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Examining Associations between Teacher-Student Connectedness and Aggressive behavior among Black students exposed to School-based Racial and Ethnic Microaggressions

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An abstract of
a thesis submitted to the Faculty of the Rollins School of Public Health of Emory University in
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Abstract

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Black youth may experience unique stressors such as racial and ethnic microaggressions. These
unique stressors can explain traumatic stress disparities experienced by Black youth as they
compound other traumas and stressors. While racial stress and trauma has been explored among
Black adult populations, similar research still developing among Black youth. Black youth
experience disparities in school violence including bullying and other aggressive behaviors. The
incidence of such behavioral outcomes could be exacerbated by direct and indirect exposure to
racial stress and trauma. Social support from teachers promotes academic success and positive
mental health outcomes among, middle school, high school, and college students. Black youth
who may experience unique racial stressors may benefit from teacher social support that is
specific to the racial and ethnic stressors. This study aims to assess the relationship between
teacher -student connectedness and aggressive behavior outcomes among Black youth exposed
to racial and ethnic microaggressions.

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Chapter 1: Introduction

African American youth are disproportionately affected by traumatic stress, and this may be explained by racial stressors that African American youth experience at a higher rate, compared to their White counterparts (Saleem et at, 2019 & Metzger et al, 2021). Studies have shown that race and racism exacerbate physical and mental health outcomes in Black Americans (Chin et.al, 2020; Williams, 1999). There is extensive research on racial stress and trauma (RST) including protective factors and coping methods for Black American adults (Allen, et.al, 2019), but more research is needed among Black adolescents (Saleem et. al, 2019). Existing research has found that Black American youth are more likely to report emotional and behavioral outcomes such as substance abuse, delinquent behavior, and risky sexual behavior, in response to trauma exposure (Saleem et.al, 2019).

Racial microaggressions, which are described as "subtle insults (verbal, nonverbal, and/or visual) directed toward racial minorities, often automatically or unconsciously" (Solorzano et al. 2000) happen frequently in schools (Solorzano et al. 2000). Microaggressions can have harmful emotional and mental health effects on individuals receiving them, yet when racial microaggressions are perpetrated, they may be unrecognizable by the perpetrator (Alvarez et al, 2016). Invalidation of racial microaggressions is particularly detrimental to the health and well-being of those who experience them (Solorzano et al.2000 & Nadal, Erazo and King 2019)).

In a 2016 publication, Dr. Adam Alvarez described the difference between recognizable and unrecognizable experiences leading to trauma and gave the following example as an unrecognizable experience: "Educators perpetuating racial-biases by allowing harmful race-

based incidents to occur." (Alvarez et. al, 2016)   This quote is why attention to racial microaggressions is important for educators, because without it, teachers can unknowingly perpetrate racial biases towards their students, and potentially cause racial stress and trauma (RST).

In addition, supporting those who experience RST is important to reduce harm from these events. Black youth are disproportionately burdened by school violence. For Black students, school settings can be often physically and emotionally unsafe and they are targeted by anti-Black policies and practices (Heidelburg, Kamontá & Phelps, Chavez & Collins, Tai, 2022), which can lead to increased exposure to bullying and harassment (Peguero, Anthony A. 2011). Recent research suggests that support after violence could reduce risk behaviors such as bullying (Qin, Weidi 2020). Such support has been explored in the form of school belonging. A longitudinal study that explored school belongingness as a protective factor for exposure to community violence among Black male adolescents found that school belongingness did not mitigate aggressive behavior among youth. This study did find that aggressive behavior may be more sensitive to one's proximity to individuals who are perpetrators (Pierre, C.L., Burnside, A. & Gaylord-Harden, N.K., 2020). This finding can suggest a need to explore associations between social support experienced in school and aggressive behavior outcomes among youth who are perpetrators of aggressive behaviors.

This study will expand research on Black middle school students' perceived social support from educators in school, particularly those who have experienced RST. This is important because there is a high likelihood that students may encounter race-related experiences in school settings and look to teachers/school staff for support. The intended purpose of this study is to understand associations between perceived social support in the form of teacher-student connectedness and aggressive behavior among Black youth exposed to RST.

Research Question: What are associations between perceived teacher-student connectedness and aggressive behavior among Black students exposed to RST in the form of school-based racial and ethnic microaggressions?

Chapter 2: Literature Review
Racial Trauma

Racial discrimination is a common experience in the United States that minoritized groups are exposed to at higher rates compared to their White counterparts (Carter et al, 2013). Racial trauma, otherwise known as racial stress and trauma (RST) and race-based traumatic stress (RBTS), refers to the mental and emotional injury as a result of encounters with racial bias, racial and ethnic discrimination, racism, and hate crimes (Helms, 2010). RST results from race-based threats. Such threats show up in many forms, whether it's sudden or systemic, intentional or not intentional, vague and ambiguous, direct and specific, or vicarious (Helms, 2010). These threats have been studied widely among adult-aged individuals across various minority groups for associations with health outcomes. For example, studies have consistently reported

associations between RST and health outcomes such as depression, anxiety, and symptoms for PTSD (Jernigan and Daniel 2011; Saleem, 2019).

Racial Stress and Black Adolescents

African American youth are disproportionately affected by trauma, whether directly and vicariously experienced (Metzger, 2021). This disparity may be explained by the unique racial stressors African Americans are more likely to be exposed to (Metzger, 2021, Saleem et.al, 2019). Such stressors include racial microaggressions, racial discrimination, and internalized racism (Williams, 2018). Research consistently finds significant associations between RST and physical health outcomes among Black adults (Williams D. R., 2018), yet research regarding RST among youth and associated mental, social, and behavioral outcomes is still growing.

One study of parents and Black children found a positive association between parental racial discrimination and symptoms of anxiety and depression in the child, independent of the child's experiences of racial discrimination (Gibbons et al. 2004). Additionally, parental experiences of discrimination were also associated with substance use in children that was mediated by both parental and child anxiety and depression (Gibbons et al. 2004). Another study with a longitudinal design found that increases across late childhood and early adolescence in perceived discrimination among African American youth was positively associated with depressive symptoms and conduct problems, such as lying, physical assault, shoplifting, vandalism, burglary, robbery, cruelty to animals and fire setting (Brody et al, 2006).

Racial Microaggressions and Social Support

One study examined racial microaggressions in academic settings among college students and highlighted key issues related to racial microaggressions, racial climate, racial literacy, and critical race theory (Solorzano et al, 2000). Themes from focus groups conducted included exhaustion from experiencing racial microaggressions repeatedly by way of White counterparts and professors, negative impacts on academic performance, and negative racial climate. Some of the responses from students supporting these themes included the following: "When she [the professor] gets to talking about the subject of racism, she doesn't say 'racism,' and I'm like, 'No, it's racism.' She doesn't quite understand.", I think that when the professors see that there's fewer of you, they're less likely to address your concerns." The students' statements emphasize the importance of racial literacy and providing support specific to RST, especially in academic settings. Racial literacy may contribute to providing social support to Black students, particularly those who have experienced racial microaggressions. One of the consequences of the racial microaggressions mentioned above is a negative racial climate in school settings (Solorzano et al, 2000). Black students in this study reported frustration, exhaustion and discouragement as emotions experienced in a negative racial climate, because of racial microaggressions perpetrated by teachers (Solorzano et al, 2000). Providing support and building connectedness in these contexts is particularly important to reduce the isolation and discouragement currently experienced.

Connectedness in School Settings

School settings are a place where students may gain a sense of belonging and community, and receive social support from school teachers (McNeely and Falci, 2004). Previous studies

have found that adolescents' trust in teachers can mediate the association between relational discipline, meaning correction from adults in social network, and behavioral outcomes in school settings (Gregory, A., & Ripski, M. B., 2008). In addition, adolescents' sense of belonging in school settings has been related to reduced engagement in violent behavior such as group fighting, deliberating hurting someone, threating someone or using a weapon in a fight (Chapman, R.L., et al, 2011). While studies have shown how school settings can serve as a place of community and belonging, other studies have also shown schools are also a place where racial microaggressions and other forms of racial stress can occur (Nadal, Erazo and King, 2019). Studies indicate that school-based racial microaggressions negatively impact African American students' academic, social, and behavioral outcomes (Benner & Graham, 2013; Henderson et al., 2019; Hope et al., 2015). Social support from teachers may buffer these effects and protect against negative behavioral outcomes after experiencing school-based racial microaggressions. Perceived emotional support from teachers has been associated with higher grade point averages for both boys and girls (Tennant et al, 2015) and lower likelihood of engaging in risk behaviors such as smoking and drinking (McNeely and Falci, 2004). These studies focus on adolescent aged youth and college students, without a focus on racial differences. While there are studies on teacher social support and school connectedness protecting against negative behavioral outcomes, more research specific to the relationship between RST, perceived teacher-student connectedness and behavioral outcomes among Black youth is needed.

Connectedness and Racial Trauma

One study found that perceived racial climate was associated with academic achievement and behavioral outcomes (Mattison, E., & Aber, M. S., 2007). This study identified that school

climate perceptions were associated with sixth and seventh grade boys' externalizing problems

measured via both self and teacher report, most especially among African American boys

(Mattison, E., & Aber, M. S., 2007). Those African American boys with positive perceptions of

climate had fewer externalizing problems than those with negative perceptions of climate

(Mattison, E., & Aber, M. S., 2007). It appears that positive perceptions of the climate may serve

a protective function for African American boys. Another school-based study found that

students' perception of experiences of racism was associated with detentions occurrences, such

that positive perceptions of the racial climate was associated with fewer detentions (Mattison and

Aber, 2007). Researchers have found that connectedness and social support from teachers and

school personnel becomes increasingly important for racial and ethnic minorities' academic

support, as well as that social support in school setting is important to positive behavioral health

in Black male adolescent students (Mattison and Aber, 2007).

Theoretical Framework: Social- Interpersonal Framework Model

The Social Convoy theory is based on the principle that throughout one's lifespan,

individuals are surrounded by social networks consisting of a variety of individuals, including

non-parental adults, who provide social support (Sterrett et.al, 2011). This framework will help

guide the study to analyze associations between perceived teacher-student connectedness and

aggressive behavior. This framework is relevant to this study as it will analyze the social support

from a non-parental figure, schoolteachers and aligns with research that suggests communities

able to provide higher levels of social support have lower rates of juvenile crime (Kort-Butler,

2017). For this study, outcomes of interest are aggression towards other students (e.g., hitting,

kicking, shoving, and locking indoors). The social convoy theory has not been applied to these

specific outcomes but is based on social networks that includes non-parental adults (Sterrett et al, 2011).

The socio-interpersonal framework model by Maercker and Horn (2013) is specific to trauma and illustrates how individuals are nested in different levels of social contexts that influence the recovery after traumatic experiences. Culture and society, close relationships and social contexts are the three levels represented in this model. Teacher-student relationships will be the focus for the concept of close relationships in this framework. Integrating this model with the Social Convoy Theory will provide a trauma-informed framework as this study will focus on teacher-student connectedness specifically among students who have experienced RST.
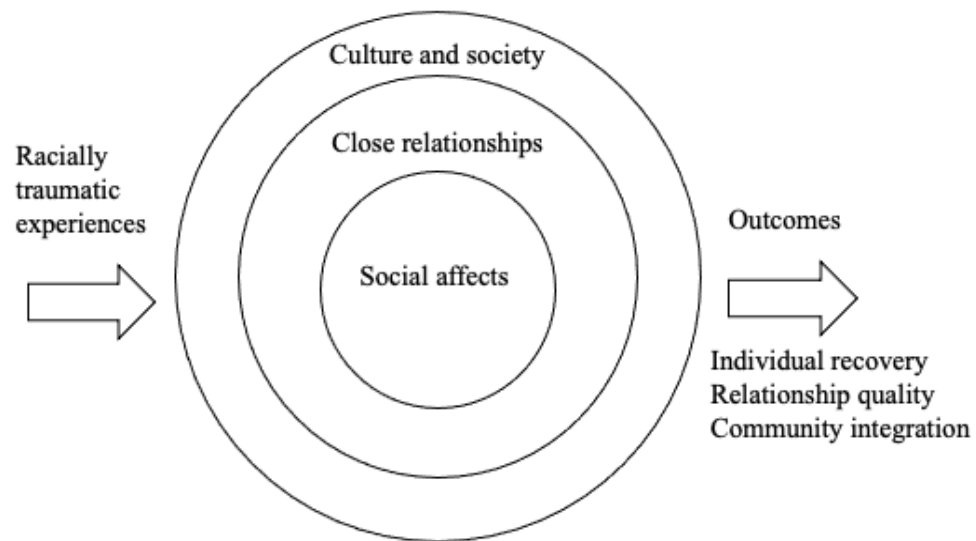

Fig. 1. The social□interpersonal framework model for trauma sequelae (From Maercker & Horn, 2013) adapted to reflect racially traumatic experiences.

Chapter 3: Methods

Sample and procedure

Data for the current study comes from the Link for Equity study. *Link for Equity* is a culturally-responsive, trauma-informed, school-based violence prevention intervention currently being implemented and evaluated in school districts in Minnesota. The current study involves secondary analysis of survey data from 70 Black, middle-school students from the *Link for Equity* study to examine the relationship between teacher-student connectedness and student aggressive behavior among Black youth who experienced RST. The middle school students from six school districts in Minneapolis, Minnesota comprise our study population. School districts were recruited to participate based on their high suspension and violence rates, and high minority enrollment.

A quantitative cross-sectional research design with secondary data was used to examine the associations between perceived teacher-student connectedness and aggressive behavior among Black students who report RST, defined as experiences of racial microaggressions. All data collection and study procedures were approved by the Institutional Review Board at Emory University and the University of Minnesota. The Link for Equity student survey is a 76-item baseline survey created by the research team to collect data regarding demographics, exposure to violence, neighborhood setting, perceptions of connectedness with schoolteachers, behavior outcomes, experience with racial microaggressions, and bullying among students. Some scales used in the survey were pulled from the Minnesota Student Survey SAS 9.4 software was used to run logistic regression models for analyses between levels of connectedness and aggressive behavior among Black youth who experienced at least one racial microaggression. Levels of connectedness were developed by determining the 33% and 66% tertile points for the total score of the teacher-student connectedness measure.

Measures

School-based racial and ethnic microaggressions scale

The overall sample was restricted to those who experienced RST. To measure RST, the school-based racial and ethnic microaggressions scale was used (SB-REMA; Keels et al., 2017). This scale includes 14 items that include the following sub-categories: Academic Inferiority, Expectations of Aggression, and Stereotypical Misrepresentation. Items from these sub-categories include the following: "People at school assumed that I will behave aggressively (badly) because of my race/ethnicity", " I was singled out by school police or security because of my race/ethnicity", " People at my school acted as if all of the people of my race/ethnicity are alike", and "People at school denied that people of my race/ethnicity face extra obstacles (challenges) when compared to White people". Participant responses for experiencing microaggressions are made on a scale of 1 = never, 2 = sometimes, or 3 = regularly, and mean scores are calculated. In this study, participant responses were recoded into binary outcomes (0 = Never experienced, 1- Experienced at all). Each item of each sub-scale was summed into one variable to capture the average number of microaggressions experienced by the students for each sub-scale. Additionally, each item of the entire scale was summed into one variable to capture the average number of microaggressions experienced by the students, and to measure association with descriptive variables. Students who self-identified as Black/African American and reported experiencing at least one microaggression were included in the regression analyses.

Teacher-Student Connectedness

The Student-Teacher connectedness scale from the Minnesota Student Survey (Minnesota Department of Education, 2019) was used to measure student perceptions of caring relationships with teachers or adults at the school. This scale including the following items: 1) Overall, adults at my school treat students fairly. 2) Adults at my school listen to the students. 3) The school rules are fair. 4) At my school, teachers care about students. 5) Most teachers at my school are interested in me as a person. Responses were recorded on a 4-point Likert scale ranging from "strongly disagree" to "strongly agree." A total connectedness score was calculated in SAS by the summation of all items, and this total score was used to measure association with descriptive variables.

Aggressive Behavior

Five items were used to measure aggressive behavior perpetrated by the student. Those items include: **In the past year,** how often did you 1) Hit, kick, push, shove around, or lock indoors another student(s), 2) Call mean names, make fun of, or tease in a hurtful way another student(s), 3)Target another student(s) with rumors or lies, 4) Keep out of things on purpose, exclude from your group of friends, or completely ignore another student(s), 5) Target another student(s) by posting hurtful information on social media, by text, or by instant messaging? Response options for these items include "Not at all", "Once a week or less/ a little", "2 to 3 times a week/ somewhat", "4 to 5 times a week/ a lot", and "6 or more times a week/ almost always." These items were recoded as binary outcome variables. A total aggressive behavior score was calculated in SAS by the summation of all dichotomized items, and this total score was used to measure association with descriptive variables.

Analysis Plan

Logistic regression was conducted to assess the relationship between levels of connectedness to each aggressive behavior outcome. The sample was restricted to students who reported at least one microaggression. Risk ratios were calculated to understand the risks of a student perpetrating each aggressive behaviors as it relates to each level of connectedness. Regressions were performed using SAS 9.4.

Chapter 4: Results

115 students identified as Black/African American in baseline Link for Equity survey. Out of these students,70 (61%) reported experiencing at least one racial/ethnic microaggression making the total sample for the current study 70 students. Of the 70 students in the current study sample, 38 identified as female and 32 identified as male. The average age of the participants was 12.6 years of age (SD = .92, range = 10–14).

Socio-demographic survey

Demographics regarding age, grade level, sex, and living arrangement were collected in this study. The average age of participants in this study is 12.5 years of age. Thiry-eight students self -identified as female and 32 self-identified as male. Twenty-three students lived in a two-parent home (32.86 %) 40 students lived in a one-parent home (57.14%) and 7 students lived with either another relative that is not a parent or identified "other" as their living arrangement (10%). For grade levels, this study sample consists of 1 5th grader (1.43%), 11 6th graders (15.71%), 24 7th graders (34.29%), and 34 8th graders (48.57%).

Participants Characteristics

Table 1: Participant Characteristics

Variable	Overall Sample N = 70
Sex	
Female	38 (50.43%)
Male	32 (49.57%)
Grade level (%)	
5th	1(1.43%)
6th	11(15.71%)
7th	24 (33.04%)
8th	34(48.57%)
Living arrangement (%)	
Living with both parents	23(32.86)%
Living with one parent	40(57.14%)
Living with other relative besides parent	2(2.86)%
Other	5(7.14%)

Correlations between descriptive variables and aggressive behavior, connectedness and microaggressions

Correlations were assessed to determine how descriptive variables such as sex, age and grade level were associated with total microaggression score, total aggressive behavior score and total teacher-student connectedness score. These correlations were conducted using proc correlations in SAS to obtain the Pearson coefficients (r^2). For this study, a correlation is considered to have a small effect is the coefficient is .10, a medium effect is the coefficient is .30, and a large effect if the coefficient is .50. Sex, age and grade level have a weak association with total aggressive behavior, as well as a weak association with total microaggressions. While sex has a very weak association with total connectedness, grade level has a small effect on connectedness (r^2 = .24, p = .01, and age has close to a medium effect on connectedness (r^2 = .40, p = .001).

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Table 2: Correlations of Sex, Age and Grade level with Aggressive behavior, Connectedness and Microaggressions

Aggressive behavior		
	P-value	r^2
Sex	.70	0.03
Age	.06	.17
Grade level	.13	.14
Connectedness		
	P-value	r^2
Sex	0.74	0.03
Age**	0.001	0.40
Grade level*	0.01	0.24
Microaggressions		
	P-value	r^2
Sex	.48	-.06
Age	.21	.11
Grade level	.34	.08

*p-value <0.05   **p-value <0.01   ***p-value <0.001

School Based Racial/Ethnic Microaggression

The school-based racial/ethnic microaggression scale is divided into subscales that focus on three sub-categories: Academic Inferiority, Expectations of Aggression and Stereotypical Misrepresentation. The Academic Inferiority sub-scale assessed participants' experiences of academic discouragement, inferiority, and exclusion in the classroom (e.g., "I felt my classroom contributions were minimized or dismissed because of my race"). Expectations of Aggression assessed participants' experiences of others acting in fear of them or being singled out by security as a result of their race (e.g., "people at school assumed that I will behave aggressively because of my race"). Stereotypical Misrepresentations assessed participants' experiences of racial generalizations or sexual stereotypes (e.g., "people at school acted as if all of the people of my race are alike). For this study, students reported an average of experiencing 2 academic inferiority based microaggressions (M= 2.39, SD=2.31, range = 0-7), 1 expectations of aggression microaggression (M= 1.04, SD=1.05, range = 0-3), and nearly 2 stereotypical

misrepresentation microaggressions (M= 1.74, SD=1.35, range = 0-4). In total, students reported an average of 5 racial/ethnic microaggressions (M= 5.15, SD=2.31, range = 0-7).

Teacher-Student Connectedness

To determine if connectedness is associated with aggressive behavior, a logistic regression was conducted to assess the relationship between levels of connectedness and each aggressive behavior outcome among Black youth who have experienced racial microaggressions in the school setting. Overall, the model was not significant. However, the results although not significant, show a negative association between connectedness and social media aggressive behavior.

To understand associations between teacher-student connectedness and aggressive behaviors, the teacher-student connectedness scale was summed and divided into three levels, based on computed tertile points: low level of connectedness (low ssc), medium level of connectedness (med ssc), and high level of connectedness (high ssc). Low ssc was set as the point of reference in the connected and aggressive behavior models. 16 students reported low scc (23.19%), 39 students reported medium ssc (56.52%) and 14 students reported high ssc (20.29%). A logistic regression was conducted to obtain the risk ratios of each model (Table 2). The average total connectedness score for this study was 12 (M=11.54, SD = 2.81, Range = 5-20), which would fall into the medium ssc category.

Table 2. Logistic Regressions with Risk Ratios for Levels of Connectedness and each Aggressive Behavior (N=70)

Aggressive Behavior Type & Connectedness (SSC)	Risk Ratio/Estimate	P Value
Physical aggressive and med SSC	RR =.60 / -.3691	.32
Physical aggressive and high SSC	RR=.65 / -.8109	.13
Verbal aggressive and med ssc	RR=.67 / -.4439	.19
Verbal aggressive and high ssc	RR=.38 / -1.0296	.08
Relational aggressive and med ssc	RR=.65 / -.7434	.31
Relational aggressive and high ssc	RR=.57 / -1.2040	.35
Exclusion aggressive and med ssc	RR=.74 / -.2704	.41
Exclusion aggressive and high ssc	RR=.33 / -1.5401	.11
Social media aggressive and med ssc	RR=.42 / -.7746	.03*
Social media aggressive and high ssc	RR=.14 / -2.1972	.05

Table 2 contains the calculated risk ratios and the associated p values. * = statistically significant

Connectedness and physically aggressive behavior

Physical aggression includes how often the student hit, kicked, pushed, shoved around, or locked another student in doors in the past year. Connectedness was not significantly related to physical aggression. Non-significant risk ratios included: the risk of perpetrating is 40% lower among students with medium connectedness compared to those with low connectedness, and 35% lower among students with high connectedness, compared to those with low connectedness.

Connectedness and verbal aggressive behavior

Verbal aggressive behavior includes how often the student call mean names, made fun of, or teased in a hurtful way another student in the past year. Connectedness was not significantly related to verbal aggression. Non-significant risk ratios included: the risk of perpetrating is 33% lower among students with medium connectedness compared to those with low connectedness, and 62% lower among students with high connectedness, compared to those with low connectedness.

Connectedness and relational aggressive behavior

Relational aggressive behavior addresses how often the student targeted another student with rumors or lies in the past year. Connectedness was not significantly related to relational aggressive behavior. Non-significant risk ratios included: the risk of perpetrating is 35 % lower among students with medium connectedness compared to those with low connectedness, and 43 % lower among students with high connectedness, compared to those with low connectedness.

Connectedness and exclusion aggressive behavior

Exclusion aggressive behavior addresses how often the student kept out of things on purpose, excluded themselves from a group of friends, or completely ignored another student in the past year. Connectedness was not significantly related to exclusion aggressive behavior. Non-significant risk ratios included: the risk of perpetrating is 26% lower among students with medium connectedness compared to those with low connectedness, and 67% lower among

students with high connectedness, compared to those with low connectedness.

Connectedness and social media aggressive behavior

Social media aggressive behavior addresses how often the student targeted another student by posting hurtful information on social media, by text, or by instant messaging in the past year. Connectedness was not significantly related to social media aggressive behavior. Non-significant risk ratios included: the risk of perpetrating is 58% lower among students with medium connectedness compared to those with low connectedness, and 88% lower among students with high connectedness, compared to those with low connectedness. Medium connectedness was significantly related to social media aggressive behavior (p=.03).

Chapter 5: Conclusion, Discussion, Strengths, Limitations

Discussion

This study did not observe the expected associations, which is that higher levels of teacher-student connectedness would be significantly associated with decreased incidence of aggressive behavior among Black youth who experienced RST in the form of racial microaggressions. This current study builds on the growing literature that describes how social support from teachers can influence the academic success (Tennant, J. E. et al, 2015) and social-emotional welling being of students (Tennant, J. E. et al, 2015) by exploring a relationship between teacher-student connectedness and aggressive behavior outcomes among Black youth exposed to school-based racial microaggressions. While there were not significant relationships

found in the current study, non-significant risk ratios are in line with previous research on broad student populations, that has found engagement in violent behavior to be reduced when adolescents have established trust in their teachers, and when the school provide a sense of belonging to the student (Gregory, A., & Ripski, M. B., 2008, & Chapman, R.L., et al, 2011). While the associations examined in this study were not statistically significant potentially due to limited power to detect effects, the direction and magnitude of the non-significant relationships suggest that the more sense of connectedness Black youth have to their teachers, the less likely they are to engage in aggressive behaviors. In future studies with larger samples, these relationships should be further examined. In addition, the demographics of teachers and staff should be included, as representation of Black teachers may influence the experience of racial/ethnic microaggressions and connectedness among Black youth.

One study suggests that the more diverse classroom settings become, "more interracial interactions increase opportunities for racial microaggressions and difficult dialogues on race. These interactions have often polarized students and teachers rather than clarified and increased mutual respect and understanding about race and race relations. Poorly handled by teachers, such dialogues may result in disastrous consequences such as anger, hostility, silence, complaints, misunderstandings, and blockages of the learning process; skillfully handled, they present an opportunity for growth, improved communication, and learning." (Sanchez-Hucles, Jones, 2005; Young, 2003 & Sue, Derald W. 2009). This quote shows the potential negative consequences of racial microaggressions, as well as the consequences for when teachers are not equipped to navigate healthy dialogue around race and racism as well as the potential for growth when handled well.

This suggests the importance of teachers knowing how to provide social support, especially for Black students exposed to racial stress and trauma as these experiences are associated with numerous negative outcomes (Saleem et at, 2019 & Metzger et al, 2021). Literature continues to expound on the importance of teacher social support for the social, academic, mental, and behavioral well-being of the students (Falci and McNeely, 2004). High social support from teachers has been associated with increase academic achievement for students (Tennant, J. E. et al, 2015) and lower depressive moods compared to individuals with low social support from teachers. These studies have focused on adolescents without focus on differences between race, and more research is needed that focuses on Black youth. Social support and school connectedness may be especially important for Black students who are more likely to report unique experiences in school settings in terms of discrimination, as well as report unique experiences with observing or experience racial stress and trauma directly, indirectly, in their neighborhoods and/or even via social media. Additional support for Black youth could also be delivered through youth development programs tailored to the unique experiences of Black youth. It may be beneficial for such programs to occur in school settings to work against school-based racial and ethnic microaggressions.

Limitations

One limitation of this study is the sample was relatively small (N=70) limiting power to detect relationships among variables of interest. Another limitation was the cross-sectional design limiting conclusions that could be drawn regarding causality. A third limitation is not knowing the demographics of the faculty and staff in the school settings or other measures that

would allow for better characterization of the racial climate and environment of the school. If the schools have or do not have sufficient representation of Black faculty and staff, or faculty and staff that are persons of color, this may be related to how youth experience connectedness after experiencing RST. Another limitation related to the teacher-connected scale, where one item states: "The school rules are fair.". This item does not assess teacher-student relationship specifically, and its inclusion in the scale may contribute to the null findings of this study.

Strengths

One strength of this study is that it fills a gap in exploring unique risk and protective factors for Black/African American students who experience RST. To promote health equity, it is critical that we better understand the unique experiences of marginalized communities currently experiencing disparities. Black youth experience disparities in school violence that can result in negative trajectories over the life course. Better understanding unique risk and protective factors among this population can inform culturally and contextually responsive interventions to reduce these disparities.

Conclusion

In this current study, levels of teacher-student connectedness were divided into low connectedness, medium connectedness, and high connectedness. The aggressive behavioral outcomes of this study were characterized as physical aggressive behavior, verbal aggressive behavior, relational aggressive behavior, exclusion aggressive behavior and social media aggressive behavior. This study examined the association between each level of connectedness as a predictor of physically aggressive behavioral, verbal aggressive behavior, relational aggressive behavior, exclusion aggressive behavior, and social media aggressive behavior.

The current study indicated that there is not a significant relationship between teacher-student connectedness and aggressive behavior among Black youth who experience school-based ethnic/racial microaggressions. Medium connectedness was negatively related to social media aggressive behavior, expressing that medium level of connected predicted lesser likelihood of student targeting another student by posting hurtful information on social media, by text, or by instant messaging. While the regression analyses did not come back significant, except for medium connectedness and social media aggressive behavior, the risk estimates for each analysis in this study suggest potential less risk of students perpetrating aggressive behaviors if they had a higher level of connectedness with school staff and teachers compared with students with lower levels of connectedness. Future examinations with a larger sample should further explore these relationships as these findings highlight the potential role teacher -student connectedness has in behavior outcomes among youth, especially those exposed to racial stress in the form of racial/ethnic microaggressions. Considering the small sample size of this study, further examination of school-based racial/ethnic microaggressions, connectedness and aggressive behavior should be connected in larger samples.

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