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Establishing the Link Between Race And Academic Performance: Race- Related Stress,
Stereotype Threat and Self-Perceived Discrimination

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Abstract

The purpose of this study was to establish the link between race and academic performance in regards to self-perceived discrimination, stereotype threat and race-related stress. There were 61 participants. 44 were White, 5 were Black or African, 7 were Asian and 5 participants characterized themselves as other. The sample contained 52 females and 9 males. Nine (14.8%) individuals reported a Hispanic or Latino ethnicity. The age range of the participants were 18 to 59 years. Participants completed a survey designed to measure self-perceived discrimination, stereotype threat, and race-related stress. Demographic data and grade point average (GPA) were also collected. A multiple linear regression was conducted with GPA as the dependent variable and self-perceived discrimination, race-related stress, and stereotype threat, race, gender, and age as the predictor variables. The results revealed that none of the individual predictors reached significance. The model was not significant. However, race and stereotype threat were trending towards significance. A Pearson product-moment correlation coefficient was computed to assess the relationship between self-perceived discrimination, race-related stress, and stereotype threat. There was a positive correlation between race related stress and self perceived discrimination and an insignificant correlation between race related stress and stereotype threat. Also, a negative correlation between self-perceived discrimination and stereotype threat was observed. Findings did not support a hypothesized relationship between GPA, self-perceived discrimination, stereotype, and race-related stress. This may be due to insufficient power related to a small sample size and lack of diversity within the sample. Nonetheless, this type of research is important for understanding the relationship between academic performance and racial/ethnic disparities.

Establishing the Link Between Race And Academic Performance: Race- Related Stress,
Stereotype Threat and Self-Perceived Discrimination

Even though there is a vast amount of social science literature that evaluates the dimensions of academic achievement gaps, much can still be learned (Kao &Thompson, 2003). For example, “understanding race, ethnic, and immigrant variation in educational achievement and attainment is more important than ever as the U.S. population becomes increasingly diverse” (Kao & Thompson, 2003, pg. 418). Education is a powerful tool that can improve quality of life and open up numerous opportunities, thus increasing the odds of upward mobility. Existing academic and social gaps between minorities and non-minorities are well documented and have widened over time (Schneider, 2006). Even though there are more Blacks enrolled in college than ever before, the national college graduation rate for Black students is 42 percent, which is 20 percent lower than the 62 percent rate for White students (“Black Student College Graduation Rates”, 2016). Summers and Wolfe (1977) believed that tracing the determinants of racial and ethnic differences in postsecondary achievement will have the potential to narrow performance and graduation gaps.

This researches focuses on self- perceived discrimination, race-related stress, and stereotype threat and its possible contribution to lower academic performance among minority groups. This type of research is important for understanding, preventing, and solving problems related to racial and ethnic disparities associated with academic performance. In the sections to follow, the history of racial disparities and discrimination in the United States will be discussed, including a discussion of supreme court cases affecting race and education. Following this, current events reinforcing the need for understanding racial discrimination will be considered.

Finally, research in the areas of racial discrimination, stereotype-threat, and race-related stress will be explored as psychological factors leading to racial disparities in academic performance.

History of Racial Discrimination in the United States

A precedent was already set in which fewer African Americans were enrolled in school due to being sold into labor prior to the abolishment of slavery. For example, between 1820 and 1860 approximately thirty percent of all slave children born in the upper South were forcibly taken from their families and sold to work on plantations (Wiggins, 1980). After the abolishment of slavery, Jim Crow Laws were established between 1874 and 1975 in the southern part of the United States (Kousser, 2003). According to the Declaration of Independence, “All men are created equal”, but the institution of slavery and segregation diminished this notion (Kousser, 2003). These laws were created in order to separate the White and Black races. These laws were supposed to induce a “separate but equal” stance but instead created an unequal divide between White and Black races by sentencing Black citizens to inferior living conditions and facilities. Education and public facilities were segregated. For example, Florida established that schools for White and Black children would be conducted separately (Kousser, 2003). In Missouri, it was unlawful for any Black child to attend a white school or any white child to attend a Black school (Kousser, 2003). North Carolina also made it illegal for books to be interchanged between White and Black schools (Kousser, 2003). Hence, the education system for Blacks in the South were poor and inferior to White school systems.

The separate school systems were not equal because schools for White children received more public money (“The Education of Black Children”, 2014). In 1954, southern Black schools received only 50% as much of the funding provided to southern White schools (“Brown v. Board of Education”, 2014). Public schools were limited for Blacks due to some towns not having

enough money to build two separate schools, which was more common in rural areas (“The Education of Black Children”, 2014). Therefore, city school systems had more money than rural ones. Most Blacks lived in rural farm areas while White children lived in cities and had access to well funded schools. In the rural areas, schools were scheduled around cotton season. As a result, many Black children attended school for about two to three months out of the entire school year (“The Education of Black Children”, 2014).

Black schools exhibited poor conditions and limited resources. Many school buildings were in disrepair, had leaking roofs and were not deemed fit enough to accommodate students (“The Education of Black Children”, 2014). These schools were overcrowded and Black teachers did not receive as much training as White teachers. White school leaders also proposed limitations on the type of education Black children would obtain (“The Education of Black Children”, 2014). Their education system prevented African American students from learning about equality and freedom. For example, some Southern schools banned books that included the Declaration of Independence or the U.S Constitution (“The Education of Black Children”, 2014). This was a strategic tool to prevent uprisings and realizations that they were being denied basic rights as citizens of the United States.

Supreme Court Cases Related to Education

Plessy vs. Ferguson is a landmark supreme court case that revealed many southern Black schools lacked basic necessities such as cafeterias, libraries, gymnasiums, running water and electricity (Plessy v. Ferguson, 1896). This case sparked a Civil Rights movement to end racial segregation in public schools. Another landmark supreme court case, Brown vs. Board of Education, ended legal segregation in public schools in 1954 (Brown vs. Board of Education, 1954). This case was comprised of five separate cases regarding the issue of segregation in

public schools. Thurgood Marshall and the the National Association for the Advancement of Colored People Legal Defense and Education fund were in charge of these cases (Greenspan, 2014). They argued that separate school systems for Blacks and Whites violated the “equal protection” clause of the Fourteenth amendment. Social scientist Kenneth Clark argued that segregated school systems tended to make Black children feel inferior to White children (Greenspan, 2014). Hence, the Court’s unanimous decision ended racial segregation in public schools. Even though segregation in schools was no longer legal, some southerners delayed these changes and avoided integration. By 1964, only one percent of Black children attended schools with Whites, and those that did attend were subjected to bullying, harassment and violence (Greenspan, 2014). Over half of a century later, U.S schools remain widely segregated. For example, in New York City, more than half of public schools are at least 90 percent black and Hispanic. In Alabama, almost a quarter of black students attend a school with White enrollment of 1 percent or less (Greenspan, 2014). Also, low income Black children are more racially and socioeconomically isolated since the 1980s (Greenspan, 2014).

Racial Discrimination

Racial discrimination is defined as the practice of treating individuals unfavorably because of their race or color of their skin (Sellers & Shelton, 2003). Current events have portrayed the racial differences, social injustice and struggles that underrepresented groups face on a daily basis. For example, Tamir Rice was a twelve- year old African American child who was shot and killed by a white police officer, Timothy Loehmann, in December 2014 (Williams, 2015). Research has shown that computerized police simulators revealed that Black and White officers are more likely to open fire on a Black person whom they believe is armed when compared to a White subject in the same situation (Williams, 2015). The murders of Tamir Rice

and many other unarmed Black men have resulted in controversy and even riots. The fear of police brutality and the prevalence of racism has long been a concern in America.

A more recent example of racial discrimination is President Donald Trump's discriminatory comments towards minorities, Muslims, members of the LGBTQ community, females, people who are mentally disabled and undocumented immigrants. Whether or not people agree with his opinions, this type of freedom of speech has exposed the blanketed, underlying racial and ethnic disparities that lie within our society. For example, there were racial outbursts in the United States after the Trump's election. According to US News:

“Swastikas and graffiti declaring ‘Sieg Heil 2016’ were reportedly spray-painted in South Philadelphia. ‘Trump!’ was scrawled on the door to a prayer room used by Muslim students at New York University. A gay pride flag was burned in Rochester, New York and the apparent effigy of a black man was hung above the entrance to a coffee shop in Tuscaloosa, Alabama, dangling from the end of a rope” (Neuhauser, 2016, para. 2). Current events suggest the need to face racial differences and the prevalence of discrimination in our society, even if it can be a rather controversial topic.

Discrimination has had a significant negative impact on African American students' achievement success and their perception of a glass ceiling. Glass ceiling is defined as a barrier to advancement in a profession, especially affecting women and members of minorities (Jackson, & Callaghan, 2009). Researchers found that African- American high school adolescents' perception of glass ceiling led to their devaluation of school, lower levels of engagement in school and poor school performance (Cotter, Hermsen, Ovadia & Vanneman, 2001). According to Caldwell and Obassi (2010), African-Americans feel they do not have an equal opportunity in

the United States and, therefore, devalue academic achievement. Representation of minorities among college faculty and staff is important for eliminating the perception of a glass ceiling.

Race-Related Stress

Racial discrimination has been reported to be one of the major causes of stress during college (Turner & Smith, 2015). Race-related stress is the direct result of chronic and continuous exposure to racist events and interactions (Clark et al., 1999). There are six forms of race related stress: life events, vicarious experience, daily micro-stressors, chronic- contextual stress, collective experiences of, and transgenerational transmission of group traumas. According to Harrell (2000), daily racism micro-stressors serve as reminders that race is an ongoing stimulus in the world. Researchers have established a link between race related stress and psychological distress (Brown et al., 1999). Intense emotional reactions are common effects of race related stress and “students who perceived a certain level of racism on campus expressed feelings of depression, isolation, anger, anxiety, and disengagement from their college communities” (Turner & Smith, 2015, pg. 2). Psychological distress and stress on college campuses have been correlated with negative outcomes and emotions for undergraduate students. This includes dropping out, poor academic performance, depression, and anxiety (Andrews & Wilding, 2004). This can have a negative effect on academic performance in regards to class participation, homework and exams. Outcomes are worse when anxiety is accompanied by stress and stereotype threat (Williams & Mohammed, 2009). Racial discrimination has also been shown to be linked to heart disease, hypertension, muscle tension, chronic health problems, disability, and other health indicators (Williams & Mohammed, 2009). There is research that supports that the relationship between discrimination and a person’s mental health. Overall well being may be mediated by a person’s coping mechanism with discrimination (Krieger & Sidney 1990).

Ineffective coping can lead to avoidance, disengagement and substance use, including alcohol use and smoking (Rivo, et.al.,1989).

Stereotype Threat

Stereotype threat refers to being at risk of confirming to a negative stereotype about one's social group. For example, a national survey of high school biology teachers revealed that 25% of respondents believe some races are more intelligent than others (Pine & Hillard, 1990). Stereotype threat was first used by Steele and Aronson (1995), who conducted several experiments. Their findings revealed that Black college freshmen and sophomores performed more poorly on standardized tests than White students when their race was emphasized. When race was not emphasized, Black students performed better and equivalent to White students. Researchers concluded that performance in academic contexts can be harmed through the outlook of racial stereotypes (Steele & Aronson, 1995). Researchers have found that stereotype threat has been shown to harm the academic performance of other stigmatized groups, such as Hispanics and students from low socioeconomic backgrounds (Croizet & Claire, 1998).

Some situations are more likely to result in stereotype threat. Making one's group membership more salient is one of these situations. Steele and Aronson (1995) had African American college students indicate their race before taking a test. This caused Black students' anxiety to increase and test scores to decrease. Another study indicated that Blacks reported feeling more threatened and performed worse when the test administrator was White rather than Black (Marx & Goff, 2005). When the experimenter was Black, Black students performed as well as White students. Meanwhile, White students were not affected by the administrator's race. Therefore, one can conclude that stereotype threat is more likely to occur when one's stereotyped

group status is made salient by mentioning race in simple instructions or through the presence of an evaluator of a different race.

Lowered performance expectations is one of the mechanisms behind stereotype threat. Consequences of lowered performance expectations include decreased performance in academic domains, increased use of self-defeating behaviors, disengagement, and altered professional aspirations. Disengagement occurs when a stereotype threat causes minority groups to distance themselves from a threatening domain (Crocker, Major & Steele, 1998). Therefore, minority groups who were most susceptible to stereotype threat were most likely to withdraw from school (Osborne & Walker, 2006).

Conclusion

Stereotype threat refers to being at risk of confirming to a negative stereotype about one's social group. Stereotype threat can negatively influence academic achievement by inducing anxiety such as when presenting a test as a measure of ability or emphasizing an individual's race. This creates barriers to undermine performance and disidentification, which means psychologically disengaging from academic domains in order to maintain a positive sense of self (Steele & Aronson, 1995). Self-perceived discrimination has had a negative impact on African American students' achievement success and their perception of a glass ceiling. Race-related stress can negatively impact academic achievement, as well, due to the prevalence of micro stressors being enforced on minority groups on a daily basis; this causes minority groups to cope and adapt to the social demands and environment which can limit opportunities and cause them to devalue academic achievement (Caldwell & Obasi, 2010; Harrell, 2000). The fact that so many factors can play a role in decreased academic performance is alarming due to the disastrous effects it can have on the future. Therefore, more research is needed to elucidate why

minorities perform more poorly in college. The purpose of this study was to evaluate whether indices of experiences with self-perceived discrimination, race-related stress and stereotype threat correlate with academic performance. It was expected that increased reportings of self-perceived discrimination, race-related stress and stereotype threat would be associated with lower academic performance.

Methods

Participants

61 participants were recruited through Facebook. No compensation was offered. Among participants, 44 were White, 5 were Black or African, 7 were Asian and 5 participants characterized themselves as other. The sample contained 52 females and 9 males. Nine (14.8%) individuals reported a Hispanic or Latino ethnicity. The age range of the participants were 18 to 59 years of age.

Materials

A survey was created that measured self-perceived discrimination, stereotype threat, stress, grade point average and demographics.

Brief Perceived Ethnic Discrimination Questionnaire- Community Scale. Self perceived discrimination was measured by the Brief Perceived Ethnic Discrimination Questionnaire-Community Scale (Brondolo et al., 2005). This scale was designed to assess perceived racism and ethnic discrimination among students and community samples. The scale measures four factors: lifetime exposure, exclusion/rejection, stigmatization/devaluation and discrimination at work/school. The measure includes 17 items across including a single item assessing exposure to race-based maltreatment from police. The exclusion/ rejection subscale assesses the degree to which individuals report having been isolated, excluded, or ignored because of their race or

ethnicity. The stigmatization/devaluation subscale assesses the degree to which individuals report having been treated in a demeaning or stigmatizing way because of their race or ethnicity. “Has anyone hinted that you were lazy?” is an example of one of the questions on the stigmatization/devaluation subscale. The discrimination at work/school subscale measures the degree to which individuals report having been treated unfairly at work or school because of their race or ethnicity. The threat/aggression subscale evaluates the extent to which individuals report that they (or their property) were harmed or threatened due to their race or ethnicity.

This scale uses a 5-point Likert scale where 1=Never Happened and 5= Happened very often. Scale scores are calculated by summing up participant’s scores. A higher score means a higher perception of racism. The internal consistency of this scale ranged from .65 to .88 using a community and a student sample. The internal consistency of the lifetime exposure, exclusion/rejection, stigmatization/devaluation, discrimination at work/school and threat/aggression subscales for student samples were 0.88, 0.69, 0.78, 0.65, and 0.88, respectively. Cronbach’s alpha was reevaluated and computed in this study, providing evidence of good scale reliability, $\alpha = .886$.

Social Identities and Attitudes Scale. Stereotype threat was measured using the Social Identities and Attitudes Scale (Picho & Brown, 2011). The purpose of this scale is to measure stereotype threat susceptibility. This scale measures key stereotype threat moderators: math identification, math self concept, gender identification, gender stigma consciousness, ethnic identification, ethnicity stigma consciousness, and negative affect. For this study, only questions related to ethnicity were used. An example question from this scale was: “My ethnicity influences how teachers interact with me.” Responses were recorded using a 5-point Likert scale where 1=Strongly Disagree and 5= Strongly Agree). Scale scores were calculated by summing

up participant's scores. Cronbach's alpha was computed in this study, providing evidence of good scale reliability, $\alpha = .857$, keeping in mind that only 7 of the 43 items were used.

Index of Race-Related Stress Scale. Stress was measured by the Index of Race-Related Stress Brief Version (Utsey, 1999). This measure consists of 22-items and assesses race-related stress experienced by African-Americans. There are three subscales: cultural racism, institutional racism, and individual racism. The cultural racism subscale measures experiences of racism when one's culture is slandered. The institutional racism subscale assesses experiences of racism in a given institution with regard to policies and practices. The individual racism subscales assess interpersonal racial experiences. The internal consistency of the cultural racism, institutional racism and individual racism subscales were 0.78, 0.69, and 0.78, respectively. Scale scores are calculated by summing up the three subscales. Cronbach's alpha was reevaluated and computed in this study, providing evidence of good scale reliability, $\alpha = .991$. Therefore, this scale demonstrates strong internal consistency. A higher score corresponds to higher race-related stress. Since this scale was designed to assesses racism toward African Americans only, it was altered in order to accommodate diverse racial groups. For example, "You notice the crimes committed by White people tend to be romanticized, whereas the same crime committed by a Black person is portrayed savagery and the Black person who committed it, as an animal" was changed to "You notice the crimes committed by White people tend to be romanticized, whereas the same crime committed by a minority is portrayed savagery and the minority who committed it, as an animal". Across items, Black was replaced with "minority" and White was changed to "White/non-minorities".

Procedures

The link to the questionnaire was provided on my personal Facebook page. An IRB approved recruitment flyer was attached to my Facebook announcement. The recruitment flyer included purpose of the study, study procedures, eligibility, benefits, compensation and contact information. IRB approval was obtained on January 18, 2017. The questionnaire took approximately 20 minutes to complete. All participants were provided with an online consent form which informed them about the purpose of the study. Participants had to agree to the online consent before having access to the questionnaire. The data was collected using Qualtrics survey software. Through this application, features such as distribution, data collection and analysis were accessible.

Data Analysis

Analyses were computed using the total score from each subscale: The Brief Perceived Ethnic Discrimination Questionnaire-Community Scale, the Social Identities and Attitudes Scale and the Index of Race-Related Stress Brief Version. A multiple linear regression analysis was conducted with GPA as the dependent variable and self-perceived discrimination, stereotype threat, race-related stress, race, gender, and age as the independent variables. Also, a bivariate correlational analysis between self-perceived discrimination, stereotype threat and race-related stress was conducted.

Results

Descriptive

The descriptive statistics are shown in Table 1.

Inferential

A multiple linear regression was conducted with GPA as the dependent variable and self-

perceived Discrimination, race-related stress, and stereotype threat, race, gender, and age as the predictor variables. The adjusted R^2 value was .066. The model was not significant, $F(6,54) = 1.711$, $p = .136$. See Table 2 for the beta weights. None of the individual predictors reached significance. However, race ($p = .126$) and stereotype threat ($p = .123$) were trending towards significance.

A Pearson product-moment correlation coefficient was computed to assess the relationship between self-perceived discrimination, race-related stress, and stereotype threat. See Table 3. There was a significant positive correlation between race-related stress and self-perceived discrimination, $r = 0.519$, $n = 61$, $p = .000$. There was an insignificant negative correlation between race related stress and stereotype threat, $r = -.302$, $n = 61$, $p = .018$. There was a significant negative correlation between self perceived discrimination and stereotype threat, $r = -.504$, $n = 61$, $p = .000$.

Discussion

The purpose of this study was to evaluate whether indices of experiences with self-perceived discrimination, race-related stress and stereotype threat correlate with academic performance. It was expected that increased reporting of self-perceived discrimination, race-related stress and stereotype threat would be associated with lower academic performance. Current findings did not support this hypothesis. Self-perceived ethnic discrimination, race related stress, and stereotype threat, race, gender, and age did not predict GPA in the given sample. However, bivariate correlational analysis revealed a positive correlation between self-perceived discrimination and race-related stress. High reports of self-perceived discrimination were associated with high reports of race-related stress.

Current findings are inconsistent with the existing literature. Results from other studies

have suggested significant correlations between experiences with discrimination and academic achievement. For example, Neblett, Philip, Cogburn, and Sellers (2006) examined experiences with racial discrimination, parent race socialization practices and academic achievement outcomes. They found that adolescents' encounters with discrimination were associated with a decrease in academic curiosity, persistence and student self reported grades. Previous research also has demonstrated a relationship between stereotype threat and academic performance. For example, Osborn and Walker (2006) examined why students of color are likely to withdraw from school. Building upon Steele's (1995) research they hypothesized that "group members who are most strongly identified with the stigmatized domain in question (e.g., intellectual or academic ability) are those most likely to suffer the effects of stereotype threat" (Osborn & Walker, 2006, p.1). Researchers measured identification with academics amongst incoming students at a racially diverse inner city high school in the Midwest USA. Osborn and Walker (2006) found that students who strongly identified with academics had higher GPAs, regardless of race. However, students of color who most strongly identified with academics were most likely to withdraw. This finding suggests that stereotype threat can affect multiple domains in different ways. Researchers also have studied the effects of race-based stressors, race related stress, stereotype threat on the achievement gap. For example, Levy, Heissel, Richeson, and Adam (2016) studied race-based disparities in stress and sleep. Researchers found that cortisol levels were abnormal when both Blacks and Whites experienced discrimination, especially throughout their adolescence. The negative effects of cortisol were higher in Blacks compared to Whites. These findings are important because the stress of racial discrimination can affect cortisol and sleep levels, which are primal components for cognitive functioning and learning. Therefore, race-related stress can ultimately affect academic performance.

The theories and mechanisms behind self perceived discrimination, race-related stress and stereotype threat support an association with academic performance, as described above. However, current findings do not support these theories. In this study, these factors did not predict academic performance nor did age, race, or gender. It is well established that stereotype threat inhibits academic performance for students when negative qualities about their groups are emphasized (Picho & Brown, 2011). In order for this to occur, one must believe the stereotype and have a high personal investment in the stereotyped domain, such as minorities who value mathematics (Picho & Brown, 2011). It is surprising that high reports of stereotype threat did not predict lower academic performance in the current study.

Race is a major contributing factor in the achievement gap. The academic achievement gap has barely narrowed (Camera, 2016). For example, 71 percent of white students in grade 12 scored ahead of the average black 12th grader compared to 87 percent of white students scoring ahead of black students 50 years ago (Camera, 2016). Graduation rates also differ between different groups. For example, 87 percent of white students graduate from high school on time compared to 76 percent of Hispanics and 73 percent of African Americans (Brownstein, 2016). Findings from this study revealed that race and stereotype threat were trending towards significance, suggesting that race is likely to contribute to academic performance due to the academic achievement gap.

A strong positive correlation between race-related stress and self-perceived discrimination was observed in this study. This is due to the connection between race-related stress and encounters with discrimination. Research has supported the notion that psychological stress is caused by racial discrimination. As previously noted, the stress of racial discrimination can affect cortisol and sleep levels, which are primal components for cognitive functioning and

learning (Levy, Heissel, Richeson & Adam, 2016).

There are some limitations that may have contributed to current findings. Due to a limited period for data collection, the sample size was small (N=61). The sample also lacked diversity with regard to race/ethnicity and gender. These factors combined limited the generalizability of findings. Relatedly, the inclusion of White participants may have affected findings given that most studies on self-perceived discrimination, race-related stress, and stereotype threat have focused on the experiences of Blacks and Hispanics. In addition, the use of grade point average as the only measure of academic achievement may have skewed findings. If other measures of academic achievement such as college withdrawals, college life satisfaction and graduation rates were adopted, different results may have yielded.

Future studies need to target various racial groups rather than focusing exclusively on Black and Hispanic students. Research has already been established and conducted for these minority groups in regards to self perceived discrimination, race related stress and stereotype threat. Therefore, researchers need to study other minority groups such as Asians, Alaskans, Native Americans and Pacific Islanders. This will increase understanding of the academic achievement gap across different race/ethnicities. Understanding how self-perceived discrimination, race-related stress and stereotype threat operate among people from different cultures will be a stepping stone in improving educational environments and narrowing the achievement gap.

In conclusion, findings from this study did not support the hypothesis that increased reporting of self-perceived discrimination, race-related stress and stereotype threat would be associated with lower academic performance. As described above, this may have been due to the small sample size and lack of diversity within the sample. Despite the lack of significant

findings, studies such as this are important for better understanding the relationship between race/ethnicity and academic performance. Education is a powerful tool that can improve quality of life and open up numerous opportunities, which can create opportunities for upward mobility. By understanding these relationships, an attempt can be made to improve educational outcomes for minority students.

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Tables

Table 1.

Descriptive Statistics (N=61)

	Min	Max	Mean	St. Dev	Skewness	Kurtosis
GPA	2.33	4.0	3.468	.401	-.807	.290
Age	18	59	22.89	6.86	3.468	14.145
SPD	22.00	101.00	52.508	17.388	.067	-.093
RRS	17.00	55.00	31.180	9.242	.598	-.280
ST	10.00	35.00	22.361	6.250	.449	-.310

Note. GPA is grade point average. SPD is self-perceived discrimination. RRS is race-related stress. ST is stereotype threat.

Table 2.

Regression Model Predicting Predicting GPA (N=61)

Variable	<u>Unstand Coeff</u>		<u>Stand Coeff</u>	t	Sig.
	B	St. Err	Beta		
Constant	3.014	.370		8.137	.000
RRS	.007	.007	.160	1.034	.306
SPD	-.001	.004	-.034	-.211	.834
ST	.016	.010	.243	1.567	.123
Race	.188	.121	.211	1.553	.126
Age	-.010	.008	-.170	-1.284	.205
Gender	.149	.146	.132	1.016	.314

Note. GPA is grade point average. SPD is self-perceived discrimination. RRS is race-related stress. ST is stereotype threat.

Table 3.

Bivariate Correlation between SPD, RRS and ST (N=61)

		RRS	SDP	ST
RRS	Pearson Correlation	1	.519	-.302
	Sig (2-tailed)		.000	.018
	N	61	61	61
SDP	Pearson Correlation	.519	1	-.504
	Sig (2-tailed)	.000		.000
	N	61	61	61
ST	Pearson Correlation	-.302	-.504	1
	Sig (2-tailed)	.018	.000	
	N	61	61	61

Note. GPA is grade point average. SPD is self-perceived discrimination. RRS is race-related stress. ST is stereotype threat.