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A Mixed Methods Investigation of School Racial Climate at One Racially Diverse Middle School

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Abstract

Very few studies have examined school racial climate in racially diverse school contexts. School racial climate refers to "perceptions of interracial interactions and the socialization around race and culture in a school" (Byrd, 2017, p. 700). The association between interracial peer interactions, psychological well-being, and academic outcomes is well documented, but little research has been done on perceptions of school racial socialization and its associated outcomes (Byrd, 2017). Perceptions of school racial socialization is important to address as part of understanding school racial climate, especially for youth from minority ethnic/racial backgrounds, because messages about how much they and their cultures are valued are positively associated with the extent to which these youth identify with academics (Booker, 2006; Byrd, 2015; Eccles, 2004). To address this gap in the research literature, the first study of my dissertation research project used survey data collected from a racially diverse sample of youth at one middle school to examine the psychometric properties of an existing measure of school racial climate. I also explored an alternative factor structure of this measure with the current study population and conducted a measurement invariance analysis to test whether the subscales had the same meaning to white students and students of color.

The second study of my project built on the first study by investigating whether there were differences in perceptions of school racial climate subscales by race/ethnicity while controlling for other characteristics. This study also investigated whether school connectedness was associated with school racial climate subscales when controlling for other characteristics. The third study analyzed interview data collected from a subsample (n = 11) of Black male eighth-grade students about their perceptions of two types of school racial socialization messages: (a) messages about their own culture, traditions, and history at school (i.e., cultural

socialization); and (b) messages about the cultures, traditions, and histories of other racial/ethnic groups (i.e., promotion of cultural competence). I drew on ecological systems theories from human development and sociological theories on how race as a macro-level ideology was reproduced in the microsystem of school to understand their impressions and reactions to school racial socialization.

This dissertation study speaks to considerations for adapting measures of school racial climate that were normed on one population for use with another study population. Beyond using measures with different populations, this dissertation study also has implications for ensuring that constructs being measured for research studies have the same meaning to different subpopulations. Furthermore, this dissertation study highlights how the constructs of school racial climate is associated with other important measures such as school connectedness. The relationship between school racial climate and school connectedness, potentially expands the possibilities for areas of intervention that can bring about more positive educational outcomes for students from historically marginalized racial/ethnic backgrounds. Lastly, this dissertation study offers evidence supporting the case for using a multidimensional scale to measure school racial climate but also using quantitative and qualitative methods to examine this construct.

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Introduction

In this section, I explain the objectives of this dissertation research study and discuss prior research that provided background context for this project. I also describe the focus of the three studies contained in this dissertation and explain the overall contributions these studies make to existing literature. In sum, the current dissertation used both quantitative survey data and qualitative interview data to accomplish the following objectives: (a) test the factor structure of an existing multidimensional measure of school racial climate with the current study population, (b) explore the psychometric properties of an alternative factor structure with the current study population, (c) test measurement invariance of the alternative factor structure with the current study population to determine whether the subscales have the same meaning for different racial/ethnic demographic subgroups, (d) explore whether there are differences on school racial climate subscales by race/ethnicity while controlling for other characteristics, (d) explore whether perceptions of school racial climate are associated with school connectedness, and (f) explore Black male youths' perceptions of school racial climate in terms of learning about their own culture (i.e., cultural socialization) and learning about culture of other racial/ethnic groups (i.e., promotion of cultural competence).

This dissertation study is just one project in a longstanding conversation in research literature on the educational experiences of Black youth. Literature on the educational experiences of Black youth has spanned at least 7 decades, going back to the *Brown v. Board of Education* (1954) decision that ended legal segregation in public schools. O'Connor et al. (2006) noted the term *achievement gap* first appeared in research literature and later in mainstream media outlets after Brown. Achievement gap is a term used to describe disparities in education outcomes that usually follow patterns by race and class (Carter, 2005; Nasir, 2011; Noguera,

2008; O'Connor et al., 2006; Tyson, 2011). Legal segregation of public schools has resulted in many detrimental effects, including "concentrations of segregated schools with historically concentrated low levels of funding, inadequate facilities, low-level curriculum and lower levels of teacher quality into schools serving predominantly Black and Brown youth, during the first half of the 20th century" (Lee, 2009, p. 67). Desegregation of public schools was supposed to provide equal access to public education and hopefully lead to equality in education outcomes for all racial groups. Nevertheless, findings from a nationally representative survey of public schools in 1965 confirmed minority students—including Black youth—still had less access to physical facilities believed to be related to achievement (e.g., science laboratories), less access to college prep or accelerated curricula, and less access to extracurricular activities related to academics such as debate team or student-published newspapers (Coleman et al., 1966). The federal policy to desegregate public schools was implemented but the gaps between racial groups persisted, which necessitated explanations for why equality in outcomes had not been achieved.

Scholars have agreed Fordham and Ogbu's (1986) articulation and elaboration of cultural–ecological theory is a definitive theoretical work in achievement gap research (Carter, 2005; Noguera, 2003; O'Connor et al., 2006; Sohn, 2011; Spencer et al., 2001; Tyson, 2011). Previous theories explaining the Black–white achievement gap narrowly focused on individual-level factors (e.g., genetics, culture) or structural factors (e.g., racial discrimination, limited opportunity structure; Hallinan, 2001; O'Connor et al., 2006). A cultural–ecological explanation says "there is a reciprocal relationship between the opportunities available to a minority group and the pattern of linguistic, cognitive, motivational and other school-related skills they develop" (Ainsworth Darnell & Downey, 1998, p. 537). Fordham and Ogbu's theory states Black youth developed two coping strategies due to the historical and current discrimination Black people

experience in the United States. An oppositional identity develops in response to the mistreatment of Black people and the discrimination that prevents them from fully participating in U.S. society regardless of individual abilities or accomplishments. Black youth also develop an oppositional cultural frame of reference that causes them to equate academic success with acting white (Fordham & Ogbu, 1986,) and becoming disillusioned about the value of an education.

Cultural–ecological theory is considered a novel theoretical framework to explain the achievement gap because it emphasizes how history and structural factors—or ecology—influence culture to affect achievement outcomes for Black youth (Fordham & Ogbu, 1986). The adaptive responses of an oppositional identity and oppositional cultural frame of reference are considered coping strategies that map directly on to the historical discrimination, persistent mistreatment, and unequal opportunity structure Black people encounter in the United States. Subsequent research has found evidence that fully supports (Farkas et al., 2002; Wildhagen, 2011b) or is at least partially consistent with (Fryer & Torelli, 2010; Horvat & Lewis, 2003; Mickelson, 1990; Tyson et al., 2005) cultural–ecological theory. Other studies have found no evidence of an oppositional identity or oppositional cultural frame of reference among Black youth (Ainsworth-Darnell & Downey, 1998; Cook & Ludwig, 1997; Diamond et al., 2007; Harris, 2006; Wildhagen, 2011a). Therefore, its tenability as an explanation for lower academic achievement among Black youth should not be deemed as conclusive. Some Black youth may possess an oppositional identity and/or oppositional cultural frame of reference. However, these dispositions are not pervasive enough among the entire population of Black youth to explain the achievement gap.

Some research published since the 1990s has pushed the longstanding conversation in the literature on the educational experiences of Black youth in other directions. For example, scholarship informed by ecological systems theory has advanced the notion that instructional methods, disciplinary practices, and other processes implemented in a school may better meet the needs of certain students (Eccles, 2004). This ability to better serve students results from congruence between the values promoted by processes in a school and the psychological needs of groups of students. Therefore, any differences between groups (e.g., ethnic/racial groups, gender groups) in achievement or activity choices at school can be explained by a lack of congruence. Other scholarship informed by ecological systems theory holds that developmental contexts create different degrees of consonance or dissonance that results from the extent of available supports and fit between individuals and environment (Spencer, 2006). The meaning making and behavioral responses of the consonance and/or dissonance are coping strategies that should not be understood without attention to the developmental context in which they are observed. Empirical work in this vein has established how person–context congruence relates to academic motivation for Black youth (Byrd, 2015; Byrd & Chavous, 2011). The importance of this scholarly work extends cultural–ecological theory to suggest that not only is the context linked to how someone acts, behaves, or responds, but also that a high level of congruence between the context and the individual provides the most generative environment associated with an optimal or prosocial response. The theories and empirical works would suggest achievement is not only solely a function of the individual, but also attributable to how well the school context supports individuals to achieve. Therefore, it is important to understand how individuals perceive their context as an integral part of also examining how they act in that context.

This dissertation study entered the longstanding conversation on this topic by building on the scholarship about how youth perceive and make sense of their school context to understand their outcomes in that context. The first study of this dissertation explicitly focused on students' perceptions of the school racial climate at their racially diverse middle school. I examined the psychometric properties of an existing measure of school racial climate validated with a different study population to determine how well it measured perceptions of the current study population. I also explored an alternative factor structure to understand if this measure of school racial climate had better psychometric properties with the current study population. For the second study, I investigated whether there were differences in perceptions of school racial climate by race/ethnicity. I also examined whether perceptions of school racial climate were associated with school connectedness. For the third and final study, I interviewed young, Black men in the eighth grade about their perceptions of two dimensions of school racial socialization. One dimension concerned their experiences of learning about the history, traditions, and cultures of Black people at school (cultural socialization). The other dimension involved learning about the history, traditions, and cultures of other racial/ethnic subgroups (promotion of cultural competence).

Each study was guided by its own research questions. However, the broader questions this dissertation project addressed were:

- Do perceptions of school racial climate vary by race/ethnicity?
- Do perceptions of school racial climate matter for school connectedness?

In addressing the research questions, this dissertation study spoke to considerations for adapting measures of school racial climate normed on one population for use with other study populations. Beyond using measures with different populations, this dissertation also spoke to ensuring the constructs being measured had the same meaning to different subpopulations. School racial climate is important to understand in its own right. However, the opportunity to

examine how these constructs are associated with other important measures, such as school connectedness, expands possibilities for focusing attention and resources to bring about more positive educational outcomes for all students. Lastly, answers to these questions not only support the case for using a multidimensional scale to measure school racial climate, but also make the case for using quantitative and qualitative methods to examine this construct.

Study 1: Adapting a Measure of School Racial Climate: An Application of Confirmatory Factor Analysis, Exploratory Factor Analysis, and Measurement Invariance

School racial climate refers to students' perceptions of the interactions between different racial groups and their understanding of the messages about race and culture promoted at school (Byrd, 2017). The study of school racial climate is situated in a larger body of research literature on school climate. *School climate* broadly refers to the norms, values, and goals that influence subjective experiences of a school across many domains, including social, emotional, and academic (Anderson, 1982; Cohen et al., 2009; Thapa et al., 2013; Voight et al., 2015; Wang & Degol, 2016). However, research on school racial climate has extended this definition to consider that "perceptions of school climate may differ across groups in a school and all of these perceptions may be equally valid" (Watkins & Aber, 2009, p. 396). School racial climate also concerns perceptions about socialization messages promoted at school and in the curricula about race and culture (Byrd, 2017). Researchers and policymakers have expanded their focus on school climate as a target of intervention and reform given its positive associations with academic and socioemotional outcomes for students (Cohen et al., 2009; Thapa et al., 2013). However, despite the increased research focus on school climate from the 1990s to the present, investigations of school racial climate have been sparse in comparison (Byrd, 2015, 2017).

The scarcity of school racial climate research presents opportunities for extending this body of work, particularly around measurement of perceptions for youth in middle school. One area for furthering the literature concerns the multidimensionality of school racial climate as a construct. Prior research studies of school racial climate have narrowly focused on individual perceptions of discrimination, unfair treatment, and how well different racial groups interact with each other in school (Byrd, 2015). This focus, although important, ignores other factors affecting

school racial climate, such as students' perceptions of messages promoted at school about race, diversity, and inequality. Schools are sites of racial socialization and play a role in shaping students' understanding of how race functions in society. Through various mechanisms—such as programs that celebrate cultural differences and provide knowledge about the experiences of diverse groups at school, and curriculum and teaching in the classroom that engages in critical examinations of history and contemporary issues in society and social norms among students (e.g., lunchroom segregation)—school settings contribute to the development of racial attitudes and beliefs (Aldana & Byrd, 2015). Therefore, it is important to understand how these mechanisms affect students' experiences with race at school beyond interactions between different racial/ethnic groups.

Another area for extending existing literature is to address the conceptualization of school racial climate as a global construct. Prior studies have overlooked how different individuals' perceptions of the same school context can vary based on their racial identity (Byrd, 2017; Watkins & Aber, 2009). For example, Mattison and Aber (2007) found African American high school students viewed the racial climate of their schools more negatively than white students. Watkins and Aber (2009), in a study of middle school students, also found African American students had less favorable perceptions of their school racial climate than their white peers. These studies, and others (e.g., Schneider & Duran, 2010; Slaughter-Defoe & Carlson, 1996; Voight et al., 2015), have confirmed racial group membership explains variations in perceptions of overall school racial climate (Thapa et al., 2013). Therefore, it is important for research studies to conceptualize school racial climate in a way that accounts for differences in individual perceptions based on varying identities and social locations.

Many school racial climate studies have been conducted in higher education settings with university student populations (Byrd, 2015; Mattison & Aber, 2007); thus, less is known about the experiences of younger populations, particularly middle school-aged students. Therefore, what has been learned from school racial climate studies in higher education settings may not fully apply to the experiences of younger populations. Additionally, due to differences in cognitive development, younger populations can reliably identify instances of discrimination in intergroup interactions but are less perceptive in their recognition of structural or institutional forms of discrimination, such as how stereotypes and biased beliefs about marginalized groups reinforce inequalities between groups in society (C. S. Brown, 2017).

Lastly, existing studies have not tested the measurement invariance of school racial climate measures. Measurement invariance is important to examine because useful measures of school racial climate should have the same conceptual meaning to different demographic subgroups in a diverse sample (Vandenberg & Lance, 2000). Measurement invariance is also a prerequisite for comparing mean differences on measures across demographic subgroups in a diverse sample.

Current Study

The current study addressed the three aforementioned limitations in existing school racial climate research literature. I used an existing multidimensional measure of school racial climate—Byrd's (2017) School Climate for Diversity-Secondary Scale (SCD-S)—and investigated its psychometric properties with a racially diverse sample of students Grades 6–8 at one middle school. Middle school students have been an underrepresented population in the school racial climate literature (Byrd, 2015; Mattison & Aber, 2007). Yet, evidence has documented a strong relationship between middle school contexts and overall adjustment and

well-being during the developmental stage of early adolescence (Way et al., 2007). Therefore, it is important to understand the perceptions and subjective experiences of school racial climate among this age group. The research questions for this study were:

- Does confirmatory factor analysis support Byrd's (2017) factor structure of the SCD-S with the current study sample?
- Does exploratory factor analysis demonstrate an alternative factor structure of the SCD-S survey items with better psychometric properties using the current study sample?
- Does measurement invariance analysis show that the alternative measure using the current study sample is invariant across demographic subgroups?

Procedures

The current study took place during the 2018–2019 school year at Summers Middle School in a small, midwestern city called Jenkstown. The community and school have been assigned fictional names to protect confidentiality. Jenkstown had a total population of slightly less than 100,000 residents at the time of the study. Table 1 presents a summary of some demographic characteristics for the community. Jenkstown was a well-resourced community, as measured by educational attainment and household income. Slightly more than two thirds of adults aged 25 or older reported having a bachelor's degree or higher and the median annual household income was about $82,000.

Table 1

Summary of Demographic Characteristics for Jenkstown Community

Demographic	%
Race	
White	66.9
Black or African American	16.2
Asian	9.6
Other race	4.3
Two or more races	3.0
Total	100.0
Hispanic or Latino origin	
Not Hispanic or Latino	87.8
Hispanic or Latino	12.2
Total	100.0
Gender	
Female	53.6
Male	46.4
Total	100.0
Educational attainment (adults aged 25+)	
Less than a bachelor's degree	32.6
Bachelor's degree	28.4
Graduate or professional degree	39.0
Total	100.0

Note. Total Jenkstown population estimated at 75,000. People with educational attainment estimated at 42,000. Data for this table come from the 2018 American Community Survey (ACS) estimates retrieved from data.census.gov on December 18, 2019. Link not provided to maintain city anonymity.

Jenkstown was also a racially diverse community at the time of the study. The city's population was predominantly white (~67%), but African American and Hispanic/Latino residents made up about 16% and 12% of the population, respectively. Summers Middle School, like the city of Jenkstown, was a racially diverse middle school with students in sixth through eighth grades. The school population numbered almost 800 students. Slightly over 50% of the middle school students reported their race as white and about 30% of the students were classified as low income. Students were classified as low income if they received or lived in households that received Supplemental Nutritional Assistance Program or Temporary Assistance to Needy

Families Program benefits; were homeless, migrants, or runaways; were in Head Start programs or were foster children; or lived in a household where the household income met the U.S. Department of Agriculture's income guidelines that qualify to receive free or reduced-priced meals at school.

Research has demonstrated racially integrated school contexts with racialized achievement structures (e.g., advanced course tracks) are places where stereotypes about race and academic ability are most salient (Diamond et al., 2007; Ispa-Landa & Conwell, 2015). Summers Middle School had achievement gaps by race on standardized assessments in mathematics and English language arts. According to school report card data, as of 2017, about 53% of white students met or exceeded state standards for English language arts compared to 11% of Black students and 19% of Hispanic students. About 54% of white students met or exceeded state standards for mathematics but only 7% of Black students and 18% of Hispanic students achieved this level. Racialized differences in achievement provide a context for students' perceptions of the racial school climate at Summers Middle School.

Project Design: A Research Practice Partnership

The principles of a research–practice partnership informed the development of this dissertation and project design. Coburn and Penuel (2016) defined *research–practice partnerships* as a partnership between researchers and practitioners that is long term in nature, involves shared decision-making authority for designing and conducting research, and places a priority on investigating and finding solutions to problems of practice rather than solely focusing on addressing a gap in the research literature. Although the current study was not long term in nature because it took place over 1 school year, all other criteria for research practice

partnerships described by Coburn and Penuel applied to how I codeveloped the study with school leadership.

The design process for the current study was collaborative between myself and school leaders at Summers Middle School. I met with school leaders eight times between April 1, 2018, and August 31, 2018. School leaders in total consisted of one principal and two assistant principals. However, one assistant principal did not participate in research meetings even though they were supportive of the project. We spent the first six meetings discussing some of the challenges in their school, determining areas of overlap in our respective research interests, and later developing a research project that encompassed both our interests. School leaders and I shared an interest in understanding students' perceptions of the school racial climate. We chose this area of study because Black and Hispanic/Latino students in their school, and in the district more broadly, underperformed academically compared to other demographic subgroups. This area also corresponded to an initiative school leaders implemented that school year involving diversity, equity, and inclusion training and activities for students on half days during the school year. School leaders believed these student trainings would help improve relationships among students from different racial groups. One hypothesis for this underperformance shared by myself and school leadership was that experiences with racial discrimination and stereotyping affected the degree that students of color felt a sense of belonging and connectedness at Summers Middle School. This hypothesis was consistent with existing literature, which has shown belonging at school highly correlates with grades and that stigmatized racial minority groups (e.g., Black and Hispanic/Latinx people) have higher negative perceptions of the school racial climate (Byrd, 2017; Mattison & Aber, 2007; Watkins & Aber, 2009).

Another hypothesis we shared was the idea that students of color were less likely to see themselves or their culture reflected in the norms and practices in their classrooms; this idea was also consistent with existing literature on culturally responsive teaching (Byrd, 2017). Therefore, the current study focused on testing out an existing measure of school racial climate that could be adapted and administered to students at Summers Middle School. A future study using this measure could determine whether perceptions of school racial climate differed across demographic subgroups at the school.

We spent the final two meetings coordinating logistics for implementing the current study. I presented the proposed study and survey instrument to teachers at a staff meeting and covered the logistics of survey administration in their classrooms. Finally, school leadership decided it would be the least disruptive to administer the survey to the entire student body on a half day of school during their homeroom period.

Developing the Survey Instrument

Development of the survey instrument was also a collaborative process with shared decision-making authority between myself and school leadership (Coburn & Penuel, 2016). I investigated the literature and brought different measures—such as Phinney's (1992) Multigroup Ethnic Identity Measure, Fisher et al.'s (2000) Adolescent Discrimination Distress Index, Taylor et al.'s (2004) Detroit Area Study Discrimination Questionnaire, and the Perceived Racial Discrimination Scale from the Maryland Adolescent Development in Context Study—to review with school leadership. The SCD-S instrument (Byrd, 2017) incorporated scales that measured perceptions of discrimination, stereotypes, and intergroup interactions like the other scales we reviewed. However, the SCD-S also measured students' perceptions of learning about different cultures, races, and inequality in their classes. This aspect of the scale's multidimensionality

provided an opportunity for us to capture important perceptions related to the school racial climate that other scales could not measure.

School leaders reviewed a draft of the proposed final survey instrument and requested to eliminate some survey questions because of redundancy and length. They also asked to change the survey response format from a scale that measured agreement or endorsement to a scale that measured frequency. School leadership believed the frequency scale provided a more relevant baseline assessment for comparing future changes in the school's racial climate after implementing interventions based on the current study. In other words, they expected to see decreases in the frequency of occurrences tied to students' negative perceptions of the school's racial climate and increases in the frequency of occurrences connected to students' positive perceptions. I identified one study in a review of the literature that compared frequency and agreement response scales for the same survey questions (G. T. L. Brown, 2004). G. T. L. Brown (2004) found few significant differences in psychometric characteristics (e.g., means, standard deviations, or item response model fit) when comparing results of the two formats. We changed the scale to a 5-point frequency response scale based on this finding. I added survey questions from McNeely and Falci's (2004) measure of school connectedness and a section for respondents to self-report core course grades. These additional measures were not the focus of the current study but were used for Study 2.

I added a response category (i.e., *Don't Know*) to each survey question about unequal treatment, discrimination, and stereotypes. The rationale for this addition drew on research literature about developmental stages and the corresponding cognitive reasoning needed to identify instances of discrimination (T. A. Brown, 2006). According to T. A. Brown (2006):

> Children need to be cognitively sophisticated enough to be able to recognize that there are stereotypes about their social group, and also have the cognitive abilities to detect and

> assess why someone might treat them poorly in any given situation [because of their social group membership]. (p. 83)

This ability requires understanding both the stereotypes associated with someone's social group membership and the broader implications these stereotypes can have for individuals who belong to a certain social group.

Methods

The original SCD-S comprises 10 subscales grouped into two domains: (a) intergroup interactions and (b) school racial socialization (Byrd, 2017). Subscales of the intergroup interactions domain capture students' perceptions of how individuals from different racial/ethnic groups interact with each other in the school context. School racial socialization subscales capture students' perceptions of the messages about race communicated at school. The current study included 13 survey questions from four subscales from the original SCD-S intergroup interactions domain, including: (a) Equal Status, (b) Frequency of Interaction, (c) Quality of Interaction, and (d) Support for Positive Interaction. The fifth subscale from the intergroup interactions domain of the SCD-S, the Stereotyping subscale, consisted of five questions. The Stereotyping subscale was not included in the current study because it overlapped with the Perceived Racial Discrimination Scale survey questions from the Maryland Adolescent Development in Context Study.

The Equal Status subscale asked respondents to rate how frequently students of different races/ethnicities were treated fairly at school in general and specifically by teachers and principals (Byrd, 2017). The Frequency of Interaction subscale asked questions about studying together, working together in class, and hanging out across racial/ethnic groups. The Quality of Interaction subscale asked questions about students liking to have different friendships across racial/ethnic groups, how students from different races/ethnicities got along with each other, and

how students from different races/ethnicities trusted across racial/ethnic groups in the school. The Support for Positive Interaction subscale asked questions about how frequently teachers and principals promoted diversity in school as a good idea to students, and how often they encouraged friendships between students from different racial/ethnic backgrounds. There was also a question about whether students thought it was good to study with other students from different races/ethnicities, whether different races/ethnicities were treated fairly, and whether students from different groups had "similar opportunities for recognition and participation" (Byrd, 2017, p. 702) at school. Participants responded to each question for the intergroup interaction subscales on a 5-point Likert scale (i.e., *never*, *rarely*, *sometimes*, *often*, *always*).

The current study included 16 questions from all five subscales of the original SCD-S school racial socialization domain: (a) Promotion of Cultural Competence, (b) Cultural Socialization, (c) Mainstream Socialization, (d) Colorblind Socialization, and (e) Critical Consciousness Socialization. However, three of the subscales were modified from the original SCD-S. Three questions were eliminated from the Promotion of Cultural Competence subscale because of redundancy. One question about "core American values" was eliminated from the Mainstream Socialization subscale and one question about "colorblind perspective" was eliminated from the Colorblind Socialization subscale. School leadership believed students would not be familiar with these concepts.

The Cultural Socialization subscale asked questions about how frequently students had learned about their own history, traditions, and cultural background at school. The Mainstream Socialization subscale included questions about how often the promotion of U.S. cultural values occurred in class. The Colorblind Socialization subscale included questions about whether racial/ethnic differences were ignored at school and one question about how race/ethnicity

factored into the treatment of students at school. Lastly, the Critical Consciousness Socialization subscale included questions about how often students learned about social issues affecting their own culture, inequality between racial/ethnic groups in the United States, and social justice issues in their classes. Participants also responded to each question for the school racial socialization subscales on a 5-point Likert scale (i.e., *never*, *rarely*, *sometimes*, *often*, *always*).

Demographics

Participants self-reported their gender, age, grade level, and race/ethnicity. The gender response category included several options: *transgender*, *other*, *male*, and *female*. Participants recorded the race/ethnicity they identified with most from nine options, including an option for *other race/ethnicity* where participants could write in a response. Participants recorded their age from seven options: *Younger than 10 years old*, *10 years old*, *11 years old*, *12 years old*, *13 years old*, *14 years old*, and, *More than 14 years old*. Lastly, participants recorded their grade level from three options: *6th grade*, *7th grade*, and, *8th grade*.

Survey Administration

Survey data collection took place during the 2018–2019 school year. Teachers administered the survey during a 30-minute homeroom period on an early release day when no academic instruction was planned. Absent students did not make up the survey. Teachers received surveys for each student in their classroom based on their class roster and they also received additional blank surveys in case a student was missing from the roster but in class on that day. Each survey had a sticker attached with the student's first and last name and student identification number (ID). Teachers provided students who received a blank copy of the survey with their student ID. Although the student ID was a number students used for login credentials into the school's computer system, teachers were instructed to provide the number because

students might not have been aware that their login number was also their student ID number. Teachers were also provided with survey administration instructions to read to the students before taking the survey and a list of frequently asked questions and answers about the survey. The instructions and frequently asked questions helped to systematize survey administration across classrooms as much as possible; however, I had no way to account for differences in survey administration. Students manually completed the survey. They entered their student ID from the sticker on the first page and circled one response for each question. Student monitors appointed by teachers brought the surveys to the principal's office at the conclusion of survey administration. An undergraduate research assistant and I verified each survey to make sure the student's ID number matched the ID number on the sticker. Stickers with students' names and IDs were removed from each verified survey and shredded so each remaining survey only included the student's ID number. We undertook this measure to protect student confidentiality.

Procedures

An undergraduate research assistant and I entered all surveys into the Poka-Yoke Data Entry System, which is a spreadsheet that allows double entry and checking for mismatches and out-of-range values for manual survey data entry (Barchard et al., 2013). We collected 753 surveys from the research site. We numbered each survey to correspond with the numbered line item for entry into the spreadsheet (i.e., Survey 80 was entered on Line 80). I entered each survey twice for entries numbered 1–90 to get familiar with setting up the Poka-Yoke system and the processes of locating mismatches or out-of-range values and changing those errors. The research assistant trained on entries 91–160. For these entries, the research assistant performed one set of data entry and I performed the second set of data entry. This step ensured the research assistant was comfortable with the data entry process. The research assistant and I entered the

remaining surveys numbered 161–753. I compared the results of the double entry procedure and corrected discrepancies on the spreadsheet by verifying them against the original entry on the paper copy of the survey.

The Poka-Yoke system identified 141 mismatched entries (i.e., 67 committed by me and 74 committed by the research assistant) and no out-of-range values. Thus, there was 99.97% agreement across entries in both datasets. A total of 753 surveys were collected from the research site and each survey had 59 variables. I calculated 44,427 entries by multiplying 753 surveys times 59 variables per survey. Of the entries, 141 were mismatched. Thus, I calculated an approximate value of 99.97% reliability (i.e., 141/44,427 = .0032; 100 - .0032 = 99.968 ≈ 99.97%).

Finally, I generated a series of random, eight-digit numbers and linked each participant's student ID number to a study ID number. I removed student ID numbers from the data file that was uploaded to R Studio Version 1.2.5033 to run statistical analyses. I created a crosswalk document containing linked ID numbers and student ID numbers. The file was saved on an encrypted, password-protected cloud storage system and kept separate from the data file that was used to run statistical analysis. I took the described steps to further protect the confidentiality of research participants.

Missing Data

I visually examined the data in R Studio at the aggregate level to understand overall patterns of missingness. First, I dropped 22 observations from the data. The 22 dropped observations were from participants' surveys marked absent by the teacher. Next, I examined missingness at the case level to understand the distribution of missingness across participants in the sample. There were 12 participants whose total missingness percentage ranged from 62% to

91%, and I dropped these participants because they did not complete at least 50% of the survey. The final data set contained a total of 719 participants. I used the *visdat* and *naniar* packages from R Studio to assess the magnitude of missing responses. A summary revealed 1.2% of the data were missing at the aggregate level (see Appendix A). I split the final data set containing 33 variable columns into two smaller data sets (i.e., 17 and 16 columns, respectively) to visually examine for patterns in missingness across different sections of the data. The first data set had 0.7% missing data and the second data set had 1.7% missing data. The visual examination indicated the preponderance of missing data occurred in the second half of the dataset; however, the overall missingness percentage across both sections of the survey remained low. All 33 survey questions used for the analysis in this study had missing responses. The distribution of missingness percentage at the variable level ranged from 0.42% to 3.06% (*Mdn* = .97%). All three survey questions for the colorblind socialization measure from the SCD-S had a missingness percentage above the aggregate level threshold. In the colorblind socialization measure, a higher missingness percentage could have related to the difficulty for respondents at a certain developmental stage to think about the extent to which their school promotes a colorblind ideology (C. S. Brown, 2017).

Mechanism of Missingness

Visualizations of missing data are helpful for determining general trends about missing data but do not reveal mechanisms for whether the data were missing at random. I used regression analysis to understand whether three covariates (i.e., race, gender, and grade level) predicted missing responses (Angrist & Pischke, 2008). I converted all responses to a binary variable where 0 indicated a missing response to a survey question and 1 indicated a response to a survey question. Race was a statistically significant predictor of missing responses for three

survey questions, whereas gender and grade level were statistically significant predictors of missing responses for one survey question each (see Appendix B). Therefore, the missingness in the data set was not random. The mechanism of missingness had implications for selecting an appropriate data imputation strategy for cases that did not have a complete set of data.

Results

The final sample consisted of 719 participants recruited from Summers Middle School (M_{age} = 12.2, SD = .9). Table 2 presents the distributions for the demographic characteristics for the full sample. The final sample was 48.9% female, 50.7% white, and almost evenly balanced across grade levels.

Table 2

Descriptive Statistics for Demographic Characteristics of Full Sample

Demographic characteristics	*n*	%
Race		
White	343	50.7
Hispanic or Latino	93	13.7
Black or African American	92	13.6
Other race/ethnicity	78	11.5
Two or more races	71	10.5
Missing	42	5.8
Total	719	100.0
Gender		
Female	346	49.2
Male	344	48.9
Transgender/other gender	13	1.8
Missing	16	2.2
Total	719	100.0
Grade level		
Sixth grade	242	34.5
Seventh grade	227	32.3
Eighth grade	233	33.2
Missing	17	2.4
Total	719	100.0

Note. $N = 719$. The *other race/ethnicity* category included individuals who identified as American Indian, Asian, Middle Eastern, and other race/ethnicity.

Table 3 presents means and standard deviations for each survey question in the SCD-S subscales. Examining means and standards deviations revealed two overall patterns. First, there was a clustering pattern whereby most responses fell among the top or bottom two response categories of the 5-point Likert scale for each question, which happened in the case of the Equal Status, Frequency of Interaction, Quality of Interaction, Support for Positive Interaction, and Promotion of Cultural Competence subscales. The remaining four socialization subscales showed more variation in responses. The clustering pattern visually indicated data were not

multivariate normal and had implications for how the confirmatory factor model would be specified.

Table 3

Descriptive Statistics for SCD-S Survey Questions of Full Sample

Subscale	Survey statement	*n*	*M*	*SD*
Equal Status				
ES1	Students of different races/ethnicities are treated equally at Summers Middle School	630	4.2	.8
ES2	At Summers Middle School, principals are fair to students of all races/ethnicities	607	4.6	.7
ES3	Teachers at Summers Middle School are fair to students of all races/ethnicities	650	4.4	.8
Frequency of Interaction				
FI1	Students of different races/ethnicities at Summers Middle School study together	554	3.9	.9
FI2	Students of different races/ethnicities at Summers Middle School hang out together	671	4.1	.8
FI3	Students of different races/ethnicities work together in class at Summers Middle School	683	4.3	.7
Quality of Interaction				
QI1	Students of different races/ethnicities at Summers Middle School trust each other	623	4.0	.8
QI2	Students at Summers Middle School like to have friends of different races/ethnicities	623	4.2	.8
QI3	Students of different races/ethnicities at Summers Middle School get along well with each other	649	4.1	.7
Support for Positive Interaction				
SP1	Teachers at Summers Middle School encourage students to make friends with other students from different races/ethnicities	596	3.6	1.2
SP2	The principals at Summers Middle School like for students to have friends of different races/ethnicities	441	4.4	.9
SP3	Students at Summers Middle School think it is good to study with other students from different races/ethnicities	443	3.9	1.0
SP4	Teachers and principals at Summers Middle School say it is a good idea to be a diverse school	572	4.5	.9
Colorblind socialization				
CB1	Summers Middle School encourages you to ignore racial and ethnic differences	569	3.6	1.4
CB2	People at Summers Middle School think it is better not to pay attention to race/ethnicity	485	3.2	1.3
CB3	At Summers Middle School, people think race/ethnicity is not an important factor in how people are treated	523	3.3	1.3

Subscale	Survey statement	*n*	*M*	*SD*
Critical consciousness socialization				
CCS1	In your classes at Summers Middle School, teachers encourage awareness of social issues affecting your culture	596	3.4	1.3
CCS2	In your classes at Summers Middle School, teachers teach about racial inequality in the United States	636	3.8	1.0
CCS3	In your classes at Summers Middle School, you have learned how race/ethnicity plays a role in who is successful	601	3.2	1.2
CCS4	At Summers Middle School, you have chances to learn about social justice	623	3.8	1.4
Cultural socialization				
CS1	In your classes at Summers Middle School, you have learned new things about your own culture	663	2.7	1.3
CS2	At Summers Middle School, you have chances to learn about the history and traditions of your culture	676	3.5	1.2
CS3	At Summers Middle School, you have participated in activities that teach you more about your cultural background	654	2.7	1.3
Mainstream socialization				
MS1	At Summers Middle School, you learn what it means to be an American	572	3.4	1.2
MS2	In your classes at Summers Middle School, they encourage you to be proud of what people in the United States have accomplished	622	3.4	1.1
MS3	Your classes at Summers Middle School have taught you about what makes the United States unique from other countries in the world	634	3.5	1.2
Promotion of cultural competence				
PCC1	Your classes at Summers Middle School have taught you about different cultures and traditions	684	3.9	1.0
PCC2	At Summers Middle School, your textbooks show people of many different races/ethnicities	585	3.8	1.1
PCC3	At Summers Middle School, they encourage students to learn about different races or cultures	664	4.1	.9

Note. $N = 719$. Differences in total sample size and *n* reported in this table are due to missing and "Don't know" responses.

Confirmatory Factor Analysis

The first research question asked whether the SCD-S subscales, measures of school racial climate, demonstrated good psychometric properties with the current study sample. Psychometric properties in this case referred to the pattern of survey item-factor relationships (i.e., factor loadings), goodness of fit statistics for the confirmatory factor analysis (CFA) model, and internal consistency or reliability of survey items in a subscale (T. A. Brown, 2006). I estimated a confirmatory factor model and calculated Cronbach's alphas for each subscale to address this research question. The CFA is an analytic technique for measurement models that examines n the relationships between indicators that are observed measures and factors that are latent variables (T. A. Brown, 2006). It is the appropriate analytic method in this case because Byrd (2017) specified the number of factors in their previous study on developing the SCD-S measure. Therefore, model specifications for the CFA in this study drew on theory and evidence from the initial study of the SCD-S (Byrd, 2017). I specified each of the SCD-S subscales as latent variables defined by their indicators or survey questions (T. A. Brown, 2006). Next, I performed statistical tests in R Studio to assess whether the data met conditions for statistical power and multivariate normality. The post hoc power analysis revealed a sample size of 719 could detect an incorrect model at 99.99% (Moshagen & Erdfelder, 2016). I conducted a Wilkes-Shapiro test on each indicator to assess normality and confirmed the data were not normally distributed.

Tests for statistical power and multivariate normality had implications for selecting the appropriate estimation method for the confirmatory factor models. Maximum likelihood estimation is often used in CFA model estimation because it provides standard errors for each of the model's parameter estimates that can also be used for calculating statistical significance of the parameter estimates (T. A. Brown, 2006; Fabrigar et al., 1999). However, three assumptions

must be met for maximum likelihood estimation to produce nonbiased parameter estimates. The sample size must be large (i.e., asymptotic), the indicators must be measured on continuous scales, and the data must be normally distributed (T. A. Brown, 2006). The final confirmatory factor models were fit using maximum likelihood estimation with robust standard errors (MLR) because the assumptions for multivariate normality were not met. The MLR estimator calculates a scaling correction for approximating the chi-square statistic under nonnormality and adjusts the standard errors to be robust to nonnormality (T. A. Brown, 2006). The CFA model specification with MLR estimation was performed in Mplus 8.4 (Muthén & Muthén, 2017). MPlus 8.4 assumes data are missing at random when dealing with missingness in variables (T. A. Brown, 2006; Muthén & Muthén, 2017). Data were assumed to be missing at random and imputed for all missing and "Don't Know" responses (see Appendix C).

Table 4 shows model fit statistics and Cronbach's alphas for each subscale. Models run for the subscales in the intergroup interactions domain of the SCD-S had good model fit across all fit indices except for the Support for Positive Interaction subscale, which had a chi-square fit statistic ($\chi^2 = 3.430$, $p = .18$) that was not statistically significant (Schreiber et al., 2006). Models for subscales in the school racial socialization domain also had good model fit across all indices; however, the Tucker-Lewis Index for the Critical Consciousness subscale (*TLI* = .92) was lower than .95, which is the minimum considered acceptable for goodness of fit (Schreiber et al., 2006). I hypothesized the coefficients for Cronbach's alpha, a measure of internal consistency, would be equal to or greater than .70, which is the minimum acceptable value for a reliable measure (Fabrigar et al., 1999; Gliem & Gliem, 2003). Results confirmed the hypothesis for 5 out of the 9 SCD-S subscales used for the current study. However, the Quality of Interaction, Frequency of Interaction, Critical Consciousness Socialization, and Promotion of Cultural

Competence subscales had coefficients that fell beneath the minimum acceptable value for reliability. I explored differences in Cronbach's alpha results by race, gender, and grade level for the four subscales below the minimum acceptable value for reliability to determine if differences across demographic subgroups accounted for the aggregate level trend. I concluded from this analysis that race, gender, and grade-level differences for the study sample did not explain why the Cronbach's alpha results for these four subscales did not fall at or above the minimum acceptable range.

Table 4

Model Fit Statistics and Cronbach's Alpha for SCD-S Subscales

Measures	SCD-S subscales								
	Equal Status (*n* = 698)	Frequency of Interaction (*n* = 703)	Quality of Interaction (*n* = 701)	Support for Positive Interactions (*n* = 697)	Colorblind Socialization (*n* = 661)	Critical Consciousness Socialization (*n* = 703)	Cultural Socialization (*n* = 710)	Mainstream Socialization (*n* = 697)	Promotion of Cultural Competence (*n* = 714)
χ^2	0	0	0	3.430	0	7.001	0	0	0
df	0	0	0	2	0	2	0	0	0
p value	0	0	0	.18	0	.03	0	0	0
CFI	1.00	1.00	1.00	.995	1.00	.974	1.00	1.00	1.00
TLI	1.00	1.00	1.00	.984	1.00	.923	1.00	1.00	1.00
RMSEA [CI]	0 [0,0]	0 [0,0]	0 [0,0]	.032 [.000, .088]	0 [0,0]	.06 [0.016, 0.110]	0 [0,0]	0 [0, 0]	0 [0,0]
SRMR	0	0	0	.016	0	.025	0	0	0
AIC Model	3994.624	4308.078	4032.952	5496.763	5034.867	7166.515	5958.266	5275.708	5141.903
BIC	4035.558	4349.076	4073.924	5551.325	5075.310	7221.179	5999.353	5316.629	5183.041
α	.70	.65[a]	.65[a]	.76	.74	.63[a]	.78	.74	.62[a]

Note. Cases with missing data for every survey question in a subscale were not included in the confirmatory factor analysis. CFI = comparative fit index. TLI = Tucker-Lewis index. RMSEA = root mean square error of approximation. CI = confidence interval. SRMR = standardized root mean square residual. AIC = Akaike information criterion. BIC = Bayesian information criterion.
[a] Indicates Cronbach's alpha coefficient was less than hypothesized (< .70).

Exploratory Factor Analysis

The second research question asked whether an alternative factor structure demonstrated better psychometric properties with the current study sample. I conducted an exploratory factor analysis (EFA) to address this research question. The EFA is an analytic method used for determining the number of common factors that accounts for the patterns of correlations among a set of measured variables (T. A. Brown, 2006; Fabrigar et al., 1999; Floyd & Widaman, 1995; Henson & Roberts, 2006; Preacher & MacCallum, 2003). It is also based on the common factor model like CFA but is a completely data-driven approach that does not require the researcher to specify the number of common factors a priori (T. A. Brown, 2006).

The EFA was justified in this case because even though most fit indices from the CFA were acceptable, changes were made to Byrd's (2017) original SCD-S subscales. Additionally, Byrd's study participants were 3 years older on average (M_{age} = 15.3, *SD* = 1.6) than the current study's participants (M_{age} = 12.2, *SD* = .9). These factors warranted an EFA to examine if a different factor structure better fit the data.

Data for the EFA came from the same data set consisting of 29 survey questions used for the CFA. The same assumptions for having adequate sample size to detect an incorrect model, using variables measured on continuous scales and having multivariate normally distributed data, must be satisfied before performing an EFA (T. A. Brown, 2006; Fabrigar et al., 1999; Floyd & Widaman, 1995). Therefore, the final EFA models were also estimated in Mplus 8.4 (Muthén & Muthén, 2017) using MLR to estimate chi-square under conditions of nonnormality and adjusted standard errors that are robust to nonnormality (T. A. Brown, 2006).

Procedures for conducting an EFA involved extracting factors, deciding how many factors to retain, and rotating factors so each variable loads highest on as few factors as possible

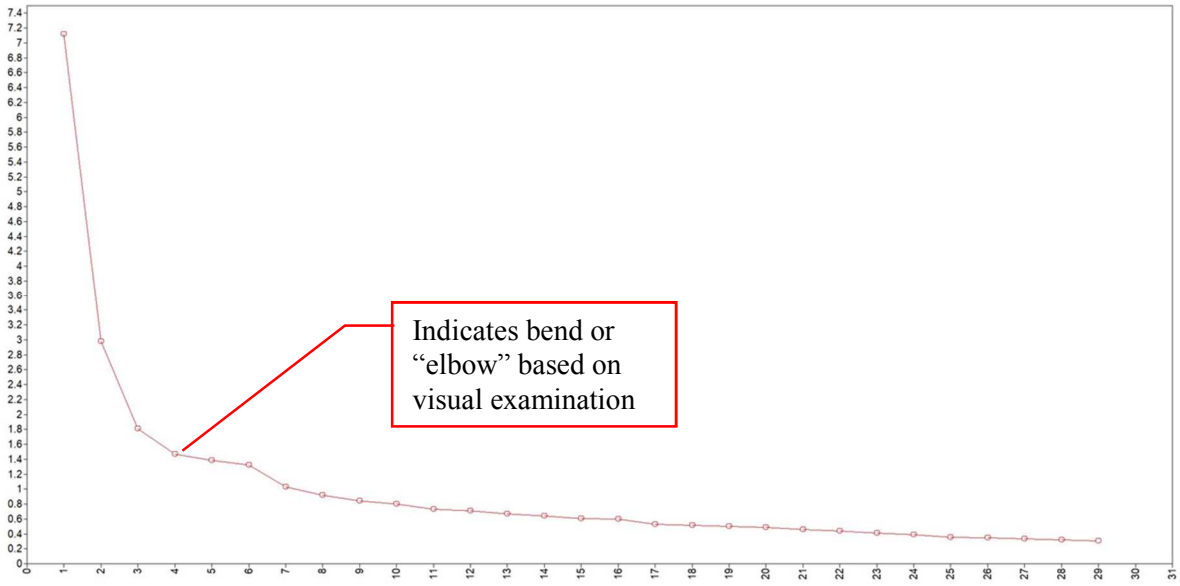
(Floyd & Widaman, 1995; Henson & Roberts, 2006). First, I examined the data set using a scree plot test to determine the number of factors to extract from the data (see Figure 1). Floyd and Widaman (1995) stated:

> The scree test plots the eigenvalues of the unrotated factors on a coordinate plane and examines the slope of the line connecting them. The cutoff for retaining factors is determined as the point at which the slope approaches zero, which indicates a point at which deleting a given factor would no longer result in discarding significant variance. (p. 292)

The scree test plot illustrates the point of diminishing returns where adding more factors does not explain more variance. Scree test plots are visually examined; therefore, they have some degree of subjectivity when identifying the elbow in the scree plot that indicates how many factors to extract from the data (Fabrigar et al., 1999; Floyd & Widaman, 1995). The ultimate decision of how many factors to extract was determined based on my visual examination of the scree test plot, the statistical significance of the factor loadings on each factor, and interpretability; all indicators that load on to a given factor must have been conceptually related to each other and the latent construct of school racial climate (Henson & Roberts, 2006).

Figure 1

Scree Plot



I first explored a four-factor solution based on my visual examination of the scree test plot. I also examined a five- and six-factor solution, which provided better model fit statistics than the four-factor solution but had less meaningful interpretability. Next, I rotated the four-factor solution using *geomin*, an oblique rotation that allows the factors to be correlated and was consistent with the view that factors comprising school racial climate were related conceptually (Floyd & Widaman, 1995). Table 5 presents all the geomin-rotated factor loadings from the four-factor solution and shows all statistically significant factor loadings, even if the indicator loaded on to multiple factors. Loadings at or above .30 to .40 are generally considered to be interpretable (Floyd & Widaman, 1995); thus, I used .40 as a minimum threshold for interpretability. I highlighted every retained indicator in bold print for each factor and I italicized factor loadings that loaded on to more than one factor but were not retained. I eliminated two indicators for Factor 1, which do not appear in bold print, even though the factor loadings were

greater than .40 and statistically significant. The other indicators loading on to this factor asked participants to indicate their perceptions of how their peers of different races/ethnicities interacted with each other in the school context. Questions about whether teachers and principals treated students of all races/ethnicities fairly were not retained in the final solution peer perceptions even though those indicators had interpretable factor loadings.

Table 5

Geomin-Rotated Loadings for the Four-Factor Solution of the REVISED School Racial Climate Subscales

Indicator (survey question)	Factor 1	Factor 2	Factor 3	Factor 4
Students like to have friends of different races/ethnicities	.679*			
Students of different races/ethnicities hang out together	.650*			
Students of different races/ethnicities work together in class	.584*			
Students of different races/ethnicities study together	.583*			
Students of different races/ethnicities get along well with each other	.567*			
Students of different races/ethnicities trust each other	.564*			
Students think it is good to study with other students from different races/ethnicities	.559*			
Students of different races/ethnicities are treated equally	.467*			*.170**
Principals are fair to students of all races/ethnicities	.388*+			*.153**
Teachers are fair to students of all races/ethnicities	.350*+			
At school, they encourage students to learn about people from different races or cultures		.613*		*-.096**
Your classes have taught you about what makes the United States unique from other countries		.592*		
In your classes, teachers teach about racial inequality in the United States		.585*		
Teachers and principals say it is a good idea to be a diverse school		.528*	*-.190**	
At school, you learn what it means to be an American		.524*		
In your classes, they encourage you to be proud of what people in the United States have accomplished		.516*		*-.140**
At school, you have chances to learn about social justice		.482*		
In your classes, you have learned about how race/ethnicity plays a role in who is successful	*-.147**	.437*		
The principals like for students to have friends of different races/ethnicities	*.358**	.435*		
Your classes have taught you about different races/ethnicities	*.176**	.427*	*.153**	*-.099**
At school, your textbooks show people of many different races/ethnicities		.349*+		
Teachers encourage students to make friends with other students from different races/ethnicities	*.252**	.336*+		
In your classes, you have learned new things about your own culture			.825*	
At school, you have chances to learn about the history and traditions of your culture			.610*	
In your classes, you have participated in activities that teach you more about your cultural background		*.254**	.547*	
In your classes, teachers encourage awareness of social issues affecting your culture		*.229**	.438*	

Indicator (survey question)	Factor 1	Factor 2	Factor 3	Factor 4
People think it is better to not pay attention to race/ethnicity				.870*
School encourages you to ignore racial and ethnic differences		*.201**		.617*
At school, people think race/ethnicity is not an important factor in how people are treated		*-.178**		.592*

Note. * denotes a statistically significant factor loading at the .05 level. + denotes a statistically significant factor loading greater than .30 that was not retained in the final factor solution. Factor loadings in italics denote indicator loaded on to multiple factors.

Factor 1 was referred to as the **Peer Interactions Between Diverse Racial/Ethnic Groups (PI)** factor. I did not retain two statistically significant indicators greater than .30 for Factor 2, the **Learning About Diverse Cultures (LRN-DIV)** factor. The indicators retained for the LRN-DIV factor asked participants about what they were learning about race, ethnicity, and inequality in class or school. The indicators that were not retained asked participants questions about whether textbooks showed people of different races/ethnicities and if teachers facilitated friendships between students from different racial and ethnic backgrounds.

All indicators for Factor 3 (i.e., the **Learning About Your Own Culture** [LRN-CULTURE]) and Factor 4 (i.e., the **Promoting Colorblind Ideology** [PCI] factor) were retained. Factor 3 asked participants about different aspects related to learning about an individual's cultural background. Factor 4 asked participants about ignoring differences between students from varied racial/ethnic backgrounds at school. The final step for the EFA was to calculate Cronbach's alpha and model fit statistics for each factor in the final solution. Table 6 shows the final solution had good fit across indices with the exception of nonstatistically significant *p* values for Factor 1 ($\chi^2 = 7.164$, $p = .79$) and Factor 3 ($\chi^2 = 2.452$, $p = .29$).

Table 6

Model Fit Statistics for Confirmatory Factor Analysis of the REVISED School Racial Climate Subscales

Measures	REVISED Factors			
	Factor 1 - Peer Interactions Between Diverse Racial/Ethnic Groups (n = 710)	Factor 2 - Learning About Diverse Cultures (n = 717)	Factor 3 - Learning About Your Own Culture (n = 713)	Factor 4 - Promoting Colorblind Ideology (PCI) (n = 657)
χ^2	7.164	35.150	2.452	0
df	11	20	2	0
p value	.79	.02	.29	0
CFI	1.00	.985	.999	1.00
TLI	1.00	.973	.998	1.00
RMSEA [CI]	0 [.000, .026]	.033 [.013, .050]	.018 [.000, .079]	0 [0, 0]
SRMR	.013	.030	0	0
AIC	8997.062	15244.380	7734.222	5034.867
BIC	9106.628	15399.932	7789.056	5075.310
α	.82	.80	.80	.74

Note. Cases with missing data for every survey question in a subscale were not included in the confirmatory factor analysis.

Analysis of Measurement Invariance

The revised school racial climate subscales were evaluated statistically to determine if the measures assessed the same latent construct and psychological meaning across demographic subgroups in the overall sample (Byrne, 2008; Byrne et al., 1989). I explored whether my four-factor model demonstrated measurement invariance between white students and students of color using Mplus 8.4 (Muthén & Muthén, 2017). Measurement invariance analysis involves estimating a series of nested models whereby each subsequent model introduces an additional constraint. The fit statistics of the more constrained and less constrained models are compared and if there is a difference, the parameters should not be constrained to be equal because they are noninvariant (Cheung & Rensvold, 2002). A measure demonstrates configural invariance by

showing different subgroups in a sample conceptualize the construct being measured in the same way, which is evidenced by the same grouping of items being associated with the same constructs across subgroups. Metric invariance is established by constraining the factor loadings to be the same across subgroups and then comparing model fit statistics. Metric invariance is one step beyond configural invariance because not only are subgroups conceptualizing the construct in the same way, but the pattern of factor loadings is also similar across different subgroups. Scalar invariance is evaluated by constraining the factor loadings and item intercepts to be similar across demographic subgroups and then comparing model fit statistics. Scalar variance indicates "measurement scales have the same operational definition across groups and is a prerequisite for comparing groups on mean scores" (Cheung & Rensvold, 2002, p. 238).

I estimated each nested model using MLR and missing data were imputed assuming missingness at random. White students served as the reference group in all invariance models. The first confirmatory factor model for the entire sample revealed some residual covariances could be correlated to improve model fit (Byrne et al., 1989). Table 7 shows the hypothesis of good fit was confirmed for the overall model (χ^2 [df = 316, n = 656] = 433.355, p < .001, RMSEA = .034, CFI = .954, TLI =.950, SRMR = .057). The next two models in Table 7 (2a and 2b) estimated a four-factor model with correlated residual covariances separately for the reference group (i.e., white students) and the focal group (i.e., students of color). This step in the process is known as an omnibus test. Conducting an omnibus test to determine good model fit separately for each group should precede assessing for configural invariance (Vandenberg & Lance, 2000). Model 2a for the reference group in Table 7 meets the hypothesis for good fit (χ^2 [df = 143, n = 333] = 433.355, p > .001, RMSEA = .034, CFI = .954, TLI =.950, SRMR = .057) except for the p value, which was .088. The CFI, TLI, and SRMR fit indices in Model 2b for the

focal group were not ideal but still in an acceptable range (χ^2 [*df* = 143, *n* = 323] = 219.318, *p* < .001, RMSEA = .041, CFI = .940, TLI =.928, SRMR = .054).

Table 7

Model Fit Statistics for Measurement Invariance Across White Students and Students of Color

Model	*n*	χ^2	*df*	*p*	RMSEA (90% CI)	CFI	TLI	SRMR
1 - Overall CFA	656	433.255	316	.00	0.034 (0.025, 0.041)	.954	.950	.057
2a - Reference group (white students)	333	166.371	143	.08	0.022 (0.000, 0.035)	.982	.978	.049
2b - Focal group (students of color)	323	219.318	143	.00	0.041 (0.030, 0.051)	.940	.928	.054
3 - Configural invariance	656	386.371	286	.0001	0.033 (0.024,0.041)	.961	.953	.051
4 - Metric invariance	656	392.403	301	.0003	0.030 (0.021,0.039)	.964	.959	.054
5 - Scalar invariance	656	433.255	316	.00	0.034 (0.025,0.041)	.954	.950	.057

Model 3 assessed configural invariance by estimating a four-factor model simultaneously for both groups to determine if the factor structure of the school racial climate measure was the same for white students and students of color. The configural model had good fit indices (χ^2 [*df* = 286, *n* = 656] = 386.371, *p* < .001, RMSEA = .033, CFI = .961, TLI =.953, SRMR = .051) and confirmed the factor structure for school racial climate was invariant across white students and students of color students. Model 4 examined metric invariance by constraining the factor loadings to be equal across both groups while allowing the intercepts, residual variances, and covariances to vary freely. The metric model fit (χ^2 [*df* = 301, *n* = 656] = 392.403, *p* < .001, RMSEA = .030, CFI = .964, TLI =.959, SRMR = .054) was good compared to the configural model fit. In fact, the metric model had slightly higher fit statistics on all measures except the

SRMR. Therefore, the metric invariance model confirmed the factor loadings were invariant across groups. Lastly, a scalar invariance model was estimated by constraining the item intercepts and factor loadings to be equal across groups but allowing the residual variances and covariances to vary freely. The scalar invariance model also fit well (χ^2 [df = 316, n = 656] = 433.255, p < .001, RMSEA = .034, CFI = .954, TLI =.950, SRMR = .057).

All invariance models had fit statistics falling in the ideal ranges except for the SRMR, which was still in the acceptable range (SRMR < .08). However, two tests that compare fit statistics from different invariance models are often used to determine the degree of invariance (Cheung & Rensvold, 2002). The likelihood ratio test considers the difference in chi-square between two nested models. A nonstatistically significant p value means the models are invariant because there is no difference between the two models. Table 8 shows a nonsignificant p value when comparing the metric and configural models, which confirmed metric invariance for the four-factor model of school racial climate. However, the p value was statistically significant when comparing the scalar and metric invariance models. Thus, scalar invariance could not be confirmed because even though the factor loadings were similar for the four-factor model of school racial climate, the intercepts of the indicators' regressions on the latent variable differed across white students and students of color students (Vandenberg & Lance, 2000). One disadvantage to just using the likelihood ratio test to assess invariance concerns the chi-square statistic, which is sensitive to sample size (Cheung & Rensvold, 2002). The chi-square statistic does not provide a practical test of model fit, especially in larger sample sizes. Cheung and Rensvold's (2002) method proposed a change in comparative fit index (CFI) smaller than or equal to -.01 confirms the null hypothesis of invariance should not be rejected. Table 8 shows the change in CFI between the configural and metric models was less than .01, but the change in CFI

between the configural and scalar models was greater than 01. Both tests confirmed metric invariance but not scalar invariance.

Table 8

Model Fit Statistics Compared Across Invariance Models

Models compared	χ^2	*df*	*p*	*p* > .05	ΔCFI	ΔCFI ≤ .01
Metric against configural	6.756	15	.96	Yes	0.003	Yes
Scalar against configural	47.009	30	.02	No	0.07	No

I estimated a series of models to identify which factors or items were the source of nonequivalence across groups (Byrne et al., 1989). The analysis showed allowing the intercepts to vary freely for two items would demonstrate partial scalar invariance. The items were: (a) School encourages you to ignore racial and ethnic differences; and (b) At school, people think race/ethnicity is not an important factor in how people are treated. Both items were indicators from the Colorblind Ideology subscale initially conceptualized by Byrd (2017).

Discussion

The current study investigated the psychometric properties of an existing measure of school racial climate with a racially diverse sample of middle school students at one school. The first research question asked whether Byrd's (2017) factor structure of the SCD-S fit the data for the current study sample. Results from the CFA confirmed Byrd's original factor structure for the SCD-S mostly fit the data well. Many model fit indices for the confirmatory factor models fell in acceptable ranges across the nine subscales. However, there were a few exceptions. The Support for Positive Interactions subscale had a *p* value of .18 for the chi-square value (χ^2 = 3.430), which was outside the ideal range ($p < .05$). The TLI fit statistic for the Critical Consciousness Socialization subscale (TLI = .923) also fell outside of the ideal range (TLI ≥

.95). Additionally, the Cronbach's alpha coefficients for the Quality of Interaction (α = .65), Frequency of Interaction (α = .65), Critical Consciousness Socialization (α = .63), and Promotion of Cultural Competence (α = .62) subscales fell beneath the hypothesized value (α ≥ .70). These model fit indices could be attributed to differences in cognitive development between the current study sample and the study samples the SCD-S subscales were normed on to develop the measure. Byrd's (2017) study participants were 3 years older on average (M_{age} = 15.3, *SD* = 1.6) than the current study's participants (M_{age} = 12.2, *SD* = .9). The mechanism of selection was also different for Byrd's sample compared to the current study sample. Byrd recruited participants from an online, nationwide panel versus the current study sample's participants, who all came from one racially diverse middle school.

Other factors related to the execution of the current study could have also influenced these results. School leadership requested the removal of certain survey questions from the SCD-S measure they believed to be redundant. They also requested changing the endorsement scale to a frequency scale. I proceeded with the requested modifications, which was consistent with the principles of a research–practice partnership (Coburn & Penuel, 2016). I also ensured subscales used in the current study had at least three questions from the original SCD-S measure to be consistent with best practice that each latent construct should have a minimum of three indicators (T. A. Brown, 2006; Fabrigar et al., 1999). However, changes requested by school leadership could have affected the psychometric properties of the SCD-S subscales as originally conceptualized by Byrd (2017).

The second research question asked whether an alternative factor structure of the SCD-S survey items demonstrated better psychometric properties using the current study sample. I conducted an EFA of the data because of the modifications made to the original SCD-S measure

for the current study and the suboptimal results on some model fit indices from the CFA. The EFA, a completely data-driven technique, revealed a four-factor structure better fit the data. The model fit indices for the four-factor solution of the revised school racial climate subscales were mostly in the acceptable range, except the *p* values for the chi-square statistics for Factor 1 (χ^2 = 7.164, *df* = 11, *p* = .79) and Factor 3 (χ^2 = 2.452, *df* = 2, *p* = .29). All Cronbach's alpha coefficients for the four-factor solution were above the acceptable range ($\alpha > .70$). The purpose of factor analysis is to develop a parsimonious factor model that approximates the real world (Fabrigar et al., 1999). Therefore, a four-factor solution could be preferable to a 10-factor solution of school racial climate that was originally proposed by Byrd (2017).

The third research question asked whether the four-factor school racial climate measure was invariant across white students and students of color students. The measurement invariance analysis confirmed full configural and full metric invariance but only partial scalar invariance. White students and students of color students conceptualized the latent construct of school racial climate in the same way as evidenced by the same items loading on to the same factors across groups (i.e., configural invariance). Additionally, the pattern of factor loadings was equivalent across groups (i.e., metric invariance). However, the intercepts for two items from the revised school climate measure were found to be nonequivalent (i.e., not invariant) across groups, and only partial scalar invariance was achieved. The nonequivalent items were derived from Byrd's (2017) colorblind ideology subscale of the original SCD-S measure: (a) School encourages you to ignore racial and ethnic differences; and (b) At school, people think race/ethnicity is not an important factor in how people are treated. The nonequivalence was likely a function of item bias. Byrne and Watkins (2003) described item bias as a "differential meaning" (p. 158) elicited by the content of the item across cultural groups. Byrne and Watkins (2003) stated, "Differential

interpretation of item content by members of culturally different groups derives largely from a diversity of sociocultural contexts that include the family, the school, the peer group and society at large" (p. 158). The tendency for white youth to avoid talking about race or acknowledging racial group differences has been documented in existing literature (Apfelbaum et al., 2010). Avoidance increases with age as white youth become more aware of racial stereotypes and understand that categorizing people based on skin color may be perceived as prejudiced by others and result in social sanction. Therefore, the fact that these items mean different things to white students and students of color students is supported by evidence in the research literature.

The current study contributes to the existing literature on measuring perceptions of school racial climate in several ways. First, the current study confirmed the conceptualization of school racial climate as a multidimensional construct. The revised subscales confirmed a four-factor model fit the data for the overall study sample well. The four factors related to the underlying constructs of: (a) Factor 1- Peer Interactions Between Diverse Racial/Ethnic Groups (PI), (b) Factor 2 - Learning About Diverse Cultures (LRN-DIV), (c) Factor 3 - Learning About Your Own Culture (LRN-CULTURE), and (d) Factor 4 -Promoting Colorblind Ideology (PCI).

Second, the measurement invariance analysis brought additional evidence to bear on measuring perceptions of school racial climate as a global construct across demographic subgroups. Data confirmed study participants conceptualized intergroup interactions, multiculturalism, and individual culture in similar ways. However, the extent to which the school context promoted colorblindness had a differential meaning or interpretation across white students and students of color students in the overall sample. This difference was important to consider for future analyses in this dissertation research project that will compare the perceptions of school racial climate across different demographic subgroups. Evidence from the current

study suggests white students and students of color students in the sample should not be compared on the colorblind ideology subscale without including additional context about the differential meaning this construct has across both subgroups.

Lastly, the current study also extended the research literature on school racial climate to a younger age group of middle school students who have not been well represented in existing study samples. Results from this study should not be generalized to all middle school youth but do give insight into how these processes may operate in large, racially and ethnically diverse middle school contexts. Moreover, the evidence contributes to an understanding of how measures developed with older study samples that tend to be prevalent in school racial climate research can be adapted for use with younger populations. The factor structure may vary; however, when measures are adapted, school racial climate scales tend to incorporate questions about racial discrimination. Developmental differences between middle school students and high school or college students could lead to item bias, particularly around concepts related to racial discrimination and inequality (C. S. Brown, 2017; Byrne & Watkins, 2003).

The findings and contributions of the current study must be considered with respect to certain limitations. The current study data were cross-sectional, and future studies could focus on the stability of school racial climate measures across time to understand whether and how these measures are stable. Data from the current study came from one racially diverse middle school in a small midwestern city. Therefore, the findings cannot be generalized to other middle school contexts or middle school youth. Relatedly, diverse school contexts are unique educational environments because most public K–12 schools remained racially homogenous even after desegregation legislation and policy efforts to integrate schools (Reardon & Owens, 2014). School racial climate measures in less diverse school contexts may have a different structure and

meaning, especially for questions related to interactions between students from different demographic subgroups.

Appendix A – Missing Data Visualizations

Diagram A1

Visualization of Missing Data for Entire Data Set

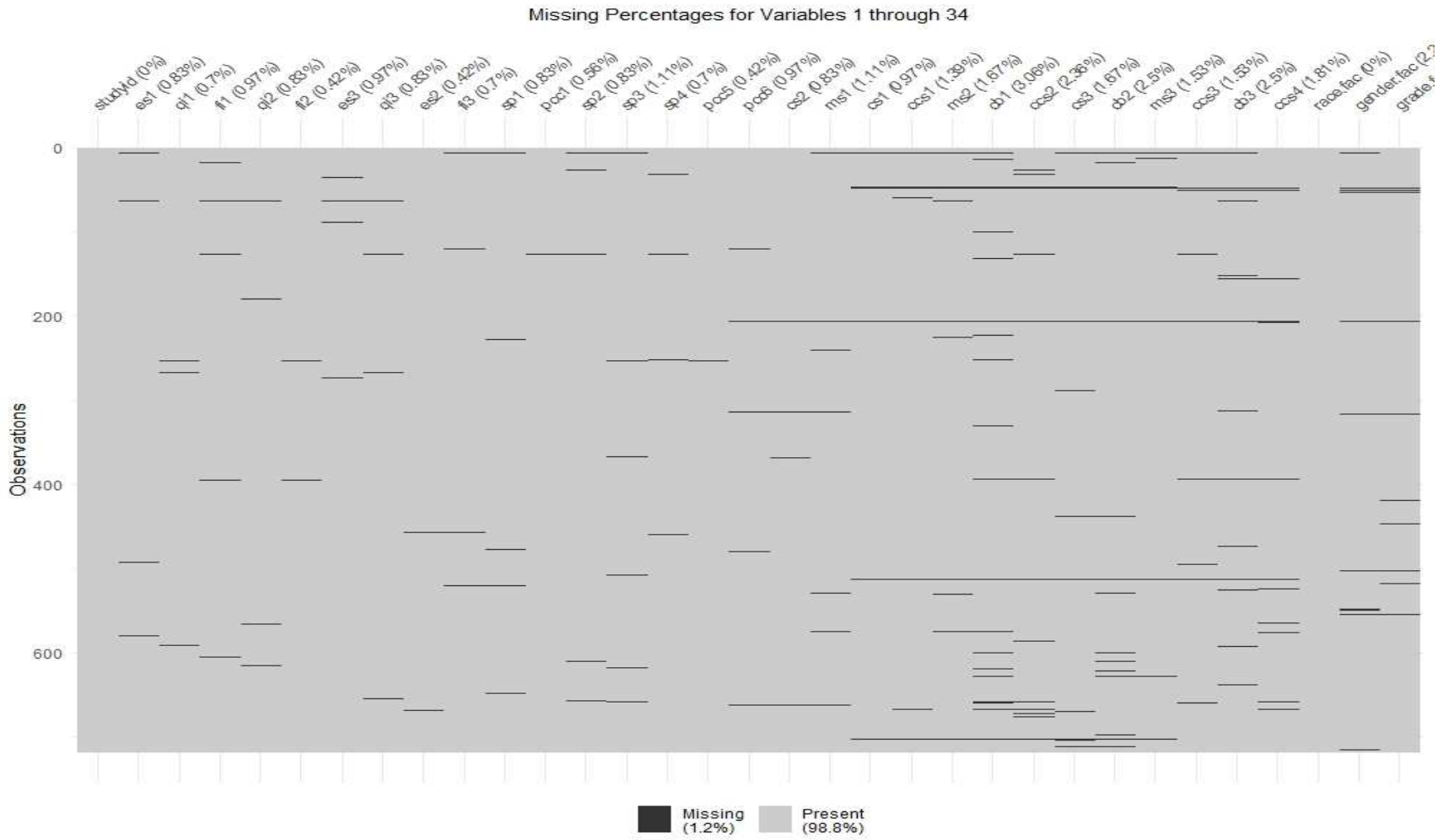


Diagram A2

Visualization of Missing Data for Variables 1 Through 17

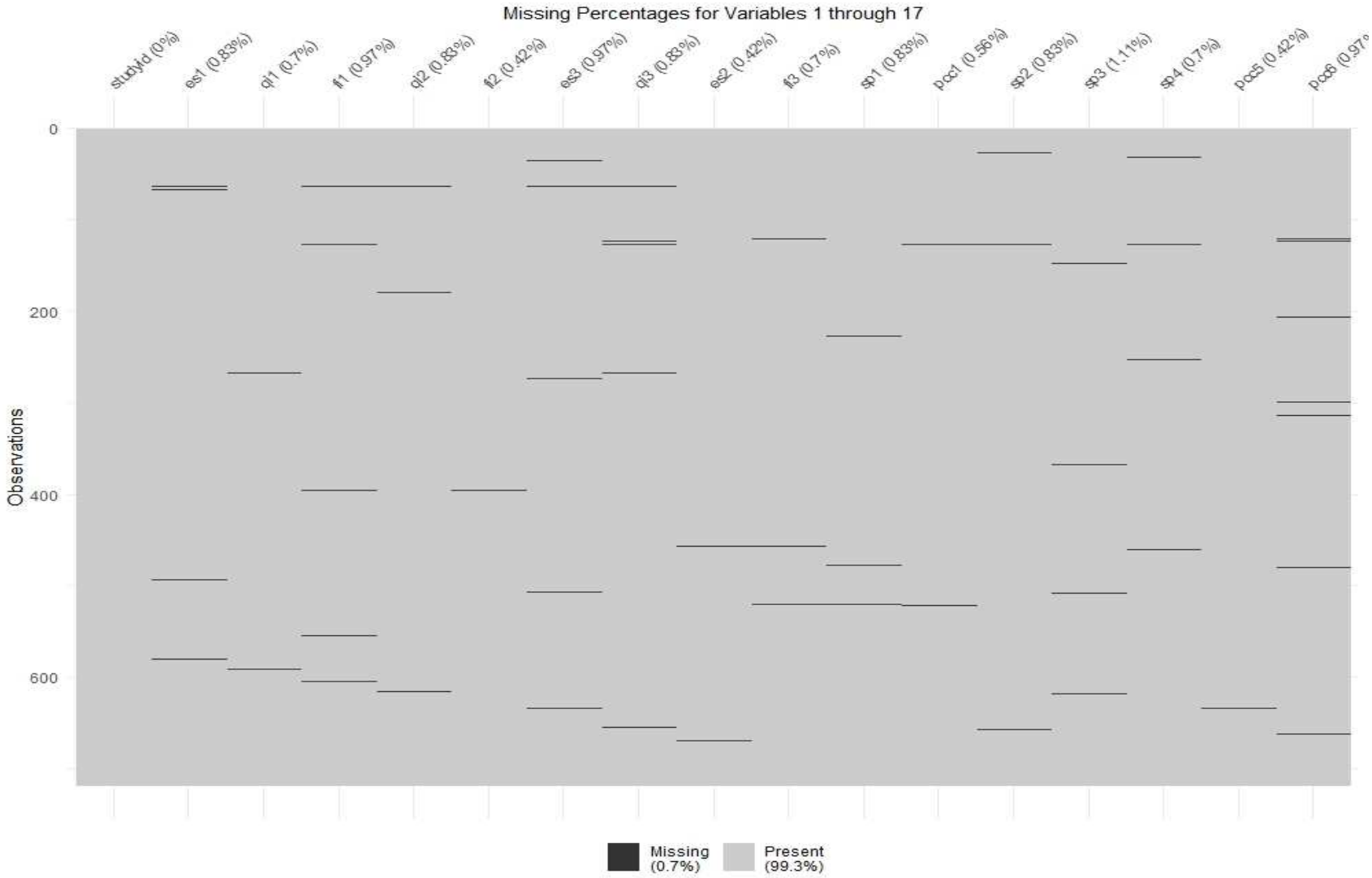
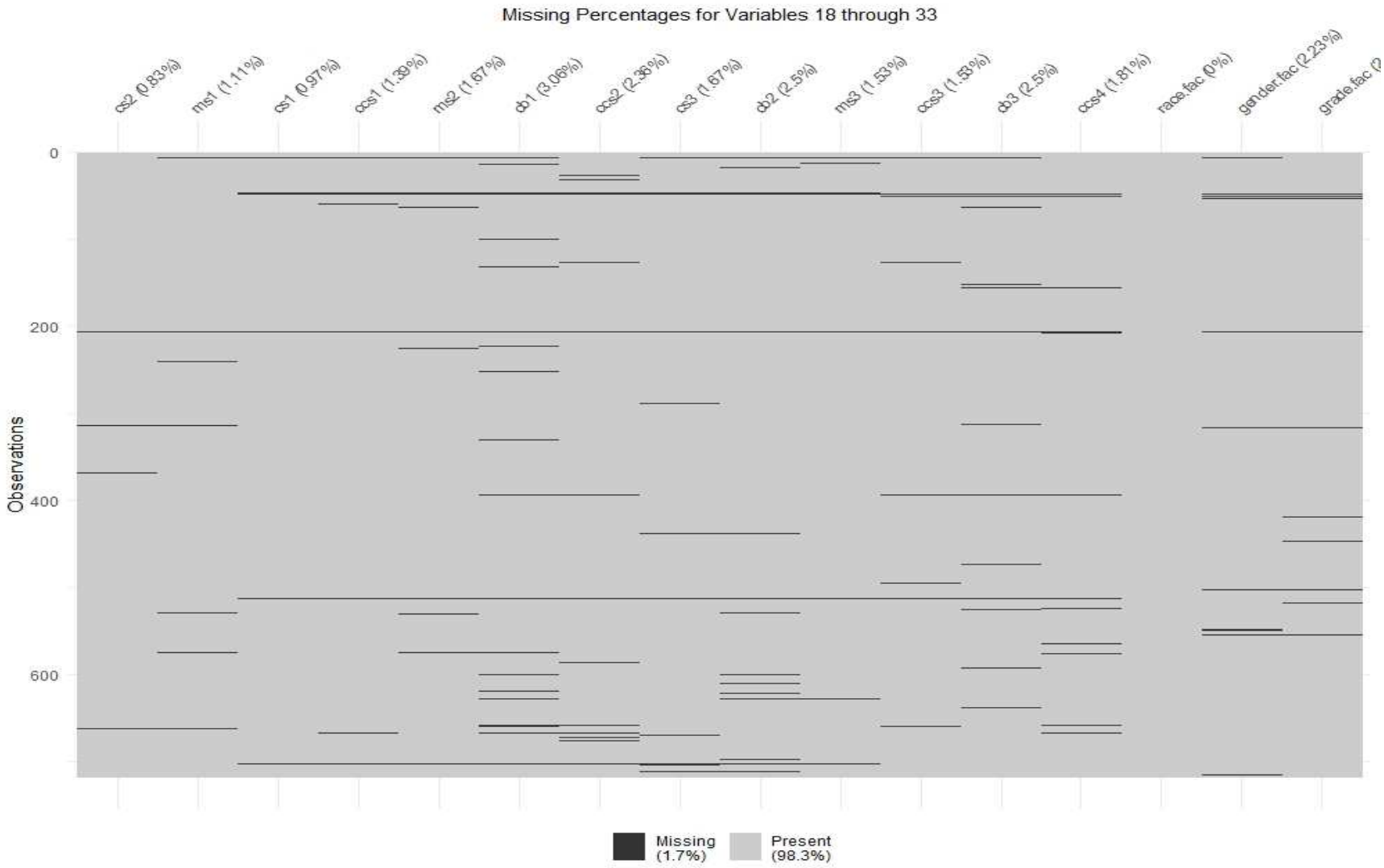


Diagram A3

Visualization of Missing Data for Variables 18 Through 33



Appendix B - Mechanism of Missingness

Table B1

Logistic Regression Results for Covariates (Race, Gender, and Grade Level) Predicting Missingness

	β	*SE*	z	*p*
Race: White				
People think it is better not to pay attention to race/ethnicity	2.8841	1.1363	2.5382	.01*
At school, people think race/ethnicity is not an important factor in how people are treated	2.3689	0.9241	2.5634	.01*
School encourages you to ignore racial and ethnic differences	1.2498	0.6359	1.9653	.049*
Grade: Seventh				
School encourages you to ignore racial and ethnic differences	-1.5819	0.8023	1.9717	.049*
Gender: Other				
At school, people think race/ethnicity is not an important factor in how people are treated	-2.7255	1.2676	2.1501	.03*

Note. * denotes statistical significance at the $p < .05$ level.

Appendix C – Summary of "Don't Know" and Missing Responses

Table C1

Percentage of Missing and Do Not Know Responses for Each Subscale Question in the Intergroup Interactions Domain

Subscale	Survey question	"Don't know" responses (%)	Missing responses (%)
SP	The principals at Summers Middle School like for students to have friends of different races/ethnicities	38.4	.56
SP	Students at Summers Middle School think it is a good to study with other students from different races/ethnicities	37.5	.99
FI	Students of different races/ethnicities at Summers Middle School study together	22.0	.71
SP	Teachers and principals at Summers Middle School say it is a good idea to be a diverse school	20.0	.56
SP	Teachers at Summers Middle School encourage students to make friends with other students from different races/ethnicities	16.6	.71
ES	At Summers Middle School, principals are fair to students of all races/ethnicities	15.3	.42
QI	Students of different races/ethnicities at Summers Middle School trust each other	12.8	.71
QI	Students at Summers Middle School like to have friends of different races/ethnicities	12.6	.71
ES	Students of different races/ethnicities are treated equally at Summers Middle School	11.8	.42
QI	Students of different races/ethnicities at Summers Middle School get along well with each other	8.9	.56
ES	Teachers at Summers Middle School are fair to students of all races/ethnicities	8.5	.85
FI	Students of different races/ethnicities at Summers Middle School hang out together	6.2	.42
FI	Students of different races/ethnicities work together in class at Summers Middle School	4.3	.56
CBS	People at Summers Middle School think it is better not to pay attention to race/ethnicity	30.8	1.83
CBS	At Summers Middle School, people think race/ethnicity is not an important factor in how people are treated	25.4	1.55
MS	At Summers Middle School, you learn what it means to be an American	19.7	.71
PCC	At Summers Middle School, your textbooks show people of many different races/ethnicities	18.3	.42
CBS	Summers Middle School encourages you to ignore racial and ethnic differences	18.2	2.54
CCS	In your classes at Summers Middle School, teachers encourage awareness of social issues affecting your culture	15.9	.85
CCS	In your classes at Summers Middle School, you have learned how race/ethnicity plays a role in who is successful	15.2	.56
MS	In your classes at Summers Middle School, they encourage you to be proud of what people in the United States have accomplished	11.8	.99

Subscale	Survey question	"Don't know" responses (%)	Missing responses (%)
CCS	At Summers Middle School, you have chances to learn about social justice	11.7	1.13
MS	Your classes at Summers Middle School have taught you about what makes the United States unique from other countries in the world	10.4	.85
CCS	In your classes at Summers Middle School, teachers teach about racial inequality in the United States	9.0	1.83
CS	At Summers Middle School, you have participated in activities that teach you more about your cultural background	7.4	1.13
CS	In your classes at Summers Middle School, you have learned new things about your own culture	6.9	.42
PCC	At Summers Middle School, they encourage students to learn about different races or cultures	6.7	.71
CS	At Summers Middle School, you have chances to learn about the history and traditions of your culture	5.1	.56
PCC	Your classes at Summers Middle School have taught you about different cultures and traditions	4.4	.42

Note. $N = 709$. ES = Equal Status, FI = Frequency of Interaction, QI = Quality of Interaction, SP = Support for Positive Interaction, CBS = Colorblind Socialization, CCS = Critical Consciousness Socialization, CS = Cultural Socialization, MS = Mainstream Socialization, PCC = Promotion of Cultural Competence.

Study 2: Exploring Racial/Ethnic Differences in School Racial Climate Subscales and Testing the Association of School Racial Climate with School Connectedness

Prior research on school racial climate has been limited by a focus on interactions between individuals from different racial/ethnic groups and whether students from all races receive fair treatment in school from teachers and principals (Byrd, 2015). However, students' perceptions of how racial/ethnic groups are presented in their curriculum or other learning materials, and how this content promotes societal ideologies about race (i.e., school racial socialization), has been underexplored in school racial climate research. The goal of the current study was to examine whether there were differences by racial/ethnic subgroups in perceptions of school racial climate, using a multidimensional measure comprised of a Peer Interactions Between Diverse Racial/Ethnic Groups (PI) subscale, and three school racial socialization subscales: (a) Learning About Diverse Cultures (LRN-DIV), (b) Learning About Your Own Culture (LRN-CULTURE), and (c) Promoting a Colorblind Ideology at School (PCI). The current study also investigated whether there was an association between perceptions of school racial climate and perceptions of school connectedness.

The current study was guided by the following research questions:

- To what extent do perceptions of school racial climate, as measured by the four subscales (i.e., PI, LRN-DIV, LRN-CULTURE, and PCI), differ by race/ethnicity when controlling for other characteristics?
- To what extent are perceptions of school racial climate, as measured by the four subscales (i.e., PI, LRN-DIV, LRN-CULTURE, and PCI), associated with school connectedness when controlling for other characteristics?

In the next section, I provide a summary of the research on school racial climate with K–12 public school students. I also explain why perceptions of school racial climate are associated with school connectedness and present justifications and hypotheses for the current study.

Brief Literature Review

Research on school climate has documented many positive associations and effects between school environments and student outcomes, including increased emotional well-being and mental health, decreased absenteeism, and lower rates of suspension (Cohen et al., 2009; Thapa et al., 2013; Voight et al., 2015). With respect to middle school specifically, "There is empirical evidence that a positive middle school climate is associated with higher levels of student achievement and lower rates of suspension and expulsion" (Voight et al., 2015, p.253). However, literature has also revealed racial disparities exist in perceptions of school climate (Graham, 2022; Voight et al., 2015; Watkins & Aber, 2009). Voight et al. (2015) explained the disparities, saying:

> Race may be an important personal characteristic that conditions the way [individuals] experience school social processes, with Black and Hispanic students reporting less favorable relationships and opportunities to participate in school than white students, due in part to objective differences in how Black and Hispanic students are treated (e.g., tracking them into less rigorous courses) and in part to students' subjective interpretations of the school environment (e.g., not relating to dominant culture teachers). (p. 254)

The theory explaining racial disparities in perceptions of school racial climate is consistent with empirical evidence from earlier studies. For example, Mattison and Aber (2007)—in a study of school racial climate involving 1,838 high school students in which about 79% were white and 21% were Black—found Black students had more negative perceptions of the racial climate at school compared to white students. Mattison and Aber also indicated higher negative perceptions of the racial climate were also associated with higher self-reports of detentions and suspensions for Black students. Mattison and Aber argued Black students receiving more disciplinary infractions is viewed as unfair treatment and may influence their higher negative perceptions of the school racial climate. This study shed light on how perceptions of unfair treatment have

consequences for differences in perceptions of school racial climate between Black and white students.

Watkins and Aber (2009) conducted a study of school racial climate with 842 middle school students where 70% were white and 30% were Black. Watkins and Aber found Black students reported neutral perceptions about addressing racial inequities in the school system and whether the school treated students of all races fairly. White students, on average, did not agree the school system needed to be changed and agreed students of all races were treated fairly. Watkins and Aber concluded it is possible for students from different racial/ethnic backgrounds, who attend the same school, to have different perceptions of school racial climate. Voight et al. (2015) conducted a study with two separate analytic samples of seventh-grade students to analyze differences in perceptions of school climate between Black and white students (n = 3,805) and Hispanic and white students (n = 70,526). On average, Black students reported lower levels on safety and connectedness and positive adult–student relationships compared to white students, but similar levels of meaningful opportunities for participation. However, Hispanic students in the study reported lower levels of safety and connectedness, adult–student relationships, and meaningful opportunities for participation. Evidence from these studies with predominantly white, yet racially diverse, samples confirmed the notion that Black and Hispanic students have less positive perceptions of school racial climate than their white peers.

Later research on school racial climate with monoracial or predominantly Black samples built on previous school climate research by offering evidence of the positive associations with school racial climate. For example, Byrd and Chavous's (2011) study with 359 Black 11th-grade students found positive perceptions of school racial climate, as measured by teacher/staff interactions with students from different racial/ethnic backgrounds, was related to higher self-

reports of intrinsic motivation for school. Byrd (2015) conducted a study with 99 middle school and high school students and discovered:

> Students who perceive more positive cross-racial interactions, more school support for learning about other cultures, fewer messages about ignoring race, more messages about individual hard work, and less prejudice in teachers and peers felt more connected to those around them and thus found school more inherently enjoyable. (p. 19)

The takeaway from these studies is that perceptions of a positive racial climate for Black students are associated with positive student outcomes, such as motivation to do well in school and connectedness to school.

School Racial Climate and School Connectedness

The question remains as to why perceptions of school racial climate might be associated with school connectedness. To start, Wang and Degol (2016) defined *school connectedness* as:

> The psychological state of attachment that students experience when they feel a sense of acceptance, inclusion and belonging in school. School connectedness takes many forms, such as students' collective views of school attachment and bonding, which reflect the school's ability to cultivate a sense of identification and affiliation among its students and teachers. (p. 323)

Acceptance, inclusion, and belonging are key concepts that clarify the association between school racial climate and school connectedness. Positive interpersonal interactions between students and teachers of different racial/ethnic backgrounds is an important component of many school racial climate conceptualizations and measures (Byrd, 2017; Voight et al., 2015). Consequently, supportive and positive relationships across racial/ethnic groups influence how youth from racial/ethnic minority groups feel connected to other teachers and students who do not share their racial/ethnic background (Byrd, 2015). Furthermore, disproportionate treatment of youth from racial/ethnic minority groups, whether it involves discipline disparities or less opportunities for meaningful participation in school, can also contribute to feeling less connected at school (Byrd, 2015). As discussed previously in this review, if youth from racial/ethnic

minority groups perceive they are treated unfairly, they are likely to have lower positive perceptions of school racial climate, which would affect their perceptions of feeling connected to school.

Study Justifications and Hypotheses

The literature review revealed school racial climate research studies with racially diverse K–12 populations have mostly involved subsamples of Black and white youth, except for one study (Voight et al., 2015), which included a subsample of Hispanic youth. The current study advanced knowledge in this area by documenting perceptions of school racial climate from a subsample of youth who identified as Asian and multiracial (i.e., more than one race), in addition to subsamples of Black, Hispanic, and white youth. Furthermore, prior school racial climate studies have mostly focused on interactions between majority and minority racial/ethnic groups (Byrd, . The current study also explored whether there were racial/ethnic subgroup differences on three racial socialization subscales: (a) LRN-DIV, (b) LRN-CULTURE, and (c) PCI. In addition, the PI subscale focused on interracial interactions, like prior studies. Lastly, the current study examined associations between school racial climate and school connectedness. Evidence suggested the perception of supportive and positive relationships between individuals from different racial/ethnic subgroups is associated with the psychological connection individuals feel to school (Byrd, 2015). However, prior studies of school racial climate have not examined whether school racial socialization is associated with school connectedness. The current study addressed this gap in the research literature.

Based on my review of the literature, the current study tested several hypotheses. The first research question was: To what extent do perceptions of school racial climate, as measured

by the four subscales (i.e., PI, LRN-DIV, LRN-CULTURE, and PCI), differ by race/ethnicity when controlling for other characteristics? For this research question, I had four hypotheses.

I hypothesized youth from racial/ethnic minority groups and white youth would have different perceptions about the frequency of positive peer interactions between diverse racial/ethnic groups at Summers Middle School. This hypothesis was consistent with evidence that has shown white students have higher positive perceptions of school racial climate, as measured by interracial interactions, compared to Black and Hispanic students (Voight et al., 2015; Watkins & Aber, 2009).

I hypothesized there would be no differences in perceptions about the frequency of learning about diverse cultures at Summers Middle School. Byrd (2017) argued learning about diverse cultures at school can range from limited exposure to in-depth study. Additionally, participants revealed in interviews for Study 3 that they learned about different cultures in class. Because the LRN-DIV subscale measured instance, rather than depth of exposure, I thought students would respond to the survey in ways that were consistent with what interviews revealed for Study 3.

I hypothesized students from racial/ethnic minority groups would perceive they learned about their own culture at school less frequently than white students. I expected students from racial/ethnic minority groups to be disproportionately affected by the presence of certain contextual factors, such as racialized school norms, or any school-based messages that did not promote the valuing of racial/ethnic minority groups (Byrd, 2015). Furthermore, Eccles (2004) demonstrated Black, Hispanic/Latinx, and Indigenous youth have access to less "culturally meaningful learning experiences" (p. 132) in school, including a dearth of curricula that represent historically marginalized groups.

I hypothesized students from racial/ethnic minority groups would have higher perceptions about the frequency with which a colorblind ideology was promoted at Summers Middle School. Apfelbaum et al. (2010) discussed white students, who had been taught to endorse colorblindness, attributed incidents (e.g., racial bullying) to general misconduct. Therefore, white students may be less likely to recognize instances when a colorblind ideology is being promoted.

Because no prior studies have examined the connection between school racial climate and school connectedness, the hypotheses reflected my own rationale for how the constructs might have been related when I could not draw on related research literature to inform my thinking. The second research question was: To what extent are perceptions of school racial climate, as measured by the four subscales (i.e., PI, LRN-DIV, LRN-CULTURE, and PCI), associated with school connectedness when controlling for other characteristics? I had four hypotheses for this research question.

I hypothesized the PI subscale would be associated with school connectedness because relationships have consequences for feeling safe at school and part of the school community.

I hypothesized the LRN-DIV subscale would be related to school connectedness for all students. According to Voight et al. (2015), students feel safe and more supported when their school promotes an appreciation and respect for students from all racial and ethnic backgrounds.

I hypothesized the LRN-CULTURE subscale would be related to school connectedness for students of color but not white students. This hypothesis was due to the idea that learning about an individual's own racial/ethnic group, as an individual from a marginalized racial/ethnic group, is validating and makes them feel like they belong at school.

I hypothesized the PCI subscale would be related to school connectedness for students of color but not white students. This hypothesis was because the promotion of a colorblind ideology

at school would be invalidating to students of color and might have made them feel like they did not belong at school.

In the next section, I describe data and methods for the current study.

Data and Methods

The analytic sample for this study comes from Study 1 (n = 731) but with some modifications. First, I did not retain individuals who selected *other race/ethnicity* because that category did not describe a group of individuals with a shared racial/ethnic background, history, tradition, or cultural experience. Although there is heterogeneity in any given racial/ethnic background, one of my assumptions for this study was that a shared racial/ethnic background is associated with similar perceptions of school racial climate. I also did not retain individuals who selected *Middle Eastern* or *American Indian/Alaska Native* because these groups numbered less than 10 observations each. Elimination of this group protected the confidentiality of study participants. Individuals who selected *Middle Eastern* or *American Indian/Alaska Native* identities could be implicated or singled out by someone with knowledge of their racial/ethnic background. I also did not retain any study participants whose race/ethnicity was missing. For gender, I did not retain any individuals who selected *transgender* or *other gender* to protect confidentiality of study participants with those identities from being singled out. I also did not retain anyone whose gender identity was missing. Table 9 presents the final analytic sample for the current study. About 46% of the study participants were students of color, and the sample was almost balanced by gender.

Table 9

Race/Ethnicity and Gender for the Full Sample

Demographic characteristics	*n*	%
Race		
White or Caucasian	333	54.32
Hispanic or Latino	91	14.85
Black or African American	90	14.68
Biracial/Multiracial	67	10.93
Asian	32	5.22
TOTAL	613	100.00
Gender		
Female	311	50.73
Male	302	49.27
TOTAL	613	100.00

Note. $N = 631$.

I did not explore grade-level differences for this analysis. Thus, I did not assume there were differences in perceptions of school racial climate by grade level. The next section describes measures I used for the current study.

Measures

Study 1 confirmed the factor structure of the survey items from the School Climate for Diversity-Secondary Scale (SCD-S) administered to a racially diverse sample of middle school youth in Grades 6–8 (i.e., ages 10–14) at Summers Middle School. Study 1 also explored an alternative four-factor model structure and tested its measurement invariance. The results of this exploratory factor analysis (EFA) yielded four subscales with reliability above the acceptable range: (a) Factor 1– PI, (b) Factor 2 – LRN-DIV, (c) Factor 3 – LRN-CULTURE, and (d) Factor 4 – PCI. Factor 1, the PI subscale, contained school racial climate questions that asked study participants their perceptions of the frequency and quality of interactions between students from different racial/ethnic backgrounds. Factors 2, 3, and 4 were school racial socialization subscales.

Factor 2 (i.e., LRN-DIV) contained questions about what study participants learned about different races and cultures (i.e., promotion of cultural competence) and whether teachers and principals promoted diversity in a positive light. There were also questions on learning about inequality, social justice, discrimination, what it meant to be an American, being proud of America's accomplishments, and what made the United States unique from other countries. Factor 3 (i.e., LRN-CULTURE) contained questions on what study participants learned about their own culture at school. Lastly, Factor 4 (i.e., PCI), contained questions on whether people at school promoted colorblindness or ignored the importance of race. All school racial climate subscales were measured on a 5-point Likert frequency scale (i.e., *never*, *rarely*, *sometimes*, *often*, and *always*).

Control Measures

Study participants self-reported their race/ethnicity, gender, core course grades, and measure of school connectedness. Race/ethnicity was a categorical variable on the survey with nine response options (i.e., *white or Caucasian*, *Black or African American*, *Hispanic or Latino*, *American Indian or Alaska Native*, *Asian or Asian American*, *Native Hawaiian or Other Pacific Islander*, *Middle Eastern*, *biracial or multiracial*, *other*). Participants were prompted to select only one option with which they most identified for their race/ethnicity. Gender was a categorical variable with four responses options (i.e., *male*, *female*, *transgender*, *other*) and participants were asked to select only one option that corresponded most closely to their gender identity. Study participants reported the grades they mostly received in five core subject courses: (a) literacy, (b) social studies, (c) math, (d) science, and (e) world languages (i.e., French or Spanish). Response options for course grades were mostly As (i.e., 90–100), mostly Bs (i.e., 80–89), mostly Cs (i.e., 70–79), and mostly Ds or Fs (i.e., 0–69). A course grade point average

(GPA) score variable was created by taking the mean of five core subject courses. Race/ethnicity was used as a control variable in models answering the second research question because I expected there to be differences in perceptions of school racial climate by racial/ethnic subgroup. I wanted to account for race/ethnicity differences when testing the association between school racial climate and school connectedness. Gender was used as a control variable in models answering the first and second research questions. Women were found to have more positive perceptions of school racial climate compared to men (Byrd, 2015); thus, I wanted to also account for expected gender differences when testing the association between race/ethnicity and school racial climate and between school racial climate and school connectedness. Finally, no previous studies have explicitly looked at the association between school racial climate and GPA. However, school climate is related to student academic achievement (Thapa et al., 2013). For this reason, I expected GPA to be associated with perceptions of school racial climate, and I wanted to account for this relationship in the models.

Outcome Measure

Lastly, the survey instrument contained four questions from McNeely and Falci's (2004) school connectedness measure. These questions asked study participants to rate feeling safe at school, feeling close to other people, feeling happy to be at school, and feeling like they were a part of the school on a 5-point Likert scale (i.e., *strongly disagree*, *disagree*, *neutral*, *agree*, and *strongly agree*). The school connectedness measure for the current analytic sample had a Cronbach's alpha coefficient ($\alpha = .80$), which was above the minimum acceptable value for a reliable measure (Fabrigar et al., 1999).

Data Analysis

Table 10 presents descriptive statistics for each of the measures for the current analytic sample. For the school racial socialization subscales, the PI subscale had the highest mean (M = 4.11) and the LRN-CULTURE subscale had the lowest mean (M = 3.36). Across all four subscales, the mean and standard deviation showed the distribution of responses for study participants was positively skewed. In other words, study participants on average trended toward perceptions that interactions between peers from different racial/ethnic backgrounds, and learning about diverse cultural groups at the school, occurred more than often but less than always. On the other hand, study participants felt they more than sometimes but less than often learned about their own cultural background. The same was true for whether people promoted colorblind ideology or ignored racial/ethnic differences at school. The GPA score was measured on a 4-point scale and a mean of 3.60 for the analytic sample indicated many of the study participants self-reported getting mostly Bs and As in school.

Table 10

Sample, Mean, and Standard Deviation for Study Measures

Measures	Nonmissing observations (*n*)	*M* (*SD*)
Factor 1 (PI)	608	4.11 (.73)
Factor 2 (LRN-DIV)	611	3.78 (.67)
Factor 3 (LRN-CULTURE)	610	3.14 (.96)
Factor 4 (PCI)	573	3.36 (1.14)
Grade point average (GPA score)	610	3.60 (.50)
School connectedness	609	3.85 (.73)

School connectedness was measured on a 5-point Likert agreement scale and the mean for the analytic sample was 3.85. This score suggested many of the study participants positively agreed they felt safe, close to people, and connected at school.

Results

The first research question asked: To what extent do perceptions of school racial climate, as measured by the four subscales (i.e., PI, LRN-DIV, LRN-CULTURE, and PCI), differ by race/ethnicity when controlling for other characteristics? I hypothesized there would be differences between white students and students of color. To address this research question, I estimated a baseline regression model that examined the association between race/ethnicity for each factor. Next, for Model 2, I added gender as a control variable and reinterpreted the coefficients assessing for any changes in strength or magnitude, directionality, and statistical significance. Finally, for Model 3, I added GPA score and repeated the process of interpreting the coefficients. The equation for the final regression model was as follows:

$$Y_i = \beta_0 + \beta_1 * RaceEth_i + \beta_2 Male + \beta_3 * GPA_i + \mu_i$$

Y_i was a factor subscale score (i.e., for Factors 1 through 4), $RaceEth_i$ was the individual study participant's self-reported race/ethnicity, $Male$ was an indicator if a study participant self-reported their gender identity as male, and GPA_i was an individual's self-reported GPA score. Black was the reference group for race/ethnicity and males were the reference group for gender. I intentionally selected these reference groups to situate the experiences of my interview study participants, who were all Black male youth, in the broader context of perceptions about school climate across all racial/ethnic and gender subgroups in the school. In the results for each set of regression models, I interpreted the coefficients with respect to the 5-point Likert frequency scale

used to measure each question (i.e., *never*, *rarely*, *sometimes*, *often*, *always*) comprising the factor subscales.

Table 11 shows white students had higher positive perceptions on the PI subscale (β = .105, $p < .05$) than Black students and the difference was statistically significant. However, the results were not statistically significant for racial/ethnic minority groups; thus, the hypothesis was only partially supported.

Table 11

Regression Models Regressing PI, LRN-DIV, LRN-CULTURE, and PCI Subscale Scores on Race/Ethnicity With Gender and GPA as Control Variables

Variables	Factor 1 – Peer Interactions Between Diverse Racial/Ethnic Groups at School (PI)			Factor 2 – Learning About Diverse Cultures at School (LRN-DIV)			Factor 3 – Learning About Your Own Culture at School (LRN-CULTURE)			Factor 4 – Promoting Colorblind Ideology at School (PCI)		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Asian	.104	.107	.036	-.284	-.276	-.323	-.721***	-.715***	-.655**	-.284	-.276	-.323
	(.131)	(.132)	(.132)	(.240)	(.238)	(.253)	(.216)	(.217)	(.224)	(.240)	(.238)	(.253)
Hispanic	.012	.016	.014	-.221	-.215	-.220	-.041	-.035		-.221	-.215	-.220
	(.092)	(.090)	(.090)	(.193)	(.193)	(.196)	(.148)	(.148)		(.193)	(.193)	(.196)
Multiracial	.104	.102	.075	-.047	-.050	-.071	-.126	-.129	-.087	-.047	-.050	-.071
	(.097)	(.096)	(.095)	(.200)	(.200)	(.208)	(.159)	(.158)	(.161)	(.200)	(.200)	(.208)
White	.150*	.145*	.105*	.006	-.001	-.032	.027	.020	.074	.006	-.001	-.032
	(.075)	(.074)	(.075)	(.147)	(.147)	(.162)	(.114)	(.114)	(.122)	(.147)	(.147)	(.162)
Gender		-.089*	-.108		-.159+	-.175		-.147+	-.131		-.159+	-.175
		(.043)	(.044)		(.097)	(.099)		(.077)	(.078)		(.097)	(.099)
GPA			.091+			.065			-.089			.065
			(.049)			(.121)			(.089)			(.121)
Constant	4.011***	4.058***	3.764***	3.412***	3.494***	3.290***	3.181***	3.260***	3.530***	3.412***	3.494***	3.290***
	(.070)	(.072)	(.178)	(.077)	(.083)	(.209)	(.103)	(.109)	(.302)	(.133)	(.141)	(.407)

Note. *$p < 0.05$. ** $p < 0.01$. *** $p < 0.001$.

For the model where I regressed the LRN-DIV subscale score on race/ethnicity while controlling for other characteristics, there were no statistically significant differences between any of the racial/ethnic subgroups. In this case, the hypothesis that there would be no differences in perceptions between racial/ethnic subgroups was supported. I regressed the LRN-CULTURE subscale score on race/ethnicity and only the coefficient for Asian study participants was statistically significant (β = -.655, $p < .001$) compared to the reference group. Thus, on average, Black students reported they more than sometimes but less than often learned about their own culture at school. Asian students, on average, reported they more than rarely but less than sometimes learned about their culture at school. For this result, the hypothesis was partially supported, because I expected all students of color to report they learned about their own culture at school less frequently. For the last model, I regressed the PCI subscale score on race/ethnicity, while controlling for other characteristics, and there were no statistically significant differences to report. The hypothesis was not supported in this instance because I expected students from racial/ethnic minority groups would perceive the promotion of a colorblind ideology at school more frequently than white students.

The second research question asked: To what extent are perceptions of school racial climate, as measured by the four subscales (i.e., PI, LRN-DIV, LRN-CULTURE, and PCI), associated with school connectedness when controlling for other characteristics? To address Research Question 2, I estimated a baseline regression model that examined the association between school connectedness (Y_i) and each factor ($Factor_i$) controlling for race/ethnicity ($RaceEth_i$), gender, where $Male$ is an indicator, GPA score (GPA_i), and μ_i is an error term. The equation for the final regression model was as follows:

$$Y_i = \beta_0 + \beta_1 * Factor_i \ + \ \beta_2 * RaceEth_i + \beta_3 Male \ + \ \beta_4 * GPA_i + \mu_i$$

I interpreted all coefficients with respect to the 5-point Likert agreement scale used to measure school connectedness (i.e., *strongly disagree*, *disagree*, *neutral*, *agree*, *always*).

PI Subscale

Table 12 presents the results where I regressed school connectedness on the PI subscale score. The table shows there was a statistically significant, positive association ($\beta = .573$, $p < .001$) between the PI subscale score, which measured perceptions of the frequency of peer interactions between different racial/ethnic groups at school, and school connectedness. Thus, a 1-unit increase on the 5-point scale measuring school connectedness was associated with a 0.573 increase in the PI subscale score. Overall, when controlling for race/ethnicity, gender, and GPA score, perceptions of how frequently peers from different racial/ethnic groups interacted with each other was associated with school connectedness for Hispanic students. However, above and beyond race/ethnicity, GPA score explained more of the variation in school connectedness for all other racial/ethnic subgroups. I hypothesized the PI subscale would be associated with school connectedness for all students; thus, in this case, the hypothesis was only partially supported.

Table 12

Regression Models Regressing School Connectedness on PI Subscale Score With Race/Ethnicity, Gender, and GPA as Control Variables

Control variables	School connectedness			
	Model 1	Model 2	Model 3	Model 4
Peer Interactions (PI)	.605***	.598***	.594***	.573***
	(.054)	(.053)	(.054)	(.053)
Asian		.302*	.304*	.102
		(.127)	(.129)	(.136)
Hispanic		.401***	.403***	.345***
		(.097)	(.097)	(.096)
Multiracial		.282**	.280**	.143
		(.106)	(.106)	(.110)
White		.269***	.266***	.087
		(.082)	(.082)	(.090)
Male = 1			-.058	-.115*
			(.054)	(.053)
Grade point average				.298***
				(.063)
Constant	1.367***	1.142***	1.191***	.367
	(.226)	(.227)	(.236)	(.293)

Note. PI = peer interactions. *$p < 0.05$. ** $p < 0.01$. *** $p < 0.001$.

LRN-DIV Subscale

Table 13 shows results for the regression models where I regressed school connectedness on the LRN-DIV subscale score. The table shows there was a statistically significant, positive association ($\beta = .573$, $p < .001$) between the LRN-DIV subscale score and school connectedness. Thus, a 1-unit increase on the 5-point scale measuring school connectedness was associated with a .573 increase in the LRN-DIV subscale score. In this model, race/ethnicity also varied with GPA score for all racial/ethnic groups, other than Black and Hispanic groups, such that GPA

score explained more of the variation in school connectedness for these groups than race/ethnicity. Like the PI subscale score, I also hypothesized the LRN-DIV subscale score would be associated with school connectedness for all racial/ethnic groups. However, results confirmed the hypothesis was only partially supported.

Table 13

Regression Models Regressing School Connectedness on LRN-DIV Subscale Score With Race/Ethnicity, Gender, and GPA as Control Variables

Control variables	School connectedness			
	Model 1	Model 2	Model 3	Model 4
Learning About Diverse Cultures (LRN-DIV)	.368*** (.048)	.366*** (.047)	.365*** (.047)	.573*** (.053)
Asian		.346* (.151)	.348* (.153)	.102 (.136)
Hispanic		.401*** (.097)	.398*** (.106)	.334*** (.101)
Multiracial		.355** (.115)	.351** (.114)	.190+ (.112)
White		.319*** (.089)	.313*** (.088)	.097 (.092)
Male = 1			-.102 (.055)	-.173*** (.054)
Grade point average				.367*** (.063)
Constant	2.467*** (.187)	2.184*** (.200)	2.241*** (.203)	1.110*** (.287)

Note. *$p < 0.05$. ** $p < 0.01$. *** $p < 0.001$.

LRN-CULTURE Subscale

Table 14 presents the results for regressing the LRN-CULTURE subscale score on school connectedness. The table shows there was a statistically significant, positive association (β = .232, $p < .001$) between the LRN-DIV subscale score and school connectedness. Thus, a 1-unit increase on the 5-point scale measuring school connectedness was associated with a .573 increase in the LRN-DIV subscale score. The model results also indicated—after controlling for race/ethnicity, gender, and GPA score—learning about your own culture at school had a statistically significant association with school connectedness for Hispanic students (β = .334, $p < .001$) and Black students (i.e., reference group), but not Asian, multiracial, or white students. I hypothesized learning about your own culture at school would be associated with school connectedness for students of color but not white students. In this case, the hypothesis was only partially supported.

Table 14

Regression Models Regressing School Connectedness on LRN-CULTURE Subscale Score With Race/Ethnicity, Gender, and GPA as Control Variables

Control variables	School connectedness			
	Model 1	Model 2	Model 3	Model 4
Learning About Your Culture (LRN-CULTURE)	.215*** (.031)	.224*** (.031)	.222*** (.031)	.232*** (.029)
Asian		.533*** (.150)	.348* (.153)	.276+ (.152)
Hispanic		.430*** (.111)	.398*** (.106)	.334*** (.101)
Multiracial		.389*** (.121)	.351** (.114)	.222+ (.118)
White		.355*** (.093)	.313*** (.088)	.129 (.095)
Male = 1			-.102 (.055)	-.137* (.05)
Grade point average				.373*** (.062)
Constant	3.178*** (.107)	2.821*** (.137)	2.241*** (.203)	1.691*** (.243)

PCI Subscale

Table 15 shows results where I regressed the PCI subscale score on school connectedness, keeping in mind the measurement invariance analysis from Study 1 revealed this measure had a different meaning for white students than for students of color. The table shows there was a statistically significant, positive association ($\beta = .067$, $p < .05$) between the PCI subscale score and school connectedness. Thus, a 1-unit increase on the 5-point scale measuring school connectedness was associated with a .067 increase in the PCI subscale score. Hispanic

and Black racial/ethnic subgroups also had statistically significant associations in the final model, but other racial/ethnic groups did not. Therefore, the last model suggested, above and beyond gender and GPA score, perceptions of promoting a colorblind ideology at school had a statistically significant association with school connectedness for Black and Hispanic study participants, but other racial/ethnic subgroups did not. I hypothesized the PCI subscale would be related to school connectedness for students of color but not white students; thus, in this case, the hypothesis was only partially supported.

Table 15

Regression Models Regressing School Connectedness on PCI Subscale Score With Race/Ethnicity, Gender, and GPA as Control Variables

Control variables	School connectedness			
	Model 1	Model 2	Model 3	Model 4
Promoting a Colorblind Ideology (PCI)	.070* (.028)	.072* (.028)	.069* (.028)	.067* (.027)
Asian		.333* (.161)	.335* (.164)	.065 (.164)
Hispanic		.411*** (.122)	.413*** (.122)	.343** (.117)
Multiracial		.357** (.130)	.354** (.130)	.190 (.129)
White		.354*** (.103)	.349*** (.103)	.129 (.105)
Male = 1			-.098 (.061)	-.173** (.060)
Grade point average				.370*** (.070)
Constant	3.602*** (.101)	3.283*** (.134)	3.344*** (.139)	2.222*** (.253)

Discussion

The current study examined whether there were differences by race/ethnicity in perceptions of school racial climate, as measured by subscale scores, when controlling for gender and self-reported GPA scores. The current study also tested whether perceptions of school racial climate subscale scores were associated with school connectedness when controlling for race/ethnicity, gender, and GPA scores. The PI subscale, which contained questions about interactions between students from different racial/ethnic groups, showed white students had higher positive perceptions of the frequency of these interactions than Black students. This finding was consistent with what I hypothesized based on the research literature. Other studies have found racial group membership explains variations in perceptions of overall school racial climate, and white students tend to have higher perceptions than students of color (Mattison & Aber, 2007; Schneider & Duran, 2010; Slaughter-Defoe & Carlson, 1996; Thapa et al., 2013; Voight et al., 2015). Watkins and Aber (2009), in a study of middle school youth, found Black youth had less favorable perceptions of their school's racial climate than their white peers, which was consistent with the results of the analysis presented for the current study. I also expected to see no differences in the LRN-DIV subscale scores by race/ethnicity because of the finding from prior research, which indicated all students felt safer and more supported when their school promoted an appreciation and respect for individuals from all racial/ethnic backgrounds (Voight et al., 2015).

In the final model, school racial climate mattered above and beyond gender and GPA for Black and Hispanic students, but it did not for other racial/ethnic groups. The finding was consistent with the idea that students of color from marginalized racial/ethnic backgrounds would feel more validated in a school environment that promotes respect for all individuals.

However, this finding did not explain why learning about diverse cultures did not matter for other students of color. I hypothesized the LRN-CULTURE subscale would be related to school connectedness for students of color but not white students. Again, in the final model, learning about your own culture mattered for Black and Hispanic students regarding school connectedness but not Asian, multiracial, or white students. The same pattern held for the regression results examining the association between promoting a colorblind ideology at school and school connectedness.

Results from the regression analyses examining the association between school racial socialization subscales (i.e., LRN-DIV, LRN-CULTURE, and PCI), did reveal one general pattern. The GPA score and gender explained more of the variance in school connectedness for Asian, multiracial, and white study participants whereas school racial socialization subscales explained some of the variance in school connectedness for Black and Hispanic study participants, above and beyond gender or GPA. One consideration for any broader implications of this pattern concerned the nature of self-reported GPA scores. A meta-analysis found self-reported grades are more accurate for students with higher grades and less accurate for students with lower grades, with the rationale that students with lower grades stand to gain more from misrepresenting their actual grades when self-reporting (Kuncel et al., 2005). Therefore, the actual GPA scores could be different from what many study participants reported. Nonetheless, the pattern was interesting because it suggested school racial socialization, as measured by the perceived frequency of learning about diverse cultures, learning about your own culture, and promoting a colorblind ideology, was associated with school connectedness for Black and Hispanic study participants, when controlling for other characteristics. This finding was consistent with prior research that found school climates that promote tolerance and compassion

for diverse ethnic groups are associated with positive outcomes for racial/ethnic minority groups (Chang & Le, 2010). This finding was also consistent with literature that demonstrated when students from racially diverse backgrounds perceive more cultural socialization at school, those students also report higher rates of school belonging (Byrd, 2017). Lastly, Byrd (2017) stated minimizing racial group differences is harmful for students of color but also prevents white students from understanding the pernicious effects of racial inequality. It is reasonable to assume the promotion of a colorblind ideology at school would be related to school connectedness for Black and Hispanic study participants.

Findings described in this study should be interpreted with respect to a few considerations. The design of the current study did not permit making any causal claims from these data. The findings are no less significant but should be understood as descriptive of the associations at Summers Middle School, and not applicable to other racially diverse middle schools. Data collected for the current study were cross-sectional and no claims could be made about the stability of the associations over time found in the current study. Future work in this area should examine whether perceptions of school racial climate is consistent in individuals across years at a given school. Future work can also include more variables to test the validity of school racial climate and socialization perceptions that are measured.

Considerations notwithstanding, one broad implication for the current study was the nature of school connectedness and its connection to school racial socialization for racial/ethnic minority groups. This relationship suggested school contexts that discourage colorblindness and promote cultural socialization and cultural competence are validating and affirming environments where students of color can feel connected to school.

Study 3: Black Male Eighth Graders Perceptions of School Racial Socialization at Their Racially Diverse Middle School

Almost 70 years after the most significant federal legislative decision (i.e., *Brown v. Board of Education*, 1954) ended legalized desegregation in public education, most students in the United States continue to attend racially segregated schools (Reardon & Owens, 2014). The human development implications of *Brown* meant racial/ethnic minority youth would develop and be socialized in contexts that supported racial equality (Spencer, 2006). Yet, some would argue the promise of *Brown* has not been fully realized because many Black youth across the country continue to receive substandard education in underresourced school facilities (Spencer, 2006). Failed promises notwithstanding, some school districts integrated after Brown and sustained varying degrees of stable racial diversity resulting from policy and legislative changes at the local level, shifts in residential segregation patterns, and changes to the nation's racial/ethnic demographic composition and public attitudes about racial integration (Reardon & Owens, 2014; Richards et al., 2020).

Brief Literature Review

Literature has documented how Black youth attending racially diverse schools navigate and manage overt racial stereotypes and discrimination from peers and teachers (Aldana & Byrd, 2015; Fisher et al., 2000; Neblett et al., 2006; Steele & Aronson, 1995) and racialized school norms that reflect stereotypes about race (Diamond et al., 2007; Ispa-Landa & Conwell, 2015; Tyson, 2011; Tyson et al., 2005; Wildhagen, 2011a). Fewer studies have examined how Black youth attending racially diverse schools perceive and make sense of *racial socialization messages* (RSMs) at school. RSMs refer to what youth learn about their own and other racial/ethnic groups in formal curriculum and through informal messages (Byrd, 2017). These

RSMs are important to understand for youth from minority racial/ethnic backgrounds because school-based messages about how much they and their cultures are valued are positively associated with how much youth from minority racial/ethnic backgrounds identify with academics (Booker, 2006; Byrd, 2015; Eccles, 2004).

The current study addressed the gap in the research literature by exploring the perceptions of RSMs with a sample of 10 Black male youth in eighth grade who attended one racially diverse middle school in a small midwestern city. The current study was guided by the following research questions:

- How do Black male youth describe what they learn about Black history and culture at their racially diverse middle school? What are their perceptions of what they learn about Black history and culture?
- What do Black male youth say they learn about the histories and cultures of other racial/ethnic groups? What are their perceptions of what they learn about the histories and cultures of racial/ethnic groups?

I reviewed select studies from the sociological literature investigating the experiences of Black youth who attended racially diverse schools. Literature has shown macrolevel racial ideologies are not just made manifest through interpersonal interactions, but are also embedded in school-level processes, or processes that are a mechanism through which individuals learn about what race means. In this study, I discuss ecological systems theories of human development that provide a framework for understanding how the transactional and dynamic nature between macrolevel racial ideologies and the racially diverse school context as a microsystem shape developmental processes for Black youth who are embedded in those contexts. I integrate these literatures to make the case for also investigating how Black youth perceive and make sense of RSMs as part of their experience at school.

I drew on part of Byrd's (2017) multidimensional measurement model of school racial climate as the conceptual framework for examining RSMs in this qualitative study. Byrd outlined

six dimensions of racial socialization that informed the research questions and analytic approach for the current study: (a) critical consciousness socialization, (b) colorblind socialization, (c) cultural socialization, (d) mainstream socialization, (e) promotion of cultural competence, and (f) stereotyping. I describe each of these dimensions in more detail in the conceptual framework section of this paper. In the next section, I describe how schools function as sites for racial socialization.

Schools as Sites of Racial Socialization

Racial socialization refers to the processes whereby adults, usually from minority racial/ethnic backgrounds, "transmit messages to children about issues such as cultural heritage and group social status including discussions about the prevalence of stereotypes and discrimination based on phenotypic characteristics, language competencies and other group characteristics" (Hughes et al., 2006, p. 748). Parents and adult family members are primary sources of racial socialization for youth (Aldana & Byrd, 2015; Hughes et al., 2006). However, the sources and sites of racial socialization expand to include peers, teachers, school, and the educational curriculum as youth move into adolescence. Youth encounter and interact with individuals from different racial and ethnic backgrounds in school (e.g., teachers and peers from different racial and ethnic backgrounds in the case of racially diverse schools). Youth learn about the meaning of race through experiencing overt racial discrimination and stereotypes from teachers and peers who do not share their racial/ethnic background (Aldana & Byrd, 2015; Fisher et al., 2000; Neblett et al., 2006; Steele & Aronson, 1995). Discrimination and stereotyping in interpersonal interactions are mechanisms through which youth from minority racial/ethnic backgrounds are socialized concerning race.

Racialized school norms (e.g., academic tracking) that reinforce commonly held stereotypes about how racial group membership and academic ability are related are another mechanism through which students are socialized or learn about race in school (Diamond et al., 2007; Ispa-Landa & Conwell, 2015; Tyson, 2011; Tyson et al., 2005). Racialized school norms are not overtly discriminatory (e.g., calling an individual a racial epithet); nonetheless, they are potent in communicating influential messages about race to adults and youth in schools (Tyson et al., 2005). Consequences resulting from racialized school norms affect individuals from all racial/ethnic backgrounds but are especially harmful for Black youth. For example, Tyson et al. (2005) showed some high-achieving Black youth in advanced course tracks felt isolated in their racially diverse school because of the overall proportional underrepresentation of Black youth in these classes. Study participants reported their presence in these courses drew the ire of some of their Black peers who thought they were acting superior, but also some of their white peers who thought they did not belong in the advanced courses because Black people were not smart enough to handle rigorous academics.

In their study, Diamond et al. (2007) showed Black youth in advanced courses also held back their academic achievement to avoid discriminatory treatment from white teachers and peers who questioned their ability to succeed academically based on stereotypes about their racial group membership. In this study, high-achieving Black youth reported their academic talents and accomplishments were viewed by white teachers and peers as novel or weird in certain cases and met with suspicion and disbelief in other instances. In this particular racially diverse school, the message about race and achievement affected all Black youth because those who were not in advanced courses also reported their white peers and teachers held low expectations for their academic achievement.

Lastly, Ispa-Landa and Conwell (2015) discovered Black youth associated academic achievement with whiteness because they observed white-dominated academic hierarchies in their schools. Ispa-Landa and Conwell noted this association resulted from school policies and programs that tracked students and unfortunately reinforced negative stereotypes about the academic abilities of Black youth.

Several studies (e.g., Diamond et al., 2007; Ispa-Landa & Conwell, 2015; Tyson et al., 2005) demonstrated racialized school norms, although not overtly discriminatory, communicated messages about race and academic achievement in racially diverse schools. In contexts where academic tracks are consistent with stereotypes, individuals learn and internalize the message that being Black is associated with lower academic achievement. Additionally, messages about race and academic achievement undermine the legitimate standing of high-achieving youth in advanced courses by forcing them to defend their authentic Black identity to their same-race peers, or their academic proficiency to non-Black peers and teachers. Messages about race and academic achievement also defined high academic achievement as the province of whiteness; the presence of Black youth in these course tracks was viewed as trespassing or an aberration that violated the natural order. Moreover, these findings highlighted the importance of examining how Black youth make sense of and respond to covert processes that communicate messages about race in schools.

Ecological Systems Theories

Sociological literature highlighting how racialized school norms affect Black youth in racially diverse schools has emphasized the need to understand how macrolevel ideologies about race are embedded in institutional settings or processes and get reproduced through microlevel interactions (Lewis, 2003). Ecological systems theories of human development have articulated

the nested, transactional, and dynamic nature between individuals, contexts (e.g., schools), and the ideologies that affect interactions at both of those levels. Bronfenbrenner (1977) developed the initial ecological systems theory of human development, outlining its component parts as a set of nested systems: (a) microsystem, (b) mesosystem, (c) macrosystem, and (d) exosystem. The microsystem of school and the macrosystem of racial ideologies were the focus of the current study. School is a microsystem, or "complex set of relations between the developing person (youth) and environment in an immediate setting containing that person" (Bronfenbrenner, 1977, p. 514). Bronfenbrenner (1977) defined the macrosystem as:

> The overarching institutional patterns of the culture or subculture, such as the economic, social, educational, legal, and political systems, of which micro-, meso- and exo-systems are concrete manifestations. Macrosystems are conceived and examined not only in structural terms but as carriers of information and ideology that, both explicitly and implicitly, endow meaning and motivation to particular agencies, social networks, roles, activities and their interrelations. (p. 515)

Macrosystems do not refer to a distinct context or microsystem in which people are embedded; rather, they function as a blueprint that sets the patterns for how microsystems function (Bronfenbrenner, 1977; Rogers et al., 2021).

Subsequent theoretical works have extended Bronfenbrenner's (1977) ecological systems theory to understand how schools as developmental contexts can change to meet the evolving developmental needs of youth as they mature and move through the school system. For example, Eccles's (2004) theoretical work on stage–environment fit conceptualized schools as social contexts that influence development across multiple stages (e.g., early childhood, childhood, early adolescence) during an individual's formal years of schooling. Youth are motivated to learn in school "in situations that fit well with their interests, current skill level, psychological needs [and when] the material is challenging, interesting and meaningful" (Eccles, 2004, p. 131). In other words, the environment or types of curricular content and learning activities that most

appeal to youth change as a function of developmental stage. Declines in motivation and engagement in school, with respect to this theoretical framework, are attributable to the lack of fit or match between the environment of the school and the developmental stage of youth (Eccles, 2004). The declines in motivation and engagement, have implications for understanding a phenomenon like demographic subgroup differences in achievement, as an artifact of how the school environment is well organized to meet the developmental needs of demographic subgroups that are higher achieving, but not sufficiently organized to meet the developmental needs of subgroups that are not doing as well academically. Unfortunately, Black, Hispanic/Latinx, and Indigenous youth are more likely to be in the latter group in racially diverse schools. Eccles (2004) associated decreased academic performance with a number of factors, including a lack of "culturally meaningful learning experiences" (p. 132), a dearth of curricula that represent historically marginalized groups, and an absence of content reflecting issues of increasing relevance during adolescence.

According to Rogers et al. (2021), Bronfenbrenner's (1977) ecological systems theory lacked an explicit focus on how structural racism, oppression, and inequality influence development in context. The phenomenological variant of ecological systems theory (PVEST) is one example of an "identity-focused cultural ecological" (Spencer, 2006, p. 842) theory that extended Bronfenbrenner's work in this regard. The PVEST considers how individuals from racial/ethnic minority backgrounds have inherited developmental contexts that have been shaped by historical factors, such as unequal conditions and structural racism. The PVEST holds that developmental contexts create varying levels of consonance or dissonance as defined by maximal supports and fit between the individual and environment. There is also the added layer that individuals' perceptions and meaning making of their experiences in developmental contexts

are unique. Therefore, how contexts create sources of dissonance that undermine optimal conditions for achieving the most successful outcomes must be considered. Ignoring context leads individuals to pathologize or draw conclusions that localize behaviors as maladaptive and the fault of individuals. Responses to dissonance experienced in context are coping strategies that lead to desirable outcomes for individuals regardless of whether the appraisal by others view them as adaptive or maladaptive.

Synthesizing the Racial Socialization and Ecological Systems Theory Literature

Sociological literature cited in this review, although not exhaustive, contained examples of how academic tracking reinforced messages about the ways race and achievement should be viewed by all individuals in racially diverse school contexts. The concepts of the individual, microsystem, and macrosystem from ecological systems theories can be applied to explain the responses of Black youth in these settings. One core tenet of the theory concerns *reciprocity*, defined as reciprocal interactions between individuals and the microsystem (Bronfenbrenner, 1977). Underrepresentation of Black youth in higher academic tracks stands as evidence of an objective reality at the microsystem level, of a macrolevel ideology about race and academic achievement. The isolation that high-achieving Black youth experience stems from dissonance in the environment, which states Black youth cannot be high achieving. High academic achievement becomes the domain of whiteness because white teachers and peers view Black youth's presence in advanced coursework with suspicion due to the macrolevel ideology of how race and achievement are related and the microsystem reality of their underrepresentation in advanced tracks. The isolation and holding back achievement are reactive coping strategies that high-achieving Black youth employ to navigate an environment that invalidates their academic proficiency as antithetical to their authentic Black identity.

By no means are feelings of isolation and holding back achievement considered optimal behaviors in a school setting where individuals demonstrate what they know with confidence. However, these behavioral responses cannot be discussed without "reference to the environments in which they are occurring" (Spencer, 2006, p. 865). In other words, the very nature of reactive coping strategies are violated by focusing on the behaviors in isolation and ignoring the racist school context in which they are embedded. Therefore, differences in achievement by racial/ethnic subgroups are an artifact of the school context interacting with students from diverse racial/ethnic backgrounds in different ways (Eccles, 2004). When the racist school context is ignored, racial/ethnic subgroup differences in achievement are labeled as a gap and this conceptualization gains traction and legitimacy because it reinforces macrolevel ideologies about the relationship between academic achievement and racial group membership. Thus, the gap observed in achievement outcomes appears to confirm an objective reality that tracks with societal conventions that certain racial/ethnic groups are not as academically capable, and the opportunity to understand how to alter the environment to be more equitable to all students is missed.

The synthesis of sociological and developmental literature provides the foundation for exploring perceptions and responses to RSMs among Black youth who attend racially diverse schools. The RSMs are an underexplored mechanism that reinforces macrolevel ideologies about race at the microsystem level. The focus of the current study on Black male youths' perceptions and responses to these messages was warranted given the macrolevel ideologies that are promoted about this group. For example, Black male youth are viewed as more likely to act out in class and less likely to challenge themselves academically (Noguera, 2003). This macrolevel ideology also supposes the educational outlook for Black men is problematic and precarious

(Davis, 2003). Statistics present an objective reality that supports the macrolevel ideology because Black male youth are overrepresented in discipline statistics and underrepresented in statistics highly correlated with academic success (Noguera, 2003). The explanation lacks attention to context and instead localizes the problem in youth themselves (Spencer, 2006) because they are believed to "often adopt behaviors that make them complicit in their own failure [in school]" (Noguera, 2003, p. 437). The current study decidedly took place in a middle school because the preponderance of literature examining the experiences of Black youth in racially diverse schools have been conducted with older student populations (Byrd, 2015; Mattison & Aber, 2007). The findings from these studies cannot be generalized because younger populations may be less perceptive in their recognition of structural or institutional forms of discrimination, such as how stereotypes and biased beliefs about marginalized groups reinforce inequalities between groups in society (C. S. Brown, 2017).

Conceptual Framework

The current study drew on the conceptualization and definition of school racial socialization articulated by Byrd (2017), who developed the School Climate for Diversity-Secondary Scale (SCD-S), a multidimensional, measurement model of school racial climate. Byrd developed, tested, and validated the measure with a national sample of youth from diverse racial/ethnic backgrounds to understand their subjective experiences of the school context. Table 16 shows the 10 dimensions across two broad domains (i.e., interpersonal interactions and school racial socialization) that make up the SCD-S. The intergroup interactions domain considers perceptions about both the frequency and quality of interactions between different racial/ethnic groups in school in addition to whether youth perceive individuals from different racial/ethnic groups are treated fairly at their school (Byrd, 2015, 2017). The second broad domain of school

racial socialization, which was the conceptual framework for the current study, concerns the messages and practices that promote racial ideologies at school. The messages and practices can range from colorblindness, which promotes ignoring racial differences, to multiculturalism, which simply acknowledges racial/ethnic group differences, to more critical messages that teach youth how to analyze and make sense of power and oppression. Messages are embedded throughout learning materials (e.g., books, class curriculum, extracurricular activities), peer norms (e.g., lunchroom segregation), organizational characteristics of a school, enactment of school policies (e.g., academic tracking), and disciplinary enforcement procedures that often lead to disproportionate outcomes by race (Aldana & Byrd, 2015).

Table 16

Byrd's Dimensions of School Racial Climate

Interpersonal interactions	School racial socialization
• Quality of interaction	• Promotion of cultural competence
• Frequency of interaction	• Cultural socialization
• Equal status	• Colorblindness
• Support for positive interactions	• Individualism
	• Stereotyping
	• Critical consciousness

Note. Adapted from "The Complexity of School Racial Climate: Reliability and Validity of a New Measure for Secondary Students," by C. M. Byrd, 2017, *British Journal of Educational Psychology*, *87*(4), 700–721 (https://doi.org/10.1111/bjep.12179)

Like other researchers who have measured racial climate at school, Byrd (2017) acknowledged the importance of interpersonal interactions between different racial and ethnic groups and youths' perceptions of equal treatment as important factors for understanding their subjective experiences of racially diverse school contexts. However, Byrd also cautioned against ignoring how ideas about race and culture are infused into other aspects of school because the

practices and messages play a role in shaping students' understanding of how race functions in society. Through mechanisms (e.g., programs that celebrate cultural differences and provide knowledge about the experiences of diverse groups at school, and curriculum and teaching in the classroom that engages in critical examinations of history and contemporary issues in society), and social norms among students (e.g., lunchroom segregation), school settings socialize youths' racial attitudes and beliefs (Aldana & Byrd, 2015). Byrd referred to these processes as school racial socialization.

The current study built on 6 of the 10 total dimensions that make up the school racial climate measure (Byrd, 2017). The six dimensions were most appropriate for understanding messages embedded in the formal curriculum. Socialization subtypes make up the broad domain of school racial socialization. Cultural socialization refers to learning about an individual's own racial and cultural background. Research and theory on culturally relevant teaching has supported students' cultures being acknowledged and used as resources in the classroom; thus, cultural socialization is viewed positively in Byrd's (2017) conceptualization. Promotion of cultural competence involves learning about the histories, traditions, customs, and cultural norms of other racial/ethnic/cultural groups. There is no conceptualization around the magnitude of how much promotion of cultural competence is beneficial. Therefore, promotion of cultural competence can range from limited exposure to in-depth study of other cultural groups. Stereotyping involves promoting narrow or limited derogatory ideas about what it means to be a member of a particular group. Stereotyping can also include essentializing cultural practices without addressing within-group heterogeneity or structural inequities. Colorblind socialization encourages youth to ignore the importance of race and can also be viewed as a refusal to deal with the reality of racism or racial inequality. Colorblindness includes silencing, dismissing

critical discussions about race, or not facilitating or encouraging these conversations when issues pertaining to race are brought up. Critical consciousness socialization teaches youth to recognize and address differences between racial groups in power and privilege. This type of instructional content is less common in mainstream schools but is considered a foundation for social justice pedagogy. Lastly, mainstream socialization refers to content about mainstream U.S. norms, values, and traditions, such as rugged individualism. Values, such as rugged individualism and competition, may conflict with values of certain racial/ethnic minority groups that emphasize collectivism.

To formalize how the dimensions from my conceptual framework were applied to the interview data, I have provided an illustrated excerpt from an interview with a participant named Omari (see Table 17). In the excerpt, he described a lesson from his science class where students were learning about how genes were related to skin color. In the excerpt, I applied the dimensions from Byrd's (2017) framework to Omari's account.

Table 17

Excerpt Demonstrating How SCD-S Dimensions Apply to Excerpts From Interview Data

Dimension	Interview excerpts
Participant impression	Interviewer: Um, what about your classes and stuff? So, I'm interested in understanding like, what kinds of things do you guys learn about race or racism or discrimination in your class? Um, so have you had any classes like that, where you've learned about like race or culture or. Omari: [interjects] Yeah, but all of them start with, "It's [referring to race] like a huge problem," and I feel like no teacher can branch off of that. It's just, it's a huge problem. And then, they just repeat themselves and they won't like, explain why, they won't like, tell us how. It's just, it's a problem and they say it in so many different ways and eventually they just end the conversation.
Participant impression	Interviewer: So, it's always talked about whenever you guys talk about race in your class, you're saying that it's always um, talked about like in a, in a problematic way. But it's never, they never explain it beyond it just being a problem. Omari: Yeah.
Cultural socialization and promotion of cultural competence	Interviewer: Okay. Are you able to tell me, what are some of the things they say are problems about it or like, what's problematic about it? Is it discussed in all of your classes or in certain classes, like which classes do those things get talked about? Omari: Science and social studies. Interviewer: Okay. Tell me about, from what you can remember or recall, like, how that gets talked about in science class? Omari: 'Cause we talk, cause most of the time it's just cause we get sidetracked, like, we're talking about genes. And then like, it's like, what makes you like, what makes your skin darker and everything. And then, I've had the same teacher for 2
Participant impression	years and it always just turns into that conversation about race. And you're like, you never know how, but it just does. It's one of those conversations.
Participant impression	Interviewer: What are some of the things that people are saying that you notice or that stick out to you when you guys are having that conversation? And it could be the teacher or other students. Omari: One thing, the only thing that is a constant is that none of the Black kids ever raise their hands. And it's always the white kids thinking they know what they talk about when they talk about race and it's like, "Oh yeah, I know I haven't experienced this but," and it gets on my nerves. But like, it's just a thing. Interviewer: Why do you think that some of the Black kids are not raising their hands when that happens? Omari: I don't know. Cause every time somebody says something, especially like one of the Black kids, they get like, torn apart by everyone. Like everyone's just like, even if everyone knows what they're trying to say, they just keep asking you questions just to like get under their skin, I guess. And so everyone, like nobody just asks questions.
Participant impression	Interviewer: Okay. So, so you, so have you personally felt ganged up on like that? Omari: Yeah. Interviewer: Okay. And how, like after you experienced feeling ganged up on, what does that make you think? Omari: I mean, sadly, this is normal.

Omari started out by describing his impression, which was that conversations about race in his science class were not productive. However, in this impression, there was some description of his science teacher not elaborating or explaining why race was problematic. This text was coded as participant impression because Omari perceived the teacher's actions were dismissive. The text in the table that contains Omari's description of the actual lesson content was coded as an instance of both cultural social socialization and promotion of cultural competence because the lesson he described intended to teach youth about their own racial/ethnic background and the racial/ethnic backgrounds of other classmates. The next block of text was coded as participant impression because Omari described how the Black students in his class felt silenced and did not participate in conversations about race for this reason. The last piece of text was also coded participant impression because Omari describes his feelings of resignation. Table 17 demonstrates how dimensions from Byrd's (2017) SCD-S measurement model and conceptualizations were applied to the interview data for the current study. In the next section, I describe the data and methods for the current study, including a description of how the data were coded and analyzed.

Data and Methods

The following exchange between an interview participant and myself during data collection provides an example of why the notion of researcher positionality cannot be ignored in the context of this study.

> Interviewer: Alright, cool. Last question. What was it like for you to participate in this interview?
> Ali: Piece of cake.
> Interviewer: Piece of cake. Was it weird to answer questions about your experiences at this school?
> Ali: No, it would've been different if you were like, a different race, I guess. It would be like, weird coming from you.

I begin this section with a description of my researcher positionality because it is important to clarify how my epistemological stance influenced the current study's methodology. At the end of every interview, I asked each participant to reflect on the experience of being interviewed about race and culture at their school because I recognized the subject matter could stir their emotions, and I wanted to ensure they could bring any challenges with the interview process to my attention. All the young men remarked the interview did not make them uncomfortable and most of them even said they appreciated the opportunity to discuss these topics with me because they did not talk about it often with their friends and family. However, Ali's comment was different. He explicitly communicated his understanding that there was a "social context" in which our interview was taking place. In this context, it was permissible for him to discuss race and culture with me because we were both Black. He also admitted the conversation would have felt awkward if a non-Black person were posing the same questions to him about race and culture.

A few points about researcher positionality are unavoidable to ignore considering this exchange with Ali. The first point is that my presence as an interviewer, with a shared racial identity, affected this participant's level of comfort with speaking candidly to me about his experiences as a young Black man (Finlay, 2002), much in the same way that scholarship on the insider–outsider positionality in qualitative research about race has been described (Young, 2004). In other words, *insiders* are individuals who share membership along any dimension or social category with interview participants and are thought to be best positioned for eliciting perspectives about those social categories (Young, 2004). I had to consider that some of the other young Black men also felt comfortable discussing their experiences with me and their opinions about race and culture more broadly, even though they did not explicitly express this sentiment.

Because I also identify as a Black man, I benefited from a presumed trustworthiness and rapport (Young, 2004) with the young men I interviewed for this study, which was especially valuable for engaging them to be forthcoming about their perspectives.

The second point I must acknowledge is that a shared racial and gender identity did not preclude the ways that other dissimilar identities and experiences created social distance that could not be easily overcome between the young men I interviewed and myself (Young, 2004). One aspect that immediately came to mind was age and generational status and the implications these factors had for our respective developmental periods at different points during historical time. Our age difference spanned more than a few decades, and I was much closer in age to their teachers, principals, and even some of their parents. For example, the age difference became salient when I asked the young men to describe their interests to me in the beginning of the interview, and several of them relayed they played a popular video game called Fortnite. I had much to learn about Fortnite, an online multiplayer game, not even being an occasional video game player myself. However, the Fortnite example illustrated for me that although we were living through the same historical era, our age difference was at least partly associated with how we were drawing on the tools and technologies in distinct ways to navigate our social worlds. Our shared racial identity in this respect did not overcome the ways we used technology to engage with our social worlds in different ways.

The third point about my positionality concerns the reflexive question of how I specifically came to study the research topic of Black male youths' perceptions of racial socialization messages at their diverse middle school. My identity, educational background, and professional experiences, including doctoral student training, undoubtedly influenced my scholarly interest in this subject. I, like the young men I interviewed with for this study, identify

as a Black man. I attended private and public schools that were racially diverse, but predominantly Black and Hispanic/Latino, from kindergarten through ninth grade. However, the high school I graduated from was predominantly white, as were the two institutions I attended for graduate school. I brought the experiences associated with my racial identity and educational experiences to the research literature I began reading on the Black–white achievement gap in my postmaster's position as a research analyst studying urban education and continued to read during my doctoral training. I purposefully chose to situate my scholarly interests in the developmental research literature building on Bronfenbrenner's (1977) ecological systems theory and the sociological research literature on the experiences of Black youth attending racially diverse schools. These lenses afforded me the tools to critically examine and make sense of the data I collected on students' experiences for my own study in ways that did not lead to deficit framing and damage-centered narratives (Tuck, 2009). To be fair, there were other theoretical frameworks I could have drawn upon to do this work. Although my framework had an evidence-based rationale, I could not overlook the throughline between my identity, my educational experiences attending racially diverse schools, and where I chose to situate myself as a scholar.

I surface these points about my researcher positionality because the mere act of me speaking about what I learned from these young Black men was no less complicated by my combination of insider or outsider identities, nor my proximity—or lack thereof—to their experiences (Alcoff, 1991; Young, 2004). Alcoff (1991) stated, "The practice of privileged persons speaking for or on behalf of less privileged persons has actually resulted (in many cases) in increasing or reinforcing the oppression of the group spoken for" (p. 7). The young men in the study trusted me with their experiences, and I did my best to authentically represent what they shared with me in ways that did not reinforce their marginalization in the research literature or

the broader public imagination. I applied my lens as a researcher to what they shared, which connected these perspectives to an ongoing conversation in the research literature. However, it was important for me to also acknowledge an imbalanced power dynamic in this respect because the young Black men I interviewed for this study did not have an entry point to that conversation.

Research Ethics

All study protocols and procedures—including obtaining parental consent and youth assent to recruit participants, procedures for maintaining confidentiality of research site, and participants' interview data and interview protocols—were reviewed and approved by the Northwestern University Institutional Review Board. The Northwestern University Institutional Reviews Board approved compensation in the amount of $10 per participant for participating in the interview. The school district research review board completed an additional review of all study protocols and procedures being implemented at the research site (i.e., Summers Middle School). I was required to sign and submit a completed memorandum of understanding, confidentiality agreement, and research agreement to the school district research review board prior to executing recruitment and data collection at the research site.

Procedures

There were 25 Black boys in eighth grade who were eligible to participate in this study. In the beginning of the school year, potential participants were advised about the study during their homeroom period to minimize disruptions to their school day. I had recruitment conversations with potential participants in the principal's office when it was unoccupied. Potential participants were advised I was a doctoral student completing my degree program at a nearby university, and the purpose of the research study was to understand their experiences as young Black boys attending a racially diverse middle school. Interested participants were asked

to complete a contact information sheet listing their information and their parent's/guardian's contact information. Interested participants were provided with hard copies of a recruitment letter, youth assent form, and parental consent form to bring home and have signed by their parent or legal guardian. Additionally, I emailed these documents to the contact information listed for each participant and their parent or legal guardian. A total of 11 participants returned their completed assent and consent forms. I retained 10 out of 11 interviews for the final analytic sample. One participant's interview was excluded because he transferred to the school in the eighth grade and had been at the school for less than a month at the time of his interview, whereas other participants all started at Summers Middle School in the sixth grade.

Data Collection

All interviews for this study followed an in-depth, semistructured format (Weiss, 1994). Interviews are a way to probe people's interior worlds and learn how they make sense of various events they experience. This study was best suited for a semistructured interview approach because it was important to be not only systematic by asking each participant the same question, but also to be flexible to pursue interesting directions that might emerge during an interview (Weiss, 1994). I interviewed participants during their 40-minute lunch period in the principal's or assistant principal's office, whichever space was available. Interviews were audio recorded and ranged in time from 22 to 56 minutes. In 2 out of 11 instances, participants were scheduled for a second interview because the interview exceeded the 40-minute lunch period. I began each interview with a review of the minor assent form participants completed to ensure they understood their rights as research participants, confirmed their verbal assent on the audio file, clarified their understanding of confidentiality, and explained I was a mandated reporter required

to report any disclosure of plans to harm themselves or someone else. Participants also had the opportunity to ask questions about the study prior to the interview.

I downloaded all audio files from the voice recorder and assigned a file name containing the participant's unique study identification number. These files were maintained on a secure server at the conclusion of the interview to ensure participant confidentiality. Study identification numbers could only be linked to participant identifying information via a crosswalk file, stored separately from any audio files, to minimize risks resulting from potential data breaches. Audio files were securely uploaded to a transcription service and transcribed verbatim by an artificial intelligence software program. I performed a quality assurance check on each transcript to ensure accuracy of the transcribed files. I imported finalized transcripts into NVivo, a software program for qualitative data analysis.

Data Analysis

I coded interview transcripts in NVivo using a combination of inductive and deductive coding approaches. The first round of coding consisted of line-by-line open coding (Miles & Huberman, 1994). The purpose of this coding was to generate a list of provisional codes to apply to the interview data (Miles & Huberman, 1994). Line-by-line open coding yielded 18 broad codes. I ran summary reports in NVivo to sort all quotations I assigned to a particular code during this initial coding process. I created descriptive summaries for each code, revealing detailed description of participants' interests inside and outside of school, perceptions of their racial identity, interactions with peers and adults at school, and their accountings of learning about race and culture at school. The decision to apply Byrd's (2017) framework for racial socialization messages to participants' descriptions of learning about race and culture at school resulted from initial memoing on descriptive summaries for each code.

In the second round of focused coding, I examined the association between participants' accounts of learning about race and culture at school and racial socialization message subtypes outlined in Byrd's (2017) framework. Six deductive codes were created based on definitions for each of the subtypes. The relevant deductive codes were applied to all quotations capturing participants' descriptions and impressions of learning about race and culture school. I wrote a second round of memos using the constant comparison method (Miles & Huberman, 1994) to summarize patterns and themes in each racial socialization message subtype. Lastly, I constructed a matrix (Miles & Huberman, 1994) to visually examine the association between racial socialization message subtypes and participants' impressions (see Appendix A for complete matrix; an abridged version appears in the findings section). Associations between racial socialization subtypes and participants' impressions are further elaborated in the next section.

Findings

Table 18 presents a summary of the racial socialization message subtype codes applied to each participant's account of what they learned in school about their own racial/ethnic group and the histories, traditions, and cultures of other racial/ethnic groups. Table 18 shows there were a total of 17 accounts across 10 participants. A pseudonym is listed in the name column for each participant to protect their confidentiality. The class column contains the subject in school associated with the participant's account. Participants mentioned social studies (n = 9) and language arts (n = 5) most frequently. There are also three columns for racial socialization message subtypes. Each column contains one racial socialization message subtype code associated with each participant's account. Multiple columns allow for instances of co-occurrence. The column Subtype 1 is coded as CS (i.e., cultural socialization) to indicate when

an account relates to the participant's racial/ethnic group or PCC (i.e., promotion of cultural competence message) for instances when a participant described learning about the histories or culture of another racial/ethnic group. Columns Subtype 2 and Subtype 3 contain instances of co-occurrence with other racial socialization messages.

Table 18

Focused Coding Matrix of Racial Socialization Message Subtypes by Participant and School Subject

Name	Class	Racial socialization message		
		Subtype 1	Subtype 2	Subtype 3
Emmanuel	Social studies	CS	CCS	ST
Omari	Science	CS	PCC	
Abdul	Social studies	CS	PCC	CCS
Jermaine	Language arts	CS		
Rohan	Math (DEI half-day activity)	CS	ST	
	Social studies	PCC		
Sekou	Language arts	CS		
	Social studies	CS		
Ali	Social studies	CS		
		PCC		
LaRon	Social studies	CS		
		PCC		
Kenyatta	Language arts	CS		
	Language arts	PCC		
Sharif	Language arts	CS		
	Social studies	CS		
Amir	N/A	CS		

Note. DEI = diversity, equity, inclusion. CS = cultural socialization. CCS = critical consciousness socialization. PCC = promotion of cultural competence. ST = stereotyping.

A preponderance of the accounts were coded as cultural socialization messages (n = 13), which reflected that all participants were asked the question: Can you tell me about any classes at school where you have learned about Black people? Instances of promotion of cultural competence messages occurred with the second highest frequency (n = 6), followed by critical

consciousness messages (n = 2), and stereotyping messages (n = 2). There were no instances of colorblind or mainstream socialization messages described by participants in this sample.

In the next sections, I present findings related to each of the research questions. This evidence substantiates my overarching claim that despite what has been espoused in the literature about cultural socialization and promotion of cultural competence at school, Black male youth in this study varied in their perceptions of these forms of racial socialization.

Learning About Black History/Culture and Perceptions of Cultural Socialization

The first research questions for the current study were: (a) How do Black male youth describe what they learn about Black history and culture at their racially diverse middle school? And (b) What are their perceptions of what they learn about Black history and culture? As mentioned in the conceptual framework section, cultural socialization or learning opportunities that promote youths' knowledge about their own history, cultural traditions, or racial/ethnic background are considered a positive aspect of culturally relevant teaching and learning because students learn about their own cultures (Byrd, 2017). However, this study found there was variation in the perceptions associated with cultural socialization perceived by the Black male youth in this study. Thus, the mere fact of learning about Black history or culture was not perceived positively in and of itself.

To address the first part of this research question, participants described lesson content that included historical depictions of Black life (e.g., slavery of African people in the United States, Chicago Race Riot of 1919, Civil Rights Movement, Harlem Renaissance); contemporary depictions (e.g., Black Lives Matter movement, Black men being killed by white cops); and fictional depictions where the main characters in a story were Black and elements of the narrative were related to contemporary issues affecting Black people, such as violence affecting

Black communities. Based on focused coding, perceptions of cultural socialization among participants in this study fell into five categories: (a) negative impressions (n = 7), (b) indifferent impressions (n = 4), (c) positive impressions (n = 3), (d) critical impressions (n = 2), and (e) mixed positive and negative impressions (n = 1). In the next sections, I provide examples of these impressions.

Negative Impressions and Positive Impressions

Sekou described learning about the Harlem Renaissance in language arts and learning about the slavery of Black people in social studies. Sekou's account demonstrated both a positive and negative impression associated with cultural socialization:

> Interviewer: Okay, so now, I want to ask you some questions about like, things that you might be learning about here in your classes at [Summers Middle School]. Um, so the first question is, can you tell me about any classes here where you've learned about Black people? [inaudible]
> Sekou: [Language arts], uh, social studies.
> Interviewer: Okay. Um, so in language arts, what did you learn about Black people?
> Sekou: Um, the Harlem Renaissance.
> Interviewer: Really?
> Sekou: Yeah. It was a poetry unit, and we were doing poems about them. And social studies, like, it was like, slavery and stuff like that.
> Interviewer: Okay. Um, so what did you think about those lessons? [Principal Name]. [Principal enters room. Interview resumes when principal leaves.] So, you were telling me that [in] language arts, you did a unit on Harlem Renaissance. And it was poetry. And then in social studies, you had learned about slavery. So, then I was asking you, what do you think about those lessons that you learned?
> Sekou: Well, I really, I actually liked the poetry unit cause like, I actually got to like, write about lots of things and yeah, people will say that I'm like, very creative. I write a lot. Yeah. But, um, the slavery unit, I didn't care to be honest, I don't like anything about that class. Um, It's like a double period class. So, during that unit, we used to always watch long videos about it and then, um, yeah, I just did not pay attention at all about it. It's like, the same thing every year. Like, in seventh grade we learned about slavery. And they were just basically telling us what they told us in seventh grade, but now they're telling us in my eighth grade. So, I'm like, we already know it, so yeah.
> Interviewer: It's kind of repetitive?
> Sekou: Yeah.
> Interviewer: Okay. Got you. Um, do you think you learn enough about Black people in your classes at school?
> Sekou: In [language arts], yeah, we do.

> Interviewer: Okay. Alright. What about in other classes besides language arts? [Participant shakes his head] No? Okay. Um, and why would you say that you don't learn about, um, you don't learn enough about Black people in some of your other classes?
> Sekou: Cause the other teachers aren't Black. So, they wouldn't care.
> Interviewer: Okay. So, okay. So, tell me, tell me a little bit about that. So, the teacher, your teacher in [language arts] is Black?
> Sekou: Yeah.
> Interviewer: And you feel like that's the reason why you're learning about Black people in those classes in that class?
> Sekou: Yeah.
> Interviewer: But in other classes?
> Sekou: It's, it's just like, the same stuff we already know about it. But like, in [language arts], she teaches us like, new things about Black people and kind of that we didn't know about.

Sekou described himself as a creative person who liked to write. He enjoyed the poetry unit about the Harlem Renaissance because it leveraged his creative inclinations but also because he learned "new things about Black people." The Harlem Renaissance refers to a period in the early 1900s when African American literary, musical, theatrical, and visual arts flourished and ushered in a depiction of Black life in the United States that were defined apart from stereotypes and racist beliefs. The affordance associated with learning about the Harlem Renaissance for Sekou involved expanding his repertoire about Black history and completing a poetry writing assignment, which he found to be particularly engaging. Videos about slavery shown in his social studies class, on the other hand, were not engaging to him, and the content was repetitive. The other association that was interesting to note concerned Sekou's perspective that only his Black teachers cared about teaching students about Black history and culture. Other participants also mentioned this idea (see Appendix B). The perception among some of the youth that their Black teachers cared more about teaching the subject matter of Black history and culture to students revealed an interesting macrolevel message about race at the school. The macrolevel message was that province of teaching students about Black history and culture fell on Black

teachers, and they did it because they cared, which means teachers from other racial/ethnic backgrounds either did not care as much or at all; therefore, they taught it less often or not at all.

Negative Impression Vulnerability

Sekou's account was representative of how other participants described their impressions or responses to learning about Black history and culture in school. They reported being engaged and expressing affinity when they perceived depictions of Black history and culture to be humane, nuanced, and not associated with degradation. When they perceived powerlessness and vulnerability, they disengaged, dismissed, or rejected those depictions. However, there was one instance where Kenyatta reflected on his own vulnerability as a young Black man based on the vulnerable depiction of Black people during one historical period:

> Kenyatta: Like, my [language arts] teacher [a white male] taught us like, he did a little bit, and he was teaching us about like, the old West and how kinda like the old way it was, I forgot what it was called. You know, it's like, the Black people, if they walk too close to a train, they will kill him or lock him up and they would just find any reason to like, lock up a Black person. If the Black person spit on the ground, they would lock 'em up and stuff. It was just, he basically taught me like, the law about what they would do to like a Black person like, back then.
> Interviewer: Okay. What did you think about that lesson when you were learning about how Black people were punished for, it sounds like they were punished for like any little thing that they did?
> Kenyatta: It just made me think about like, me personally, cause like, I don't want to do something and then they just find any reason to arrest me or kill me or something.
> Interviewer: By they, who do you mean? Like the law?
> Kenyatta: Or the police.
> Interviewer: The police, okay.
> Kenyatta: Cause they'd just be like, finding any reason to just lock up like, a Black person or kill a Black person or yeah, just like say they accidentally killed a Black person or something.

Kenyatta described learning about Black people during a particular historical period where severe consequences were meted out for mundane occurrences. The violence perpetrated against Black people that he referenced in his account made me think about The Jim Crow era, although I cannot be sure that was what he was referencing. Kenyatta described two additional examples

of learning about Black people in his language arts class that were not captured in his quote. He talked about learning about LaQuan McDonald, a young Black man who was murdered by a police officer in Chicago in 2018. He also mentioned a book they read in class entitled, *The Hate U Give*, where one of the main characters, a young Black man, was murdered by police during a traffic encounter because he was reaching for a hairbrush the officer thought was a gun. Kenyatta's overall account was distinct from the other participants who offered negative impressions because the vulnerability depicted in these lessons cut across historical, contemporary, and even fictional depictions of Black life in his language arts class. Furthermore, although other participants rejected or dismissed cultural socialization messages they perceived as negative, Kenyatta's account was the only case where the depictions were internalized as potentialities for what could happen to him.

Critical Impressions

Critical impressions in this study were associated with the co-occurrence of cultural and critical consciousness socialization. The co-occurrence suggested different dimensions of racial socialization, when measured discretely as part of Byrd's (2017) multidimensional measurement framework, could overlap in a participant's account of what they learned. Instances of co-occurrence also demonstrated a resoluteness in the face of learning about dehumanization or vulnerability with regard to Black history and culture. Abdul's account illustrated this dynamic:

> Interviewer: So, um, can you tell me about like, any classes where you've learned about like, race or ethnicity?
> Abdul: Oh, language arts and social studies. They talk a lot about race and ethnicity in those classes.
> Interviewer: So, what are they talking about?
> Abdul: Ms. [Teacher Name], my [language arts] teacher, she, um, they're talking about how race and what culture means to you and how you feel about your own culture and stuff like that. Um, history, uh, Ms. [Teacher Name], she's talking about race and how America kind of hides what they did on the low key about how they, um, about how they took people's land and like, a bunch of stuff and how they treated people inside their

> country. Yeah. Um, yeah she's talking about stuff like that, about the picture, the little bit of the picture we don't see that America tries to hide and stuff like that.
> Interviewer: So, what do you think about that stuff? Cause you learn, you learn a lot about history from your mom too.
> Abdul: So, most of her stuff she teaches, my mom, my mom's told me before, like she talks about all this stuff America hides that they don't want people to hear about. 'Cause you know, it would make them seem like, kind of like a bad country, stuff like that. But yeah. Hmmm, I mean, I think they have some kind of impact, but I mean, my thoughts, I mean, I don't know. I think like, I know this stuff happened and it shouldn't have happened. I think it was pretty bad and that it could have been completely avoidable, if only you know, people weren't so race addicted and stuff like that.

Abdul stated the way his teacher presented the material (i.e., they were teaching students about the unflattering aspects of U.S. history that were hidden) was associated with his own definitive conclusion about these acts being wrong and completely avoidable. Abdul's description about how people were "race addicted" and how that behavior was responsible for atrocities "that should not have happened" was also an astute observation. The racial hierarchy upheld by white people throughout U.S. history is not only detrimental for people of color, but also has consequences for how the United States is viewed. Abdul's sensemaking about land removal and discrimination represented a resoluteness about the historical atrocities Black, Indigenous, and other people of color (BIPOC) suffered. He did not report disengaging or not paying attention like Sekou did in his social studies class, where the teacher just showed the students really long videos about slavery. Abdul also did not reflect on his own vulnerability like Kenyatta. Instead, the critical consciousness socialization provided by his teacher helped him to contextualize the content he learned in ways that were not harmful to his academics or his own sense of self.

Indifferent Impressions

Indifferent impressions were interesting because participant accounts provided a different counterpoint to the assertion that cultural socialization was positive. Not only did some of the

Black youth interviewed for this study express negative impressions about what they learned, but some of them also offered an impression that was ambivalent. Amir's account was one example:

> Interviewer: In your opinion, do you think is a good thing for students and teachers here to talk about race?
> Amir: Well, I mean for teachers, yeah, to like, teach kids. Like, how race has been in the past and now, but when students talk about it, uh, I don't know. I guess, I don't like, why, like I don't know. Like why are we talking about race?
> Interviewer: Oh, when students, when students do it, that's, that's your reaction?
> Amir: Yeah.
> Interviewer: Okay. Well, what was your topic? . . . Um, so what you just said is, um, when kids talk about it, you're questioning why, why it comes up. Is that right? Okay. So, why do you think that is? Uh, what are they saying that's making you say, "Why are we talking about this?"
> Amir: Because I don't know. Ever since we watched the movie, "The Hate You Give," it's coming up a lot because of like, how the race was in that movie. Uh, and then now they're talking about how the white people's being really racist to Blacks and yeah, something like that.
> Interviewer: Oh, okay. So, it's coming up a lot because you guys watched the movie. Was that in class?
> Amir: The kids were talking about like, after school and the teachers were also talking about it.
> Interviewer: Oh, okay. So, you think it's a good thing for teachers to talk about it but not kids?
> Amir: Well, I mean, I don't know. I don't think it's a big deal for kids to talk about it. I just think like, like what, like why did it start being talked about? It's like, why did it come up in the first place?
> Interviewer: I see. So, you, you would, you would prefer that it not even come up in conversation. Yeah. Okay. That, that, that's helpful. Thank you.

Like Kenyatta, Amir described learning about current events, like the murder of LaQuan McDonald by a white police officer, in his language arts class. Amir also stated he learned about "all races" in his social studies class. However, Amir's account was extreme in comparison to the other young men who expressed indifferent impressions. They did not express positive or negative impressions about what they learned, but they also did not question why their peers were talking about race outside of the classroom the way Amir did during our discussion. I included his account because his account was an outlier that revealed an interesting perspective on this dimension of positive and negative impressions. Amir viewed the movie as a precursor to

a moment where his peers became preoccupied with talking about race outside of the classroom, and he did not see the point for doing it.

Positive and Negative/Critical Impressions of Promotion of Cultural Competence

The second research questions for this study were: (a) What do Black male youth say they learn about the histories and cultures of other racial/ethnic groups? and (b) What are their perceptions of what they learn about the histories and cultures of racial/ethnic groups? The promotion of cultural competence at school involves providing opportunities for youth to learn about the histories and traditions of other racial/ethnic groups (Byrd, 2017). Through the learning opportunities, youth hopefully gain knowledge and comfort with other racial/ethnic backgrounds and develop the ability to positively interact with individuals who are not from their racial/ethnic background. However, promotion of cultural competence described by the young Black men in this study did not always reflect this objective. Based on focused coding, their impressions of the promotion of cultural competence fell into two categories: (a) positive impressions and (b) negative/critical impressions.

In the following excerpt, Ali discussed learning about the Holocaust in social studies. Students had the opportunity to attend a field trip to a museum exhibit about the Holocaust, and they also attended a school-wide assembly where a survivor shared their experience:

> Interviewer: And what did you think about those, those lessons on the Holocaust?
> Ali: It was actually interesting.
> Interviewer: Yeah. What was interesting about it to you?
> Ali: We went on a field trip about it, and we went to a museum to learn more about it.
> Interviewer: What was the most interesting thing about that experience, in your opinion? Or, the most interesting thing that you learned or that you remember about learning about the Holocaust?
> Ali: I remember we spoke to one of the Holocaust survivors there. Like, he came to our school and then he was talking about [it], that was pretty interesting. Just knowing that someone survived that.

Ali was one of the young Black men I interviewed whose impression of cultural socialization was indifferent. He could not recall the book they read, but it was a story about the Chicago Race Riots of 1919. When I asked him if he had an opinion about what he learned, he flatly responded, "No." However, his account of promotion of cultural competence described a very multifaceted learning opportunity that involved learning about it in class, going to a field trip for experiential learning, and hearing from an actual survivor at a school assembly. Ali was amazed to encounter someone who survived this historical atrocity, and the experience definitely left him with a reverent impression about the resilience of Holocaust survivors.

LaRon described his account of an exercise in social studies involving maps included a stereotypical depiction of Asian facial features, saying:

> Interviewer: And so, I asked you about Black people, learning about Black people in school. What about like, learning about other cultures? So, like, people who are not from your background, who are not Black, so like White, Asian, or Hispanic. Do you learn about other cultures in your classes?
> LaRon: Uh, yeah, so that's mainly in like, social studies. So, we did like, this little map thing and like, I feel like it was kind of like a racist thing or something like that when like, it was a statue and like, don't you know how like, I guess like, how Chinese people don't look like us, right? So, they kind of made a stack, like a big statue of like, an old person. And like, I guess since their eyes it was like, cause like how it looks like their eyes are like, closed, but they're not. Like, they made a statue. But then on the paper, when it shows the statue, um, like it circles their face and then it points in an arrow to it.
> Interviewer: Okay. And you said you felt like that was racist?
> LaRon: Yeah, because.
> Interviewer: What was racist about it?
> LaRon: Um, because it shows like a group of like, white people pointing their fingers and they were laughing.
> Interviewer: Oh, so they were making fun of the–
> LaRon: Of like, the statues. So, I feel like they were being racist because again, it's not their kind.

LaRon's account was interesting because he did not elaborate on the content of the map activity or what the teacher was teaching the students. He was solely focused on the stereotypical depiction of Asian people's facial features and the appearance that white people were making fun

of the statues because of their features. In comparison to Ali's account, the lesson did not provide LaRon with an opportunity to expand his knowledge about a different racial/ethnic group. However, LaRon's account still showed a resoluteness that the depiction was not appropriate, but he did not attribute this inappropriateness to how his teacher presented the material.

Discussion

Findings contained in this paper should be interpreted in the context of at least two limitations. First, the young Black men who agreed to participate in this study represented 10 of the 25 individuals who were eligible to be interviewed. Findings are solely based on the perspectives they offered and did not apply to the other young Black men in eighth grade who did not participate in the study, or all the young Black men who attended Summers Middle School. Therefore, perceptions of racial socialization described in this paper do not represent the universe of all possible perceptions. Second, although there was an evidence-based rationale for examining Black youths' perceptions of their learning environment (Wiggan, 2008), their perceptions constituted just one source of data regarding what they learned. This study would have benefitted from other data sources, such as interviews with teachers about the lesson content and objectives and observations of classroom lessons featuring the subject matter under examination. The addition of these data sources would enable triangulation that could either validate or provide an alternative perspective to the perceptions described in this paper.

The analysis of the findings for this study led me to draw three conclusions. The first conclusion was there was some evidence of macrolevel ideologies about race being reproduced through racial socialization messages embedded in some of the teaching at Summers Middle School. Some of the young Black men in this study recounted themes of dehumanization and vulnerability in their lessons about the histories and cultures of BIPOC communities. The power

exacted by white people on BIPOC communities throughout U.S. history was also part of this retelling, and the racial hierarchy was the macrolevel ideology about the race that was communicated. The young Black men reckoned with that racial hierarchy in different ways, which led me to my second conclusion that all instances of cultural socialization and promotion of cultural competence are not created equal. For the young Black men in this study, their positive perceptions of cultural socialization were associated with nuanced depictions of Black life, whether historical, contemporary, or fictional. They reported an appreciation for learning aspects of Black history that did not get featured every year in school, such as U.S. slavery or being able to draw on positive examples from Black historical figures that could be applied to their own lives. Positive impressions of cultural competence were associated with elements of the learning opportunity that enabled youth to develop a sense of empathy and reverence for the resilience of individuals who survived different historical atrocities. Their positive engagement during these lessons was consistent with Eccles (2004) stage–environment fit theory because they reported the material was interesting or resonated with their conceptions of Black identity in meaningful ways.

The Black youths' negative perceptions of cultural socialization were associated with dehumanizing and degrading depictions of Black life, such as slavery, Jim Crow laws, or racialized police violence. They reported disengaging when this type of content was presented in class and in one case, a participant connected the theme of Black vulnerability across different lessons he learned to his own perceived vulnerability. The same was true for instances of promotion of cultural competence that were associated with degradation or dehumanization, such as the exploitation of Chinese immigrant labor to build the Golden Gate Bridge or land removal that affected many Indigenous tribes. Both stage–environment fit theory (Eccles, 2004) and

PVEST (Spencer, 2006) can help bear on understanding the students' reported declines in motivation and engagement during these lessons. Most of the young Black men rejected these depictions, and I would argue these degradation narratives produced dissonance (Spencer, 2006) between how Black people were being presented to them and how they saw themselves. The clearest articulation of this dissonance was LaRon, who questioned why Black people were not standing up for themselves because their nonviolent civil acts of disobedience for equal rights were met with violent, repressive reactions. On the one hand, LaRon's questioning overlooked the fact that nonviolent civil disobedience does constitute standing up for oneself. However, his declaration, "I would have stood up for myself," was his way of refusing to accept how the racial hierarchy was upheld by calling the equal rights of Black people into question.

The third conclusion is there was variation in perceptions of racial socialization among the Black male youth I interviewed at Summers Middle School. Most of the youth appreciated learning about the histories, traditions, and cultures of their racial/ethnic group or other racial/ethnic groups. However, a few of the youth were ambivalent. How the content was taught did matter, which meant teachers played an important role in shaping their students' perceptions of racial socialization messages. Although not an explicit focus of this study, I did hear from a few of the young Black men that critical consciousness socialization messages promoted by their teacher buffered the negative associations of dehumanizing and degrading content. There was also one instance where Omari thought his teacher did not facilitate conversations about race in class in a meaningful way. He did not participate in these conversations, and he believed his other Black classmates, who felt silenced by their personal experiences with race and racism, were not valued.

These findings have implications for measuring dimensions of racial socialization. Scales could incorporate questions that ask whether the content learned at school about an individual's racial/ethnic group or a different racial/ethnic group are positive or negative. This study also has implications for thinking about how to integrate critical consciousness socialization when the content of a lesson contains degradation or dehumanization narratives. In the few instances when critical consciousness socialization was present with cultural socialization, the young men's accounts demonstrated a resoluteness that did not affect their engagement with the material or their sense of their own vulnerability as members of a marginalized minority group.

Appendix A - Focused Coding Matrix of Racial Socialization Message Subtypes and Impression/Engagement by Participant and School

Pseudonym	Class	Racial socialization			Impression/engagement
		Subtype 1	Subtype 2	Subtype 3	
Emmanuel	Social studies	**CS**	**CCS**	**ST**	Critical impression. Described critical opinions of U.S. history. Connected oppression by white people in power toward people of color across multiple historical events.
Omari	Science	**CS**	**PCC**		Negative impression. Described withdrawn engagement. Conversations about race were poorly facilitated. Participant felt silenced and so did other Black students. PCC = Genes and diversity.
Abdul	Social studies	**CS**	**PCC**	**CCS**	Critical impression. Referred to slavery and land removal as the result of white people in power being "so race addicted."
Jermaine	Language arts	**CS**			Indifferent impression. Participant stated they got to reflect on what their culture meant to them but did not express any opinions about doing so.
Rohan	Math* (DEI half-day activity)	**CS**	**ST**		Mixed positive/negative impression. Enjoyed learning about Black lives matter and its founders but did not appreciate (i.e., rejected) the stereotypical depiction of young Black men in the news media.
	Social studies	**PCC**			Indifferent impression. Mentioned learning about the "white people experience" but stated he wanted to learn more about the Black experience. In response to probing question, he did say it was "good" that he could learn about what other cultures used, such as "instruments and stuff like that." This learning resulted from wall and classroom door displays. PCC= "white" and "Mexican."
Sekou	Language arts	**CS**			Positive impression/engagement. Stated the language arts teacher taught him "new things" about Black people. Participant also believed he learned different things about Black people in language arts because his teacher was Black.
	Social studies	**CS**			Negative impression/withdrawn engagement. Participant did not pay attention and completely zoned out while they were watching videos. Believed what he learned about Black people in social studies was repetitive.
Ali	Social studies	**CS**			Indifferent impression. Described learning about the Chicago Race Riots of 1919 but did not have an opinion about it. Stated Black social studies teacher was passionate about Black people.

Pseudonym	Class	Racial socialization			Impression/engagement
		Subtype 1	Subtype 2	Subtype 3	
		PCC			Positive impression. Described learning about the Holocaust and appreciated having the opportunity to meet with a Holocaust survivor and learn about their personal experience. Like, he came to our school and then he was talking about [it], that was pretty interesting. Just knowing that someone survived that.
LaRon	Social studies	**CS**			Negative impression. Participant's account reflected some questioning and also some cynicism due to not fully understanding that nonviolent protest was a means of standing up for oneself.
		PCC			Negative impression. Rejected stereotypical depiction of Asian people.
Kenyatta	Language arts	**CS**			Negative impression. Participant represented the clearest case of internalizing vulnerability. Described Black vulnerability across historical, contemporary, and fictional depictions and what he learned made him think about encountering the same fate.
	Language arts	**PCC**			Negative impression. Connected vulnerability across the historical experiences of people of color. Basically, what they did to Black people, but like, with the Asian people.
Sharif	Language arts	**CS**			Positive impression.
	Social studies	**CS**			Negative impression.
Amir	N/A	**CS**			Indifferent. Did not understand why they were talking about race.

Note. CS = cultural socialization, PCC = promotion of cultural competence, CCS = critical consciousness socialization, ST = stereotyping

Conclusion

In this section, I provide a high-level summary of the findings and conclusions for each study. I also discuss one of the broader implications for this work. Study 1 provided three methodological contributions to the existing research literature on measuring school racial climate. First, the study offered evidence to support the conceptualization of school racial climate as a multidimensional construct. This finding was important because the emphasis on interracial peer interactions prevalent in most school climate research (Byrd, 2017) overlooks how less obvious school-level processes contribute to students' understanding of race, their experiences as learners, and their perceptions of the school context. Second, the measurement invariance analysis contributed evidence to support the methodological practice of ensuring measured constructs or subconstructs have the same meaning across demographic subgroups. This analytic strategy is especially crucial when administering surveys measuring perceptions of school racial climate to a racially diverse sample of students. It is erroneous to assume people who have a different racial/ethnic background, and by extension, different experiences related to their racial/ethnic group membership, to be unified in how they make meaning of questions about their racialized experiences. Lastly, Study 1 contributed evidence on the process of adapting measures with older study samples, which tend to be prevalent in school racial climate research, for use with studies involving younger populations. The major takeaway related to this finding concerned checking to make sure an alternative factor structure did not fit the data better, even when results from a confirmatory factor analysis of the original factor structure indicated the measure had good fit indices with the current study population.

There were two significant takeaways from Study 2. First, no differences were found between racial/ethnic subgroups on the Peer Interactions Between Diverse Racial/Ethnic Groups

(PI) subscale. This evidence was completely contrary to the consensus in the research literature that race/ethnicity explains differences in perceptions of school racial climate. It is possible that in this school context, along the dimensions the PI subscale measured, everyone who responded to the survey was mostly in agreement about the frequency of positive interactions between diverse racial/ethnic groups. It was also possible that fewer positive interactions were happening along other dimensions that this scale did not ask questions about. The second takeaway concerned the nature of school racial socialization to school connectedness. Although not entirely consistent for all minority racial/ethnic groups across the Learning About Diverse Cultures (LRN-DIV), Learning About Your Own Culture (LRN-CULTURE), and Promoting Colorblind Ideology (PCI) subscales, school racial socialization was associated with school connectedness for Black, Hispanic, and multiracial study participants, when controlling for other characteristics. This finding had broader implications for thinking about factors associated with connection to school. For white and Asian students, grade point average (GPA) was a significant factor. However, for students of color, some combinations of the school racial socialization subscales were a significant factor. This finding suggested learning positive aspects about an individual's own culture and the cultures of other racial/ethnic groups, along with an environment that did not ignore the importance of racial differences, was a validating and affirming environment for students of color.

For Study 3, there were three important findings to consider. The first finding was some evidence of macrolevel ideologies about race being reproduced through racial socialization messages embedded in some of the curricular content. The racial socialization messages particularly conveyed themes of dehumanization and vulnerability when learning about the histories and cultures of Black, Indigenous, people of color (BIPOC) communities. The second

finding was not all instances of cultural socialization and promotion of cultural competence would leave youth with positive impressions of their own culture or the other culture they were learning about in school. The young men I interviewed for this study tended to report positive engagement when the lessons contained meaningful material (Eccles, 2004), such as stories that resonated with their conceptions of Black identity in ways that mattered to them or bearing witness to the resilience of a survivor of the Holocaust who visited the school to share their story with the students.

The second finding was their negative perceptions of cultural socialization or promotion of cultural competence were associated with dehumanizing and degrading depictions (e.g., slavery and Indigenous land removal), vulnerability (e.g., racialized police violence), and the exploitation of immigrant labor. Their motivations to learn and engage decreased during these instances as is consistent with stage–environment fit theory (Eccles, 2004). These historical narratives produced dissonance (Spencer, 2006) for some of the young men between how Black people were being presented to them and how they saw themselves. The third conclusion was variation in perceptions of school racial socialization. It was not enough to learn about someone's culture or the culture of others. Rather, people as cultural individuals should be presented as having agency, resilience, resistance in the face of subjugation, and being creative, industrious, and independent when traditional avenues were closed off to them due to racism or discrimination.

In the next section, I discuss how findings from the three studies spoke to the state of school racial climate at Summers Middle School. I also address how knowledge has been advanced in a particular way as a result of implementing a mixed methods study of school racial climate.

The State of School Racial Climate at Summers: The Case for a Mixed-Methods Approach

The case for studying school racial climate as a multidimensional construct that integrates a focus on school racial socialization practices (Byrd, 2017) was also well-supported by evidence from this dissertation project. Additionally, evidence from this project made a solid case for studying school racial climate using both quantitative and qualitative methods. The quantitative evidence provided an overall picture of the perceptions of school racial climate at Summers Middle School. On the surface, as revealed by examining racial/ethnic subgroup differences in perceptions on the school racial climate subscales, the evidence was somewhat positive. On the positive side, no statistically significant differences in perceptions by racial/ethnic subgroup were found regarding learning about diverse cultures. In the very least, people could conclude Summers Middle School was a school that promoted cultural competence for its students. The promotion of a colorblind ideology happened sometimes, but there were no statistically significant differences in perceptions by racial/ethnic subgroup as to how frequently this occurred. White students had higher perceptions of the frequency of interactions between students from diverse racial/ethnic backgrounds. This finding was consistent with other research that has shown white students tend to have higher positive perceptions of their school's racial climate (Graham, 2022; Voight et al., 2015; Watkins & Aber, 2009). Lastly, the perception of how frequently individuals learned about their own culture at school was lower and statistically significant for Asian students. This finding was somewhat corroborated with interview data from Black male eighth-grader students whereby only a few recalled learning about Asian people at school during a unit in their history class that covered the exploitation of Chinese immigrant labor.

Taken together, findings from the three studies suggested Summers Middle School could improve on some aspects of its school racial climate, especially the teaching of Asian people's history, culture, and contributions to the United States and decreasing the promotion of colorblind ideology. Therefore, the tag line or main takeaway from just considering the quantitative evidence would read, "No school's racial climate is perfect, but Summers Middle School gets it right on some accounts." However, the qualitative evidence added another rich dimension—what Black male students in eighth grade said they learned about their own history, culture, and traditions, including the history, culture, and traditions of other racial/ethnic groups, and what they thought about what they learned. Based on analysis of interview data, the tag line or main takeaway would read, "All instances of cultural socialization or promotion of cultural competence are not good instances."

Good instances of cultural socialization or promotion of cultural competence, according to the young Black men interviewed for this project, contained nuanced and humanizing depictions of people. When the subject matter involved degradation of people, which is an unavoidable historical reality, the young men who were the least perturbed by these depictions had critical tools, offered by teachers and/or parents, to analyze how race and power interacted. These tools allowed the young men to make sense of the enslavement of African people, the extermination and forced removal of Indigenous people, or the modern-day brutality of Black men by the police, in ways that did not bring to mind their own vulnerability as young men of color. Not feeling vulnerable at school was important in light of thinking about the psychological safety needed to feel connected at school. For this reason, the finding that learning about your own culture at school mattered for Black and Hispanic students to feel connected at Summers Middle School should have come as no surprise. At least part of the psychological safety they

needed to feel connected to school was validated by how often they learned about their own cultural background.

School racial climate has been typically studied using quantitative methods. Initial studies focused on measuring perceptions of the interactions between individuals from different racial/ethnic backgrounds and whether students from racial/ethnic minority groups were treated fairly (Byrd, 2017). That focus was later extended to include quantitative measures on how students are socialized by messages about race and culture in the curriculum (Byrd, 2017). This dissertation study adds to existing methodological strategies within school climate research by demonstrating the value of utilizing a mixed methods approach. The combination of quantitative and qualitative methods to study school racial climate allows us to understand that while one might respond on a survey that they "often" learn about their own history, culture and traditions, this does not mean that what they learn is meaningful. The two methodologies are advantageous for assessing how "positive" or "negative" the school racial climate is on average based on responses to survey questions, and, whether instances of cultural socialization and promotion of cultural competence constitute what Eccles (2004) referred to as a culturally meaningful learning opportunity. Prior research has established that, "Perceived irrelevance of the curriculum [is] associated with poor attention, diminished achievement, disengagement and alienation from school" (Eccles, 2004, p. 132). If relevance is consequential for engagement with the material one is learning, then I would argue that culturally meaningful learning opportunities are the "missing dimension" to the multidimensional construct that school racial climate has become. In other words, it is not sufficient to simply ask the extent to which one agrees that cultural socialization or the promotion of cultural competence is happening at school or how frequently it is happening. Our measures of school racial climate must also understand whether students

perceive these instances of cultural socialization and the promotion of cultural competence to be relevant and meaningful.

The responsibility for culturally meaningful opportunities falls partially to school leadership. In the next section, I discuss some of the implications of the findings from this project for school leadership at Summers Middle School.

Implications for School Leadership

Two limitations about the data collected for this study are important to mention before offering any implications to school leadership based on the findings. First, and to reiterate, the survey data were cross-sectional and what remained unknown was how perceptions of school racial climate changed over time for students at Summers Middle School. The degree to which perceptions of school racial climate remained stable or shifted over time was important to understand with respect to considering interventions or programs to improve school racial climate. It would be difficult to know whether a positive or negative change in school racial climate was attributable to implementation of a program or intervention or some other factors. Therefore, one recommendation to school leadership would be to weigh the advantages and disadvantages of proceeding with a program or intervention against the benefit of having more data to understand the stability of school racial climate perceptions among its students. Second, the interview sample was purposive, focusing on Black males in eighth grade, which constituted one of many racial/ethnic, gender, and grade-level subgroups at the school. In no way was this finding meant to suggest the experiences of one subgroup in the school were less valid because they did not represent the experiences of all students. However, this point touched on a critical argument advanced in the school climate research literature that questions whether the "notion of climate can be generalized to an entire school . . . wherein a single unified representation of

climate adequately describes any school environment" (Voight et al., 2015, p. 254). Therefore, one implication, based on the quantitative and qualitative evidence from this project, was that a contextualist perspective of school racial climate should fundamentally drive decision making around which programs or interventions could be implemented to improve the school racial climate at Summers Middle School. A contextualist perspective considers there are multiple perspectives of the school environment held by students, and their perceptions can at least partially be associated with their identities and social location (Voight et al., 2015). Therefore, a contextualist perspective to improve school racial climate at Summers Middle School would not be to implement a one-size-fits-all intervention or program.

Data limitations notwithstanding, there were some other instructive points highlighted by the study for school leadership to consider. To begin, no statistically significant differences were found on the PI subscale between racial/ethnic subgroups when controlling for other characteristics. This finding was fascinating as far as other studies of school racial climate were concerned where race/ethnicity explained differences in perceptions with white students having more favorable perceptions than students of color (Mattison & Aber, 2007; Watkins & Aber, 2009). On the one hand, this finding could represent a remarkable accomplishment because racial/ethnic subgroup membership did not predict disparities in perceptions of school racial climate. Naturally, a finding of this nature should raise some questions because it was anomalous. Namely, the question remains about how consistent this finding was with teacher and school leadership perceptions on the frequency of interactions between students from different racial/ethnic groups. Another question raised by this finding was whether items in the PI subscale tapped into the types of interactions between students from different racial/ethnic backgrounds that would reveal differences in perceptions by racial/ethnic subgroup.

One limitation of the PI subscale in its construction was the survey items were all positively valanced. Study participants were asked to rate questions about how often students of different races/ethnicities studied together, hung out together, trusted each other, and got along well together, among other similar questions. Participants were also asked to rate the frequency of fair treatment by teachers and principals to students of all races/ethnicities. Results analyzing these questions suggested study participants from different races/ethnicities agreed about how frequently these types of interactions occurred between diverse racial/ethnic groups at Summers Middle School. However, confirmation by study participants regarding positive aspects of school racial climate did not mean less positive aspects were absent at the school. For example, it was possible that instances of microaggressions or making fun of someone's racial/ethnic group or culture occurred at the school. However, the School Climate for Diversity – Secondary Scale (SCD-S) measure used in this study did not ask these questions as part of the PI subscale. Therefore, it was hard to make a more conclusive judgment about this very interesting finding without additional corroborating data from principals, teachers, or survey questions that asked explicitly about negative aspects of the school racial climate.

There were also no statistically significant differences on the school racial socialization subscales, with one exception. Asian students who took the survey reported they learned about their culture at school less frequently than other racial/ethnic subgroups. In absence of interview data with Asian students to triangulate this finding, interviews with Black male eighth-grade students at Summers Middle School helped to shed some light on why this might have been the case. When asked to describe what they learned about other cultures at school, 2 out of 10 students talked about the exploitation of Chinese immigrant labor during the building of the Golden Gate Bridge in San Francisco, California. One recommendation in relation to this finding

would be for school leadership to examine how well represented in the curriculum were contributions of Asian populations to the history of America.

Lastly, when looking at the association between school racial climate subscales and school connectedness, while controlling for gender and GPA, an interesting finding emerged. The association was statistically significant for Black and Hispanic students but not for Asian, multiracial, or white students. This finding suggested school racial socialization was an important factor for Black and Hispanic students at Summers Middle School to feel connected to school. In other words, learning about their own culture, learning about the cultures of diverse racial/ethnic groups, and learning in an environment where a colorblind ideology was not promoted all contributed to what Wang and Degol (2016) referred to as a "feeling of acceptance, inclusion, and belonging at school" (p. 323). In other words, aspects of school racial socialization functioned as mechanisms for validation and affirmation for Black and Hispanic students. Based on this finding, one implication for school leadership was to consider ways teachers, leaders, and staff could be more intentional in amplifying the existing processes that promoted learning about diverse cultures and countering a colorblind ideology. Young men interviewed for this project alluded to classroom lessons about Black history and culture and the history and culture of other racial/ethnic backgrounds. In general, they appreciated humanizing and nuanced depictions of all racial/ethnic backgrounds, even when the subject matter concerned a historical event associated with degradation, such as the enslavement of African people in the Americas or the Holocaust.

Participants' appreciations of depictions of all racial/ethnic backgrounds raised an important distinction for implementing lessons or programs related to cultural socialization or the promotion of cultural competence. The mere teaching of historical events and cultural presentations may not provide a pathway for all students to engage with learning about their own

culture (i.e., cultural socialization) or the culture of other racial/ethnic groups (i.e., promotion of cultural competence). When the imagery or depictions are associated with degradation of people of color by white people, some students will disengage or dismiss what is being presented to them like some of the young men described doing in their interviews. Furthermore, when issues of race emerge in the context of a lesson or subject matter about a topic that seem unrelated, it is important that teachers can facilitate developmentally appropriate conversations that allow white students to ask questions or challenge what is being taught without invalidating and undermining the opinions of students of color who are personally affected by race.

In conclusion, the sociological literature that documented racialized school norms (Diamond et al., 2007; Ispa-Landa & Conwell, 2015; Tyson, 2011; Tyson et al., 2005; Wildhagen, 2011b) has been instrumental in focusing attention on the less obvious ways that macro-level ideologies about race play out in schools that can be harmful to individuals from all racial/ethnic backgrounds. In addition to academic tracking and school discipline practices that reflect stereotypes about race, I believe this dissertation presented evidence for understanding how school racial climate more broadly, and school racial socialization practices more specifically, influence how students learn about race at school.

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