racial Discrimination and Grades*

The next set of analyses examined whether teacher support moderated the association between in-school racial discrimination from teachers and grades as well as the association between in-school racial discrimination from peers and grades (see Table 10). Gender, SES, and the dummy coded school variable were entered into the regression as a statistical control with grades as the dependent variable. The first step of this regression was significant ( $F(4, 298) = 3.184, p < .05$ ) and explained about 4% of the variance in grades. In-school racial discrimination from peers, in-school racial discrimination from teachers and teacher support variables were

added as independent variables in the next step of the regression and accounted for an additional 3% of the variance in grades ( $F(7, 295) = 2.934, p < .05$ ). The results from the second step indicated that neither measure of in-school racial discrimination was related to participants' grades. Teacher support was positively associated with grades ( $\beta = .133, p < .05$ ).

To assess whether teacher support moderated the association between in-school racial discrimination and grades, interaction terms for in-school racial discrimination from peers and teacher support as well as for in-school racial discrimination from teachers and teacher support were computed and included in the final step of the regression as independent variables. This third step did not account for any additional variance in grades ( $F(9, 293) = .254, p = .776$ ). Contrary to the current study's hypotheses, teacher support did not moderate the association between in-school racial discrimination from peers and in-school racial discrimination from teachers and grades.

#### *Males' In-school Racial Discrimination, Teacher Support and Academic Outcomes*

This study also sought to examine whether teacher support's proposed protective effects differed by gender. Separate regressions were tested for male and female participants. The first set of regressions examined teacher support's proposed protective effects for only the male participants. One regression was used to examine the proposed moderating effect of teacher support on the association between in-school racial discrimination from peers and from teachers and academic persistence (see Table 11). A different regression was used to assess the association between in-school racial discrimination from peers and from teachers and grades (see Table 12).

*Academic persistence.* SES and the dummy coded school variable were entered as statistical controls into the first step of this regression and academic persistence was included as

the dependent variable. The first step of the regression explained only 1% of the variance in academic persistence ( $F(3, 144) = .620, p = .603$ ). The next step of the regression in which in-school racial discrimination from peers, in-school racial discrimination from teachers and teacher support variables were added as independent variables was significant ( $F(6, 141) = 13.124, p < .01$ ) and accounted for an additional 22% of the variance in academic persistence. In this step, in-school racial discrimination from peers, but not from teachers, was found to be negatively associated with academic persistence ( $\beta = -.423 < .01$ ). Additionally, teacher support was found to be positively associated with academic persistence ( $\beta = .156, p < .05$ ). The final step was not significant ( $F(8, 139) = 2.106, p = .126$ ) and explained only a further 2% of the variance in academic persistence. In this final step, results indicated that teacher support did not moderate the association between in-school racial discrimination from teachers or from peers and academic persistence, as none of the interaction terms were significant.

*Grades.* SES and the dummy coded school variable were entered as statistical controls into the first step. Grades were included as the dependent variable. The first step of the regression explained 5% of the variance in grades ( $F(3, 144) = 2.303, p = .08$ ). The next step of the regression in which in-school racial discrimination from peers, in-school racial discrimination from teachers and teacher support variables were added as independent variables was not significant ( $F(6, 141) = 1.144, p = .334$ ). This step explained only an additional 2% of the variance. In this step, neither measure of in-school racial discrimination was associated with grades and teacher support was not associated with grades. Next, interaction terms for teacher support and in-school racial discrimination from peers were entered into the regression. This step was not significant ( $F(8, 139) = .314, p = .731$ ) and did not account for any additional variance in grades. Finally, the findings from this regression did not support study hypotheses, as teacher

support did not moderate the association between in-school racial discrimination and grades for female participants.

### *Section Summary*

Within the male subsample, teacher support was found to be positively related to academic persistence but was unrelated to grades. In addition, while in-school racial discrimination from peers was negatively associated with academic persistence for males, in-school racial discrimination from teachers was not associated with their grades or academic persistence. Lastly, results indicated that teacher support did not moderate the association between in-school racial discrimination from teachers and males' academic outcomes or the association between discrimination from peers and males' academic outcomes.

### *Females' In-school Racial Discrimination, Teacher Support and Academic Outcomes*

The next set of analyses assessed the proposed moderating effect of teacher support on the association between in-school racial discrimination and academic outcomes for only the female participants. Separate regressions were used to examine academic persistence and grades as academic outcomes.

*Academic persistence.* The results for the regression predicting academic persistence are presented in Table 13. The first step of this model accounted for only 3% of the variance in academic persistence and was not significant ( $F(3, 154) = 1.679, p = .174$ ). The next step of the model was significant ( $F(6, 152) = 10.049, p < .01$ ) and accounted for 16% of the variance in academic persistence. In-school racial discrimination from peers was negatively associated with academic persistence ( $\beta = -.306, p < .01$ ). Adding the interaction terms for teacher support and in-school racial discrimination from peers, and teacher support and in-school racial discrimination from teachers did not explain any additional variance in academic persistence ( $F(8, 149) = .046,$

$p = .955$ ). The findings from the final step indicated that teacher support did not moderate the association between in-school racial discrimination from peers and academic persistence.

Teacher support also did moderate the association between in-school racial discrimination from teachers and academic persistence.

*Grades.* The results for the regression predicting grades are reported in Table 14. The first step of this model, which included SES and the dummy coded school variable as statistical controls, accounted for only 4% of the variance in grades and was not significant ( $F(3, 151) = 2.176, p = .093$ ). The next step of the model was significant ( $F(6, 148) = 3.397, p < .05$ ) and accounted for an additional 5% of the variance in grades. In this step, in-school racial discrimination from teachers ( $\beta = -.297, p < .05$ ) and from peers ( $\beta = -.228, p < .05$ ) were found to be negatively associated with grades. Interaction terms for teacher support and in-school racial discrimination from peers, and teacher support and in-school racial discrimination from teachers were included in the last step but they did not explain any additional variance in grades ( $F(8, 146) = .258, p = .773$ ). The results did not occur as expected, as teacher support did not moderate the association between in-school racial discrimination from peers and grades. Similarly, teacher support did not moderate the association between in-school racial discrimination from teachers and grades.

### *Section Summary*

Among female participants, in-school racial discrimination from peers was negatively associated with academic persistence. In addition, in-school racial discrimination from teachers and from peers were both negatively associated with grades. Contrary to expectations, in-school racial discrimination from teachers was not associated with academic persistence. Teacher support was not associated with academic persistence or grades for female participants. Lastly,

similar to the analyses for males, for female participants, teacher support did not moderate the association between in-school racial discrimination and academic outcomes.

*Lower SES, In-school Racial Discrimination, Teacher Support and Academic Outcomes*

A regression examining the proposed moderating effect of teacher support on the association between in-school racial discrimination and grades for participants from lower SES backgrounds was conducted. The results are presented in Table 15. Another regression assessing the proposed moderating effect of teacher support on the association between in-school racial discrimination from peers and from teachers and academic persistence was conducted. The findings from this regression are displayed in Table 16.

*Academic persistence.* Gender and the dummy coded school variable were entered into the regression as statistical controls in the first step with academic persistence as the dependent variable. The first step of this regression explained a significant amount of the variance, 9 %, in grades ( $F(3, 107) = 3.204, p < .05$ ). In-school racial discrimination from teachers, in-school racial discrimination from peers and teacher support variables were added as independent variables in the next step of the regression. That step accounted for a significant amount of additional variance, 11 %, in academic persistence ( $F(6, 104) = 4.856, p < .01$ ). In-school racial discrimination from teachers was negatively associated with academic persistence ( $\beta = -.261, p < .05$ ). The interactions terms for teacher support and in-school racial discrimination from peers as well as teacher support and in-school racial discrimination from teachers did not account for any additional variance ( $F(8, 102) = .288, p = .751$ ). The results did not support my hypotheses. In particular, teacher support did not moderate the association between in-school racial discrimination from peers and academic persistence. Likewise, teacher support did not moderate the association between in-school racial discrimination from teachers and academic persistence.



*Grades.* The first step of the regression explained a significant amount of the variance, 6 %, in grades ( $F(3, 109) = 2.445, p = .068$ ). In-school racial discrimination from teachers, in-school racial discrimination from peers and teacher support variables were added as independent variables in the next step of the model. That step accounted for a significant amount of additional variance, 13 %, of the variance in grades ( $F(6, 106) = 5.517, p < .01$ ). These results indicated that in-school racial discrimination from peers was associated with lower grades ( $\beta = -.273, p < .05$ ). The interactions terms for teacher support and in-school racial discrimination from peers as well as teacher support and in-school racial discrimination from teachers accounted for a further 6% of the variance in grades ( $F(8, 104) = 4.496, p < .05$ ). There was no support for study hypotheses as teacher support was not a moderator.

#### *Section Summary*

Results from the lower SES subsample indicated that in-school racial discrimination from teachers was negatively associated with academic persistence and in-school racial discrimination from peers was negatively associated with grades. On the other hand, in-school racial discrimination from peers was not associated with academic persistence, and in-school racial discrimination from teachers was not associated with grades. Teacher support was not associated with either academic persistence or grades. Lastly, findings indicated that teacher support did not moderate the associations between in-school racial discrimination and academic persistence or grades in participants from lower SES backgrounds

#### *Higher SES' In-school Racial discrimination, Teacher support and Academic Outcomes*

The final set of regressions examined the association between in-school racial discrimination and teacher support. They also examine the proposed moderating effect of teacher support on the association between in-school racial discrimination from peers and from teachers

and grades for participants from higher SES backgrounds. Gender and the dummy coded school variable were entered into the regression predicting grades and the model predicting academic persistence as statistical controls.

*Academic persistence.* Findings from the regression predicting academic persistence are displayed in Table 17. The first step of this model was not significant ( $F(3, 189) = 1.392, p = .247$ ) and accounted for only 2% of the variance in academic persistence. The second step of the model included in-school racial discrimination from peers, from in-school racial discrimination teachers and teacher support was significant ( $F(6, 186) = 18.481, p < .05$ ) and accounted for a further 23% of the variance in academic persistence. Only teacher support was associated with academic persistence in this step ( $\beta = .160, p < .05$ ). Adding the interaction terms for teacher support and in-school racial discrimination from peers as well as teacher support and in-school racial discrimination from teachers did not account for any additional variance in academic persistence ( $F(8, 139) = .224, p = .800$ ). There was no support for study hypotheses as teacher support was not a moderator.

*Grades.* The results of the regression predicting grades for participants from higher SES backgrounds are presented in Table 18. The first step of this model was not significant ( $F(3, 188) = 1.776, p = .153$ ) and accounted for only 3% of the variance in grades. The second step of the model included in-school racial discrimination from peers, from in-school racial discrimination teachers and teacher support was significant ( $F(8, 183) = 1.917, p = .150$ ) and accounted for a further 6% of the variance in grades. The results from this step indicated that teacher support was associated with grades ( $\beta = .210, p < .01$ ). The interaction terms for teacher support and in-school racial discrimination from peers as well as teacher support and in-school racial discrimination from teachers accounted for a further 6% of the variance in grades ( $F(13,$

292) = 2.251,  $p = .078$ ). The results from the last step showed that teacher support did not moderate the association between in-school racial discrimination from peers and academic persistence or the association between in-school racial discrimination from teachers and academic persistence.

#### *Section Summary*

Among participants from higher SES backgrounds, teacher support did not moderate the associations between in-school racial discrimination and academic persistence or grades. Neither in-school racial discrimination from teachers nor from peers was associated with academic persistence or grades. In line with prior research, teacher support was positively associated with academic persistence and grades. Lastly, teacher support was not a moderator of the association between in-school racial discrimination and participants' academic outcomes.

#### *Chapter Summary*

Overall, there was very little support for the main study hypotheses examining the moderating role of teacher support. Findings indicated that teacher support did not moderate the association between in-school racial discrimination and academic outcomes for participants from higher SES backgrounds. Teacher support was positively associated with academic persistence and grades. But, contrary to previous research findings, in-school racial discrimination from peers and from teachers were not associated with academic persistence or grades.

## **CHAPTER V**

### **Discussion**

Schools play a vital role in adolescent development (Eccles, Midgley, Wigfield, Buchanan, Reuman, Flanagan, & Mac Iver, 1993; Steinberg, 2005). For many adolescents, schools are places where they first engage with the social world outside of their homes in meaningful ways. Unfortunately, for Black adolescents, schools are also one of the main places that they experience racial discrimination (Fisher et al., 2000; Pachter et al., 2010). For these adolescents, perceiving in-school racial discrimination is a potentially stressful experience that is negatively related to their academic outcomes. Given the harmful effects of in-school racial discrimination on adolescents' outcomes, researchers have sought to uncover factors that protect Black adolescents from these negative effects (Bynum et al., 2008; Harris-Britt et al., 2007; Smalls et al., 2007). While a growing literature has sought to identify protective factors, many questions still remain regarding the ways in which schools may buffer youth from the negative effects of racial discrimination. Thus, guided by risk and resilience frameworks (Fergus & Zimmerman, 2005), this dissertation examined whether teacher support, an environmental protective factor, served as a buffer between in-school racial discrimination and adolescents' academic outcomes.

In this final chapter, I first discuss the variation in adolescents' reports of in-school racial discrimination. I then review main research questions and interpret the study's key findings within the broader literatures on Black adolescents' experiences with in-school racial discrimination and adolescents' perceptions of teacher support. Finally, I conclude the chapter

with a discussion of the limitations of this dissertation, directions for future research in this area, implications for social work, and concluding reflections.

### **Frequency of In-school Racial Discrimination and Teacher Support**

Overall, participants in the current study (i.e., Black adolescents in the seventh grade) reported relatively few instances of in-school racial discrimination from teachers and from peers. In particular, the means for discrimination from both teachers and peers indicated that these experiences occurred less than a few times a year. These findings were similar to previous findings in the literature on Black adolescents' experiences with in-school racial discrimination with older Black adolescents (e.g., Benner & Graham, 2013; Chavous et al., 2008; Cogburn et al., 2011; Green et al., 2006; Richardson et al., 2014; Wong et al., 2003).

While reports of in-school racial discrimination were relatively infrequent in this sample, the finding that even early adolescents perceive racial discrimination may have implications for how these youth deal with discrimination in the future. That is, adolescents' initial experiences with racial discrimination may influence how they perceive and negotiate racial discrimination later in life (Greene et al., 2006; Harrell et al., 2003; Williams & Mohammed, 2009; Williams & Williams-Morris, 2000; Spencer, Dupree & Hartmann, 1997; Spencer, Fegley, Harpalani, & Seaton, 2004). Longitudinal research by Chavous and colleagues (2008) and Green and colleagues (2006) has shown that adolescents' experiences with racial discrimination in middle school are associated with their academic outcomes in later grades. Future research is needed to uncover the ways in which early experiences with racial discrimination relate to later reports of this phenomenon.

Results from the present study also revealed sociodemographic differences in adolescents' reports of in-school racial discrimination and teacher support. These results

confirmed the findings of previous studies that found gender differences in Black adolescents' reports of in-school racial discrimination (e.g., Chavous et al., 2008; Smith & Fincham, 2008). In particular, males in the present study reported more in-school racial discrimination from teachers and from peers than females. This finding is likely connected to the fact that, in general, Black male adolescents are viewed as more threatening than Black female adolescents (Cunningham, 1993; Swanson et al., 2003; Sidanius & Veniegas, 2000). Negative stereotypes about Black males may lead teachers and peers to treat this group more harshly than their female peers.

While previous studies investigating teacher support have found that female adolescents tend to perceive more support, males and females in this study did not differ in their average reports of teacher support. One reason that the current findings differed from previous findings may be related to the age of study participants. Past studies showing gender differences have examined adolescents' perceptions of teacher support in older adolescents while adolescents in the current study were younger adolescents (e.g., Bottiani et al., 2016; Lee, 2012; Hopson & Lee, 2011; Hopson & Weldon, 2013; Way et al., 2007). Thus, it may be that gender differences in teacher support only emerge later in adolescence. Relatedly, scholars have suggested that negative stereotypes about Black males may be intensified after puberty when Black male adolescents more closely resemble adult males (Chavous et al., 2008; Sidanius & Veniegas, 2000). Before Black male adolescents are viewed as adults, they may be treated similarly to Black girls and may perceive similar levels of teacher support. Additional research is needed to illuminate the ways in age influences gender differences in adolescents' perceptions of teacher support.

Lastly, there were no SES differences in adolescents' reports of in-school racial discrimination either from teachers or from peers. This finding was not in line with prior studies

which found that higher SES Black adolescents tend to report more in-school racial discrimination than their lower SES peers (e.g., Brody et al., 2006; Smith & Fincham, 2015). In addition, the current findings did not reveal SES differences in adolescents' reports of teacher support. As noted in Chapter 2, previous studies have had mixed findings, whereas some studies have found SES differences in adolescents' perceptions of teacher support, a number of studies have found no differences (Hopson & Lee, 2011; Kuperminc et al., 1997; Kuperminc et al., 2001; Malecki & Demaray, 2007). The present findings are in line with past studies that have found no SES differences in Black adolescents' experiences with in-school racial discrimination. Most of those studies showing no differences used eligibility for free or reduced-price lunch as a proxy for SES. While I did not use free or reduced-price lunch eligibility a SES proxy, I dichotomized parent education into parents who had a degree versus parents who did not have a degree. It could be that using binary measures of SES masks effects seen in studies using non-binary or continuous SES measure (Harwell & Lebeau, 2010). Future studies should use non-binary measures of SES like income when examined whether SES differences exist in adolescents' perceptions of in-school racial discrimination or teacher support.

### **In-school Racial Discrimination as a Risk Factor**

This dissertation's main aim was to investigate whether teacher support protects against the harmful impact of in-school racial discrimination in a group of Black adolescents (Fergus & Zimmerman, 2005). Since this investigation was guided by risk and resilience frameworks, it was important to first establish whether in-school racial discrimination was a risk factor for the adolescents in this study. The current results confirm some prior studies, but challenge other findings from past studies on school racial discrimination. Results showed that only in-school racial discrimination from peers was associated with academic persistence within the overall

sample. This association remained significant even when controlling for adolescents' gender, SES and the school that they attended. This finding was in line with previous research, which suggested that experiencing in-school racial discrimination from peers was harmful to Black adolescents' academic outcomes (e.g., Chavous et al., 2008; Smith & Fincham, 2015).

In contrast, neither in-school racial discrimination from teachers nor peers was associated with students' grades. In-school racial discrimination from teachers was not associated with academic persistence. These findings were not in line with past studies which associations between in-school racial discrimination, from both teachers and peers, and adolescents' grades and persistence (e.g., Chavous et al., 2008; Smith & Fincham, 2015). When the association between in-school racial discrimination and academic outcomes was assessed among each of the sociodemographic subgroups (i.e., males, females, lower SES and higher SES adolescents) a more nuanced picture emerged. As discussed in more detail later in this chapter, in-school racial discrimination from teachers and peers were risk factors from some sociodemographic subgroups, but not for others.

#### *Teacher Support as a Protective Factor*

Teacher support did not moderate the relationship between discrimination and academic outcomes (i.e., academic persistence and grades). Although teacher support did not act as a protective factor, it did act as a promotive factor. Fergus and Zimmerman (2003) differentiate between a factor that is protective (i.e., reduces the negative effect of risk on outcomes) and promotive (i.e., improves an outcome, but does not impact risk-outcome relationship). Among adolescents in the current study, teacher support was positively associated with academic persistence and with grades.

#### **Sociodemographic Differences in In-school Racial Discrimination and Teacher Support**



Researchers have found gender and SES differences in adolescents' experiences of school-related promotive (e.g., teacher support) and risk factors (e.g., in-school racial discrimination) (Hopson & Lee, 2011; Leadbeater et al., 2015; Wang & Dishion, 2012; Way et al., 2007). In addition, scholars have established that protective factors may operate differently across sociodemographic groups (Kuperminc et al., 1997). This dissertation investigated whether teacher support's proposed protective effects would differ based on adolescents' gender and SES.

### *Gender, In-school Racial Discrimination and Academic Outcomes*

For the males in the sample, in-school racial discrimination from peers was negatively associated with academic persistence, but unrelated to grades. In-school racial discrimination from teachers was not related to grades or academic persistence. Teacher support did not moderate the association between in-school racial discrimination from teachers and either academic outcome for males.

The current results suggest that female adolescents were more negatively affected by in-school racial discrimination than their male counterparts. Indeed, among female adolescents, peer discrimination was negatively associated with both academic outcomes. Teacher discrimination was negatively associated with grades, but was not related to their academic persistence. The finding regarding Black female adolescents' elevated vulnerability relative to males diverged from prior study findings showing that males tend to be at greater risk of being negatively affected by racial discrimination (e.g. Chavous et al., 2008). One possible reason for this discrepancy is that the evidence for boys' vulnerability is primarily derived from studies based solely on MADICS (Chavous et al., 2008; Cogburn et al., 2011; Richardson et al., 2014; Smith & Fincham, 2015; Wong et al., 2003). Because the MADICS data were collected in the

early 1990s and data for the current study were collected within the last five years, historical differences may account for divergent gender findings.

The current zeitgeist surrounding Black male adolescents' racial discrimination experiences may be different than in the 1990s. In 2012, the much-publicized murder of Trayvon Martin and violence against young Black male adolescents have received attention in the media, and renewed interest in racial discrimination (Park, Mclean, Roberts, & Tse, 2012). These incidences of violence against Black male adolescents has implications for Black parents and their sons. There is also empirical evidence that Martin's death, as well as the killings of Tamir Rice and Michael Brown, have influenced some of the ways Black parents talk to their children about race (Thomas & Blackmon, 2015). It is possible that Black parents' increased worry for their sons may lead to differences in racial socialization, which in turn may lead to gender differences in vulnerability to racial discrimination. Indeed, Thomas and Blackmon (2015) found that 86.3% of Black parents were more worried about their sons' safety than their daughters' safety, and almost half of parents reported that Martin's death raised new concerns for their sons. Because of increases in Black parents' fears for their sons' safety, more recent generations of Black male adolescents may be better equipped to deal with racial discrimination than their female contemporaries, relative to earlier cohorts of Black male adolescents and their female peers.

Concerns for boys' safety coupled with gendered patterns of socialization may compound gender differences in adolescents' preparation for racial discrimination. For example, scholars suggest that Black parents socialize their Black sons differently than their daughters (Mandara, Varner & Richman, 2010; Varner & Mandara, 2013). In particular, Black parents tend to convey messages about racial struggle and bias to their sons and messages about racial pride to their

daughters. While there is growing evidence that differential parenting may contribute to gender differences in the ways in which adolescents perceive and negotiate racial discrimination, the process linking parenting to these gender differences is still unclear. More research is needed to uncover the ways in which differential parenting may impact Black adolescents' vulnerability to racial discrimination.

### *Gender and Teacher Support*

Teacher support did not moderate the association between in-school racial discrimination from peers and grades for either the male or female adolescent subsample. These results differed from this dissertation's hypotheses, which predicted that teacher support would be a moderator for males. One reason that findings did not occur as expected may relate to the makeup of the sample. Previous studies by Kuperminc et al. (1997) found that school social climate buffered against risk for Black males, but not females. Researchers proposed that because Black males tend to receive tougher treatment, they may be more attuned to their teachers and therefore more responsive to both negative (e.g., unfair punishment) and positive experiences (e.g., teacher support). Black participants in the Kuperminc et al. (1997) study were chosen based on their eligibility for free or reduced price lunch, while the current study assessed Black adolescents from lower and higher SES backgrounds. It could be that being poor, Black and male may impact adolescents' responsiveness to teachers since this group (i.e., lower SES Black males) likely has the most challenging time in their schools (Howard, 2008). It is unclear what influences Black males' responsiveness to teachers or how it might operate. Future research could explore in more depth how gender and SES may influence Black adolescents' experiences with their teachers.

Results indicated that there were gender differences in the relationship between teacher support and academic outcomes. In line with previous research that found that Black males benefit more from teacher support, among males, teacher support was positively related to academic persistence, but was unrelated to persistence for female adolescents (Kuperminc et al., 1997). These results partially support Kuperminc and colleagues' proposal that Black males may benefit from teacher support more than their female peers (1997). In contrast, teacher support was not related to grades for either males or females (Kuperminc et al., 1997). This finding diverged from previous findings which showed that Black males benefit from teacher support. While the specific reason for this particular finding is unclear, age of the current sample differed from past studies. Past studies investigating whether gender differences exist within the association between teacher support and academic outcomes have utilized samples with older adolescents (Hopson & Lee, 2011; Kuperminc et al., 2001; Wang & Eccles, 2012). As noted earlier, gender differences in teacher support may emerge in later adolescence. Future research could explore in more depth how gender and race influence Black adolescents' experiences with their teachers as well as how the teacher-outcome association operates over time.

#### *SES, In-school Racial Discrimination and Academic Outcomes*

Among adolescents from lower SES backgrounds, in-school racial discrimination was a risk factor for their academic outcomes. Specifically, in-school racial discrimination from teachers was negatively associated with academic persistence, but not with grades. In-school discrimination from peers was negatively associated with grades, but was not associated with academic persistence. Study findings indicated that higher SES adolescents in the present study fared better than their less affluent counterparts (Bottiani et al., 2016; Brody et al., 2008; Smith & Fincham, 2008; Way et al., 2007). For adolescents from higher SES backgrounds, in-school

racial discrimination did not appear to be a risk factor for either academic outcome as neither in-school racial discrimination from teachers nor from peers was associated with academic persistence or grades.

### *SES and Teacher Support*

Teacher support did not moderate the association between in-school racial discrimination and academic outcomes for adolescents from lower or from higher SES backgrounds. As with gender findings, there were SES differences in the relationship between teacher support and academic outcomes. Indeed, results indicated that teacher support was positively related to grades and academic persistence for higher SES adolescents, but was unrelated to academic outcomes for their lower SES peers. To my knowledge, no studies have examined whether the association between teacher support and academic outcomes differed by adolescents' SES. The results of the current study offer initial evidence that higher SES adolescents benefit from perceiving teacher support more than their lower SES peers. The reason for this pattern is not clear from these data. One possible explanation for SES findings may be that, in this study, Black adolescents from higher SES backgrounds attended different schools than their lower SES peers. The school with smallest number of parents with Bachelors' degrees also had the highest percentage of Black students, had the highest ratings of teacher support and lowest ratings of in-school racial discrimination from teachers and from peers.

Attending different schools means that adolescents are exposed to different environments, including differences in teacher quality, per-student spending, access to advanced courses and opportunities for extracurricular activities (Condrón, Tope, Steidl, & Freeman, 2012; Storer, Mienko, Chang, Kang, Miyawaki, & Schultz, 2012). Benner & Crosnoe (2011). It could be that the additional resources that higher SES Black adolescents have help them to be better

able to take advantage of teacher support. Additional research is needed to elucidate the specific ways in which adolescents' SES influences their school experiences, especially when they attend the same schools.

### **Implications for Social Work**

The current findings contribute to the burgeoning research literature showing that Black adolescents benefit academically from feeling supported by their teachers. These results have implications for social work including research on environmental protective factors, as well as for social work's understanding of school-related risk and promotive factors and school policy.

#### *Environmental Protective Factors and School Interventions*

Results indicated that increases in teacher support, an environmental factor, were associated with increases in adolescents' academic persistence and grades. These findings confirm that teachers play an important role in adolescents' academic outcomes. Despite these findings, compared to studies assessing personal and family protective factors, relatively few studies have examined protective factors within the environment. This limited focus on environmental protective factors is also evident in school interventions meant to improve students' academic outcomes.

School interventions such as Making Schools Safe and Parentcorps teach children academic (e.g., critical thinking) or social skills (e.g., emotion regulation) that can be used in the face of risk (e.g., community violence) (Brotman, Dawson-McClure, Calzada, Huang, Kamboukos, Palamar, & Petkova, 2013; Brotman, Calzada, Huang, Kingston, Dawson-McClure, Kamboukos, Rosenfelt, Schwab, & Petkova, 2011; Kilian, Fish, & Maniago, 2007). Although beneficial to adolescents' outcomes, interventions focused on personal and family protective factors may place the burden on students and their families, because they require individuals

and/or their families to expend resources (i.e., time, psychological resources) to be able to overcome risk. On the other hand, interventions focused on the environment may help to alleviate risk without placing unnecessary burden on children. For instance, while the focus of the current study was on identifying protective factors for Black adolescents exposed to racial discrimination, it is also important that those concerned with improving Black adolescents' academic outcomes seek to find ways to reduce adolescents' exposure to risk. Implicit bias refers to basic unconscious cognitive processes (e.g., implicit attitudes and implicit stereotypes) that individuals use to make judgements about the world (Banaji & Heiphetz, 2010; Dovidio, Gaertner, Kawakami, & Hudson, 2002). For example, implicit biases about Blacks held by teachers and peers may lead them to unknowingly discriminate against Black adolescents. There is growing evidence that implicit bias training may help to reduce instances of racial discrimination. Implicit bias training interventions seek to reduce biases by making individuals aware of their existence and then challenging them. These interventions typically employ the following strategies: cultivating awareness of biases, working to increase empathy and empathic communication, and practicing mindfulness. For instance, a study by Forscher, Mitamura, Dix, Cox, & Devine, (2017) demonstrated the long term benefits of implicit bias training intervention two years after the intervention. To date, there have not been long-term successfully implemented bias training interventions in schools. Additional research, including intervention studies in schools, is needed to show if implicit bias training may help to reduce instances of in-school racial discrimination.

#### *Sociodemographic Factors Risk and Promotive Factors*

The results of the current study provide insights into the role of sociodemographic factors in influencing risk and promotive factors on the schooling experiences of Black adolescents. The

dominant narrative about Black male adolescents is that this group is besieged by risk within their schools (Davis, 2008; Rowley, Ross, Lozada, Williams, Gale, & Kurtz-Costes, 2014; Stinson, 2006). Although past studies have shown that Black males often appear more vulnerable than Black female adolescents, the present results do not support this narrative as Black female adolescents were more likely to be more vulnerable to the harmful effects of racial discrimination than their counterparts. Black female adolescents were also less likely to benefit from teacher support than Black males. Thus, the results of the current study highlight concerns about the school experiences of Black female adolescents as they demonstrate that Black girls may more vulnerable than their male peers. These findings bring awareness to the fact that Black female adolescents, though often ignored, endure challenges in their schools. Social workers, interventionists and all concerned with the well-being of Black adolescents should continue to investigate the ways in which sociodemographic factors may influence their vulnerability.

### *Schools of Choice*

Although not the main focus of this study, this study has implications for the ongoing school policy debate regarding public school funding and schools of choice (SOC) programs within the United States. SOC programs provide students enrolled in under-resourced public schools the opportunity to attend better resourced schools outside of their home district. For many Black students living in under-resourced school districts, this often means relocating to school districts that have substantially fewer Black families and more families from higher socioeconomic backgrounds than their home districts (Cowen & Henion, 2015). Anecdotal evidence suggests that issues of racial and socioeconomic difference become more visible to students within SOC schools. The home districts of many SOC students in this study are located in a low SES urban inner city in which the student population is predominantly Black and low



income. The suburban school districts where study schools are located have a smaller percentage of Black residents and have higher median incomes (American Community Survey, 2014). Black students and students from lower socioeconomic backgrounds may be viewed as outsiders within SOC schools. Incidentally, the three schools from which participants were recruited for this dissertation are all SOC schools.

While this dissertation does not measure SOC status directly, there were some school level differences in students' reports of in-school racial discrimination. Notably, Black adolescents attending schools that were predominantly White, reported significantly more in-school racial discrimination than Black adolescents' attending predominantly Black schools. SOC has been generally ineffective at achieving its goals of improving the academic outcomes of students from low performing school districts (Cowen & Henion, 2015). Consequently, the SOC program may be exposing Black students to in-school racial discrimination without benefitting their academic outcomes. As more school districts in states across the US consider implementing school choice programs, it becomes more important that policymakers understand how these programs may influence Black students' experiences in their new school environments. Given these concerns, further investigation of the in-school racial discrimination experiences of Black adolescents who utilize the SOC program is warranted. Future research should examine whether SOC children experience more racial discrimination than their Black peers that are not part of the SOC program.

### **Limitations**

While this dissertation contributes to the research knowledge base on Black adolescents' experiences with in-school racial discrimination, some limitations and caveats should be highlighted. This dissertation used cross sectional data, and thus, the direction of association is

not clear. For instance, while I proposed that the negative association between in-school racial discrimination from peers and academic persistence means that in-school racial discrimination led adolescents to be less persistence, it is possible that peers may be targeting Black adolescents who are less academically persistent. Peer targeting seems unlikely as previous longitudinal research with older Black adolescent samples suggests that in-school discrimination does precede a decrease in academic outcomes (Brody et al., 2006; Greene et al., 2006). More longitudinal research is needed to establish the direction of the association between in-school racial discrimination and academic outcomes.

Another potential drawback of this study relates to its retrospective design. In the current study, adolescents were asked to recall discriminatory events that occurred over the last year. Because recalling events over long periods of time is often challenging, retrospective studies like this may suffer from retrospective or recall bias (i.e., bias affecting the accuracy or completeness of one's memories) (Csikszentmihayli, Larson, & Prescott, 1977). One way that researchers have sought to counteract issues of recall related to racial discrimination retrospective studies is by using daily diary methods. Daily diary methods involve rigorous, frequent self-reports that aim to record events near the time they occur. These methods are thought to reduce recall bias by asking participants to report on an event temporally close to the experience (e.g., they ask experiences within the last week) (Csikszentmihayli, Larson, & Prescott, 1977; Huynh, & Fuligni, 2010; Yip, 2014).

The current study is also limited because of its reliance on adolescents' self-reports of their grades. As with all studies that rely on self-reports, the current study is subject to a number of biases (e.g. social desirability and selection bias) which may have influenced results. For example, and with regard to adolescents' grades, findings should be interpreted with caution as

there may be validity issues with the question used to access adolescents' grades. In a systematic review of studies using self-reported grades as a proxy for actual grades, Kuncel, Crede, & Thomas (2005) caution against the use of self-reported grades because they are often unreliable and vary in their correlation with actual grades. Future research should include measures from multiple sources. Some other measures of academic outcomes such as teacher and parent reports are less biased than their children's reports (Crockett, Schulenberg, & Petersen, 1986).

Even though this dissertation only examined one dimension of school social climate (i.e., teacher support), school social climate encompasses a range of different experiences that adolescents have in their school including: safety, teaching and learning, relationships with peer, peer support, order and discipline, student autonomy, school connectedness, and clarity and consistency in school rules (Hopson & Lee, 2011; Kuperminc et al., 2001; Wang & Eccles, 2012). It is likely that dimensions of school social climate other than teacher support may also act as buffers against in-school racial discrimination. For example, Malecki & Demaray (2007) found that support from peers served as a buffer between the risk associated with disorganized home environments and adolescents' grades. Similar to buffering process for teacher support described in this dissertation, it is possible that adolescents who perceive peer support may be resilient in the face of in-school racial discrimination. Future research should examine whether other dimensions of school social climate serve as protective factors.

Researchers have used a variety of measures to examine family SES including income and parents' occupational prestige. In this study, I used parents' highest level of education as a proxy for SES and I dichotomized this variable into parents with and without a Bachelor's degree. While there were some benefits to using this strategy, there were also some drawbacks. It is plausible that other indicators of SES may have been more appropriate measures of difference.

For instance, it is possible that, for children with two parents, parents may not have the same level of education. A more representative measure of SES would ideally consider information from both parents. Future research should include more comprehensive and representative measures of SES such as those that take a variety of factors into consideration (e.g. income, occupation of both parents, neighborhood) and family structures (e.g., two parent homes and single parent homes).

### **Future Directions**

While this dissertation adds valuable information to the current literature on Black adolescents' experiences with in-school racial discrimination, there remain several important steps that can be taken to advance this literature. Future research might explore the effects of racial discrimination in contexts other than school. Within the last decade, social media has become increasingly influential in peer-involved discriminatory communication, but research on racial discrimination has seldom accounted for experiences (Taylor, Rose, Lin, & Anderson, 2012). Evidence suggests that adolescents are spending increasing amounts of time on the Internet and are likely to encounter racial discrimination while they are online (Tynes, Giang, Williams, & Thompson, 2008; Tynes, Umana-Taylor, Rose, Lin, & Anderson, 2012). Illustratively, Tynes, Giang, Williams, & Thompson, (2008) found the racial discrimination experienced online had a stronger association to outcomes than racial discrimination experienced offline. Yet, racial discrimination experienced online is a relatively unexplored area of research and, to my knowledge, has not been examined in relation to occurrences related to school. We know that adolescents interact with their peers online as a part of adolescent relationship development (Subrahmanyam & Greenfield, 2008). As such, it is conceivable that occurrences from school may spill over on to the Internet such that Black adolescents may experience more

in-school racial discrimination online than face to face. Future research should seek to conceptualize and measure Black adolescents' experiences with online racial discrimination.

Another area of research I am interested in undertaking is assessing the ways in which teacher support may interact with other protective factors to impact risk and outcomes. While the current study tested a simple protective risk and resilience model, researchers have proposed other variations of the protective factor model (e.g., protective-stabilizing, protective-reactive, protective-protective) (Fergus & Zimmerman, 2005). Fergus & Zimmerman (2005) suggest a protective-protective model in which a protective factor enhances the effect of another protective factor in reducing the harmful effects of risk. Past research has shown that certain dimensions of Black adolescents' racial socialization serve as protective factors for Black adolescents' academic outcomes through their influence on adolescents' beliefs and behaviors (e.g., Brown & Tylka, 2011; Bynum et al., 2008; Harris-Britt, Kurtz-Costes & Rowley, 2007; Wang & Huguley, 2012; Wood, Kurtz-Costes, Rowley, & Okeke-Adeyanju, 2010). Teacher support may work in conjunction with racial socialization to lead to more positive academic outcomes for adolescents who have experienced in-school racial discrimination than if these factors were operating by themselves. Given that teacher support is thought to improve student's enjoyment of school and racial socialization is thought to influence awareness and coping strategies, it is plausible adolescents who receive racial socialization messages of preparation for bias may be further emboldened and have better experiences in their school if they have teachers they view as supportive. Future research should examine the ways in which multiple protective factors may work together to improve adolescents' academic outcomes in the face of in-school racial discrimination.

One important consideration for future research investigating sociodemographic differences in adolescents' experiences with racial discrimination relates to the measurement of racial discrimination. Measures assessing racial discrimination may not adequately take into account the intersectional nature of racial discrimination experiences and the ways in which intersectional identities may relate to different experiences (Cole, 2009; Evans, 2011). Evans (2011) noted that racial discrimination questions tend to capture experiences that are more representative of the types of experiences that Black males have with racial discrimination. For instance, the measures of in-school racial discrimination used in this dissertation included more questions like "you get in fights with some kids", "you get disciplined more harshly by teachers than other kids" and "teachers think you are less smart than you really are". The questions in the measure used in this dissertation, and in the literature on in-school discrimination in general, ask fewer questions about experiences that may be more common to Black female adolescents such as "teachers call on you less" and "kids do not want to hang out with you". Therefore, it may be that Black female participants report less discrimination because their experiences were not adequately represented in the in-school racial discrimination measures. In the future, researchers should utilize racial discrimination measures that account for possible gender and SES differences in experiences with racial discrimination. Because the knowledge base regarding Black adolescents, in-school racial discrimination experiences across gender and SES is still relatively small, qualitative methods would be appropriate to learn about the specific racial discrimination experiences of Black adolescents from a variety of gender and SES.

## **Conclusion**

This dissertation has focused on the in-school racial discrimination experiences of Black adolescents from three middle schools. It assessed whether Black adolescents' perceptions of

teacher support served as a protective factor against the risk associated with experiencing in-school racial discrimination. Additionally, the current study assessed whether teacher support's proposed protective effects differed based on adolescents' gender or SES. While teacher support did not serve as a protective factor, there is still some indication that teacher support is beneficial to Black adolescents. Findings uncovered a direct association between in-school racial discrimination from peers and academic persistence as well as a direct association between teacher support and grades and academic persistence. Although there is still much to be learned about the nature and effects of Black adolescents' experiences with in-school racial discrimination, the findings of the current study reaffirm the fact that Black adolescents have to deal with in-school racial discrimination. Nonetheless, this study confirms the need to for research to further reveal the ways in which Black adolescents experience and are affected by racial discrimination within their schools. It also points to the need for more research to uncover environmental protective factors to promote resilience in these in these youth.

Table 1  
*Means for Key Study Constructs by School*

Variable	School 1 Mean (SD)	School 2 Mean (SD)	School 3 Mean (SD)
Teacher Discrimination	1.56 (0.95)	1.90 (1.17)	2.14 (1.23)**
Peer Discrimination	1.45 (0.92)	1.47 (0.84)	1.69 (0.94)
Teacher Support	3.60 (0.89)	3.49 (0.83)	3.07 (0.98)**
Academic Persistence	3.29 (0.62)	3.37 (0.51)	3.13 (0.61)
Grades	7.20 (1.89)	7.24 (1.99)	6.34 (2.33)**
N	199	99	53

\*p<.05. \*\*p<.01.



Table 2

*Means for Key Study Constructs by Year Survey was taken*

Variable	Year 1 Mean (SD)	Year 2 Mean (SD)	Year 3 Mean (SD)	Year 4 Mean (SD)
Teacher Discrimination	1.58 (0.91)	1.81 (1.11)	1.69 (1.04)	1.69 (1.08)
Peer Discrimination	1.43 (.690)	1.56 (1.00)	1.65 (1.09)*	1.31 (.646)*
Teacher Support	3.38 (.727)	3.44 (1.07)	3.70 (.851)	3.39 (.859)
Academic Persistence	3.34 (.567)	3.26 (.633)	3.23 (.601)	3.33 (.567)
Grades	6.59 (2.50)	7.08 (1.95)	7.32 (1.85)	7.12 (1.88)
N	58	89	109	105

\*p&lt;.05. \*\*p&lt;.01.

Table 3  
*Means for Key Study Constructs by Gender*

Variable	Male Mean (SD)	Female Mean (SD)	Overall Mean (SD)
Teacher Discrimination	1.89 (1.15)**	1.53 (0.92)	1.75 (1.08)
Peer Discrimination	1.62 (1.01)**	1.33 (0.72)	1.49 (0.90)
Teacher Support	3.45 (0.96)	3.53 (0.83)	3.49 (0.90)
Academic Persistence	3.24 (0.61)	3.35 (0.57)	3.29 (0.59)
Grades	6.92 (2.06)	7.29 (1.91)	7.08 (2.00)
N	180	185	365

\*p<.05. \*\*p<.01.

Table 4  
*Means for Key Study Constructs by SES*

Variable	Low SES Mean (SD)	High SES Mean (SD)
Teacher Discrimination	1.66 (1.05)	1.79 (1.05)
Peer Discrimination	1.46 (0.87)	1.50 (0.90)
Teacher Support	3.54 (0.88)	3.41 (0.90)
Academic Persistence	3.29 (0.61)	3.31 (0.56)
Grades	6.96 (2.06)	7.40 (1.84)*
N	228	121

\*p<.05. \*\*p<.01.

Table 5

*Correlations among In-school Racial Discrimination, Teacher Support and Academic Outcomes*

Variable	N	1	2	3	4	5
1. Teacher discrimination	351	-				
2. Peer discrimination	343	.723**	-			
3. Teacher Support	327	-.256**	-.164**	-		
4. Academic persistence	349	-.387**	-.445**	.228**	-	
5. Grades	344	-.156**	-.087	.193**	.130*	-

\*p&lt;.05. \*\*p&lt;.01.

Table 6

*Correlations for In-School Racial Discrimination, Teacher Support and Academic Outcomes for Female Adolescents*

Variable	N	1	2	3	4	5
1. Teacher discrimination	177	-				
2. Peer discrimination	175	.730**	-			
3. Teacher Support	167	-.262**	-.192*	-		
4. Academic persistence	177	-.362**	-.399**	.233**	-	
5. Grades	174	-.234**	-.090	.221**	.196**	-

\*p<.05. \*\*p<.01.

Table 7

*Correlations for In-School Racial Discrimination, Teacher Support and Academic Outcomes for Male Adolescents*

Variable	N	1	2	3	4	5
1. Teacher discrimination	175	-				
2. Peer discrimination	169	.711**	-			
3. Teacher Support	161	-.253**	-.144	-		
4. Academic persistence	173	-.395**	-.474**	.223**	-	
5. Grades	171	-.074	-.069	.170*	.054	-

\*p<.05. \*\*p<.01.

Table 8  
*Correlations for In-School Racial Discrimination, Teacher Support and Academic Outcomes for Adolescents from Lower SES Backgrounds*

Variable	N	1	2	3	4	5
1. Teacher discrimination	219	-				
2. Peer discrimination	213	.749**	-			
3. Teacher Support	200	-.266**	-.193**	-		
4. Academic persistence	217	-.384**	-.483**	.221**	-	
5. Grades	216	-.060	.032	.216**	.098	-

\*p<.05. \*\*p<.01.

Table 9

*Correlations for In-school Racial Discrimination, Teacher Support and Academic Outcomes for Adolescents from Higher SES Backgrounds*

Variable	N	1	2	3	4	5
1. Teacher discrimination	119	-				
2. Peer discrimination	117	.653**	-			
3. Teacher Support	114	-.222*	-.130	-		
4. Academic persistence	119	-.345**	-.354**	.256**	-	
5. Grades	115	-.367**	-.318**	.123	.231*	-

\*p<.05. \*\*p<.01.



Table 10

*Summary of Hierarchical Linear Regression results testing whether Teacher Support moderates the association between In-school Racial Discrimination and Academic Persistence (N= 309)*

Variable	Model 1			Model 2			Model 3		
	B	SE B	$\beta$	B	SE B	$\beta$	B	SE B	$\beta$
School 1	-.185	.098	.1	-.034	.093	-.021	-.054	.093	-.033
School 2	.062	.084	.047	.088	.078	.067	.081	.078	.062
Gender	.123	.068	.104	.030	.062	.025	.033	.062	.027
SES	-.010	.076	-.008	.019	.069	.015	.025	.069	.020
Peer discrimination				-.253	.052	-.372**	-.262	.056	-.385**
Teacher discrimination				-.020	.045	-.036	-.019	.049	-.034
Teacher Support				.102	.036	.151**	.103	.036	.152**
Teacher Support X Peer discrimination							-.058	.062	-.093
Teacher Support X Teacher discrimination							-.002	.054	-.003
R <sup>2</sup>		.029			.218			.227	
F for change in R <sup>2</sup>		2.251			24.004**			1.697	

\*p<.05. \*\*p<.01.

Table 11

*Summary of Hierarchical Linear Regression results testing whether Teacher Support moderates the association between In-school Racial Discrimination and Grades (N= 303)*

Variable	Model 1			Model 2			Model 3		
	B	SE B	$\beta$	B	SE B	$\beta$	B	SE B	$\beta$
School 1	-.973	.321	-.183**	-.693	.332	-.130	-.682	.336	-.128
School 2	-.313	.276	-.073	-.163	.282	-.038	-.163	.283	-.038
Gender	.288	.221	.074	.214	.224	.055	.207	.224	.053
SES	.484	.249	.120	.482	.248	.120	.475	.248	.118
Peer discrimination				.145	.183	.066	.120	.196	.055
Teacher discrimination				-.230	.159	-.125	-.194	.176	-.106
Teacher Support				.298	.132	.133*	.295	.133	.132
Teacher Support X Peer discrimination							-.036	.222	-.018
Teacher Support X Teacher discrimination							.097	.194	.056
R <sup>2</sup>		.041			.069			.070	
F for change in R <sup>2</sup>		3.184			2.934*			.254	
		*							

\*p<.05. \*\*p<.01.

Table 12

*Summary of Hierarchical Linear Regression results testing whether Teacher Support moderates the association between In-school Racial Discrimination and Academic Persistence for Males (N= 148)*

Variable	Model 1			Model 2			Model 3		
	B	SE B	$\beta$	B	SE B	$\beta$	B	SE B	$\beta$
School 1	-.161	.148	-.094	-.043	.140	-.025	-.077	.140	-.045
School 2	.045	.132	.032	.057	.123	.040	.046	.123	.033
SES	-.070	.116	-.054	-.016	.105	-.012	-.007	.104	-.006
Peer discrimination				-.262	.070	-.423**	-.272	.075	
Teacher discrimination				.003	.063	.005	-.008	.069	-.016
Teacher Support				.102	.051	.156*	.108	.051	.165*
Teacher support X Peer discrimination							-.046	.083	-.086
Teacher support X Teacher discrimination							-.037	.077	-.077
R <sup>2</sup>		.013			.228			.251	
F for change in R <sup>2</sup>		.620			13.124**			2.106	

\*p<.05. \*\*p<.01.

Table 13

*Summary of Hierarchical Linear Regression results testing whether Teacher support moderates the association between In-school Racial Discrimination and Grades for Males (N= 148)*

Variable	Model 1			Model 2			Model 3		
	B	SE B	$\beta$	B	SE B	$\beta$	B	SE B	$\beta$
School 1	-1.038	.462	-.190*	-.872	.487	-.160	-.861	.493	-.158
School 2	-.718	.411	-.160	-.659	.432	-.147	-.673	.435	-.150
SES	.478	.365	.116	.500	.367	.121	.515	.370	.125
Peer discrimination				-.161	.237	-.083	-.230	.258	-.119
Teacher discrimination				.066	.216	.039	.148	.242	.088
Teacher support				.287	.181	.138	.294	.183	.141
Teacher support X Peer discrimination							-.187	.290	-.111
Teacher support X Teacher discrimination							.213	.270	.139
R <sup>2</sup>		.046			.068			.073	
F for change in R <sup>2</sup>		2.303			1.144			.314	

\*p<.05. \*\*p<.01.

Table 14

*Summary of Hierarchical Linear Regression results testing whether Teacher support moderates the association between In-school Racial Discrimination and Academic Persistence for Females (N= 158)*

Variable	Model 1			Model 2			Model 3		
	B	SE B	$\beta$	B	SE B	$\beta$	B	SE B	$\beta$
School 1	-.224	.132	-.146	-.033	.127	-.021	-.039	.132	-.026
School 2	.073	.109	.060	.112	.102	.093	.110	.103	.091
SES	.052	.100	.045	.056	.093	.048	.054	.094	.046
Peer discrimination				-.247	.084	-.306**	-.254	.089	-.315**
Teacher discrimination				-.050	.066	-.081	-.041	.073	-.067
Teacher support				.102	.053	.146	.100	.054	.143
Teacher support X Peer discrimination							-.029	.108	-.035
Teacher support X Teacher discrimination							.024	.080	.040
R <sup>2</sup>		.032			.193			.193	
F for change in R <sup>2</sup>		1.679			10.049**			.046	

\*p<.05. \*\*p<.01.

Table 15

*Summary of Hierarchical Linear Regression results testing whether Teacher support moderates the association between In-school Racial Discrimination and Grades for Females (N= 155)*

Variable	Model 1			Model 2			Model 3		
	B	SE B	$\beta$	B	SE B	$\beta$	B	SE B	$\beta$
School 1	-.56	.451	-.175	-.652	.459	-.126	-.575	.475	-.111
School 2	.0	.373	.009	.212	.371	.052	.232	.374	.056
SES	.0	.345	.129	.537	.338	.137	.533	.341	.136
Peer discrimination				.624	.303	-.228*	.636	.319	.233*
Teacher discrimination				-.623	.237	-.297*	-.657	.262	-.313*
Teacher support				.297	.196	.122	.316	.199	.130
Teacher support X Peer discrimination							.235	.388	.084
Teacher support X Teacher discrimination							-.079	.289	-.039
R <sup>2</sup>		.041			.103			.106	
F for change in R <sup>2</sup>		2.176			3.397*			.258	

\*p<.05. \*\*p<.01.

Table 16

*Summary of Hierarchical Linear Regression results testing whether Teacher support moderates the association between In-school Racial Discrimination and Academic Persistence for Participants from Lower SES backgrounds (N= 111)*

Variable	Model 1			Model 2			Model 3		
	B	SE B	$\beta$	B	SE B	$\beta$	B	SE B	$\beta$
School 1	-1.260	.492	-.275*	-.808	.507	-.176	-.780	.512	-.170
School 2	-.042	.390	-.012	.312	.390	.085	.330	.393	.090
Gender	.495	.342	.135	.177	.336	.048	.205	.340	.056
Peer discrimination				-.263	.234	-.133	-.200	.251	-.101
Teacher discrimination				-.448	.214	-.261*	-.487	.227	
Teacher support				-.064	.199	-.031	-.018	.210	-.009
Teacher support X Peer discrimination							.227	.310	.104
Teacher support X Teacher discrimination							-.165	.248	-.096
R <sup>2</sup>		.082			.195			.200	
F for change in R <sup>2</sup>		3.204*			4.856**			.288	

\*p<.05. \*\*p<.01.

Table 17

*Summary of Hierarchical Linear Regression results testing whether Teacher support moderates the association between In-school Racial Discrimination and Grades for Participants from Lower SES backgrounds (N= 113)*

Variable	Model 1			Model 2			Model 3		
	B	SE B	$\beta$	B	SE B	$\beta$	B	SE B	$\beta$
School 1	-.270	.149	-.199	-.094	.152	-.068	-.102	.148	-.073
School 2	-.111	.117	-.028	.054	.116	.049	.036	.113	.033
Gender	.192*	.103		.111	.101	.100	.103	.098	.093
Peer discrimination				-.164	.071	-.273*	-.210	.073	-.349**
Teacher discrimination				-.047	.065	-.090	-.076	.066	-.146
Teacher support				.079	.059	.125	.068	.059	.108
Teacher support X Peer discrimination							-.151	.090	-.229
Teacher support X Teacher discrimination							-.035	.072	-.067
R <sup>2</sup>		.063			.190			.254	
F for change in R <sup>2</sup>		2.44			5.517**			4.496*	
		5							

\*p<.05. \*\*p<.01.



Table 18

*Summary of Hierarchical Linear Regression results testing whether Teacher support moderates the association between In-school Racial Discrimination and Academic Persistence for Participants from Higher SES Backgrounds (N= 193)*

Variable	Model 1			Model 2			Model 3		
	B	SE B	$\beta$	B	SE B	$\beta$	B	SE B	$\beta$
School 1	-.159	.132	-.088	-.033	.121	-.018	-.048	.124	.027
School 2	.132	.122	.080	.088	.111	.053	.087	.112	.052
Gender	.074	.089	.060	-.006	.080	-.005	-.004	.081	.003
Peer discrimination				-.337	.076	-.458	-.360	.086	-.489*
Teacher discrimination				.021	.063	.036	.047	.076	.080
Teacher support				.114	.047	.160*	.122	.049	.172*
Teacher support X Peer discrimination							-.064	.097	.106
Teacher support X Teacher discrimination							.050	.087	.093
R <sup>2</sup>		.022			.246			.248	
F for change in R <sup>2</sup>		1.392			18.481*			.224	

\*p<.05. \*\*p<.01.

Table 19

*Summary of Hierarchical Linear Regression results testing whether Teacher support moderates the association between In-school Racial Discrimination and Grades for Participants from Higher SES Backgrounds (N= 192)*

Variable	Model 1			Model 2			Model 3		
	B	SE B	$\beta$	B	SE B	$\beta$	B	SE B	$\beta$
School 1	-.714	.427	-.122	-.525	.431	-.090	-.643	.439	-.110
School 2	-.664	.393	-.124	-.400	.397	-.075	-.428	.395	-.080
Gender	.214	.289	.054	.222	.287	.055	.238	.286	.060
Peer discrimination				.484	.263	.208	.228	.293	.098
Teacher discrimination				-.203	.220	-.107	.084	.264	.044
Teacher support				.484	.169	.210**	.571	.175	.247**
Teacher support X Peer discrimination							-.644	.341	-.328
Teacher support X Teacher discrimination							.589	.305	.340
R <sup>2</sup>		.028			.085			.104	
F for change in R <sup>2</sup>		1.776			3.859*			1.917	

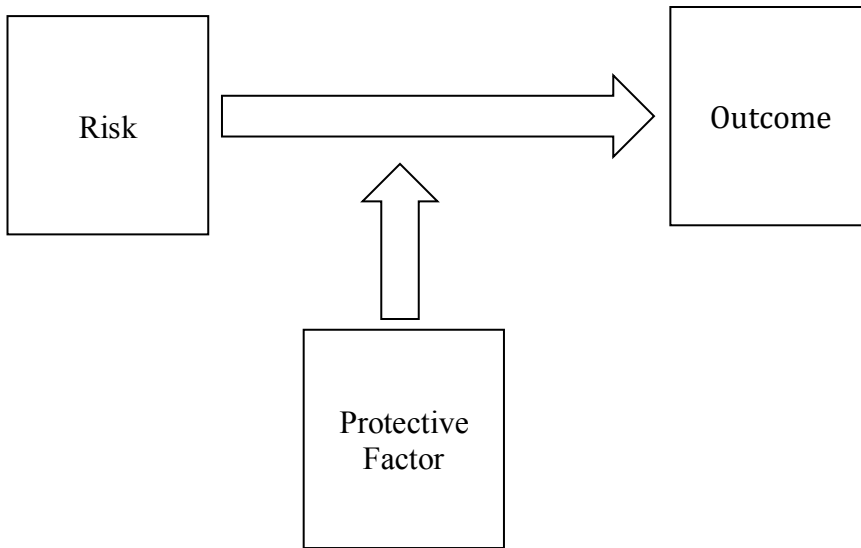


Figure 1: Risk and Resilience Framework (Protective Model) (Fergus & Zimmerman, 2005)

## APPENDIX A

### **In-school Racial Discrimination from Teachers and from Peers**

Response Scale: 1=Never, 2= A couple times each year, 3= A couple times each month, 4= Once or twice each week, 5= Almost everyday.

#### In-school Racial Discrimination from Teachers

1. At school, how often do you feel, teachers call on you less often than they call on other kids because you are Black?
2. At school, how often do you feel, teachers grade you harder than they grade other kids because you are Black?
3. At school, how often do you feel, you get disciplined more harshly by teachers than other kids do because you are Black?
4. At school, how often do you feel, teachers think you are less smart than you really are because you are Black?

#### In-school Racial Discrimination from Peers

1. You are not picked for certain teams or other school activities because you are Black?
2. That you get in fights with some kids because you are Black?
3. That kids do not want to hang out with you because you are Black?

## APPENDIX B

### Teacher Support

#### Teacher Support

Instructions: The following statements describe what school is like. Please choose the answers that best fit your views of how things are at your school.

Response Scale: 1= Never, 2= Hardly ever, 3= Sometimes, 4= Most of the time, 5= Always.

1. At school, how often do you feel, teachers go out of their way to help students?
2. At school, how often do you feel, if students want to talk about something, teachers will find time to do it?
3. At school, how often do you feel, teachers help students to organize their work?
4. At school, how often do you feel, students really enjoy their classes?
5. At school, how often do you feel, teachers take a personal interest in students?
6. At school, how often do you feel, teachers have high expectations of all students?

## APPENDIX C

### Grades and Academic Persistence

#### Grades

Response Scale: 1= A (93- 100), 2= A- (90-92), 3= B + (87-89), 4= B (83-86), 5= B- (80-82), 6= C+ (77-79), 7= C (73-76), 8= C- (70-72),9= D (69 or below).

1. Which category best describes your average grade last year?\*

#### Academic Persistence

Instructions: These next items are related to your typical classroom behavior. Choose the response that indicates how true each statement is of you in your classes this year.

Response Scale: 1= Not at all true, 2= Not very true, 3= Sort of true, 4= Very true.

1. At my school, if I can't get a problem right the first time, I just keep trying.
2. At my school, when I do badly on a test, I work harder next time.
3. At my school, if I don't understand something right away, I stop trying.\*
4. At my school, when I have trouble understanding something, I give up.\*

*Note: Items marked with an asterisk (\*) were reverse coded.*

## APPENDIX D

### Gender and Socioeconomic Status

#### Gender

Response Scale: 1= Male, 2= Female

1. Please indicate your gender.

#### Socioeconomic Status

Response Scale: 1= Less than high school degree, 2= High school diploma or equivalent, 3= High school and additional schooling, 4= Associate's degree, 5= Bachelor's degree, 6 = Graduate or professional school.

1. What is your highest level of education achieved?

## References

- 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*(8), 1602–1613. doi:10.1037/a0030557
- Benard, B. (1991). *Fostering resiliency in kids: Protective factors in the family, school and community*. Washington, DC.
- Bottiani, J. H., Bradshaw, C. P., & Mendelson, T. (2016). Inequality in Black and White high school students' perceptions of school support: An examination of race in context. *Journal of Youth and Adolescence, 45*, 1176–1191.
- Bradley, R. H., & Corwyn, R. F. (2002). Socioeconomic status and child development. *Annual Review Psychology, 53*, 371–399.
- Brodish, A. B., Cogburn, C. D., Fuller-Rowell, T. E., Peck, S., Malanchuk, O., & Eccles, J. S. (2011). Perceived racial discrimination as a predictor of health behaviors: The moderating role of gender. *Race and Social Problems, 3*(3), 160–169. doi:10.1007/s12552-011-9050-6
- Brody, G. H., Chen, Y., Murry, V. M., Ge, X., Simmons, R. L., Gibbons, F. X., Cutrona, C. E. (2006). Perceived discrimination and the adjustment of African American Youths: A five-year longitudinal contextual moderation effects. *Child Development, 77*(5), 1170–1189. doi:10.1111/j.1467-8624.2006.00927.x
- Bronfenbrenner, U., & Morris, P. A. (2006). The bioecological model of human development. In R. M. Lerner & W. Damon (Eds.), *Theoretical models of human development: Volume 1 of the Handbook of Child Psychology* (6th ed., pp. 793–828). Hoboken, NJ: John Wiley & Sons.



- Brotman, L. M., Calzada, E., Huang, K., Kingston, S., Dawson-McClure, S., Kamboukos, D., Rosenfelt, A., Schwab, A. & Petkova, E. (2011). Promoting effective parenting practices and preventing child behavior problems in school among ethnically diverse families from underserved, urban communities. *Child Development, 82*(1), 258-276.
- Brotman, L. M., Dawson-McClure, S., Calzada, E. J., Huang, K.-Y., Kamboukos, D., Palamar, J. J., & Petkova, E. (2013). Cluster (school) RCT of ParentCorps: impact on kindergarten academic achievement. *Pediatrics, 131*(5), 1521–1529. doi:10.1542/peds.2012-2632
- Brown, C., & Bigler, R. (2005). Children’s perceptions of discrimination: A developmental model. *Child Development, 76*(3), 533–553.
- Brown, C. S. (2008). Children’s perceptions of racial and ethnic discrimination: Differences across children and contexts. In S. M. Quintana & C. McKown (Eds.), *Handbook of Race, Racism, and the Developing Child* (pp. 133–153). Hoboken, NJ: John Wiley & Sons.
- Brown, T. L., Linver, M. R., Evans, M., & DeGennaro, D. (2009). African-American parents’ racial and ethnic socialization and adolescent academic grades: teasing out the role of gender. *Journal of Youth and Adolescence, 38*(2), 214–27. doi:10.1007/s10964-008-9362-z
- Brown, D. L., & Tylka, T. L. (2011). Racial discrimination and resilience in African American young Adults: Examining racial socialization as a moderator. *Journal of Black Psychology, 37*(3), 259–285. doi:10.1177/0095798410390689
- Burchinal, M., McCartney, K., Steinberg, L., Crosnoe, R., Friedman, S. L., Mcloyd, V. C., &

- Pianta, R. (2011). Examining the Black-White achievement gap among low-income children using the NICHD study of early child care and youth development. *Child Development, 82*(5), 1404–20. doi:10.1111/j.1467-8624.2011.01620.x
- Bynum, M. S., Best, C., Barnes, S. L., & Burton, E. T. (2008). Private regard, identity protection and perceived racism among African American males. *Journal of African American Studies, 12*, 142–155. doi:10.1007/s12111-008-9038-5
- Caldwell, C. H., Kohn-Wood, L. P., Schmeelk-Cone, K. H., Chavous, T. M., & Zimmerman, M. A. (2004). Racial discrimination and racial identity as risk or protective factors for violent behaviors in African American young adults. *American Journal of Community Psychology, 33*(1-2), 91–105. doi:10.1023/B:AJCP.0000014321.02367.dd
- 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*(3), 637–54. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/18473633>
- Chavous, T. M., Bernat, D. H., Schmeelk-Cone, K. H., Caldwell, C. H., Kohn-Wood, L., & Zimmerman, M. A. (2003). Racial identity and academic attainment among African American adolescents. *Child Development, 74*(4), 1076–90. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/12938705>
- Clark, R., Anderson, N. B., Clark, V. R., & Williams, D. R. (1999). Racism as a stressor for African Americans. A biopsychosocial model. *The American Psychologist, 54*(10), 805–816. doi:10.1037/0003-066X.54.10.805
- Cohen, J., McCabe, E. M., Michelli, N. M., & Pickeral, T. (2009). School climate: Research, policy, practice, and teacher education. *Teacher College Record, 111*(1), 180–213.

- Cole, E. R. (2009). Intersectionality and research in psychology. *The American Psychologist*, 64(3), 170–80. doi:10.1037/a0014564
- Cogburn, C. D., Chavous, T., & Griffin, T. (2011). School-based racial and gender discrimination among African American adolescents: Exploring gender variation in frequency and implications for adjustment. *Race and Social Problems*, 3(1), 25–37. Retrieved from <http://www.springerlink.com/index/10.1007/s12552-011-9040-8>
- Condrón, D. J., Tope, D., Steidl, C. R., & Freeman, K. J. (2012). Racial segregation and the Black/White achievement gap, 1992 to 2009. *The Sociological Quarterly*, 54, 130–157.
- Crockett, L. J., Schulenberg, J. E., & Petersen, A. C. (1986). Congruence between objective and self-report data in a sample of young adults. *Journal of Adolescent Research*, 2(4), 383–392.
- Dotterer, A. M., McHale, S. M., & Crouter, A. C. (2009). Sociocultural factors and school engagement among African American youth: The roles of racial discrimination, racial socialization, and ethnic identity. *Applied Development Science*, 13(2), 61-73.
- DuBois, D., Burk-Braxton, C., Swenson, L., Tevendale, H., & Hardesty, J. (2002). Race and gender influences on adjustment in early adolescence: Investigation of an integrative model. *Child Development*, 73(5), 1573– 1592.
- Duncan, G. J. (2011). Whither opportunity?: Rising inequality, schools, and children's life chances. New York, NY: Russell Sage Foundation.
- Eccles, J. S., Midgley, C., Wigfield, A., Buchanan, C. M., Reuman, D., Flanagan, C., & Mac Iver,

- D. (1993). Development during adolescence: The impact of stage-environment fit on young adolescents' experiences in schools and in families. *American Psychologist*, *48*(2), 90–101.
- Erickson, E. (1968). *Identity: Youth and crisis*. New York: Norton.
- Essed, P. (1991). *Understanding everyday racism: An interdisciplinary theory* (Vol. 2). Sage.
- Felix, E. D., & You, S. (2011). Peer victimization within the ethnic context of high school. *Journal of Community Psychology*, *39*, 860–875. doi:10.1002/jcop.20465
- Fisher, C. B., Wallace, S. A., & Fenton, R. E. (2000). Discrimination distress during adolescence. *Journal of Youth and Adolescence*, *29*(6), 679–695. doi:10.1023/A:1026455906512
- Forscher, P. S., Mitamura, C., Dix, E., Cox, W. T. L., & Devine, P. G. (2017). Breaking the prejudice habit: Mechanisms, timecourse, and longevity. <http://doi.org/10.1016/j.jesp.2017.04.009>
- Froiland, J. M., Peterson, A., & Davison, M. L. (2012). The long-term effects of early parent involvement and parent expectation in the USA. *School Psychology International*, *34*(1), 33–50. doi:10.1177/0143034312454361
- García Coll, C., Lamberty, G., Jenkins, R., Mcadoo, H. P., Crnic, K., Wasik, B. H., & García, H. V. (1996). An integrative model for the study of developmental competencies in minority children theoretical papers an integrative model for the study of developmental competencies in minority children. *Child Development*, *67*(5), 1891–1914.
- Garnezy, N. (1991). Resilience and vulnerability to adverse developmental outcomes associated with poverty. *American Behavioral Scientist*, *34*, 416–430.

- Garnezy, N. (1993). Children in poverty: Resilience despite risk. *Psychiatry*, *56*(1), 127–136.
- Graham, S., & Juvonen, J. (2002). Ethnicity, peer harassment, and adjustment in middle school: An exploratory study. *Journal of Early Adolescence*, *22*(2), 173–199.
- Greene, M. L., Way, N., & Pahl, K. (2006). Trajectories of perceived adult and peer discrimination among Black, Latino, and Asian American adolescents: Patterns and psychological correlates. *Developmental Psychology*, *42*(2), 218–236. doi:10.1037/0012-1649.42.2.218
- Gregory, A., Skiba, R. J., & Noguera, P. A. (2010). The achievement gap and the discipline gap: Two sides of the same coin? *Educational Researcher*, *39*(1), 59–68.  
doi:10.3102/0013189X09357621
- Grogan-Kaylor, A., & Woolley, M. E. (2010). The social ecology of race and ethnicity school achievement gaps: Economic, neighborhood, school, and family factors. *Journal of Human Behavior in the Social Environment*, *20* (7), 875–896.  
doi:10.1080/10911359.2010.494927doi:10.1080/10911359.2010.494927
- Hamm, J. V., & Zhang, L. (2010). School contexts and the development of adolescents' peer relations. In J. L. Meece & J. S. Eccles (Eds.), *Handbook of Research on Schools, Schooling, and Human Development* (pp. 128–145). New York, NY: Routledge.
- Harris-Britt, A., Valrie, C. R., Kurtz-Costes, B., & Rowley, S. J. (2007). Perceived racial discrimination and self-esteem in African American youth: Racial socialization as a protective factor. *Journal of Research on Adolescence*, *17*(4), 669–682.  
doi:10.1111/j.1532-7795.2007.00540.x
- Harwell, M., & Lebeau, B. (2010). Student eligibility for a free lunch as an SES measure in education research. *Educational Researcher*, *39*(2), 120–131.

<https://doi.org/10.3102/0013189X10362578>

- Helding, K. A., & Fraser, B. J. (2013). Effectiveness of national board certified (NBC) teachers in terms of classroom environment, attitudes and achievement among secondary science students. *Learning Environments Research, 16*(1), 1–21. doi:10.1007/s10984-012-9104-8
- Hopson, L. M., & Lee, E. (2011). Mitigating the effect of family poverty on academic and behavioral outcomes: The role of school climate in middle and high school. *Children and Youth Services Review, 33*(11), 2221–2229. doi:10.1016/j.childyouth.2011.07.006
- Howard, T. C. (2008). Who really cares? The disenfranchisement of African American males in PreK-12 schools: A critical race theory perspective. *Teachers College Record, 110*(5), 954–985.
- Hughes, J. N., Luo, W., Kwok, O.-M., & Loyd, L. K. (2008). Teacher-student support, effortful engagement, and achievement: A 3-year longitudinal study. *Journal of Educational Psychology, 100*(1), 1–14. <https://doi.org/10.1037/0022-0663.100.1.1>
- Hughes, D., Rodriguez, J., Smith, E. P., Johnson, D. J., Stevenson, H. C., & Spicer, P. (2006). Parents' ethnic-racial socialization practices: a review of research and directions for future study. *Developmental Psychology, 42*(5), 747–70. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/16953684>
- Hurd, N. M., & Sellers, R. M. (2013). Black adolescents' relationships with natural mentors: associations with academic engagement via social and emotional development. *Cultural Diversity & Ethnic Minority Psychology, 19*(1), 76–85. <https://doi.org/10.1037/a0031095>

- Huynh, V. W., & Fuligni, A. J. (2010). Discrimination hurts: The academic, psychological, and physical well-being of adolescents. *Journal of Research on Adolescence*, *20*(4), 916–941. doi:10.1111/j.1532-7795.2010.00670.x
- Jeynes, W. H. (2005). A meta-analysis of the relation of parental involvement to urban elementary school student academic achievement. *Urban Education*, *40*(3), 237–269. doi:10.1177/0042085905274540
- Jeynes, W. H. (2007). The Relationship Between Parental Involvement and Urban Secondary School Student Academic Achievement: A Meta-Analysis. *Urban Education*, *42*(1), 82–110. doi:10.1177/0042085906293818
- Kilian, J. M., Fish, M. C., & Maniago, E. B. (2007). Making schools safe: A system-wide school intervention to increase student prosocial behaviors and enhance school climate. *Journal of Applied School Psychology*, *23*(1), 1-30.
- Klem, A., & Connell, J. (2004). Relationships matter: Linking teacher support to student engagement and achievement. *Journal of School Health*, *74*, 262-273.
- Konold, T., Cornell, D., Shukla, K., & Huang, F. (2016). Racial/ethnic differences in perceptions of school climate and its association with student engagement and peer aggression. *Journal of Youth and Adolescence*, *46* (6), 1289-1303. doi:10.1007/s10964-016-0576-1
- Koth, C. W., Bradshaw, C. P., & Leaf, P. J. (2008). A multilevel study of predictors of student perceptions of school climate: The effect of classroom-level factors. *Journal of Educational Psychology*, *100*(1), 96–104. doi:10.1037/0022-0663.100.1.96
- Kuperminc, G. P., Leadbeater, B. J., Emmons, C., & Blatt, S. J. (1997). Perceived school climate and difficulties in the social adjustment of middle school students perceived school

- climate and difficulties in the social adjustment of middle school students. *Applied Developmental Science*, 1(2), 37–51.
- Kuperminc, G. P., Leadbeater, B. J., & Blatt, S. J. (2001). School social climate and individual differences in vulnerability to psychopathology among middle school students. *Journal of School Psychology*, 39(2), 141–159. doi:10.1016/S0022-4405(01)00059-0
- Kuncel, N. R., Crede, M., & Thomas, L. L. (2005). The validity of self-reported grade point averages, class ranks, and test scores: A meta-analysis and review of the literature. *Review of Educational Research*, 75(1), 63–82.
- Leadbeater, B. J., Sukhawathanakul, P., Thompson, K., & Holfeld, B. (2015). Parent, child, and teacher reports of school climate as predictors of peer victimization, internalizing and externalizing in elementary school. *School Mental Health*, 7(4), 261–272. doi:10.1007/s12310-015-9154-z
- Lee, J. S. (2012). The effects of the teacher-student relationship and academic press on student engagement and academic performance. *International Journal of Educational Research*, 53, 330–340. doi:10.1016/j.ijer.2012.04.006
- Malecki, C. K., & Demaray, M. K. (2007). Social support as a buffer in the relationship between socioeconomic status and academic performance. *School Psychology Quarterly*, 21, 375–395.
- Mandara, J., Varner, F., & Richman, S. (2010). Do African American mothers really “love” their sons and “raise” their daughters? *Journal of Family Psychology*, 24(1), 41–50. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/20175607>
- Masten, A. S. (2001). Ordinary magic: Resilience processes in development. *American Psychologist*, 56, 227–238.



- Mccall, L. (2005). The complexity of intersectionality. *The Journal of Women in Culture and Society*, 30(3), 1771–1800.
- McKown, C., & Weinstein, R. S. (2003). The development and consequences of stereotype consciousness in middle childhood. *Child Development*, 74(2), 498–515. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/12705569>
- McKown, C., & Strambler, M. J. (2009). Developmental antecedents and social and academic consequences of stereotype-consciousness in middle childhood. *Child Development*, 80(6), 1643–59. doi:10.1111/j.1467-8624.2009.01359.x
- Neblett, E. W., Chavous, T. M., Nguyễn, H. X., & Sellers, R. M. (2009). Say it loud- I'm Black and I'm proud: Parents' messages about race, racial discrimination, and academic achievement in African American boys. *The Journal of Negro Education*, 78(3), 246–259.
- Neblett, E. W., White, R. L., Ford, K. R., Philip, C. L., Nguyen, H. X., & Sellers, R. M. (2008). Patterns of racial socialization and psychological adjustment: Can parental communications about race temper the detrimental effects of racial discrimination? *Journal of Research on Adolescence*, 18, 477–515.
- Neblett, E. W., Philip, C. L., Cogburn, C. D., & Sellers, R. M. (2006). African American adolescents' discrimination experiences and academic achievement: Racial socialization as a cultural compensatory and protective factor. *Journal of Black Psychology*, 32(2), 199–218. doi:10.1177/0095798406287072
- Noguera, P. A. (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(4), 431–459. doi:10.1177/0042085903254969

- O'Hara, R. E., Gibbons, F. X., Weng, C.-Y., Gerrard, M., & Simons, R. L. (2012). Perceived Racial Discrimination as a Barrier to College Enrollment for African Americans. *Personality and Social Psychology Bulletin*, 38(1), 77–89.  
<https://doi.org/10.1177/0146167211420732>
- Pachter, L. M., Bernstein, B. A., Szalacha, L. A., & García Coll, C. (2010). Perceived racism and discrimination in children and youth: An exploratory study. *Health & Social Work*, 35(1), 61–9. doi:10.1093/hsw/35.1.61
- Priest, N., Paradies, Y., Trener, B., Truong, M., Karlsen, S., & Kelly, Y. (2013). A systematic review of studies examining the relationship between reported racism and health and wellbeing for children and young people. *Social Science & Medicine*, 95, 115-127. doi: 10.1016/j.socscimed.2012.11.031
- Richardson, B. L., Macon, T. A., Mustafaa, F. N., Bogan, E. D., Cole-Lewis, Y., & Chavous, T. M. (2014). Associations of racial discrimination and parental discrimination coping messages with African American adolescent racial identity. *Journal of Youth and Adolescence*, 44(6), 1301–1317. doi:10.1007/s10964-014-0196-6
- Ridley, C.R. (1995). Overcoming unintentional racism in counseling and therapy: A practitioner's guide to intentional intervention. Thousand Oaks, CA: Sage Publications.
- Romero, A. J., & Roberts, R. E. (1998). Perception of discrimination and ethnocultural variables in a diverse group of adolescents. *Journal of Adolescence*, 21(6), 641–656.  
doi:10.1006/jado.1998.0185
- 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(4), 420–451. doi:10.1177/0044118X03261479

- Rowley, S. J., Kurtz-Costes, B., & Cooper, S. M. (2010). The schooling of African American children. In J. L. Meece & J. S. Eccles (Eds.), *Handbook of Research on Schools, Schooling, and Human Development* (pp. 275–292). New York, NY: Routledge.
- Rowley, S. J., Ross, L., Lozada, F. T., Williams, A., Gale, A., & Kurtz-Costes, B. (2014). Framing Black boys: Parent, teacher, and student narratives of the academic lives of Black boys. In L. S. Liben, R. S. Bigler, & J. B. Benson (Eds.), *Advances in Child Development and Behavior: The Role of Gender in Educational Contexts and Outcomes* (47th ed., pp. 301–332). NY: Elsevier Inc. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/25345000>
- Seaton, E. K., Caldwell, C. H., & Jackson, J. S. (2009). The prevalence of perceived discrimination among African American and Caribbean Black youth. *Developmental Psychology, 44*(5), 1288–1297. doi:10.1037/a0012747.
- Seaton, E. K., Neblett, E. W., Cole, D. J., & Prinstein, M. J. (2013). Perceived discrimination and peer victimization among African American and Latino youth. *Journal of Youth and Adolescence, 42*(3), 342–350. doi:10.1007/s10964-012-9848-6
- Sellers, R. M., & Shelton, J. N. (2003). The role of racial identity in perceived racial discrimination. *Journal of Personality and Social Psychology, 84*(5), 1079–1092. <http://dx.doi.org/10.1037/0022-3514.84.5.1079>
- Sellers, R. M., Copeland-Linder, N., Martin, P. P., & Lewis, R. (2006). Racial identity matters: The relationship between racial discrimination and psychological functioning in African American adolescents. *Journal of Research on Adolescence, 16*(2), 187–216. doi:10.1111/j.1532-7795.2006.00128.x
- Sellers, R. M., Caldwell, C. H., Schmeelk-Cone, K. H., & Zimmerman, M. a. (2003). Racial identity, racial discrimination, perceived stress, and psychological distress among African

- American young adults. *Journal of Health and Social Behavior*, 44(3), 302–317.  
doi:10.2307/1519781
- Shirley, E. L. M., & Cornell, D. G. (2016). The contribution of student perceptions of school climate to understanding the disproportionate punishment of African American students in a middle school. *School Psychology International*, 33(2), 115–134.  
doi:10.1177/0143034311406815
- Sidanius, J., & Veniegas, R. C. (2000). Gender and race discrimination: The interactive nature of disadvantage. *Reducing Prejudice and Discrimination*, 47–69.
- Smalls, C., White, R., Chavous, T. M., & Sellers, R. M. (2007). Racial ideological beliefs and racial discrimination experiences as predictors of academic engagement among African American adolescents. *Journal of Black Psychology*, 33(3), 299–330.  
doi:10.1177/0095798407302541
- Smith, S., & Fincham, F. (2015). Racial discrimination experiences among Black youth: A person-centered approach. *Journal of Black Psychology*, 1–20.  
doi:10.1177/0095798415573315
- Spencer, M. B., & Dupree, D. (1997). A phenomenological variant of ecological systems theory (PVEST): A self-organization perspective in context. *Development and Psychopathology*, 9(4), 817–833. <http://dx.doi.org/10.1017/S0954579497001454>
- Spencer, M. B., Fegley, S., Harpalani, V., & Seaton, G. (2004). Understanding hypermasculinity in context: A theory-driven analysis of urban adolescent males' coping responses. *Research in Human Development*, 1(4), 229–257. doi:10.1207/s15427617rhd0104
- Stevenson, H. C., & Arrington, E. G. (2009). Racial/ethnic socialization mediates perceived

- racism and the racial identity of African American adolescents. *Cultural Diversity and Ethnic Minority Psychology*, 15(2), 125–136. doi:10.1037/a0015500
- Stinson, D. W. (2006). African American male adolescent, schooling (and mathematics): Deficiency, rejection, and achievement. *Review of Educational Research*, 76(4), 477–506.
- Storer, H. L., Mienko, J. A., Chang, Y.-L., Kang, J. Y., Miyawaki, C., & Schultz, K. (2012). Moving beyond dichotomies: How the intersection of race, class and place impacts high school graduation rates for African American students. *Journal of Sociology & Social Welfare*, 39, 17–44.
- Stroebe, W., & Insko, C. A. (1989). Stereotype, prejudice and discrimination: Changing conceptions in theory and research. In D. Bar-Tal, C. F. Graumann, A. W. Kruglanski, & W. Stroebe (Eds.), *Stereotyping and prejudice: Changing conceptions* (pp. 3-34). New York: Springer-Verlag.
- Swanson, D., Cunningham, M., & Spencer, M. B. (2003). Black males' structural conditions, achievement patterns, normative needs, and "opportunities." *Urban Education*, 38(5), 608–633.
- Thapa, A., Cohen, J., Higgins-Alessandro, A., & Guffrey, S. (2012). *School climate research summary: August 2012*. New York, NY. Retrieved from [www.schoolclimate.org](http://www.schoolclimate.org)
- Thomas, O. N., Caldwell, C. H., Faison, N., & Jackson, J. S. (2009). Promoting academic achievement: The role of racial identity in buffering perceptions of teacher discrimination on academic achievement among African American and Caribbean Black adolescents. *Journal of Educational Psychology*, 101, 420-431. doi:10.1037/a0014578

- U.S. Census Bureau (2011). *Selected housing characteristics, 2007-2011 American Community Survey 5-year estimates*. Retrieved from [http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS\\_11\\_5YR\\_DP04](http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_11_5YR_DP04).
- Quin, D. (2016). Longitudinal and contextual associations between teacher-student relationships and student engagement: A systematic review. *Review of Educational Research*, XX(X), 1–43. doi:10.3102/0034654316669434
- Quintana, S. M. (2012). Racial Perspective Taking Ability: Developmental, Theoretical, and Empirical Trends. *Handbook of Race, Racism, and the Developing Child*, 16–36. doi:10.1002/9781118269930
- Thomas, A. J., & Blackmon, S. M. (2015). The influence of the Trayvon Martin shooting on racial socialization practices of African American parents. *Journal of Black Psychology*, 41(1), 75–89. <https://doi.org/10.1177/0095798414563610>
- Varner, F., & Mandara, J. (2014). Differential parenting of African American adolescents as an explanation for gender disparities in achievement. *Journal of Research on Adolescence*, 24(4), 667–680. <https://doi.org/10.1111/jora.12063>
- Verkuyten, M., & Jochem, T. (2006). Ethnic discrimination and global self-worth in early adolescents: The mediating role of ethnic self-esteem. *International Journal of Behavioral Development*, 30, 107–116.
- Wallace, J. M., Goodkind, S., Wallace, C. M., & Bachman, J. G. (2008). Racial, ethnic, and gender differences in school discipline among U.S. high school students: 1991-2005. *The Negro Educational Review*, 59(1), 47–61.
- Wang, M.-T., & Dishion, T. J. (2012). The trajectories of adolescents' perceptions of school

- climate, deviant peer affiliation, and behavioral problems during the middle school years. *Journal of Research on Adolescence*, 22(1), 40–53. doi:10.1111/j.1532-7795.2011.00763.x
- Wang, M., & Eccles, J. S. (2012). Social support matters: Longitudinal effects of social support on three dimensions of school engagement from middle to high school. *Child Development*, 83(3), 877–895.
- Wang, M. T., & Huguley, J. P. (2012). Parental racial socialization as a moderator of the effects of racial discrimination on educational success among African American adolescents. *Child Development*, 83 (5), 1716–1731.
- Way, N., Reddy, R., & Rhodes, J. (2007). Students' perceptions of school climate during the middle school years: Associations with trajectories of psychological and behavioral adjustment. *American Journal of Community Psychology*, 40(3-4), 194–213. doi:10.1007/s10464-007-9143-y
- Wong, C. A., Eccles, J. S., & Sameroff, A. J. (2003). The influence of ethnic discrimination and ethnic identification on African American adolescents' school and socioemotional adjustment. *Journal of Personality*, 71(6), 1197–232. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/14633063>
- Wood, D., Kurtz-Costes, B., Rowley, S. J., & Okeke-Adeyanju, N. (2010). Mothers' academic gender stereotypes and education-related beliefs about sons and daughters in African American families. *Journal of Educational Psychology*, 102(2), 521–530. doi:10.1037/a0018481
- Zimmerman, M. A., Stoddard, S. A., Eisman, A. B., Caldwell, C. H., Aiyer, S. M., & Miller, A.

- (2013). Adolescent resilience: Promotive factors that inform prevention. *Child Development Perspectives*, 7(4), 1–9. <https://doi.org/10.1097/OPX.0b013e3182540562>.
- Zullig, K. J., Koopman, T. M., Patton, J. M., & Ubbes, V. A. (2010). School climate: Historical review, instrument development, and school assessment. *Journal of Psychoeducational Assessment*, 28(2), 139–152. doi:10.1177/0734282909344205
- Zullig, K. J., & Patton, J. M. (2011). Relationships among school climate domains and school satisfaction. *Psychology in the Schools*, 48(2), 133–145. doi:10.1002/pits