Racial Disproportionality in Exclusionary Discipline: School Factors and Disciplinary Practices

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APPROVAL OF THE DISSERTATION DEFENSE

This dissertation ("Racial Disproportionality in Exclusionary Discipline: School Factors and Disciplinary Practices") has been approved by the Graduate Faculty of the Curry School of Education in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

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Dissertation Abstract

Racial disproportionality in exclusionary discipline is widely recognized as a serious national problem. Exclusionary discipline in schools has been associated with a host of negative outcomes, including school disengagement, academic difficulties, grade retention, and school dropout (Gregory, Skiba, & Noguera, 2010; Skiba & Rausch, 2006). The negative consequences of exclusionary discipline are particularly pronounced for Black students, who are two to three times more likely than White students to be suspended (U.S. Department of Education, Office of Civil Rights, 2014), and more likely than White students and other racial minorities to be suspended for relatively minor disciplinary infractions (Losen & Skiba, 2010; Petras et al., 2011).

There is relatively little evidence-based guidance on the underlying causes of racial disproportionality in exclusionary discipline, and arguably even less empirical support for interventions to reduce it. The three papers in this dissertation help to narrow this knowledge gap.

The first paper hypothesized that a school principal's support for zero tolerance policies would be associated with a) higher suspension rates and b) larger racial disparities in suspension rates. The sample was based on a statewide school safety survey of school principals from all 306 Virginia public high schools. Regression analyses provided partial support for the study hypotheses; after controlling for student poverty and school size, principal endorsement of zero tolerance was moderately associated with higher suspension rates for both White and Black students. Zero tolerance attitudes, however, were not associated with the size of the racial gap. The data revealed additional noteworthy patterns. Consistent with previous findings (see, for example, Skiba et al.,

2006), the data demonstrated large racial disparities between Black and White students in high school suspension rates. The data also revealed significant racial differences in the types of infractions that result in suspensions. Black students were significantly more likely than White students to be suspended for disruptive offenses and White students were significantly more likely than Black students to be suspended for alcohol- and drug-related offenses.

The second paper investigated the association between teacher and student perceptions of authoritative school climate and suspension rates in a statewide sample of 423 Virginia middle schools. The sample consisted of 7th and/or 8th students (N = 39,364) and their teachers (N = 9,621). Based on an influential theory of parenting (Baumrind, 1968), authoritative school climate defines high disciplinary structure and student support as key elements of a positive school climate. Regression analyses controlling for student poverty and school size showed that elements of authoritative school climate, particularly structure, significantly predicted suspension rates. Specifically, schools with high levels of student- and teacher-reported disciplinary structure had lower overall suspension rates and a lower gap between Black and White suspension rates. These findings provide support for a certain approach to school discipline—one in which students perceive the discipline as strict but fair—and can be used to guide school climate initiatives to reduce racial disparities in school discipline.

The third paper identified promising efforts to reduce racial disparities in school suspensions and office disciplinary referrals. The goal was to show how three popular school interventions might be successful in reducing these disparities. The paper reviewed commonly used methods for measuring disproportionality and examined three

programs with the potential to reduce the racial disciplinary gap: School-Wide Positive Behavior Intervention and Supports, My Teaching Partner-Secondary, and Restorative Practices. A review of studies on these programs revealed that they did not have a direct effect on racial disparities; however, each program showed some promise in producing these effects. The paper considered some of the likely factors that might reduce these disparities in the future. This paper made specific recommendations drawn from the analysis of these programs, and underscored the need for controlled studies that can offer additional guidance for narrowing the gap.

An important goal of this three-paper dissertation was to identify possibilities for reducing disproportionality in exclusionary discipline. The first paper provided modest support for the prior finding (Skiba et al., 2006) that suspension rates are higher in schools where principals endorse zero tolerance policies. The second paper demonstrated that disciplinary structure was associated with lower overall suspension rates and a smaller gap between Black and White suspension rates. The third paper investigated promising approaches for reducing the racial disciplinary gap and considered the qualities of these programs that are most likely to successfully target this goal.

Project Overview

This three-paper dissertation considered school factors that drive racial disparities in exclusionary discipline and sought to identify possibilities for reducing these disparities.

School Suspensions. In recent years the use of out-of-school suspension has come under widespread scrutiny because it has been associated with a host of negative outcomes, including school disengagement, academic difficulties, school dropout, and juvenile justice involvement (Gregory, Skiba, & Noguera, 2010; Noltemeyer, Ward, & Mcloughlin, 2015; Petras et al., 2011). Out-of-school suspension and expulsion are risk factors for a broad range of negative developmental outcomes, even when controlling for demographic and achievement variables (Skiba et a., 2014). Suspension predicts higher rates of future misconduct (Raffaele-Mendex, 2003) and increases the risk of antisocial and delinquent behavior (Teske, 2011). In addition, researchers, civil rights groups, and the U.S. Dept. of Education's Office for Civil Rights have called attention to racial disparities in disciplinary practices, noting that Black students are suspended at higher rates than other racial and ethnic groups (USDOE OCR, 2014). Further, Black students are more likely than students in other racial and ethnic groups to be suspended for subjective, relatively minor offenses such as insubordination and disruption (Skiba et al., 2011).

Defining and Measuring Disproportionality. Disproportionality refers to a situation when two or more proportions are not the same, or are not within an agreed-upon range of values (Roy, 2012). Disproportionality in school discipline is broadly defined as the magnitude of the racial and ethnic disparity in student disciplinary

outcomes (Losen & Skiba, 2010). Racial disproportionality in school discipline has garnered recent national attention, but racial disproportionalities in special education have been a national concern for decades (Donovan & Cross, 2000; Hosp & Reschly, 2004).

The 1997 reauthorization of the *Individuals with Disabilities Education Act (IDEA)* required states and local educational agencies (LEAs) to collect racial and ethnic data on the identification and placement of children with disabilities in order to monitor disproportionality. Many of the definitions and measurements of disproportionality were initially created to address minority overrepresentation in special education, and have been adapted for use in exclusionary discipline.

There are various methods for calculating disproportionality. Two commonly-used measures are *risk ratios* and *racial gaps* (Porowski, O'Connor, & Passa, 2014; Reschly, 1997). Risk, defined as the number of target-group students in the population of students who received a disciplinary action (e.g., total number of Black students who were suspended) against the number of target-group students in the general population (e.g., total number of Black students in a school), measures the chances a student in the target group has of being suspended. A *risk ratio* compares the risk of a target group (e.g., Black students) against the corresponding risk of a comparison group (such as White students or all other racial/ethnic groups combined). To calculate a risk ratio, the risk of the comparison group is divided by the risk of the target group (Boneshefski & Runge, 2014; Hosp & Reschly, 2003). A risk ratio of 1.0 suggests that the two groups are proportionately represented; overrepresentation is indicated by a ratio greater than 1.0, underrepresentation by a ratio below 1.0. Data from the US Department of Education

estimate that the national risk ratio for Black students against all other students is approximately 3.0 (USDOE OCR, 2014).

When a risk ratio for a racial subgroup of students exceeds 1.0, the subgroup is considered overrepresented. However, there is no established threshold for ratios that meaningfully define disproportionate overrepresentation. States currently have the discretion to establish their own disproportionality thresholds. The U.S. Department of Education found that the most common risk ratio threshold for special education placement was 4.0 (16 states), followed by 3.0 (7 states) and 5.0 (7 states) (U.S. Department of Education, 2016). A 2013 report issued by the Government Accountability Office (GAO) criticized this variability, noting that the "discretion that States have in defining significant disproportionality has resulted in a wide range of definitions that provides no assurance that the problem is being appropriately identified across the nation" (GAO, 2013; p. 22). The Department of Education acknowledged the difficulty in establishing and enforcing a standard threshold, and recommended that states be permitted to select risk ratio thresholds appropriate to their individual needs, provided that the thresholds are reasonable and based on advice from stakeholders, including State Advisory Panels (Department of Education, 2016).

A second frequently used method for measuring disproportionality compares the proportion of target-group students who received a disciplinary action to the proportion of referent-group students who received the same action, to create a difference score or *racial gap*. For example, an estimated 4.6% of White students were suspended in the 2011-2012 school year, compared with 16.4% of Black students, generating a racial gap of 11.8% (USDOE Office for Civil Rights Civil Rights Data Collection, 2014). Racial

gaps are based on the affected percentages of the respective ethnic/racial groups, and do not take into account differences between the raw numbers of those affected.

These methods differ in how the proportion of a racial/ethnic group is calculated and measured against a comparison group. Each method offers some information that the other does not. Both the risk ratio and the racial gap are susceptible to distorting influences; for example, the outcomes can be skewed in districts with low enrollment sizes for one or more racial/ethnic groups. Risk ratios for racial/ethnic groups in districts with zero or very low (<10) enrollments are not useable and are typically excluded from calculations. Racial gaps do not take into account relative enrollment size differences, limiting valid comparisons in scenarios where the numbers are significantly disproportionate (e.g., 500 White students and 15 Black students). Both formulas could hypothetically be applied to the same school district and generate very different results. Roy (2012) noted that no single formula is best for all scenarios. He argued that a joint-measures approach to measuring disproportionality—one in which both methods are applied—may be optimal, bringing together the strength of the individual measures and compensating for their respective weaknesses. The evaluation of interventions aimed at reducing disproportionality should take into account both risk ratios and racial gaps, as well as the absolute number of suspensions.

Zero tolerance policies. The use of zero tolerance as a disciplinary policy in schools is controversial and has been associated with negative outcomes for students. There is no evidence that zero tolerance policies increase school safety or improve student behavior, but substantial evidence that these policies have had unintended

negative consequences, most notably a national increase in school suspensions (APA Zero Tolerance Task Force, 2008; Morgan et al., 2015; Noltemeyer et al., 2015).

Current research

Given the problem of punitive, exclusionary disciplinary practices that create negative outcomes for students, particularly Black students, this three-paper dissertation considered the underlying causes of these disparities. We asked three overarching questions. First (in paper one), can a school principal's support for zero tolerance account for higher suspension rates and/or racial disparities in suspensions? Second (in paper two), is authoritative school climate associated with lower suspension rates and/or racial disparities in middle schools? Taken together, the findings from these two papers suggested that there are indeed malleable school factors—such as administrator attitudes toward discipline and aspects of school climate—that could play a role in discipline disparities. These studies were correlational, however, and could not establish a causal relationship between school practices and suspension rates. Thus, in the third study, we examined the broader literature to determine whether any existing interventions have been able to alter school practices and produce a reduction in racial disparities in exclusionary discipline. This final paper asked a third question: What qualities of popular interventions have the potential to reduce racial disproportionality in school discipline and create a fair, equitable school environment?

Paper one. This study addressed the association between principal attitudes toward zero tolerance and suspension rates for Black and White students in a statewide sample of Virginia public high schools. The paper ("Principal Attitudes and Racial

Disparities in School Suspensions") was published in *Psychology in the Schools* in September 2014 (Heilbrun, Cornell, & Lovegrove, 2014).

This study investigated the following questions: 1) Are there racial disparities in suspension rates in Virginia high schools? 2) Are principal attitudes favoring zero tolerance associated with higher suspension rates? 3) Are there racial differences in the types of offenses that result in suspensions? The sample was based on a statewide school safety survey of school principals from all 306 Virginia public high schools. Participants completed the Zero Tolerance Attitudes (ZTA) Scale (alpha = .75), a brief measure that assessed principal attitudes toward the use of zero tolerance and suspension as a disciplinary strategy. Black and White suspension rates were calculated using discipline data from the Virginia Department of Education.

Suspension rates for Black youth were more than double the suspension rates for White youth. Regression analyses controlling for student poverty and school size showed that principal endorsement of zero tolerance was moderately associated with higher suspension rates for both Black and White students, but was not associated with the racial gap in suspension rates. Paired samples t-tests between Black and White students showed statistically significant differences in the types of offenses that resulted in suspensions, with Black students significantly more likely to be suspended for disruptive offenses and White students significantly more likely to be suspended for alcohol- and drug-related offenses. These correlational findings demonstrated a clear trend of disproportionality in school discipline, but they did not explain the *source* of the racial disparity and underscored the need for additional research.

Paper two. Authoritative school climate theory posits that disciplinary structure and student support are key dimensions of a positive school climate (Gregory & Cornell, 2009). Structure is defined as strict but fair enforcement of the school rules, while support refers to warmth and acceptance by teachers. Previous studies have found that schools with an authoritative school climate have lower school-wide suspension rates and a smaller racial gap between Black and White students (Gregory et al., 2011). In light of evidence that these aspects of school climate may reduce exclusionary discipline, this paper examined a potential association between authoritative school climate and racial disparities in 7th and 8th grade suspension rates. The paper ("Authoritative School Climate and Suspension Rates in Middle Schools: Implications for Reducing the Racial Disparity in School Discipline") was submitted in February 2016 and is under review. The study used the Authoritative School Climate Survey to investigate an association between teacher and student perceptions of school climate and suspension rates for Black and White students in a statewide sample of 7th and/or 8th students in 423 of 430 eligible middle schools (N = 39,364; participation rate 98.4%) and teachers in 389 of 430 eligible middle schools (N = 9,621; participation rate 90.5%).

Regression analyses controlling for student poverty and school size indicated that elements of authoritative climate, particularly structure, distinguished high- and low-suspending schools. Schools with high levels of student- and teacher-reported structure had lower overall suspension rates and a smaller gap between Black and White suspension rates. These findings provide support for a particular approach to school discipline—one in which students perceive the discipline as strict but fair—and can be used to guide school climate initiatives to reduce racial disparities in school discipline.

Paper three. The third paper examined research on three well-regarded interventions to assess whether they provided evidence of reducing racial disparities in school suspensions and office disciplinary referrals. The paper ("Efforts to Reduce Racial Disproportionality in School Discipline: Guidance from Three Programs") is currently under review.

The paper reviewed research on three popular interventions with the potential to reduce the racial gap in exclusionary discipline: School-Wide Positive Behavior Intervention and Supports, My Teaching Partner-Secondary, and Restorative Practices. Although the studies reviewed do not demonstrate a direct effect on racial disparities, the paper nonetheless identified aspects of these programs that should be examined for their impact on disparities. The paper concluded with several recommendations for researchers, school psychologists, and educators. Specifically, we recommended that interventions provide a method for schools to regularly monitor discipline data in order to ensure that discipline is being equitably applied across racial/ethnic subgroups. We also advised that schools direct intensive resources toward the most vulnerable students, who may be at higher risk for poor educational outcomes but also more responsive to targeted interventions. We emphasized the importance of improving student connectedness and relationships with adults, and implementing these interventions with rigor and fidelity.

There is a critical need to identify the factors that contribute to racial disparities in discipline, and there are very few controlled studies that can offer guidance for meeting that need. The three papers in this dissertation sought to clarify some of these factors. Taken together, the findings presented here suggest that racial disparities may be partially driven by malleable school factors, such as administrator support for zero tolerance and

the perception of school climate as firm and fair. These findings suggest that programs seeking to reduce disproportionality should address these factors and incorporate them into disciplinary strategies. Further analyses of three popular school programs lend support for a non-exclusionary approach to discipline: one in which schools are held accountable for fair and consistent enforcement of the rules, student-staff relationships are supportive and warm, and the school climate is perceived as fair, safe, and equitable.

References

American Psychological Association Zero Tolerance Task Force. (2008). Are zero tolerance policies effect in the schools? An evidentiary review and recommendations. *American Psychologist, 63,* 852-862.

Bonoshefski, T., & Runge, T. (2013). Addressing disproportionate discipline practices within a school-wide positive behavioral interventions and supports framework: A practical guide for calculating and using disproportionality rates. *Journal of Positive Behavior Interventions, 16,* 149-158.

Donovan, S., & Cross, C. (2002). *Minority students in special and gifted education.* Washington, DC: National Academy Press.

Fabelo, T., Thompson, M.D., Plotkin, M., Carmichael, D., Marchbanks, M.P., & Booth, E.A. (2011). *Breaking schools' rules: A statewide study of how school discipline relates to students' success and juvenile justice involvement.* New York, NY: Council of State Governments Justice Center.

U.S. Government Accountability Office. (2013, February). *Individuals with Disabilities Educational Act: Standards needed to improve identification of racial and ethnic overrepresentation in special education.* (Publication No. GAO-13-137). Retrieved from http://www.gao.gov/assets/660/652437.pdf

Gregory., A., & Cornell, D. (2009). "Tolerating" adolescent needs: Moving beyond zero tolerance policies in high school. *Theory into Practice, 48,* 106-113.

Gregory, A., Cornell, D., & Fan, X. (2011). The relationship of school structure and support to suspension rates for black and white high school students. *American Educational Research Journal, 48,* 904-934.

Gregory, A., Skiba, R.J., & Noguera, P.A. (2010). The achievement gap and the discipline gap: Two sides of the same coin? *Educational Researcher, 39,* 59-68.

Hosp, J., & Reschly, D. (2004). Disproportionate representation of minority students in special education: Academic, demographic, and economic predictors. *Exceptional Children, 70,* 185-199.

Individuals with Disabilities Education Improvement Act of 2004 (P.L. 108-446).

Losen, D. (2015). Closing the school discipline gap: Equitable remedies for excessive exclusion. New York, NY: Teachers College Press.

Losen, D., & Skiba, R. (2010). *Suspended education: Urban middle schools in crisis.* Montgomery, AL: Southern Poverty Law Center.

Noltemeyer, A. L.,Ward, R. M., & Mcloughlin, C. (2015). Relationship between school suspension and student outcomes: A meta-analysis. *School Psychology Review, 44,* 224-240.

Petras, H., Masyn, K., Buckley, J., Ialongo, N., & Kellam, S. (2011) Who is most at risk for school removal? A multilevel discrete-time survival analysis of individual- and context-level influences. *Journal of Educational Psychology, 103,* 223-237.

Porowski, A., O'Connor, R., & Passa, A. (2014). *Disproportionality in school discipline: An assessment of trends in Maryland, 2009-12.* (REL 2014-017). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Mid-Atlantic. Retrieved from http://ies.ed.gov/ncee/edlabs

Skiba, R., Horner, R., Chung, C., Rausch, M., May, S., & Tobin, T. (2011). Race is not neutral: A national investigation of African American and Latino

disproportionality in school discipline. *School Psychology Review, 40*, 85-107.

Skiba, R., & Rausch, M. (2006). Zero tolerance, suspension, and expulsion: Questions of equity and effectiveness. In C.M. Evertson & C.S. Weinstein (Eds.), *Handbook of classroom management: Research, practice, and contemporary issues* (pp. 1063-1089). Mahwah, NJ: Lawrence Erlbaum Associates.

U.S. Department of Education, Office of Special Education and Rehabilitative Services. (2016). Assistance to states for the education of children with disabilities. *Federal Register, 81*. Retrieved from https://www.gpo.gov/fdsys/pkg/FR-2016-03-02/pdf/2016-03938.pdf

Abstracts

Principal Attitudes Regarding Zero Tolerance and Racial Disparities in School Suspensions

Zero tolerance school discipline practices have been associated with a national increase in suspensions, a practice that has had a disproportionate negative impact on Black students. The present study investigated an association between principal attitudes toward zero tolerance and suspension rates for White and Black students in 306 Virginia high schools. Black suspension rates were more than double White suspension rates. Regression analyses controlling for student poverty and school enrollment showed that principal endorsement of zero tolerance was moderately associated with suspension rates for both White and Black students, but was not associated with the size of the racial disparity. Paired samples-t tests showed statistically significant differences in the types of offenses that resulted in suspensions, with Black students significantly more likely to be suspended for disruptive offenses (d = .202) and White students more likely to be suspended for alcohol- and drug-related offenses (d = .398).

Authoritative School Climate and Suspension Rates in Middle Schools: Implications for Reducing the Racial Disparity in School Discipline

The over-use of school suspensions has been linked to a host of negative outcomes, including racial disparities in discipline. School climate initiatives have shown promise in reducing these disparities. The present study used the Authoritative School Climate Survey—which measures disciplinary structure and student support as key measures of school climate—to investigate an association between teacher and student perceptions of school climate and suspension rates in a statewide sample of middle

schools. Regression analyses controlling for student poverty and school size found that elements of authoritative climate, particularly structure, distinguish high-and-low suspending schools. Schools with high levels of student-and teacher-reported structure had lower overall suspension rates and a lower gap between Black and White suspension rates. These findings can be used to guide school climate initiatives to reduce racial disparities in school discipline.

Efforts to Reduce Racial Disproportionality in School Discipline: Guidance from Three Programs

Racial disproportionality in exclusionary discipline is widely recognized as a serious national problem, but there is relatively little evidence-based guidance on interventions to address it. The purpose of this paper is to identify promising efforts to reduce racial disparities in school suspensions and office disciplinary referrals. We begin by reviewing commonly-used methods for measuring disproportionality, then review three widely-used school interventions that have the potential to reduce racial disproportionality: School-wide Positive Behavior Intervention/Supports, My Teaching Partner-Secondary, and Restorative Practices. These programs, while theoretically and conceptually different, share a prevention orientation that seeks to improve adult-student relationships and the school environment. We conclude with some hypotheses about possible mediating mechanisms of change associated with these preventive interventions, and consider how their program elements might be applied to the goal of reducing racial disparities in school discipline.

Manuscript One

Principal Attitudes Regarding Zero Tolerance and Racial Disparities in School Suspensions

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Abstract

Zero tolerance school discipline practices have been associated with a national increase in suspensions, a practice that has had a disproportionate negative impact on Black students. The present study investigated an association between principal attitudes toward zero tolerance and suspension rates for White and Black students in 306 Virginia high schools. Black suspension rates were more than double White suspension rates. Regression analyses controlling for student poverty and school enrollment showed that principal endorsement of zero tolerance was moderately associated with suspension rates for both White and Black students, but was not associated with the size of the racial disparity. Paired samples-t tests showed statistically significant differences in the types of offenses that resulted in suspensions, with Black students significantly more likely to be suspended for disruptive offenses and White students more likely to be suspended for alcohol- and drug-related offenses.

Principal Attitudes Regarding Zero Tolerance and Racial Disparities in School Suspensions

Over the past several decades, there has been a national rise in the use of school suspension—the disciplinary practice of removing a student from school for one or more days. In 1974, approximately 1.7 million (3.7 percent of all students) were suspended from school; in 2006 that number had risen to more than 3.3 million, or 6.8% of all students (U.S. Department of Education, Office for Civil Rights, 2014). In recent years the use of suspension has come under widespread scrutiny (Petras et al., 2011; Skiba, Eckes, & Brown, 2010) because it is associated with a host of negative outcomes, including school disengagement, academic difficulties, school dropout, and juvenile justice involvement (Fabelo et al., 2011; Gregory, Skiba, & Noguera, 2010; Lee, Cornell, Gregory, & Fan, 2011).

Zero Tolerance and School Removal

One notable change in public education over the past two decades has been the widespread adoption of zero tolerance policies. Zero tolerance is defined as a disciplinary policy that calls for a mandatory sanction for student disciplinary infractions without regard for the severity of the misconduct (American Psychological Association Zero Tolerance Task Force, 2008). The widespread perception of an increase in school violence prompted schools to respond with harsher disciplinary sanctions (Skiba, 2009). This shift in disciplinary procedure was reinforced by the 1994 Gun-Free Schools Act, which required states receiving federal funding to expel any student for at least a year for bringing a firearm into school (Skiba, 2009). Many states and school systems have expanded the principle of zero tolerance for guns to include a variety of other

infractions, including drugs, alcohol, and aggressive behavior (Fabelo et al., 2011).

Zero tolerance operates under two core assumptions: 1) harsh sanctions will deter student misconduct, and 2) removal of the most serious offenders from the school will improve the school climate (Skiba et al., 2009). Yet research suggests the opposite: the APA Task Force on Zero Tolerance (2008) concluded that there was no evidence to support the efficacy of zero tolerance as a disciplinary policy. Longitudinal studies showed that students who were suspended once were more likely to be suspended again, suggesting that first-time suspension is associated with continued misbehavior and further suspensions, with no evidence of a deterrent or remedial effect (Fabelo et al., 2011; Tobin, Sugai, & Colvin, 1998).

Previous studies (Skiba, 2007; Wu, Pink, Crain, & Moles, 1982) suggest that school-to-school variations in suspension rates cannot be adequately explained by differences in student behavior, and may be partly caused by differences in the attitudes held by school principals regarding the value of school suspension as a disciplinary practice. Skiba (2007) surveyed public high school principals in Indiana and reported that their endorsement of zero tolerance as a disciplinary philosophy predicted higher suspension rates in their school. A cluster analysis identified two prevailing orientations among the sample, labeled “prevention” and “exclusion.” Principals in the prevention orientation group were more likely to endorse preventive programs and did not perceive that suspension and expulsion improved the school climate. In contrast, principals with an exclusion orientation felt that zero tolerance policies helped maintain order in their schools. Skiba reported that principals in this group were more likely to believe that school climate would be improved, and discipline problems reduced, if the most

persistent troublemakers were removed from school. Notably, principal attitudes were related to their school's disciplinary practices. Schools with principals who endorsed a preventive orientation had significantly lower rates of out-of-school suspension and expulsion and were less likely to suspend students for nonviolent offenses such as possession of drugs, alcohol, or weapons.

Racial Disparities in school suspensions

Researchers and civil rights groups have called attention to the racial disparity in disciplinary practices, noting that Black students are suspended at higher rates than White students and other minority groups (Gregory, Cornell, & Fan, 2011; Losen & Skiba, 2010; Petras et al., 2011). Suspension rates have more than doubled for Black students in K-12 schools in the United States, while they have increased less than two percentage points for White students (Skiba et al., 2009). Black males have been identified as a subgroup at a particularly elevated risk; they are more likely than White students and other racial minorities to be suspended for relatively minor disciplinary infractions and incur more severe penalties for minor misconduct (Losen & Skiba, 2010; Petras et al., 2011). The racial gap remains even when poverty and other sociodemographic variables are accounted for (Morgan et al., 2015; Raffaele, Mendoz, Knoff, & Ferron, 2002).

In 2014, the U.S. Department of Education, Office for Civil Rights (USDOE) and the Department of Justice issued a "Dear Colleague" letter to state departments of education and local school districts advising that racial disparities in school discipline constitute violations of federal antidiscrimination laws—and that schools must take prompt and effective steps to prevent and reduce differential treatment by race. The Dear Colleague letter advised that discriminatory discipline practices on the basis of race,

color, or national origin can constitute a violation of Title IV of the Civil Rights Act of 1964 (USDOE, 2014), which prohibits racial discrimination in schools. The letter noted that differential suspension rates cannot be adequately explained by student behavior, and urged schools to implement policies on suspension and other disciplinary practices that are not racially discriminatory.

Losen and Skiba (2010) analyzed school and district-level suspension data and identified significant differences between racial subgroups. Over 28% of the middle school Black males in their sample had been suspended over the past year, compared with 10% of White males and 4% of White females (Losen & Skiba, 2010). In addition, approximately one-third of the schools in their sample had "extraordinarily high" suspension rates for at least some sub-groups, suspending Black males at a rate of 33% or higher.

Zero tolerance policies have broadened the scope of disciplinary infractions considered punishable by suspension to include more minor transgressions, including classroom disruption and insubordination (Skiba et al., 2010). Black students in particular are more likely to be suspended for subjective, relatively minor offenses (Fabelo et al., 2011) such as insubordination and disruption. These infractions have been labeled "soft offenses" (Bradshaw et al., 2010) and are generally considered less severe than violent or aggressive offenses. Critics have questioned whether they are serious enough to warrant suspension (Skiba & Rausch, 2006).

Present Study

The use of zero tolerance as a disciplinary method in schools is highly controversial and has been associated with negative outcomes for students. This study investigated the following research questions: 1) Are there racial disparities in suspension rates in Virginia high schools? 2) Are principal attitudes favoring zero tolerance associated with higher suspension rates? 3) Are there racial differences in the types of offenses that result in suspensions? The current study addressed the first question by calculating the gap between Black and White suspension rates to determine whether there was a significant racial disparity.

To answer the second question, we conducted a two-step linear regression that examined the contribution of principal attitudes toward zero tolerance policies to the variance in suspension rates, after controlling for the proportion of students in a school who qualify for a free or reduced-price meals (FRPM) and total school enrollment. Schools with a higher proportion of low-income students have higher rates of suspension and victimization (Bauer, Guerino, Noelle, & Tang, 2008; Gottfredson, Gottfredson, Payne, & Gottfredson, 2005), and the total school enrollment has been associated with higher rates of student misbehavior, crime, and victimization (Gregory, Cornell, & Fan, 2011).

To address the third question, paired-samples t-tests were conducted to investigate whether there were racial differences in the types of offenses that resulted in suspensions.

Method

Sample

The sample for this study included 306 high school principals who completed the 2012 Virginia School Safety Audit, a state-mandated survey completed by 100% of the public high schools in the state. Alternative, correctional, and technical schools were not included in this sample. Virginia enrolled a total of 357,353 students in grades 9-12, with a racial/ethnic breakdown of 56% White, 24% Black, 12% Hispanic, 6% Native American, and less than 2% Hawaiian/Pacific Islander, Native American, or multi-racial. Approximately 37% qualified for FRPM.

Measures

Principal attitudes toward zero tolerance. The 2012 Safety Audit Survey included the Zero Tolerance Attitudes (ZTA) Scale, a four-item scale (alpha = .75) derived from Skiba's 60-item Disciplinary Practices Survey (Skiba, 2007). The ZTA scale was condensed to four items in order to maintain the brevity of the Safety Audit Survey. The ZTA scale assessed principal attitudes toward exclusionary school discipline and measured how effective principals believe zero tolerance and school removal practices are in reducing disruption and maintaining order in school. Principals were asked to rate their agreement on a scale of *1* (*Strongly Disagree*) to *4* (*Strongly Agree*) with the following statements: 1) *Zero tolerance makes a significant contribution to maintaining order at this school;* 2) *Zero tolerance sends a clear message to disruptive students about appropriate behaviors in school*; 3) *Suspension is a necessary tool for maintain school order*; and 4) *Schools cannot afford to tolerate students who disrupt the learning environment*. Higher scores indicated more favorable attitudes toward the use of

zero tolerance and suspension.

School discipline records. School-level discipline data for all incidents that resulted in suspensions from the 2011-12 school year were obtained from the Virginia Department of Education. All public schools in Virginia are required to report the annual number of short-term suspensions (removal from school for 1 to 10 days) and long-term suspensions (removal from school for more than 10 days) out of school. Only short-term suspensions (hereafter "suspensions") were included in these analyses because they were imposed much more frequently (an average of 11% of the total student population) than long-term suspensions (.44% of the total student population).

Suspension rates were calculated without duplication, meaning that each student was counted only once in the database regardless of the number of offenses they committed, consistent with previous studies (Gregory et al., 2011; Wallace et al., 2008). Offenses were ordered by severity within each category, and the most severe offense was counted for the student. Suspension rates were calculated by dividing the number of unduplicated offenses resulting in suspension by the school's total enrollment.

Disciplinary offenses. Offense types were obtained from the Safe Schools Information Resource User's Guide, which is publicly available online at https://p1pe.doe.virginia.gov/pti/. The SSIR guide included 130 disciplinary categories, which we collapsed into four broader categories: 1) Aggressive behavior toward others (assault, bullying, harassment, and violent and physical threats), 2) Alcohol, tobacco, and other drug-related offenses (ATOD), 3) Disruptive or disrespectful behavior (defined by the Virginia Department of Education as conduct that obstructs the learning environment,

including insubordination, defiance of authority, and campus disruption), and 4) Other (non-violent offenses, including theft, property, and technology).

Results

The average Virginia public high school gave 85 total suspensions a year to an average of 47 students per school. At least one suspension was imposed on about one tenth of all students (M = 11%), with the mean rate higher for Black students (M = 17%) than White students (M = 8.3%).

The first set of analyses examined the magnitude and extent of racial disparities in suspension rates. A dependent samples t-test indicated significant differences between Black (M = 17%) and White suspension rates (M = 8.3%) within schools, $t(284) = 17.58$, $p < .001$, $d = 1.02$. Black and White suspension rates were highly correlated ($r = .64$, $p < .001$). The racial suspension gap was measured by subtracting the White rate from the Black rate. The mean racial suspension gap (M = 9%, SD = 8%) ranged from -12% (higher suspension rate for White than Black students) to 42% (higher suspension rate for Black than White students). The racial suspension gap was highly correlated with Black suspension rates ($r = .84$, $p < .001$) and modestly correlated with White suspension rates ($r = .12$, $p < .001$).

The second set of analyses examined the contribution of principal attitudes toward zero tolerance in school suspension rates. Suspension rates and ZTA were significantly correlated, $r(297) = .18$, $p < .01$. A two-step linear regression analysis examined principal attitudes. At step one, school enrollment size and FRPM accounted for 33.6% of the variance in suspension rates, $F(2, 281) = 70.631$, $p < .001$. At step two, ZTA accounted for an additional 3.1% of the variance, $F(2, 281) = 53.32$, $p < .001$. Separate linear

regressions were run for White and Black suspension rates. In the first block, school enrollment size and FRPM accounted for 21.6% of the variance in White suspension rates, $F(2, 281) = 38.45$, $p < .001$. In the second block, ZTA accounted for an additional 3.6% of the variance, $F(2, 281) = 31.20$, $p < .001$. For Black suspensions, school enrollment size and FRPM accounted for 18.7% of the variance, $F(2, 268) = 30.59$, $p < .001$. In the second block, ZTA accounted for an additional 1.2% of the variance, $F(2, 281) = 21.94$, $p < .001$.

To address our third research question, we conducted dependent samples t-tests to assess whether there were racial differences in the types of offenses that resulted in suspensions. Dependent samples t-tests indicated that White rates were significantly higher than Black rates in the ATOD category, ($M = -6.6$ $SD = 16.58$), $t(294) = -6.85$, $p < .001$, $d = .398$, but that Black rates were significantly higher in the Disruptive category ($M = 15.7$, $S = 77.17$), $t(294) = -3.5$, $p < .001$, $d = .202$. There were no significant differences between Black and White rates in the Aggressive category or the Other category.

Discussion

Black students are suspended at more than twice the rate as White students in Virginia public high schools, a finding that is consistent with research in other states (Fabelo et al., 2011; Losen, 2013; Skiba et al., 2010) and supports the concerns voiced by the Department of Education's *Dear Colleague* letter (USDOE, 2014). Because school suspensions are largely determined by school principals, we examined the extent to which support for a zero tolerance philosophy of discipline would be associated with higher school suspension rates. We found that principal endorsement of zero tolerance

was positively associated with suspension rates, holding school-level demographic factors constant. School suspensions were higher in schools where principals endorsed the view that zero tolerance disciplinary policies helped maintain order in their schools.

Suspension rates were highest in large schools with a high proportion of students receiving free and reduced price lunches. These variables accounted for a substantial amount of the variance in suspension rates, ranging from 18.7% (Black rates), 21.6% (White rates), to 33.6% (overall rates). We found that ZTA made a small but statistically significant contribution to suspension rates after controlling for these school demographics. This finding supports concerns (Skiba & Rausch, 2006) that zero tolerance has contributed to the high rate of suspensions in U.S. schools.

Further analyses demonstrated race differences in the types of infractions that resulted in suspension, with Black students significantly more likely to be suspended for disruptive offenses and White students more likely to be suspended for drug- and alcohol-related offenses. The most common cause of suspension was a disruption-related offense, which included infractions such as classroom disruption, disorderly conduct, insubordination, and obscene language (see Table 1). Strikingly, Black students were significantly more likely than White students to be suspended for offenses that fell in the Disruptive category. These infractions, which have been labeled “soft offenses” (Bradshaw et al., 2010), are generally considered less severe than violent or aggressive offenses, and critics have questioned whether they are serious enough to warrant suspension (Skiba & Rausch, 2006). These findings are consistent with research that Black students are more likely to be suspended for relatively minor offenses (Fabelo et

al., 2011) and raise concern about schools' use of suspension for discretionary disciplinary actions.

Black students were no more likely to be suspended for Aggressive offenses (or Other offenses) than White students. This is noteworthy because suspensions are generally regarded as disciplinary responses for serious behavior such as fighting and assault. Black students are suspended at twice the rate as White students, but do not commit aggressive offenses at a higher rate than White students. These findings undercut the argument that Black students are suspended more often because they engage in more dangerous and violent behavior than White students.

White students are *more* likely to be suspended for drug and alcohol related offenses than Black students. This is consistent with national adolescent drug studies, which show that White students have significantly higher rates of licit and illicit drug use than Black students (Johnston et al., 2013). This difference is significant for hallucinogens, ecstasy, and prescription drugs, and particularly pronounced in tobacco use.

Limitations

This study used a correlational design that cannot demonstrate causal effects of principal attitudes on suspension rates. One approach that would indicate a causal relationship would involve assessing whether an intervention to reduce principal support for zero tolerance led to a reduction in suspension rates. One indirect source of support for this view is research on the implementation of the Virginia Student Threat Assessment Guidelines in schools (Cornell, Allen, & Fan, 2012). The Virginia Guidelines is a threat assessment approach to school discipline that is intended in part to give school

authorities an alternative to a zero tolerance approach to students who engage in threatening behavior. Two studies found that training school administrators (and other school staff) in the use of threat assessment reduces their support for zero tolerance and school suspension (Allen, Cornell, Lorek, & Sheras, 2008; Cornell, Allen, & Fan, 2012). In addition, three studies have found that schools adopting the Virginia Guidelines have general reductions in their suspension rates (Cornell, Gregory, & Fan, 2011; Cornell & Lovegrove, 2015; Cornell, Sheras, Gregory, & Fan, 2009).

Another limitation of the present study is that detailed information about the school principals, such as gender, age, race, and years of experience, was not available for analysis. Skiba and Edyl (2004) found that disciplinary orientation differed by gender, with male principals are more likely to endorse suspension and female principals more inclined to support prevention-oriented practices. Disciplinary orientation was not associated with the principals' ethnicity.

Due to constraints on the length of the Safety Audit Survey, the ZTA scale was limited to four items. An expanded scale might provide a more discriminating measure of principal support for zero tolerance. A more comprehensive assessment of principal attitudes generally toward school discipline and student behavior may provide additional insight into the factors that inform administrative disciplinary decisions.

An important direction for future study would involve a more thorough examination of the disciplinary referral process to assess possible race differences in classroom referrals to the office, as well as the decisions made in the principals' office. School removal is more aptly described as a process than a single incident or event (Morrison et al., 2001; Skiba et al., 2007). As an outcome measure of the disciplinary

process, a suspension decision only reflects the final result. This process may begin in the classroom or hallway, with a teacher making a judgment that a student has misbehaved. Office disciplinary referrals (ODRs) provide important insight into the disciplinary process (but were not available for this study). Black students are more likely than White students to receive an ODR for less serious, more subjective offenses (Skiba et al., 2008), and, once given, the referral is more likely to result in suspension or expulsion (Bradshaw, Mitchell, O'Brennan, & Leaf, 2010). In this context it might be useful to measure teacher attitudes toward school suspension and zero tolerance as well.

Implications for Research and Practice

Suspension from school has become an increasingly routine practice in response to a range of disciplinary infractions, including relatively minor offenses, a trend which has disproportionately affected Black students. These results add to a growing body of research that demonstrates that suspensions are not applied equitably among students of different races across schools. Additional research is needed to understand and identify the source of this disparity.

There is promising research to suggest that a positive school climate is associated with lower suspension rates and smaller disparities. Authoritative discipline theory (Gregory, Cornell, Fan, Sheras, Shih, & Huang, 2010) identifies structure (strict but fair discipline, as well as high academic expectations) and support (students' perception of their teachers as caring and concerned) as two key elements of a positive school climate and may provide important insight into disciplinary outcomes. Gregory et al. (2011) found that schools that were high in structure and support (a combination that has been

labeled *authoritative*) had lower overall suspension rates and a lower racial gap in suspension rates.

Evidence-based practices such as Positive Behavioral Interventions and Supports (PBIS) have been found to contribute to a more positive experience of school climate (Bradshaw et al., 2008). The use of PBIS has been associated with higher student ratings of order, fairness, and student-staff relationships, while schools that used exclusionary discipline strategies had lower student ratings of order and discipline (Mitchell & Bradshaw, 2013).

In summary, these results demonstrated that there are large racial disparities in high school suspension rates and racial differences in the types of infractions that result in suspensions. Although zero tolerance explained some of the variance in suspension rates for both Black and White students, it did not explain the racial disparity. These findings add to a growing body of research showing variability in the implementation of suspensions with no apparent explanation, and underscore the importance of accountability for consistency in school discipline practices. School personnel should be aware of these findings as well as the larger body of literature that discourages the use of exclusionary discipline strategies and encourages a broader preventive approach to school discipline.

References

American Psychological Association Zero Tolerance Task Force. (2008). Are zero tolerance policies effect in the schools? An evidentiary review and recommendations. *American Psychologist, 63*, 852-862.

Bradshaw, C., Koth, C., Bevans, K., Ialongo, N., & Leaf, P. (2008). The impact of school-wide positive behavioral interventions and supports (PBIS) on the organizational health of elementary schools. *School Psychology Quarterly, 23*, 462-473.

Bradshaw, C., Mitchell, M., O'Brennan, L., & Leaf, P. (2010). Multilevel exploration of factors contributing to the overrepresentation of black students in office disciplinary referrals. *Journal of Educational Psychology, 102*, 508-520.

Children's Defense Fund. (1975). *School suspensions: Are they helping children?* Cambridge, MA: Washington Research Project.

Fabelo, T., Thompson, M., Plotkin, M., Carmichael, D., Marchbanks, M., & Booth, E. (2011). *Breaking schools' rules: A statewide study of how school discipline relates to students' success and juvenile justice involvement.* New York, NY: Council of State Governments Justice Center.

Fenning, P., Pigott, T.K., Engler, E., Bradshaw, K., Gamboney, E., Grunewald, S., & Haque, T. (2013). *A mixed methods approach examining disproportionality in school discipline.* Paper presented at Closing the School Discipline Gap: Research to Practice, Washington, DC.

Gregory, A., Cornell, D., & Fan, X. (2011). The relationship of school structure and support to suspension rates for black and white high school students. *American*

Educational Research Journal, 48, 904-934.

Gregory, A., Cornell, D., Fan, X., Sheras, P., & Shih, T. (2010). Authoritative school discipline: High school practices associated with lower student bullying and victimization. *Journal of Educational Psychology, 102,* 483-496.

Gregory, A., Cornell, D., & Fan, X. (2012). Teacher safety and authoritative school climate in high schools. *American Journal of Education, 118,* 1-25.

Gregory, A., Skiba, R.J., & Noguera, P.A. (2010). The achievement gap and the discipline gap: Two sides of the same coin? *Educational Researcher, 39,* 59-68.

Gottfredson, G.D., Gottfredson, D.C., Payne, A.A., & Gottfredson, N.C. (2005). School climate predictors of school disorder: Results from a national study of delinquency prevention and schools. *Journals of Research in Crime and Delinquency, 42*, 412-444.

Johnston, L., O'Malley, P., Miech, R., Bachman, J., & Schulenberg, J. (2014). *Monitoring the Future national survey results on drug use: 1975-2013: Overview and key findings on adolescent drug use.* Ann Arbor: Institute for Social Research, the University of Michigan.

Klein, J., Cornell, D., Fan, X., & Gregory, A. (2010). Is the link between large high schools and student victimization an illusion? *Journal of Educational Psychology, 102,* 933-946.

Lee, T., Cornell, D., Gregory, A., & Fan, X. (2011). High suspension schools and dropout rates for black and white students. *Education and Treatment of Children, 34,* 167-192.

Mitchell, M., & Bradshaw, C. (2013). Examining classroom influences on student

perceptions of school climate: The role of classroom management and exclusionary discipline strategies. *Journal of School Psychology, 51,* 599-610.

Morrison, G., Anthony, S., Storino, M., Cheng, J., Furlong, M., & Morrison, R.L. (2001). School expulsion as a process and an event: Before and after effects on children at-risk for school discipline. *New Directions for Youth Development: Theory, Practice, Research, 92,* 45-72.

Newcomb, M., Abbott, R., Catalano, R., Hawkins, J., Battin-Pearson, S., & Hill, K. (2002). Mediational and deviance theories of late high school failure: Process roles of structural strains, academic competence, and general versus specific problem behavior. *Journal of Counseling Psychology, 49,* 172-186.

Petras, H., Masyn, K., Buckley, J., Ialongo, N., & Kellam, S. (2011). Who is most at risk for school removal? A multilevel discrete-time survival analysis of individual- and context-level influences. *Journal of Educational Psychology, 103,* 223-237.

Raffaele Mendez, L., Knoff, H., & Ferron, J. (2002). School demographic variables and out-of-school suspension rates: A quantitative and qualitative analysis of large ethnically diverse school districts. *Psychology in the Schools, 39,* 259-276.

Rausch, M., & Skiba, R. (2004). *Unplanned outcomes: Suspensions and expulsions in Indiana*. Bloomington, IN: Center for Evaluation and Education Policy.

Roy, L. (2012). *An analysis of various measures of racial/ethnic disproportionality in special education: The case for a joint measures approach.* California Department of Education: Sacramento, California. Retrieved from ftp://ftp.cde.ca.gov/sp/se/ds/Disproportionality%20Measures.pdf

Skiba, R., Eckes, S., & Brown, K. (2010). African American disproportionality in school discipline: The divide between best evidence and legal remedy. *New York Law School Law Review, 54,* 1072-1112.

Skiba, R., & Edl, H. (2004). The Disciplinary Practices Survey: How do Indiana's principals feel about discipline? *Children Left Behind Policy Briefs Supplementary Analysis.* Bloomington, IN: Center for Evaluation and Education Policy. Retrieved from http://ceep.indiana.edu/ChildrenLeftBehind/pdf/2c.pdf

Skiba, R., Edl, H., & Rausch, M. (2007). *How do principals feel about discipline? The Disciplinary Practices Survey.* Paper presented at the Annual Convention of the American Educational Research Association, Chicago, Illinois.

Skiba, R., Horner, R., Chung, C., Rausch, M., May, S., & Tobin, T. (2011). Race is not neutral: A national investigation of African American and Latino disproportionality in school discipline. *School Psychology Review, 40,* 85-107.

Skiba, R., & Rausch, M. (2006). Zero tolerance, suspension, and expulsion: Questions of equity and effectiveness. In C.M. Evertson & C.S. Weinstein (Eds.), *Handbook of classroom management: Research, practice, and contemporary issues* (pp. 1063-1089). Mahwah, NJ: Lawrence Erlbaum Associates.

Stone, D.H. (1993). Crime and Punishment in Public Schools: An Empirical Study of Disciplinary Proceedings. *American Journal of Trial Advocacy, 17,* 351-398.

U.S. Department of Education, Office for Civil Rights. (2004). *Elementary and Secondary School Survey (2004).* Retrieved from http://orcdata.ed.gov/Downloads/aspx

U.S. Department of Education, Office of Civil Rights. (2014). *Civil rights data collection: Data snapshot: School discipline* (Issue Brief No.1). Washington, DC. Retrieved from http://www2.ed.gov/about/offices/list/ocr/docs/crdc-discipline-snapshot.pdf

U.S. Department of Justice and U.S. Department of Education (2014). *Dear Colleague Letter on the Nondiscriminatory Administration of School Discipline*. Retrieved from http://www2.ed.gov/about/offices/list/ocr/letters/colleague-201401-title-vi.pdf

Wallace, J.M. Jr., Goodkind, S., Wallace, C.M., & Bachman, J.G. (2008). Racial, ethnic, and gender differences in school discipline among U.S. high school students: 1991-2005. *Negro Educational Review, 59,* 47-62.

Weinstein, R.S. (2002). *Reaching higher: The power of expectations in schooling.* Cambridge, MA: Harvard University Press.

Wu, S., Pink, W., Cran, R., & Moles, O. (1982). Student suspension: A critical appraisal. *Urban Review, 14,* 245-273.

Table 1

Correlations Among and Descriptive Statistics For Key Study Variables

	M (*SD*)	Enroll	FRPM	SUS	WSUS	BSUS	Dist. ZTA
Enrollment	1362 (566)		-.29*	-.31*	-.34*	-.29*	-.01
FRPM	.42 (.17)			.64*	.35*	.44*	.05*
SUSPENSION	11.1 (8.41)				.72*	.84*	.14*
WHITE SUS	8.32 (5.62)					.64*	.17*
BLACK SUS	17.03 (10.22)						-.11*
ZTA	3.05 (.47)						

Notes. Enroll = School enrollment. FRPM = Free and reduced price lunch. SUS = Overall suspension rate. WSUS = White suspension rate. BSUS = Black suspension rate. ZTA = Zero Tolerance Attitudes mean score.

* $p < .01$

Manuscript Two

Authoritative School Climate and Suspension Rates in Middle Schools: Implications for Reducing the Racial Disparity in School Discipline

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Abstract

The over-use of school suspensions has been linked to a host of negative outcomes, including racial disparities in discipline. School climate initiatives have shown promise in reducing these disparities. The present study used the Authoritative School Climate Survey—which measures disciplinary structure and student support as key measures of school climate—to investigate an association between teacher and student perceptions of school climate and suspension rates in a statewide sample of middle schools. Regression analyses controlling for school-level poverty and school size found that elements of authoritative climate, particularly structure, distinguish high- and low-suspending schools. Schools with high levels of student- and teacher-reported structure had lower overall suspension rates and a lower gap between Black and White suspension rates. These findings can be used to guide school climate initiatives to reduce racial disparities in school discipline.

Authoritative School Climate and Suspension Rates in Middle Schools: Implications for Reducing the Racial Disparity in School Discipline

There is nationwide concern about the over-use of school suspensions as a disciplinary practice (Morgan, Salomen, Plotkin, & Cohen, 2014; United States Department of Education, 2014). Suspension, defined as the removal from school for one or more days, has risen substantially nationwide over the past three decades. In 1974, approximately 1.7 million children (3.7 percent of all students) were suspended from school (U.S. Department of Education, Office for Civil Rights, 2014). In the 2011-2012 school year, more than 3.45 million (6.8%) students were suspended, accounting for an estimated 12 million days of lost instructional time per year (Losen & Gillespie, 2012).

School suspensions have come under widespread criticism because they have been associated with increases in subsequent student misbehavior, grade retention, school failure, and dropout (Gregory, Skiba, & Noguera, 2010; Skiba, Arredondo, & Rausch, 2014). Students who have been suspended even once are more likely than students who have never been suspended to be subsequently truant and miss instructional time (Losen, 2015). A longitudinal study of 9th grade students in Florida showed that being suspended in the 9th grade doubled a student's risk of dropping out of high school, even after controlling for factors such as truancy and course failure, and demonstrated that each subsequent suspension decreases a student's odds of graduating from high school by 20% (Balfanz et al., 2015). Similarly, a longitudinal study of a statewide cohort of nearly one million 6th graders in Texas reported that suspensions were associated with a 14% increase in the risk of dropout and a twofold increase in grade retention (Fabelo et al., 2011).

Studies show that being suspended in middle school is associated with significant and lasting negative outcomes for students (Skiba & Losen, 2014). A study of 400 students incarcerated in the 9th grade showed that the majority had struggled in middle school, with missed class time, course failure, and below-grade reading levels (Balfanz, 2015). Further studies have shown that students suspended in the sixth grade were significantly more likely than students who had never been suspended to have continuing disciplinary problems throughout secondary and high school (Tobin & Sugai, 1999). The combination of academic displacement and multiple suspensions over the course of secondary education contributes to student alienation, lost instructional time, and dropout (Skiba & Peterson, 1999; Toldson, McGee, & Lemmons, 2014; Wang & Eccles, 2012). High rates of suspension and expulsion have been associated with poorer school-wide academic performance, even when controlling for demographic indicators such as socioeconomic status (Skiba & Rausch, 2006).

Some researchers have speculated that suspension rates may be underestimated in middle schools (Skiba & Losen, 2014). Some estimates indicate that middle school suspension rates may be higher than high school rates (Raffaele Mendez & Knoff, 2003), although this has not been clearly established. To date, there are no national reports that break down suspension rates by school-level (Skiba & Losen, 2014). The U.S. Department of Education website provides national data on suspensions, but combines suspension rates across school levels. There is a need for more detailed reports on middle school suspension rates.

Researchers and advocates have called attention to the "school to prison pipeline" (STPP; Losen & Martinez, 2013; Skiba, Arredondo, & Williams, 2014), a trend that

describes the relationship between exclusionary discipline policies and increased contact with the juvenile justice system. Skiba et al. (2014) found that out-of-school suspension and expulsion are risk factors for a broad range of negative developmental outcomes, even when controlling for demographic and achievement variables. In a nationally representative sample, youth suspended in middle school were more than five times as likely to be charged with a violent crime in adulthood than students who had not been suspended during this period (Katsiyannis et al., 2012). Suspension predicts higher rates of future misconduct (Raffaele-Mendex, 2003) and increases the risk of antisocial and delinquent behavior (Teske, 2011). For example, one study found that 30% to 50% of students who had been suspended at least once continued to engage in disruptive behavior in school (Costenbader & Markson, 1994). Notably, suspensions often precede serious delinquent behavior, rather than the reverse (Shollenberger, 2015).

Although every state mandates school removal for certain offenses (e.g., serious violence or weapon possession), lower-level offenses comprise the vast majority of suspensions (School Discipline Consensus Report, 2014). A Texas statewide sample found that only 2.5 percent of suspensions and expulsions were given for offenses that are federally mandated to result in school removal (Fabelo et al., 2011). The majority of suspensions or expulsions are given for discretionary offenses. Even relatively minor offenses can significantly increase risk: students who were suspended or expelled for a discretionary violation, such as disobedience or classroom disruption, were nearly three times more likely than students who had not been suspended to be involved with the juvenile justice system the following year (Council of State Governments, 2011).

Black students are at especially high risk for suspension (Fabelo et al., 2011; Losen & Skiba, 2010). According to the U.S. Department of Education's Office for Civil Rights (OCR), 16.4% of Black students in the United States were suspended or expelled in the 2011-2012 school year, compared with only 4.6% of White students. Though Black students comprise only 16% of overall public school enrollment, they account for 42% of multiple suspensions (US Department of Education, 2014). Longitudinal data from the National Longitudinal Survey of Youth showed that Black males are at the highest risk of suspension, with two thirds (67%) suspended at some point during K–12 (Shollenberger, 2015). These disparities persist even after accounting for achievement, socioeconomic status, and teacher-and self-reported behavior (Bradshaw, Mitchell, O'Brennan, & Leaf, 2010; Fabelo et al., 2011).

In light of these outcomes, the U.S. Department of Education has urged schools to reduce use of suspension (USDOE, 2014). In a joint *Dear Colleague* letter, the U.S. Departments of Education and Justice (USDOE, 2014) called for schools to examine disciplinary policies that discriminate on the basis of race, ethnicity, or national origin. The letter observed that suspensions are overused, disproportionately applied, and may constitute violations of federal law in cases reflecting discrimination. It added that the administration of student discipline can result in unlawful discrimination based on race if the student is subjected to *differential treatment* based on race and if the punishment has a *disparate impact* (disproportionate and unjustified effect on students of a particular race). The statement also noted that differential suspension rates cannot be adequately explained by student behavior—there is no evidence that Black students are more disruptive or commit more offenses than their White peers (APA Zero Tolerance Task

Force, 2008; Losen, 2015). The letter concluded by urging schools to implement disciplinary alternatives to zero tolerance and suspension, particularly those that target of school climate and student perceptions that their teachers are concerned and supportive.

There is ample evidence that Black students are subject to more severe disciplinary consequences than White students for similar violations (Skiba, Michael, Nardo, & Peterson, 2002). They are also more likely than their White peers to be suspended for subjective, non-violent offenses violations, such as disruption in class (Skiba et al., 2012). Losen (2015) found that racial disparities in suspensions cannot be explained by teacher ratings of student misconduct. Black students have significantly higher suspension rates than White students and other minority groups even when controlling for poverty status (the strongest predictor of suspensions), indicating that poverty cannot fully account for racial disparities in discipline (Losen, 2015; Wu, Pink, Crain, & Moles, 1982).

Authoritative school climate

School climate is widely acknowledged as a critical part of maintaining a safe school environment. While definitions vary, school climate has been broadly defined as the "quality and character of school life," including the nature of interactions between adults and students, norms, goals, values, interpersonal relationships, teaching and learning practices, and organizational structures (Cohen, McCabe, Michelli, & Pickeral, 2009). It is not clear, however, how the various constructs that make up school climate interact and relate to inform a positive school climate, as there is no unifying conceptual model that encompasses all elements identified as contributing to school climate.

A positive school climate confers a host of benefits to students, including higher student engagement, positive student adjustment, better student behavior, and lower suspension rates (Brand, Felner, Seitsinger, Burns, & Bolton, 2008; Shirley & Cornell, 2012; Shollenberger, 2014). Studies have shown that students are more likely to demonstrate prosocial behavior when they perceive their school's administrative policies to be supportive, responsive, and respectful (Daly et al., 2014; Eccles et al., 1993; Shirley & Cornell, 2014). Adolescent perceptions of teacher fairness have been associated with positive adolescent development, prosocial behavior, and academic success (Daly et al., 2014; Eccles et al., 1993; Wentzel, 2002). Further, fair and consistent application of school rules has been associated with better safety conditions in schools (Gregory et al., 2012). In contrast, students who perceive their school climate as punitive have more strained relationships with adults in the school (Daly et al., 2004).

School psychology researchers have identified school climate as a key component in their initiatives to reduce suspension rates (Gregory et al., 2010; Morgan et al., 2014; Skiba, Arredondo, & Williams, 2014). In light of the negative outcomes associated with suspension, there has been a broad movement to reform disciplinary practice and generate alternatives to suspension (Morgan et al., 2014). Schools with higher suspension rates also have lower satisfaction ratings for school climate, school connectedness, and governance structures (Bickel & Qualls, 1980; Wu et al., 1982). This may be especially true for minority students. Hinojosa (2008) found that Black students who believed that their teachers were caring, listened to them, and could be trusted were less likely to receive in-school suspensions.

Authoritative school climate theory provides a compelling conceptual framework for two of the underlying mechanisms frequently identified as an important part of school climate (Gregory, Cornell, Fan, Sheras, Shih, & Huang, 2010). According to this theory, two key elements of positive school climate are *structure* (strict but fair discipline, high academic expectations) and *support* (students' perception of their teachers as caring and concerned). The authoritative school climate theory is based on Baumrind's (1968) theory of authoritative parenting, which contends that parental discipline is most effective when it combines firm discipline with warm emotional support.

Past research has linked authoritative school climate to academic and social benefits. Authoritative schools, which are characterized as both demanding and responsive, have more positive academic outcomes (Lee & Cornell, 2012; Gregory & Cornell, 2011) and greater levels of academic engagement (Pellerin, 2005), meaning that students are less likely to be absent or unprepared for class compared with schools with a more permissive or indifferent climate. Further, authoritative schools have a lower school-wide prevalence of teasing and bullying (Gregory et al., 2010; Cornell, Shukla, & Konold, 2015; Konold et al., 2014), and students engage in less physical and verbal aggression with peers and teachers (Berg & Cornell, under review; Gregory, Cornell, & Fan, 2012)

There has been relatively little research about the link between authoritative school climate and suspension rates. Gregory et al. (2011) measured this relationship by using student and teacher school climate survey data to assess authoritative school climate and school records of school suspension rates. The study measured school climate using samples of 9th grade students and found that student perceptions that their

schools were high in both structure and support had lower overall schoolwide suspension rates (Gregory et al., 2011). By contrast, their study showed that schools with low levels of structure and support had significantly higher schoolwide suspension rates and a larger gap between Black and White suspension rates, even after controlling for school demographics.

In light of evidence that students are at an elevated risk for future justice involvement when they are suspended in middle school (Balfanz, 2003; Skiba and Losen, 2014) and the need for more extensive research on suspensions disaggregated by school level (e.g., high, middle, elementary), the current study sought to elucidate the role of disciplinary structure and support in 7th and 8th grade schoolwide suspension rates. The present study investigated these trends in a statewide sample of middle schools controlling for student poverty and total school enrollment. These control variables were selected to highlight the contribution of our school climate measures in comparison to control variables that might influence school climate. Schools with a higher proportion of low-income students have higher rates of suspension and victimization (Gottfredson, Gottfredson, Payne, & Gottfredson, 2005). While some researchers (Christie, Nelson, and Jolivette, 2004) have found no relationship between school size and suspension rates, others have found that larger schools have been linked to higher rates of student misbehavior, violence, and victimization (Astor, Meyer, & Behre, 1999; Gregory, Cornell, & Fan, 2012; Leithwood & Jantzi, 2009).

Present Study

The current study tests the hypothesis that middle schools with an authoritative school climate will have lower school-level suspension rates. Specifically, the present

study investigated the association between student and teacher perceptions of their school climate, as measured by anonymous teacher and student surveys in Virginia public middle schools. The study addresses the following questions: 1) Are characteristics of authoritative school climate (high structure and high support) correlated with lower schoolwide levels of suspension? 2) Do schools with an authoritative school climate have lower racial disparities in school-level suspension rates?

Method

Sample

The sample for this study was obtained from the Authoritative School Climate Survey, a survey administered in all Virginia public schools with 7th and/or 8th grade enrollment as part of the state's school safety audit program (Cornell, Huang et al., 2013). Within the observation window of March 1st to mid-May in 2013, the survey was administered to Virginia anonymously to 7th and/or 8th graders under teacher supervision. Separate surveys with similar content were administered to both students and teachers. The participation rate was defined as the total number of students or teachers who participated in the survey divided by the total number who were invited to take the survey. With the cooperation of the Virginia Department of Education and the Virginia Department of Criminal Justice Services, 423 of 430 eligible schools (participation rate 98.4%) submitted student surveys. The teacher version of the survey was administered to 389 of 430 eligible schools (participation rate 90.5%). Surveys were administered online using Qualtrics software.

A multi-stage screening procedure dropped 4,441 (10.1%) of student surveys for failure to complete the survey (3.0%), completing the survey too rapidly (0.7%),

admitting that their answers were not truthful on validity questions (6.4%), or reporting the wrong grade level (0.04%). In order to determine a reasonable threshold time for completing the survey, the sample was examined for the amount of time each survey was completed. A plot of survey response time revealed a clear bimodal distribution with one small mode near four minutes and another larger mode near 17 minutes, suggesting that a small group of participants completed the survey so quickly that it is unlikely that they could have read each item. A two-component finite normal mixture model was fitted to the bimodal survey response time distribution. The model identified 7.22 minutes as a threshold between the two groups.

Schools were given two options for sampling students: (1) invite all 7th and 8th grade students to take the survey, with the goal of surveying at least 70% of all eligible students (whole grade option); or (2) use a random number list to select at least 25 7th grade students and 25 8th grade students to take the survey (random sample option).

Schools choosing the random sample option were provided with a random number list along with instructions for selecting students. All students were eligible to participate except those unable to complete the survey because of limited English proficiency or an intellectual or physical disability. Principals sent an information letter to parents of selected students explaining the purpose of the survey and offering them the option to decline participation through passive consent.

Alternative, correctional, and technical schools were not included in analyses. The analytic sample for the teacher survey was restricted to 369 schools that had at least three teacher participants. Teachers were invited by their school principals to participate; the

overall teacher response rate was 79%. The final analytic sample used student and teacher data from 369 Virginia public middle schools.

The final student sample used for analysis was comprised of 7th and 8th grade students (N = 39,364). The vast majority of middle schools in Virginia include 7th and 8th grade, although there are a few different grade configurations such as k-7 or k-8 schools. In the average school, nearly half (*M* = 45%, *SD* = 20.71) of the student body qualified for free or reduced priced meals. The racial distribution of students in the sample was 52.4% White, 18.2% Black, 12.8% Hispanic, 3.4% Asian-American, and .05% Native Hawaiian or Pacific Islander. An additional 15.6% self-identified as multi-racial.

The final teacher sample (N = 9,621 teachers) was collected from the same schools. The teacher sample was 75% female and equally distributed across 7th (49.9%) and 8th grades. The majority (53%) of teachers had more than 10 years of experience, while 23% had 6-10 years of experience, 13% had 3-5 years of experience, and 11% had 1-2 years of experience. Additional demographic data were not collected in order to protect teacher confidentiality.

Measures

Students took the surveys online in classrooms. The surveys were supervised by teachers or school staff using a standardized set of instructions. The complete online survey consisted of 100 items, including the four primary scales examined in the present study, some supplemental scales and experimental items, and student demographic questions. Response options for items on the four primary scales were "*strongly disagree," "disagree," "agree,"* and *"strongly agree."*

Student Disciplinary Structure. Student perceptions of the perceived fairness

and strictness of school discipline was measured with a seven-item scale (Konold et al., 2014). Results of hierarchical confirmatory factor analysis indicated good model fit (RMSEA = .07, CFI = .93, $SRMR_W$ = .03, and $SRMR_B$ = .04) with standardized structure coefficients ranging from .77 to .95 across items at the school level. Moreover, school level reliability of the scale was .70. Each item was answered on a four-point Likert-scale (1 = *strongly disagree*, 2 = *disagree*, 3 =*agree*, 4 = *strongly agree*). Representative items included, "The punishment for breaking school rules is the same for all students" and "Students here know the school rules for student conduct."

Student Support. Student perceptions of the supportiveness of teacher-student relationships was measured with an eight-item scale. Recent psychometric support for this scale was demonstrated by Konold et al. (2009) through hierarchical confirmatory factor analysis. Results indicated good model fit (RMSEA = .08, CFI = .97, $SRMR_W$ = .03, and $SRMR_B$ = .08) with standardized structure coefficients ranging from .67 to .99 across items. The average school level reliability of the scale was .67. Representative items included "Most teachers treat students with respect" and "There are adults at this school I could turn to if I had a personal problem."

Teacher Disciplinary Structure. In contrast to the one-factor solution for student structure, previous research (Huang et al., 2015) revealed a two-factor solution for teacher structure, with two distinct factors (Fairness and Harshness of Rules) capturing teachers' perception of disciplinary structure in their school. The Fairness scale (alpha = .85) consisted of five items designed to measure teacher perception of fairness and consistency in their school. Items included "The punishment for breaking school rules is the same for all students" and "Students at this school only get punished when they

deserve it." Harshness of Rules (alpha = 0.63) consisted of four items, including "The adults at this school are too strict" and "Students get suspended for minor things."

Teacher Support (alpha = 0.74) was calculated as the mean of the six-item Willingness to Seek Help Scale and the four-item Respect scale. The Willingness to Seek Help Scale measures teachers' perception of how willing students are to report and seek help for bullying. Sample items included "Students know who to go to for help if they have been treated badly by another student" and "Students feel comfortable asking for help from teachers if there is a problem with a student." The Respect Scale measured how teachers' perception of the general climate of respect for students and included items such as "Most teachers and other adults at this school treat students with respect" and "Most teachers and other adults at this school want all students to do well."

School Discipline Records. The Virginia Department of Education provided school-level discipline data for all incidents that resulted in suspension during the 2012-13 school year. All public schools in Virginia are required to report the annual number of short-term suspensions (removal from school for 1 to 10 days) and long-term suspensions (11 to 364 days) from school. Long and short-term suspensions were combined for the purposes of these analyses (95.5% of the suspensions were short-term). Suspension rates were unduplicated, meaning that each student was counted only once in the database regardless of the number of times suspended. The use of unduplicated suspensions is consistent with previous school suspension studies (Gregory et al., 2011; Hemphill et al., 2006; Suh et al., 2007; Wallace et al., 2008) and avoids the problem of non-independence when the same student is counted multiple times. Suspension rates were calculated by dividing the number of unduplicated suspensions by the school's total enrollment.

Schools with fewer than five Black students (6) were removed from the sample for the purpose of calculating suspension rates so rates were not skewed.

Results

The mean number of suspensions in a school during the school year was 69, with approximately one tenth of all students (M = 9.9%; range = 0-59) receiving a suspension. The mean suspension rate for White students was 6.9%, while the mean rate for Black students was 14.2%.

Parametric assumptions underlying the regression models were satisfied. There was no evidence of multivariate outliers as measured by Mahalanobis distance values, no evidence of material non-normality (all skewness values < 1.0), and no indication of multicollinearity (VIF values < 10). The correlations among student perceptions of predictor variables were all statistically significant. Teacher correlations were also statistically significant although more modest in size (see Table 1 for a breakdown of all correlations).

Hierarchical regression analyses were conducted on overall suspension rates, White suspension rates, and Black suspension rates (see Table 2). Type 1 error rates across these three analyses were controlled through use of an alpha of .01. The unique contribution of disciplinary structure and student support on overall school suspension rates after controlling for school size and percentage of low-income students in each school (FRPM) was examined first. School demographic characteristics were significant predictors of suspension rates, $F(2, 367) = 152.80$, $p < .01$, $R^2 = .46$. In the second block, two measures of teacher reports of disciplinary structure and student support accounted for an additional 2.9% of the variance in suspension rates, $F(5,367) = 68.06$, $p < .001$. In

the third block, student perceptions of disciplinary structure and student support explained an additional 2.8% of the variance, $F(7,367) = 54.07$, $p < .01$.

The second question involved whether schools with an authoritative school climate had lower racial disparities in suspension rates. Separate hierarchical regression analyses were run for White and Black students. School demographic characteristics were significantly predictive of White suspension rates, $F(2, 367) = 60.41$, $p < .01$, explaining 25% of the variance. Teacher disciplinary structure and student support accounted for an additional 1.6% of the variance, $F(5,367) = 26$, $p < .001$, and student perceptions of disciplinary structure and student support explained an additional 1.8% of the variance, $F(7,367) = 20.2$, $p < .01$.

School demographic characteristics were also significantly predictive of Black suspension rates, $F(2, 367) = 55.35$, $p < .01$, $R^2 = .23$. Teacher reports of disciplinary structure and student support accounted for an additional 4.6% of the variance, $F(5,367) = 28$, $p < .001$, and student perceptions of disciplinary structure and student support explained an additional 3.9% of the variance, $F(7,367) = 24$, $p < .01$.

Because the student report of disciplinary structure was the most robust predictor of suspension rates, additional analyses were conducted to demonstrate the magnitude of differences between schools at least one standard deviation above the mean and those at least one standard deviation below the mean in disciplinary structure for overall suspension rates, Black suspension rates, and White suspension rates. ANCOVAs were significant for all three rates: Overall suspension rates, $F(1,115) = 2.86$, $< .001$, White suspension rates, $F(1, 115) = 4.27$, $p < .05$, and Black suspension rates, $F(1,115) = 35.06$, $p < .01$ (see Figure 1). Overall suspension rates, adjusted for school size and FRPM,

were higher for low disciplinary structure schools ($M_{adjusted}$ = 14.01) than for high disciplinary structure schools ($M_{adjusted}$ = 7.40). Similarly, adjusted mean White suspension rates were higher among low disciplinary structure schools ($M_{adjusted}$ = 9.03) than among high disciplinary structure schools ($M_{adjusted}$ = 5.91). Adjusted mean Black suspension rates were higher for low disciplinary structure schools ($M_{adjusted}$ = 19.81) than high-disciplinary structure schools.

Discussion

Authoritative school climate theory hypothesizes that a positive school climate has high levels of disciplinary structure and student support. Previous findings have linked authoritative school climate to lower school-wide teasing and bullying, higher student engagement, and lower levels of student aggression toward teachers (Gregory, Cornell, & Fan, 2012). Our findings demonstrated that schools in which students and teachers perceived school rules as strict but fair and perceived the teachers as supportive have lower suspension rates. These results replicate and extend previous findings with high school students (Gregory et al., 2011) to a middle school sample, suggesting that authoritative school climate is important across a broad range of age groups. The present results were consistent across both teacher and student perceptions, and using an independent outcome measure.

Although both disciplinary structure and support independently and significantly predicted suspension rates, disciplinary structure emerged as a particularly robust predictor. There are several possible explanations for this finding. Our disciplinary structure variable includes items that specifically pertain to discipline (e.g., everyone knows the rules, students are treated the same, teachers are fair) and therefore may be

more directly relevant to disciplinary outcomes. The disciplinary structure variable also specifically addresses consistency and fairness in discipline (e.g., the rules are administered fairly without regard to race, punishment is only given when it is deserved). Prior studies suggest that students are more compliant with school rules when they believe that such rules are strict—but consistently and fairly applied (Gottfredson, Gottfredson, Payne, & Gottfredson, 2005). Schools in which students perceive that school rules are fair and clear have less school disorder, delinquent behavior and student victimization (Gottfredson et al., 2005). In schools where disciplinary decisions are widely viewed as arbitrary or inconsistent, by contrast, students may place less trust in the administration and take a more adversarial stance. Students may be more likely to accept rules when they feel respected by the administration (Shirley & Cornell, 2011).

Consistent with previous studies (e.g., Gottfredson et al., 2005), demographic factors such as school poverty and school size were positively correlated with suspension rates (see Table 1) and accounted for the majority of the variance between schools.

Racial Disparities

When the means of the suspension variable were adjusted for disciplinary structure, it became clear that high-disciplinary structure schools had significantly lower racial disparities than low-disciplinary structure schools. The racial disparity in high-disciplinary structure schools was only 2.6%, compared with a 10.8% difference in low-disciplinary structure schools. Further, black suspension rates were nearly 20% in low-disciplinary structure schools, compared with 8.5% in high-disciplinary structure schools. This finding suggests that disciplinary structure may be a key mechanism in targeting and reducing the racial disparity in school discipline.

Limitations and Direction for Further Study

This was a correlational study that cannot demonstrate causation. Correlational studies can, however, provide the basis for causal hypotheses that can be tested in future studies. One weakness of the study is the high correlation between student measures of disciplinary structure and support (r = .83). This high correlation may suggest a possible halo effect in student perceptions of their school, despite clear differences in the content of items on the two scales. For example, students may be more willing to seek help from teachers if they feel that the discipline is fair. Notably, the association was smaller between teacher support and the two teacher-reported measures of disciplinary structure (r = .41 for Harsh Disciplinary structure and r = .61 for Fair Structure), although the content in the scale items was nearly identical. These results suggest that disciplinary structure and student support, while theoretically distinct, may be empirically related to varying degrees. Future studies should examine this relationship further and determine whether the two constructs can be further differentiated, perhaps through interviews and direction observation with students and teachers.

This study examined school-wide suspension rates rather than the suspensions of individual students. This was appropriate because many of the schools only sampled 25 students per grade and school-wide suspensions are a better indicator of racial disparities than using a limited sample. Our use of multiple informants (e.g., multiple students within each school) to assess school-level disciplinary structure and student support provides for more reliable measures of those school-level constructs. Future research might examine the extent to which student variation within schools plays a role in associations with suspension rates through multilevel modeling. Interventions should

operate at both the school and individual level. A limitation of the present study is that unduplicated data do not identify students who have been suspended more than once, and are at the highest risk for future disciplinary and justice involvement. Interventions tailored to students with multiple suspensions have the potential to lower the overall suspension rate, as well as improve outcomes for particularly at-risk youth.

In Virginia, where this study was conducted, the racial gap is largest between Black and White students. This is the most frequently identified racial disparity; however, some studies have reported disparities for other minorities. While this finding is less consistent, researchers have found evidence that Latino students and Native Americans are over-represented in suspensions (Peguero and Skekarkhar, 2011; Wallace, Goodkind, Wallace, and Bachman, 2008). Future research should examine whether the current findings are consistent with other racial groups that have been disproportionately affected by suspension.

Finally, authoritative school climate does not represent a complete or comprehensive assessment of all aspects of school climate. School climate has been defined broadly and inclusively, with a number of constructs and no unifying conceptual model that encompasses all of them. This study addressed two particular dimensions of school climate that previous studies (Huang et al., 2015; Konold et al., 2014; Gregory et al., 2011) have found to be especially important.

Implications for School Psychologists

In light of the negative outcomes associated with suspensions, government officials, researchers, and education activists have urged schools to reduce their use of suspension and other exclusionary discipline practices. A national consensus of

authorities in education, criminal justice, and mental health concluded that strategies to reduce suspensions must be grounded in a school-wide effort to create conditions where students are engaged, connected, and perceive their community as fair and responsive (Morgan et al., 2014). Our results demonstrate that schools with authoritative characteristics, especially disciplinary structure, had lower school suspension rates, and suggest that authoritative school climate is a useful framework for school disciplinary initiatives.

Present results also suggest that interventions that use elements of authoritative school climate may be a useful alternative to zero tolerance policies, which (as discussed earlier) appear to drive overall suspension rates and exacerbate racial disparities in discipline (Heilbrun, Cornell, & Lovegrove, 2015). As part of the Supportive School Discipline Initiative (SSDI), the U.S. Departments of Education and Justice issued guidelines that advised schools on how to meet their legal obligations of administering fair discipline without discrimination (USDOE, 2014). The guidelines emphasized the need for disciplinary reform and urged schools to implement alternatives to exclusionary disciplinary policies. They highlighted school climate initiatives as a promising disciplinary alternative and included a supplemental list of resources and recommendations, including access to a web-based community for best practices in school discipline (the Supportive School Discipline Community of Practice) and an educational webinar series (the Supportive School Discipline Webinar), which features alternative approaches to suspension, such as restorative justice and multi-tiered behavioral health frameworks (USDOE, 2014). The website also includes a series of Dear Colleague letters, which provide a valuable resource for school psychologists in

understanding federal law and policies regarding students with disabilities, sexual harassment, and bullying.

There are a number of existing evidence-based preventive programs that incorporate elements of authoritative school climate that school psychologists should consider in the effort to reduce racial disciplinary disparities. Positive Behavior Interventions and Supports (PBIS) is a school-wide approach to discipline designed to create safe, predictable, and positive school environments (Bradshaw et al., 2012). Under the PBIS model, schools establish schoolwide expectations for student behavior that stress positive goals and establish a reward system to reinforce positive behavior (Bradshaw, 2013). Sprague and Horner (2006) identified a number of key practices in PBIS: clearly defining behavioral expectations, proactively teaching what those expected behaviors look like in various school settings, rewarding students for compliance with behavioral expectations, and providing clear and fair consequences for behavioral violations.

Authoritative school climate could be applied to a PBIS model of school discipline to advance these goals, inform teacher behavior, and enhance the overall effectiveness of the model. Authoritative school climate may help in some ways to conceptualize program success and impact. A randomized controlled trial in 37 elementary schools found that the PBIS created sustained changes in how Maryland public schools managed discipline and significantly reduced bullying (Bradshaw et al., 2012). A PBIS model will likely be most effective when rules are clearly stated, carefully monitored, and positively reinforced. Students should perceive that the disciplinary system is fair and that positive reinforcement efforts reflect respect for students.

PBIS has been linked to overall reductions in disciplinary referrals (Vincent et al., in press). Disciplinary referrals, once dispensed, are more likely to lead to suspension or expulsion (Bradshaw, Mitchell, O'Brennan, & Leaf, 2010). Research has shown that Black students are more likely than White students to receive an ODR for subjective, nonviolent offenses, such as disrespect or classroom disruption (Heilbrun, Cornell, & Lovegrove, 2014; Skiba et al., 2008). Therefore efforts to reduce referrals may target both racial disparities and reduce overall suspensions.

Schools using threat assessment as an alternative to zero tolerance discipline have shown reductions in school suspensions and improvements in school climate (Cornell, Allen, & Fan, 2012; Cornell, Sheras, Gregory, & Fan, 2009). Threat assessment is a problem-oriented approach to violence prevention in which a school-based team is trained to respond to potentially threatening behavior before it escalates into violence (Cornell & Sheras, 2006). This approach encourages a fair, reasoned response to student misbehavior, and cautions against hasty or reactive responses to discipline. Three controlled studies showed significant reductions in school suspension rates and higher levels of student willingness to seek help for threats of violence in Virginia public schools (Cornell, Sheras, Gregory, & Fan, 2009; Cornell, Gregory, & Fan, 2011; Cornell, Allen, & Fan, 2012).

Interventions that target teacher-student relations have shown promise in reducing the racial discipline gap. A randomized control trial of 86 secondary classrooms found that teachers who had been trained in a two-year coaching program, My Teaching Partner Secondary (MTP-S), did not show a racial disparity in office referrals between Black students and their classmates, as contrasted with teachers in the control condition

(Gregory et al., in press). Future studies should examine the role of classroom-level interventions in reducing racial disproportionality, particularly intensive, sustained programs with individualized performance feedback. MTP-S aims to promote mutual trust and a strong emotional connection between students and teachers, which may underlie its effectiveness as an intervention.

School psychologists can play an active role in the national movement to improve school climate and reduce disciplinary disparities in schools (Morgan et al., 2014; USDOE, 2014). These findings encourage a broader preventive approach to school discipline and can be used as a source of support for non-exclusionary forms of disciplinary. With mounting pressure on schools to move away from exclusionary practices such as school suspension and expulsion, there is a critical need for research identifying which factors are most salient in creating a positive school climate and reducing exclusionary discipline. This is particularly important in light of the national trend of racial disparities in discipline. Our findings support the efficacy of school-climate based disciplinary alternatives to zero tolerance and suspension, particularly those that target student perceptions that their teachers are strict but caring. Such research-driven attention to school climate should help to create safer and fairer schools.

References

American Psychological Association Zero Tolerance Task Force. (2008). Are zero tolerance policies effect in the schools? An evidentiary review and recommendations. *American Psychologist, 63,* 852-862.

Astor, R., Guerra, N., & Van Acker, R. (2010). How can we improve school safety research? *Educational Researcher, 39,* 69-78.

Balfanz, R., Byrnes, V., & Fox, J. (2015). Sent home and put off-track: The antecedents, disproportionalities, and consequences of being suspended in the ninth grade. In D. J. Losen (Ed.), *Closing the school discipline gap: Research for policymakers.* New York, NY: Teachers College Press.

Bandyopadhyay, S., Cornell, D. G., & Konold, T. R. (2009). Validity of three school climate scales to assess bullying, aggressive attitudes, and help seeking. *School Psychology Review, 38,* 338–355.

Baumrind, D. (1968). Authoritarian vs. authoritative parental control. *Adolescence, 3,* 255–272.

Bradshaw, C., Waasdorp, T., & Leaf, P. (2012). Effects of school-wide positive behavioral interventions and supports on child behavior problems. *Pediatrics, 130,* e1136-e1145.

Bradshaw, C., Mitchell, M., O'Brennan, L., & Leaf, P. (2010). Multilevel exploration of factors contributing to the overrepresentation of black students in office disciplinary referrals. *Journal of Educational Psychology, 102,* 508-520.

Bradshaw, C., Pas, E., Bloom, J., Barrett, S., Hershfeldt, P., Alexander, A., McKenna, M., Chafin, A., & Leaf, P. (2012). A state-wide partnership to promote safe and

supportive schools: The PBIS Maryland Initiative. *Administrative Policy Mental Health, 39,* 224-237.

Brand, S., Felner, R. D., Shim, M., Seitsinger, A., & Dumas, T. (2003). Middle school improvement and reform: Development and validation of a school-level assessment of climate, cultural pluralism and school safety. *Journal of Educational Psychology, 95,* 570–588.

Brooks, K., Schiraldi, V., & Ziedenberg, J. (2000). *School house hype: Two years later*. Washington, DC: Justice Policy Institute and Children's Law Center, Inc.

Children's Defense Fund. (1975). S*chool suspensions: Are they helping children?* Cambridge, MA: Washington Research Project.

Cornell, D. (2006). *School violence: Fears versus facts*. Mahwah, NJ: Lawrence Erlbaum.

Cornell, D., Allen, K., & Fan, X. (2012). A randomized controlled study of the Virginia Student Threat Assessment Guidelines in grades K-12. *School Psychology Review, 41*, 100-115.

Cornell, D., Gregory, A., & Fan, X. (2011). Reductions in long-term suspensions following adoption of the Virginia Student Threat Assessment Guidelines. *Bulletin of the National Association of Secondary School Principals, 95,* 175-194.

Cornell, D., Gregory, A., Huang, F., & Fan, X. (2013). Perceived prevalence of bullying and teasing predicts high school dropout rates. *Journal of Educational Psychology, 105,* 138-149.

Cornell, D. & Lovegrove, P. (2015). Student threat assessment as method for reducing student suspensions. In D. Losen (Ed.). *Closing the school discipline gap:*

Research for policymakers (pp. 180-191). New York, N Y: Teachers College Press.

Cornell, D. & Sheras, P. (2006). *Guidelines for responding to student threats of violence*. Longmont, CO: Sopris West.

Cornell, D., Sheras, P., Gregory, A., & Fan, X. (2009). A retrospective study of school safety conditions in high schools using the Virginia Threat Assessment Guidelines versus alternative approaches. *School Psychology Quarterly, 24*, 119-129.

Cornell, D., Sheras, P. Kaplan, S., McConville, D., Douglass, J., Elkon, A., McKnight, L., Branson, C., & Cole, J. (2004). Guidelines for student threat assessment: Field-test findings. *School Psychology Review, 33*, 527-546.

Eccles, J., Midgley, C., Wigfield, A., Buchanan, C., Reuman, D., Flanagan, C., & Maciver, D. (1993). Development during adolescence: The impact of stage-environment fit on young adolescents experiences in schools and in families. *American Psychologist, 48*, 90-101.

Fabelo, T., Thompson, M. D., Plotkin, M., Carmichael, D., Marchbanks, M. P. III, & Booth E. A. (2011). *Breaking schools' rules: A statewide study of how school discipline relates to students' success and juvenile justice involvement.* New York, NY, and College Station, TX: Council of State Governments Justice Center and Texas A&M University Public Policy Research Institute.

Finn, J. & Servoss, T. (2014). Misbehavior, suspensions, and security measures in high school: Racial/ethnic and gender differences. *Journal of Applied Research on Children: Informing Policy for Children at Risk, 5,* Article 11.

Gerlinger, J., & Wo, J. (2014). Preventing school bullying: Should Schools prioritize an Authoritative School Discipline approach over security measures? *Journal of School Violence, 15,* 133-157.

Gregory, A., Cornell, D., & Fan, X. (2011). The relationship of school structure and support to suspension rates for black and white high school students. *American Educational Research Journal, 48,* 904-934.

Gregory, A., Cornell, D., Fan, X., Sheras, P., & Shih, T. (2010). Authoritative school discipline: High school practices associated with lower student bullying and victimization. *Journal of Educational Psychology, 102,* 483-496.

Gregory, A., Cornell, D., & Fan, X. (2012). Teacher safety and authoritative school climate in high schools. *American Journal of Education, 118,* 1-25.

Gregory, A., Skiba, R.J., & Noguera, P.A. (2010). The achievement gap and the discipline gap: Two sides of the same coin? *Educational Researcher, 39,* 59-68.

Gottfredson, G., Gottfredson, D., Payne, A., & Gottfredson, N. (2005). School climate predictors of school disorder: Results from a national study of delinquency prevention and schools. *Journal of Research in Crime and Delinquency, 42,* 412-444.

Heilbrun, A., Cornell, D., & Lovegrove, P. (2015). Principal attitudes and racial disparities in school suspensions. *Psychology in the Schools, 52,* 489-499.

Huang, F., Cornell, D., Konold, T., Meyer, P., Lacey, A., Nekvasil, E., Heilbrun, A., & Shukla, K. (2015). Multilevel factor structure and concurrent validity of the Teacher version of the Authoritative School Climate Survey. *Journal of Student Health, 85,* 843-851.

Kaufman, J., Jaser, S., Vaughan, E., Reynolds, J., Di Donato, J., & Bernard, S. (2010). Patterns in office discipline referral data by grade, race/ethnicity, and gender. *Journal of Positive Behavior Interventions, 12,* 44–54.

Klein, J., Cornell, D., Fan, X., & Gregory, A. (2010). Is the link between large high schools and student victimization an illusion? *Journal of Educational Psychology, 102,* 933-946.

Konold, T., Cornell, D., Huang, F., Meyer, P., Lacey, A., Nekvasil, E., Heilbrun, A., & Shukla, K. (2014). Multi-level multi-informant structure of the Authoritative School Climate Survey. *School Psychology Quarterly, 29*, 238-255.

Lee, T., Cornell, D., Gregory, A., & Fan, X. (2011). High suspension schools and dropout rates for black and white students. *Education and Treatment of Children, 34*, 167-192.

Losen, D., & Gillespie, J. (2012). *Opportunities suspended: The disparate impact of disciplinary exclusion from school.* Los Angeles, CA: University of California, Los Angeles.

Losen, D., & Martinez, T. (2013). *Out of school and off track: The overuse of suspensions in American middle and high schools.* Los Angeles, CA: University of California, Los. Angeles.

Losen, D. (2015). *Closing the school discipline gap: Equitable remedies for excessive exclusion*. New York, NY: Teachers College Press.

Morgan, E., Salomen, N., Plotkin, M., & Cohen, R, (2014). *The school discipline consensus report: Strategies from the field to keep students engaged in school and out of the juvenile justice system.* The Council of State Governments Justice

Center, New York, NY. Retrieved from http://csgjusticecenter.org/wp-content/uploads/2014/06/The_School_Discipline_Consensus_Report.pdf

National Center for Higher Education. (2013). *Indicators of School Crime and Safety: 2013* (NCES 2014-042). Retrieved from nces.ed.gov/programs/crimeindicators/crimeindicators2013

Raffaele Mendez, L. M. (2003). Predictors of suspension and negative school outcomes: A longitudinal investigation. In J. Wald & D. J. Losen (Eds.), *New directions for youth development: Deconstructing the school-to-prison pipeline* (pp. 17–34). San Francisco, CA: Jossey-Bass.

Raffaele Mendez, L., Knoff, H., & Ferron, J.(2002). School demographic variables and out-of-school suspension rates: A quantitative and qualitative analysis of a large, ethnically diverse school district. *Psychology in the Schools, 39,* 259–277.

Rausch, M. & Skiba, R. (2006). Exclusion is not the only alternative: The children left behind project. In A. Reyes (Ed.), *Discipline, achievement, and race: Is zero tolerance the answer?* (pp. 105–126). Lanham, MD: Rowman & Littlefield.

Shirley, E., & Cornell, D. (2014). The contribution of student perceptions of school climate to understanding the disproportionate punishment of African American students in a middle school. *School Psychology International, 33,* 115-134.

Shollenberger, T. (2015). Racial disparities in school suspension and subsequent outcomes: evidence from the National Longitudinal Survey of Youth 1997. In D. J. Losen (Ed.), *Closing the school discipline gap: Research for policymakers* (pp. 53-69). New York, NY: Teachers College Press.

Skiba, R., Arredondo, M., & Rausch, M. (2014). *New and developing research on disparities in discipline*. Bloomington, IN: The Equity Project at Indiana University. Retrieved fromwww.rtpcollaborative.indiana.edu/briefingpapers/

Skiba, R., Horner, R., Chung, C., Rausch, M., May, S., & Tobin, T. (2011). Race is not neutral: A national investigation of African American and Latino disproportionality in school discipline. *School Psychology Review, 40*, 85-107.

Skiba, R., & Losen, D. (2012). *Suspended education*. Montgomery, AL: Southern Poverty Law Center. Retrieved from http://idea.ed.gov/explore/view/p/%2Croot%2Cdynamic%2CQaCorner%2C7%2C

Skiba, R., & Peterson, R. (1999). Zero-tolerance: Can punishment lead to safe schools? *Phi Delta Kappan, 80*, 372-376.

Skiba, R., Michael, R., Nardo, A., & Peterson, R. (2002). The color of discipline: Sources of racial and gender disproportionality in school punishment. *Urban Review, 34*, 317–342.

Skiba, R., & Rausch, M. K. (2006). Zero tolerance, suspension, and expulsion: Questions of equity and effectiveness. In C. M. Evertson & C. S. Weinstein (Eds.), *Handbook of classroom management: Research, practice, and contemporary issues* (pp. 1063-1089). Mahwah, NJ: Erlbaum.

Skiba, R. (2010). Zero tolerance and alternative discipline strategies. *Communique, 39*. Retrieved from http://www.nasponline.org/publications/cq/index.aspx?vol=39&issue=1

Suh, S., & Suh, J. (2007). Risk factors and levels of risk for high school dropouts. *Professional School Counseling, 10,* 297–306.

Teske, S. (2011). A study of zero tolerance policies in schools: A multi-integrated systems approach to improve outcomes for adolescents. *Journal of Child and Adolescent Psychiatric Nursing, 24,* 88-97.

Tobin, T., & Sugai, G. (1999). Using sixth-grade school records to predict school violence, chronic discipline problems, and high school outcomes. *Journal of Emotional and Behavioral Disorders, 7,* 40-53.

Toldson, I., McGee, T., & Lemmons, B. (2015). Reducing suspensions by improving academic engagement among Black males. In D. J. Losen (Ed.), *Closing the school discipline gap: Research for policymakers* (pp. 161-177). New York, NY: Teachers College Press.

U.S. Department of Education (2014). *Guiding principles: A resource guide for improving school climate and discipline.* Washington, D.C. Retrieved from http://www2.ed.gov/policy/gen/guid/school-discipline/guiding-principles.pdf

U.S. Department of Justice and U.S. Department of Education (2014). *Dear Colleague Letter on the Nondiscriminatory Administration of School Discipline*. Retrieved from http://www2.ed.gov/about/offices/list/ocr/letters/colleague-201401-titlevi.Pdf

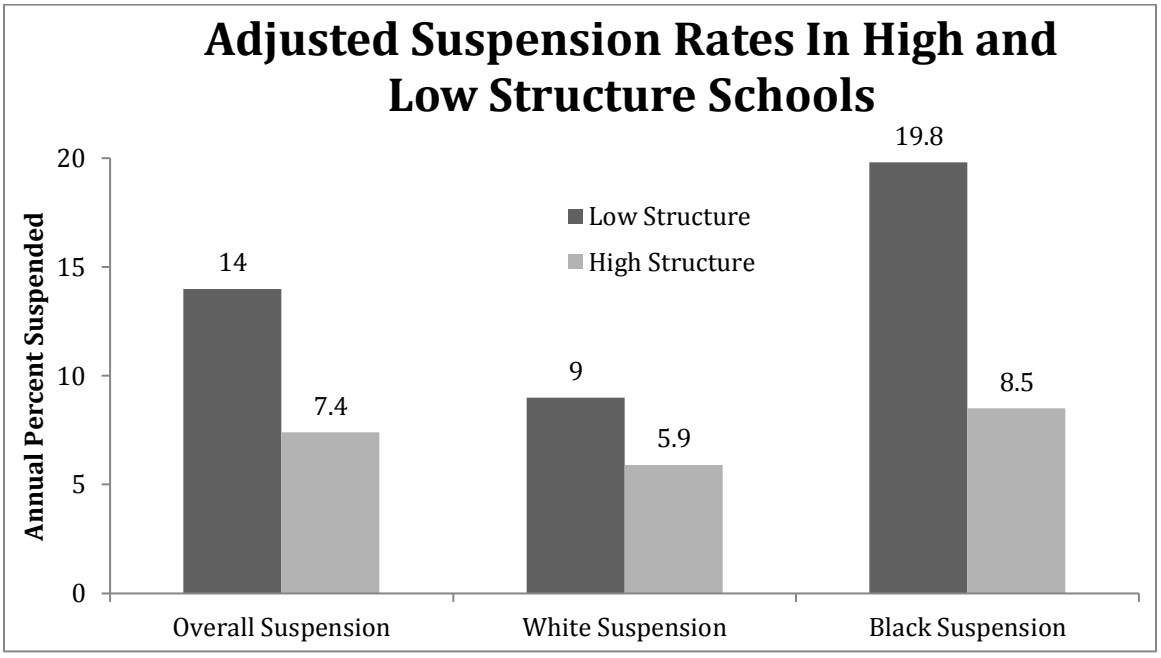
Vincent, G. M., Guy, L. S., Gershenson, B. G., & McCabe, P. (2012). Does risk assessment make a difference? Results of implementing the SAVRY in juvenile probation. *Behavioral Sciences & the Law, 30*, 384-405.

Wallace, J., Goodkind, S., Wallace, C. M., & Bachman, J. G. (2008). Racial, ethnic, and gender differences in school discipline among U.S. high school students: 1991–2005. *The Negro Educational Review, 59*, 47–62.

Wang, M., & Eccles, J. (2012). Social support matters: Longitudinal effects of social supoort on three demensions of school engagement from middle to high school. *Child Development, 83,* 877-895.

Wu, S. C., Pink, W. T., Crain, R. L., & Moles, O. (1982). Student suspension: A critical reappraisal. *The Urban Review, 14*, 245–303.

Figure 1.



*Suspension rates adjusted for school size and FRPM (free and reduced price meals).

Table 1.
Correlations among Key Study Variables

		1	2	3	4	5	6
1	FRPM						
2	Enrollment	-.38					
3	Teacher Support	-.25	-.11				
4	Teacher Structure Harsh	.12	-.01	-.41			
5	Teacher Structure Fair	-.11	-.09	.61	-.21		
6	Student Support	-.17	-.04	.43	-.17	.37	
7	Student Structure	-.27	.04	.43	-.26	.37	.83

Note. All correlations are statistically significant, all *ps* < .01. n = 367 schools.

Table 2
Hierarchical Multiple Regression Analyses Predicting Overall, White, and Black Suspension Rates

Variable	Δ R^2	ΔF	β	Variable	Δ R^2	ΔF	β
Overall Suspension Rate				**Black Suspension Rate**	.23	55.35***	
Step 1	.46	152.77***		Step 1			
FRPM			.71***	FRPM			.52***
Enroll			.13***	Enroll			.16***
Step 2	.03	6.76***		Step 2	.05		.46***
FRPM			.67***	FRPM		7.71***	.13**
Enroll			.11*	Enroll			
Teacher Structure			.09*	Teacher Structure Harsh			.11*
Harsh			-.1*	Teacher Structure Fair			-.08
Teacher Structure Fair			-.04	Teacher Support			-.09
Teacher Support	.03	10.33***		Step 3	.04	10.42***	
Step 3			.64***	FRPM			.41***
FRPM			.11***	Enroll			.13**
Enroll			.06	Teacher Structure Harsh			.08
Teacher Structure			-.06	Teacher Structure Fair			-.04
Harsh			-.003	Student Structure			-.32***
Teacher Structure Fair			-.21***	Student Support			.12
Teacher Support			.03				
Student Structure							
Student Support							
White Suspension Rate							
Step 1	.25	60.41***					
FRPM			.51***				
Enroll			.02				
Step 2	.02	2.54*					
FRPM			.47***				
Enroll			-.01				
Teacher Structure			.04				
Harsh			-.03				
Teacher Structure Fair			-.09				
Teacher Support	.02	4.5**					
Step 3			.43***				
FRPM							
Enroll			-.01				
Teacher Structure			.02				
Harsh			-.004				
Teacher Structure Fair			-.05				
Teacher Support			-.16				
Student Structure			.01				
Student Support							

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

Manuscript Three

Efforts to Reduce Racial Disproportionality in School Discipline: Guidance from Three Programs

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Abstract

Racial disproportionality in exclusionary discipline is widely recognized as a serious national problem, but there is relatively little evidence-based guidance on interventions to address it. The purpose of this paper is to identify promising efforts to reduce racial disparities in school suspensions and office disciplinary referrals. We review three widely-used school interventions that have the potential to reduce racial disproportionality: School-wide Positive Behavior Intervention/Supports, My Teaching Partner-Secondary, and Restorative Practices. These programs, while theoretically and conceptually different, share a prevention orientation that seeks to improve adult-student relationships and the school environment. We conclude with some hypotheses about possible mediating mechanisms of change associated with these preventive interventions, and consider how their program elements might be applied to the goal of reducing racial disparities in school discipline.

Efforts to Reduce Racial Disproportionality in School Discipline: Guidance from Three Programs

The negative consequences of exclusionary discipline in schools are well documented (Morgan, Salomen, Plotkin, & Cohen, 2014). Suspensions in particular have been associated with a host of negative outcomes, including school disengagement, academic difficulties, grade retention, school dropout, and juvenile offending (Gregory, Skiba, & Noguera, 2010; Skiba & Rausch, 2006). Students who have been suspended even once are more likely than students who have never been suspended to be subsequently truant and miss instructional time (Losen, 2015). Indeed, one study estimated that each additional suspension decreases a student's odds of graduating high school by 20%, after accounting for student demographics, attendance, and academic performance (Balfanz, Byrnes, & Fox, 2013).

Most suspensions arise out of so-called discretionary offenses, which are administrative responses to disciplinary violations. Disruptive behaviors are the most common reasons for suspensions and office referrals (Irvin et al., 2006; Pas, Bradshaw, & Mitchell, 2011). Yet even these relatively minor discretionary offenses can significantly increase the risk of negative outcomes for students: Students who are suspended or expelled for a discretionary violation, such as disobedience or classroom disruption, are nearly three times more likely to be involved with the juvenile justice system the following year (Fabelo et al., 2011). Consistent with these findings, researchers have suggested that exclusionary discipline has a detrimental impact that encourages, rather than deters, the development of juvenile offending and contributes to a downward spiral into delinquency. This trend has been referred to as the *school-to-prison-pipeline* (Losen

& Martinez, 2013; Skiba, Arredondo, & Williams, 2014). In one study using a nationally representative sample, youth suspended in middle school were found to be five times more likely to be charged with a violent crime in adulthood than students who had not been suspended during this period, even after controlling for age, gender, ethnicity, and poverty status (Katsiyannis et al., 2012).

The negative consequences of exclusionary discipline are particularly pronounced for Black students, who are two to three times more likely to be suspended or expelled than White students (U.S. Department of Education, Office of Civil Rights, 2014). Nationwide, Black students make up 16% of the student population, but comprise 32-42% of students suspended or expelled (USDOE, 2014). Black students are also more likely than White students and other racial minorities to be suspended for relatively minor disciplinary infractions—and incur more severe penalties for relatively minor misconduct, including disruption, insubordination, and disrespect (Losen & Skiba, 2010; Petras et al., 2011).

In light of the serious out-of-school consequences that can result from discipline problems at school, the federal government has sought to reduce racial disparities in disciplinary actions undertaken by school authorities. In 2014, the U.S. Departments of Education and Justice released a guidance package on School Climate and Discipline, which included (a) a Dear Colleague letter on civil rights and discipline, (b) a Guiding Principles document on relevant research, (c) a Directory of Federal School Climate and Discipline Resources, and (d) a Compendium of School Discipline Laws and Regulations (U.S. Department of Education, 2014). The Dear Colleague letter advised that discriminatory discipline practices on the basis of race, color, or national origin can

constitute a violation of Title IV of the Civil Rights Act of 1964, which prohibits racial discrimination in schools. The documents urged schools to implement alternative disciplinary practices that are not racially discriminatory.

Despite increased calls for efforts to reduce disproportionality in disciplinary practices, there are relatively few research-based approaches which have been shown to be effective at narrowing these gaps. The current paper reviews three widely used school discipline interventions: School-Wide Positive Behavior Intervention and Supports (SW-PBIS; Horner & Sugai, 2001), My Teaching Partner-Secondary (Gregory et al., 2015), and Restorative Practices (Wachtel et al., 2009). There has been growing interest in these three models as potential approaches for addressing disproportionality. All three programs aim to improve student behavior, reduce exclusionary discipline, and improve the school environment, yet there has been limited empirical exploration of their impact on disproportionality. As a result, we aimed to provide a critical review of the extant literature on these three models and the extent to which each model has demonstrated promise in strengthen teacher-student relationships and improving student behavior in order to reduce exclusionary discipline, as measured by suspension rates or ODR. Prior to reviewing the research on these programs, we consider additional information regarding the definition and measurement of disproportionality, as it is critical to our understanding of the potential impact of these programs on equitable disciplinary practices.

While suspensions are a frequently-used measure of exclusionary discipline, there are others as well. Office disciplinary referrals (ODR), defined as instances in which a staff member observes a student violating a school rule and reports the student to the administration (Irvin et al., 2006), have emerged as an additional metric for monitoring

school-wide disproportionality trends, as well as a method for identifying students at high risk for misbehavior (Bradshaw, Mitchell, O'Brennan, & Leaf, 2010; Irvin et al., 2006; McIntosh, Campbell, Russell Carter, & Zumbo, 2009). Discipline is a process that typically begins in the classroom, where teachers have routine contact with students and are responsible for judging that a student has misbehaved (Morrison et al., 2001). Though teachers usually do not make the final decision on an out-of-school suspension, they make the office referral that ultimately results in a disciplinary consequence. These referrals can help in understanding the earlier stages of school discipline decisions. Consistent with suspension patterns, Black students are overrepresented in ODR and are more likely than White students to be referred for less serious, more subjective offenses (Skiba et al., 2008). Frequent office referrals increase the likelihood that a student will receive a suspension (Bradshaw et al., 2010; Vincent & Tobin, 2011).

Although potentially useful for measuring disproportionality, ODRs have also been criticized as subjective and inconsistent, because they are based on the teacher's appraisal of the behavior and may be susceptible to bias (Bradshaw, 2010; Gregory & Weinstein, 2008; Irvin et al., 2004). One concern is that different teachers may apply different standards for office referrals. Put another way, behavior that might be ignored or diffused in one classroom could result in an ODR in the classroom down the hall. This underscores the need for a consensus within and across schools for disciplinary standards on the types of behavior that warrant an office referral.

Review of Three Potentially Promising Approaches to Addressing Disproportionality in Disciplinary Practices

In this section we consider the characteristics and qualities of three programs that many practitioners and policymakers consider promising for reducing racial disparities in exclusionary discipline. Specifically, we focus on School-Wide Positive Behavior Intervention and Supports (SWPBIS; Vincent et al., 2015), which is a well-established systems-level, data-driven approach to improving school learning environments that specifically targets school staffs' response to student misbehavior (Sugai & Horner, 2002). My Teaching Partner-Secondary (MTP-S) is a professional development program that seeks to improve teacher-student interactions by enhancing emotional, organizational, and instructional supports in the classroom (Gregory et al., 2015). School-based Restorative Practices aim to improve school climate and student behavior through the use of three core principles: Repairing harm, involving stakeholders, and transforming community relationships (Morrison, 2003, 2007). We describe each intervention, review the evidence for its impact on exclusionary discipline, and consider some of the mechanisms that have the potential to reduce disproportionality.

Positive Behavior Intervention and Supports

School-Wide Positive Behavior Interventions and Supports (SW-PBIS) is a well-established school-wide approach to discipline designed to create safe, predictable, and positive school environments (Horner & Sugai, 2001; Sugai & Horner, 2006). As of 2016, the SW-PBIS model has been implemented in over 22,000 schools across the country (www.pbis.org). SW-PBIS schools establish school-wide rules for student behavior that stress positive goals accompanied by a reward system to reinforce positive

behavior (Bradshaw, 2013). Key practices include clearly defining behavioral expectations, proactively teaching such expected behaviors, rewarding students for compliance, and providing clear and fair consequences for violations (Sprague & Horner, 2006). School personnel are trained to create clear expectations for students and enforce school rules consistently.

SW-PBIS takes a public health, three-tiered model of intervention, implementing student supports at primary (Tier 1), secondary (Tier 2), and tertiary (Tier 3) levels. Almost all schools focus the majority of their resources on primary prevention (Tier 1), which provides school-wide academic and behavioral supports for the entire school community. Tier 2 (5-10% of the school community) directs targeted interventions to a smaller group of students who have been identified as at-risk and in need of additional support. Tier 3 (1-5%) identifies the highest-risk students in the school and provides them with the most intensive, individualized supports (Maryland Department of Education, 2008).

How might SW-PBIS be effective in reducing the racial gap? To date there are no studies directly linking SW-PBIS to reduced suspensions for Black students. However, one recent study (Bradshaw, Waasdorp, & Leaf, 2015) found that the impact of SW-PBIS on behavioral outcomes, such as ODR, varied based on the child's baseline pattern of risk. Black students were more likely than their peers to be identified as high risk. The study was based on a randomized controlled trial (RCT) of SW-PBIS on a sample of 12,344 students in 37 elementary schools over a 4-year period. Latent class analyses revealed that children fell under one of four risk categories: high risk (6.6%), at-risk (23.3%), normative (36.5%), and social-emotional skilled (33.6%). Results indicated

that students in the at-risk and high risk categories were the most responsive to SW-PBIS interventions in terms of behavioral outcomes, such as frequency of ODR (Bradshaw et al., 2015). Black children were more likely than other students to fall in the at-risk and high-risk categories, and less likely to fall in the social-emotional skilled group. The LPA group membership had a moderating effect on children's subsequent discipline problems and need for school-based services. The at-risk children in SW-PBIS schools were significantly less likely to receive an ODR than their at-risk peers in comparison schools (43% versus 46.5%, d = -0.13) and children in the high-risk categories were less likely than their high-risk peers in comparison schools to receive an ODR (69.9% vs. 78.2%, d = -0.14)—although both effect sizes were small.

This study provides some indirect support for the possibility that Black students are 1) at higher risk than their peers and 2) benefit more than lower-risk children from exposure to SW-PBIS interventions. A key limitation of the study was that it involved elementary school students, who have relatively low baseline referrals for ODR. However, there are a number of reasons why SW-PBIS might lower office disciplinary referrals for Black students. First, SW-PBIS programs explicitly address racial disproportionality through the use of discipline data. Under this framework, schools are trained to consistently collect data on office referrals, suspensions, school climate, positive behavior, and program fidelity. Schools implementing SW-PBIS frequently utilize a data-monitoring software program for this purpose (Irvin et al., 2006). These types of software programs help school teams identify potential racially-inequitable patterns, and draw attention to disproportionate disciplinary practices. One of the most commonly-used software versions in SW-PBIS is the School-Wide Information System

(SWIS; May et al., 2010), which allows educators to document behavioral infractions and report ODR incidents in their school. The SWIS software calculates the percentage of ODRs received by each ethnic group and provides schools with a risk index for each ethnic group. The SW-PBIS framework uses the number of ODRs a student has received to identify students at highest risk and provide them with the most intensive resources.

Second, the SW-PBIS framework's consistent behavioral standards and clearly defined consequences for misbehavior may enhance student perceptions that the disciplinary system is fair. Making the disciplinary system clear and fair to all students may result in improved student behavior: adolescent perceptions of teacher fairness have been associated with positive adolescent development, prosocial behavior, and academic success (Daly et al., 2014; Eccles et al., 1993; Wentzel, 2002). In addition, fair and consistent application of school rules has been associated with better safety conditions in schools and lower suspension rates for both Black and White students (Gregory et al., 2012). By contrast, students who perceive their school climate to be punitive have more strained relationships with adults in the school (Daly et al., 2004). This perception may be especially important for Black students: Schools in which students perceive that discipline is strict but fair have lower overall suspension rates and a smaller gap between Black and White suspension rates (Heilbrun, Cornell, & Konold, under review).

My Teaching Partner-Secondary

My Teaching Partner-Secondary (MTP-S) is a two-year individualized coaching model for secondary school teachers. MTP-S is an upward extension of My Teaching Partner, which was originally developed for Pre-K and early elementary school classrooms (Pianta, Mashburn, Downer, Hamre, & Justice, 2008). A primary goal of

MTP-S is to enhance teachers' ability to provide emotionally positive, motivating, and cognitively challenging classrooms. Teachers are coached to be aware of students' social-emotional and academic needs—and reflect on their own professional strengths and weaknesses. MTP-S seeks to improve the quality of student-teacher interactions, under the assumption that better relationships and engaging instruction will prevent some of the negative interactions that result in misbehavior and disciplinary referrals. An MTP-S coach uses the Classroom Assessment Scoring System-Secondary (CLASS-S; Pianta, Hamre, Haynes, Mintz, & LaParo, 2008) to observe teacher-student interactions through regular video-recorded instruction and provide individualized feedback to the teacher on ways to improve their exchanges (Allen et al., 2013). The CLASS-S examines three domains of classroom behavior: emotional, organizational, and instructional support. Each domain contains a number of dimensions that are also evaluated; for example, Classroom Organization includes Positive Climate, Teacher Sensitivity, and Regard for Adolescent Perspectives.

How might MTP-S be effective in reducing the racial gap? MTP-S is the first teacher professional development program that has demonstrated significant reductions in racial disparities in office disciplinary referrals (ODR). A two-year RCT of 86 teachers reported that after one year of MTP-S coaching, teachers issued significantly fewer ODRs (M = .95) than did control teachers (M = 2.21) (Gregory et al., in press). Teachers trained in MTP-S issued significantly fewer disciplinary referrals to Black students than did teachers in the control classrooms (d = 0.21). The statistical analyses controlled for achievement, income, and gender. These effects remained even after coaching was withdrawn in the second year of the program: Black students in the control classrooms

were twice as likely as their peers to be issued an ODR, while there were no significant racial differences in ODR between Black students and their peers in the MTP-S classrooms.

Mediational analyses demonstrated that improved teacher instruction in problem-solving and higher level thinking was the strongest predictor of reduced ODR for Black students. Specifically, teachers who made significant improvements in the two CLASS-S dimensions of Teacher Sensitivity, as well as Analysis and Inquiry, were significantly less likely to issue disciplinary referrals to Black students than were teachers who did not improve in these two dimensions. In other words, teachers who provided more variety in instruction and problem-solving opportunities were more effective in engaging their students. In addition, teachers who focused on developing positive, trusting relationships with their students in turn had students who were more engaged and motivated. The authors suggested that this relational foundation seemed to help teachers avoid or diffuse the types of misbehavior that ultimately result in an office referral (Gregory et al., 2015).

Restorative Practices

Restorative Practices (RP) are based on a philosophy of repairing the harm inflicted by a disciplinary violation (Morrison, 2007; Schiff, 2013). The philosophy is drawn from Diana Baumrind's theory of authoritative parenting, which posits that parents are most effective when they are both demanding and nurturing (Baumrind, 1991; Gregory, Korth, Clawson, Davis, Gerewitz, Schotland, & Roderick, 2016). The RP approach aims to provide both support and connection to students involved in a disciplinary violation, while also holding youth accountable for their actions. It emphasizes the impact of the transgression on the perpetrator, the victim, and the entire

school community. Core principles of the RP approach include prioritizing relationships over rules, giving voice to both the person harmed and the person who inflicted the harm, using a collaborative, problem-solving approach, and implementing a strategic plan for reparation (Amstutz & Mullet, 2005; Schiff, 2013). The model attempts to promote mutual understanding, encourage problem-solving, and facilitate remorse and compassion, with the broader goal of repairing disagreements (Gonzalez, 2015). Exclusionary policies such as suspension and expulsion are explicitly discouraged, because the framework stipulates that a resolution cannot be reached if the perpetrator is not present to participate in the process.

Restorative practices use a "continuum model" to facilitate communication between involved parties in an incident, meaning that practices range in terms of formality and format. This allows the school to exercise some flexibility in the practices they select (Gonzalez, 2015; Morrison, Blood, & Thorsborne, 2005). Three of the most commonly used practices in restorative practices include *restorative justice dialogues* (a one-on-one conversation between the involved parties, guided by restorative justice questions), *restorative conferencing* (a dialogue between the involved parties that is facilitated by a third party, such as a restorative justice coordinator), and *restorative circles* (group conferences conducted when multiple parties were involved) (Gonzalez, 2015). A typical restorative approach implements a series of guiding questions during these practices, including, "Who has been hurt? What are their needs? Who has a stake in this? What is the appropriate response to make things right?" (Amstutz & Mullet, 2005).

How might Restorative Practices be effective in reducing the racial gap? To our knowledge there are no published randomized controlled studies on restorative

practices in schools. However, a longitudinal study (2006 to 2013) in the Denver Public School system examined the model's association with disproportionality in urban schools in the United States (Gonzalez, 2015). The study combined qualitative interviews and observations with quantitative data. Data collection for the DPS study included surveys, staff interviews, and qualitative observations of over 1,300 restorative justice cases. Over the course of the study, the district's overall suspension rate dropped from 10.58% to 5.63%. The suspension rate for Black students fell most, dropping from 17.61% to 10.42%. Both differences were statistically significant. The suspension rate for White students dropped from 5.88% to 2.28%. The racial gap between Black and White students went from 12 points to 8 points. These reductions were even more pronounced in certain schools; in one school, the suspension rate for Black males dropped 18 percentage points in four years. This was an illuminating study that emphasized the reduction of minority suspensions and achieved impressive results; however, a major limitation of this study is that there was no control group of schools not using restorative practices, so there is not strong evidence that the reductions in suspension rates were produced by the intervention rather than other factors or a general intent to reduce suspensions.

In the DPS pilot schools, the discipline policy was formally revised to give priority to use of restorative practices. The revised policy explicitly addressed racial disproportionality in discipline outcomes, advising staff members to monitor the impact of their actions on students from racial or ethnic groups or other protected classes that have historically been over-represented in exclusionary discipline (Policy JK-R, 2008). The policy discouraged the use of both out-of-school suspensions and referrals to law enforcement.

Summary and Recommendations

A primary goal of this review is to identify promising program components that may help to reduce disproportionality. These three programs are qualitatively different in their respective approaches, but share common features that seem important. We use four key tools of public health practice to guide our recommendations: Defining and monitoring the problem; identifying risk and protective factors; developing and testing prevention strategies; and ensuring widespread adoption (Rich, Harris, Bloom, Rich, & Corbin, 2016). With these in mind, there are a number of action implications to be drawn from the research on these programs. We conclude with additional research considerations, and offer several policy and research recommendations.

Provide a Method for Schools to Regularly Monitor Discipline Data

Recording discipline data allows school teams to measure, and monitor disproportionality in their schools and respond accordingly. Data-monitoring software like SWIS can be used for this purpose, because it disaggregates ODR data by ethnicity and provides risk indices and risk ratios by subgroup. Technical assistance may be needed to help schools interpret their data (Pas & Bradshaw, 2012). Schools should disaggregate their data by subgroups, including racial/ethnic groups and students receiving special education services, to ensure that interventions are benefiting smaller subgroups as well as the overall student population. Data monitoring software can identify potentially troubled students in need of behavioral support (Morgan, Salomon, Plotkin, & Cohen, 2014). Under the SW-PBIS framework, for example, students with 6 or more ODRs are referred for more intensive supports (May et al., 2010).

Direct Resources Toward the Most Vulnerable Students

A multi-tiered intervention approach might be particularly effective in directing resources most intensively toward the highest-risk students. This is theoretically indicated whenever the risk is enhanced by dynamic risk factors, which could be changed through planned intervention. The principles of risk, need, and responsivity (RNR; Hoge & Andrews, 2010), which were originally developed to apply psychological theory to individuals under correctional supervision, might be applied to school-based interventions. The risk principle of RNR presumes that those at highest risk should receive the most intensive interventions. Needs are defined as the deficits (such as substance use, family problems, and educational problems) that, if left unchanged, increase the risk of offending or reoffending. The responsivity principle describes the likelihood that an individual will respond favorably to an intervention, and suggests that a favorable response is more likely when the intervention is empirically-supported and delivered in the context of identified needs and particular influences (e.g., gender, IQ) (Heilbrun et al., 2011). Psychologists or school staff could apply these principles in an educational setting to identify students at the highest risk for a specified target outcome (e.g., school disengagement); formally identify the needs that increase the risk of this outcome (such as strained student-teacher relationships); and select an empirically-supported intervention that is appropriate for addressing these needs. This model may help identify a particularly vulnerable subset of Black students at higher risk for poor educational outcomes, including school alienation and dropout. Applying the principles of risk, need, and responsivity may help facilitate implementation and enhance the success of tiered intervention systems by prompting schools to set specific behavioral targets, focus on changeable needs that are related to these targets, and use interventions

that are both broadly empirically supported and appropriately individualized.

Promote Positive School Climate

Positive school climate has been linked to higher student engagement, better student behavior, and lower suspension rates (Brand, Felner, Seitsinger, Burns, & Bolton, 2008; Shirley & Cornell, 2012; Shollenberger, 2014). All three programs described in this paper focus on improving student connectedness and relationships with adults. Authoritative school climate theory, which measures disciplinary structure and student support as key measures of school climate, may provide conceptual guidance on the critical features of a positive school climate (Gregory et al., 2010). Schools with high levels of student- and teacher-reported structure show lower overall suspension rates and a lower gap between Black and White suspension rates, suggesting that a disciplinary structure characterized by strict but fair discipline and high academic expectations is associated with less racial disparity in school discipline (Heilbrun, Cornell, & Konold, under review). By providing clear expectations for student behavior—and communicating an established protocol for handling misbehavior—all three of the programs aim to reduce the ambiguity associated with student misconduct, and the response to such behavior. Restorative practices may contribute to promoting an authoritative school climate by eliciting trusting teacher-student interactions across racial groups and encouraging student participation in resolving conflicts. As a classroom-level intervention, MTP-S does not directly target *overall* school climate. However, positive classroom-level climate—defined as the warmth and connection between students and teachers— is one of the dimensions that comprises the Emotional Support domain of the CLASS-S and a critical element of the MTP-S model. Furthermore, MTP-S may also

impact student-perceived structure through its emphasis on creating cognitively demanding classrooms. When Black students perceive that their teachers hold high academic expectations for them, they may in turn work harder to fulfill these expectations (Gregory et al., 2015). SW-PBIS explicitly targets school organizational health, an important aspect of school climate that includes a community-wide emphasis on respect, collegiality, and consistent and fair discipline (Bradshaw, Koth, Thornton, & Leaf, 2009).

Increase and Enrich Relational Opportunities

Children benefit from the presence of a caring, responsible, and invested adult (Perry & Szalavitz, 2003). Data from a nationally representative sample of high school students suggest that students with an adult mentor at school are less likely to engage in risky behavior (e.g., gang affiliation and violence), report higher levels of psychological well-being, and are more likely to finish high school and attend college than peers who report no mentoring relationships (Black, Grenard, Sussman, & Rohrbach, 2010; DuBois & Silverthorn, 2005). Supportive relationships with adults at school increase students' academic engagement and social-emotional well-being (Roeser et al., 2000). They have also been associated with higher academic achievement and graduation rates, as well as less risk behavior and aggression (Cornell, & Huang, 2016; Cornell, Shukla, & Konold, T., 2016; Jia, Konold, & Cornell, 2015). This in turn may improve the quality of student-teacher interactions, resulting in stronger relationships and more engaged, motivated students.

Relative to their peers, Black students report less positive experiences at school, including differential treatment by school staff (Porowski, O'Conner, & Passa, 2014); lower levels of support and connection with adults (Bottiani, Bradshaw, & Mendelson,

2014); and a belief that their teachers care less about them (Bottiani, et al., 2014; Shirley & Cornell, 2011). For these reasons, supportive teacher relationships may be particularly important for Black students, especially those who are at higher risk for misconduct and school discipline problems (Meehan, Hughes, & Cavell, 2003). Caring teacher-student relationships can reduce such risk for troubled and alienated students. MTP-S and RP in particular share a focus on bolstering relationships with adults at school, which can also function as a protective factor for youth at risk for other negative outcomes such as offending. MTP-S explicitly seeks to improve the quality of the interaction between teachers and students; for example, elements of the CLASS-S, such as Teacher Sensitivity and Regard for Adolescent Perspectives, seek to enhance teachers' responsivity to the social and emotional needs of their students (Gregory et al., 2015). One of the core principles of the RP model is a focus on "relationships first and rules second" through collaboration and mutual cooperation between teachers and school staff (Schiff, 2013).

Incorporate Implementation Science

Successful programs must be sustained, intensive, and rigorous. They should also include comprehensive training for students, teachers, school personnel, and community stakeholders. Quality of implementation and fidelity are critical to a program's success (Gottfredson et al., 2015). To this end, it is important to balance flexibility with structure. For sustained success, schools should adhere to the requirements of the intervention without over-burdening the staff or demanding more time than they have available. In addition, interventions should convey clear metrics for success. One major concern is that when programs are broadly disseminated, adherence to the model will suffer. It is

difficult to enforce close adherence to a program from a distance; thus, the dissemination process must be carefully planned (Gottfredson et al., 2015). The SW-PBIS model has an extensive, coordinated system for implementation, and can be used as a model for widespread dissemination (Pas & Bradshaw, 2012). Components of dissemination include formal measures to evaluation implementation (such as the School-Wide Evaluation Tool, Implementation Phases Inventory, and the Benchmarks of Quality; Pas & Bradshaw, 2012). Similar approaches are needed for RP.

Considerations for Future Research

Efforts to reduce the racial gap should consider the context of the behavior in question. The finding that Black students are more likely than White students and other racial minorities to be suspended for disruptive offenses has been consistent across settings (Losen & Skiba, 2010; Petras et al., 2011). Chronic traumatic stress in early childhood may exacerbate such behavioral problems. Data show that traumatic exposure is pervasive in children: In a nationally representative survey of children, 68% reported experiencing at least one potentially traumatic event by age 16 (Copeland, Keeler, Angold, & Costello, 2007). The National Survey of Children's Health (Child and Adolescent, 2012) reported that approximately 35 million children have had a least one adverse experience that could lead to childhood trauma. These rates were even higher for Black children, who were twice as likely as White children to experience maltreatment, and also more likely than children from other racial groups to experience more severe forms of maltreatment (Sedlak et al., 2010). In addition, Black children were disproportionately exposed to family and community violence, which has been associated

with psychological difficulties, poor educational and behavioral outcomes, and juvenile justice involvement (Voisin, 2007).

Chronic stress caused by early childhood neglect, abuse, or trauma can predispose an individual to allostatic load, a cumulative measure of physiological dysregulation across multiple biological systems (Romer & Walker, 2007). Children who develop allostatic load through early and repeated exposure to trauma may be predisposed to act out. In the school setting, for example, allostatic load can manifest through deficits in basic self and emotional regulation, impulsivity, risk taking, poor impulse control, agitation, hypervigilance, and heightened physiological arousal, frequently resulting in over-reactivity to low-level stressors (Cook et al., 2005; Ford, 2009). Adversity and childhood neglect, particularly when they occur at critical periods of brain development, contribute to poorer mental health outcomes later in life, (Nikulina, Widom, & Czaja, 2011; Romer & Walker, 2007). Traumatized youth may also be at greater risk for academic failure, disciplinary sanctions, stigma, delinquency, and juvenile justice contact (Feierman & Ford, 2016).

It is not surprising, therefore, that a child with a significant trauma history might act in a way that appears defiant, aggressive, or disengaged in a classroom, particularly when that child has a strained relationship with the teacher. This behavior may account for some of the classroom violations for which Black students are disproportionately punished. Understanding the *source* of some of these behaviors may ultimately translate into better relationships between teachers and students, and may prevent office referrals for behaviors for which students are at risk. School psychologists provide a valuable source of insight on this topic, and can use their training to educate teachers and staff

about the link between trauma and seemingly disruptive behavior, as well as provide effective, empirically supported strategies for diffusing behavior before it escalates to further conflict. The National Academy of School Psychologists (NASP) website, for example, provides helpful resources on strategies and interventions for working with traumatized children (www.nasponline.org). For children who have lived with or been exposed to unpredictable violence, school can be a safe and supportive site where students experience reliable and consistent positive interactions with teachers, school psychologists, and other adults. Schools can act as a scaffold for at-risk youth, improving their capacities to self-regulate, practice adaptive coping skills, and strengthen attachments with trusted adults. Future research should examine the relations between childhood trauma and susceptibility to exclusionary discipline, as well as the impact of student-teacher relationships on the frequency of misconduct in children who have been traumatized.

Conclusion

Racial disparities in exclusionary discipline present a pressing national concern that is best addressed by empirically supported approaches. Each of the three programs reviewed in this article has a distinct approach, but all have the potential to reduce the racial disciplinary gap. Our goal has been to highlight such promising approaches to improving the problems of racial inequity in schools, consider the supporting evidence, and describe the needs for future research.

These programs are all prevention-oriented and focus on improving the quality of student-adult interactions in the classroom *before* disciplinary violations occur. But they differ in important ways. SW-PBIS uses a system of rewards and graduated sanctions to

manage behavior. Possible mediating mechanisms include consistency, fairness, collective community support for the model, flexibility to fit school culture and context, and ongoing monitoring through data-based decision-making.

Like SW-PBIS, MTP-S explicitly attempts to improve teachers' ability to provide emotionally positive, motivating, and cognitively challenging classrooms. With stronger relationships, and more engaging instruction, perhaps negative interactions between students and teachers can be prevented or experienced less frequently (Aronson, 2008). When teachers interact differently with their students, this may produce changes in student behavior, which can then yield fewer disciplinary problems. Alternatively, teachers may see their students differently and be less inclined to use office referrals/suspension for the same behavior. MTP-S is still in a relatively early stage and more research on this model is needed to draw clearer conclusions, but the original MTP model for younger children has extensive research support (see, for example, Pianta et al., 2008).

Restorative Practices, while widely implemented, currently lack sound empirical support. However, there are many reports of successful experiences using this approach in school systems across the country, including in Oakland (Sumner et al., 201), Minnesota (Minnesota Department of Education, 2011), Denver (Advancement Project, 2010), and Philadelphia (Lewis, 2009). In theory, restorative practices should promote support and connection, uphold structure and accountability, and integrate fair process and student voice (Gregory, Gerewitz, Clawson, Davis, & Korth, 2013; Zehr, 2008). The framework's emphasis on relationships, collaborative problem-solving, and student responsibility suggests great potential to reduce the racial gap.

No one-size-fits-all curriculum will resolve racial disproportionality, because of individual student differences and variation across schools (e.g., resources, community values, neighborhood conditions). Effective programs are likely to change teachers, students, and their interactions. Successful programs consider what will work best for whom, and under what conditions. Such programs offer a variety of options that target the behavior in question. At the student level, interventions should be carefully calibrated to address specific risk for individual students. For instance, a student with low impulse control and poor emotional regulation might benefit from the behavioral rewards system in a PBIS system. By contrast, a withdrawn student with internalizing symptoms such as depression and anxiety might benefit from the relational emphasis in the MTP-S and RP models. These are not the only programs with the potential to reduce racial disparities. A number of other approaches might be used in tandem with these programs, such as race-explicit cultural training (Bottiani et al., 2014); trauma-sensitive training (Cole, O'Brien, Gadd, Rituccia, Wallance, & Gregory, 2005); and/or social and emotional learning curricula (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011).

The conclusions presented in this paper support a broad, preventive approach to school discipline and discourage exclusionary forms of discipline. They underscore the need for more research on this topic, but offer a number of practical applications for school staff, particularly psychologists. With regard to research needs, the programs discussed in this paper are promising early-stage efforts to reduce disproportionality. This is a long-recognized problem but only a more recent target for interventions. With mounting pressure on schools to reduce exclusionary discipline practices, there is a critical need for controlled studies that can offer guidance for achieving these goals.

As for practical applications, the context of the behavior matters. Negative developmental trajectories are often influenced by early developmental risk factors, and a well-established body of research has demonstrated that Black children are significantly more likely than their peers to be exposed to violence, maltreatment, and interpersonal trauma at an early age (Hunt, Martens, & Belcher, 2011; Richards et al., 2004). Schools have the opportunity to interrupt some of these negative trajectories through targeted, empirically-supported interventions. For the most vulnerable students, interventions should be carefully calibrated to address specific risk for individual students. Adults in schools can play a powerful role in vulnerable children's lives, helping to restore a sense of safety and connection in children whose basic sense of security has been compromised. Recognizing this, school psychologists can play a critical role in recognizing signs of trouble and helping to intervene at an early stage.

References

Amstutz, L., & Mullet, J. (2005). *The little book of restorative discipline for schools: Teaching responsibility; creating caring climates*. Intercourse, PA: Good Books.

Baker, M. L. (2008, August 31). *DPS restorative justice project executive summary 2007–2008*. Denver, CO: Denver Public Schools.

Baker, M. L. (2009, September 16). *DPS Restorative Justice Project: Year Three. Year End Report 2008–2009.* Denver, CO: Denver Public Schools.

Balfanz, R., Byrnes, V., & Fox, J. (2015). Sent home and put off-track: The antecedents. disproportionalities, and consequences of being suspended in the ninth grade. In In D. Losen (Ed.), *Closing the School Discipline Gap: Research for Policymakers* (pp. 180-191). New York, NY: Teachers College Press.

Black, D., Grenard, J., Sussman, S., & Rohrback, L. (2010). The influence of school-based natural mentoring relationships on school attachment and subsequent adolescent risk behaviors. *Health Education Research*, *25,* 892-902.

Bottiani, J., Bradshaw, C., & Mendelson, T. (2014). Promoting an equitable and supportive school climate in high schools: The role of school organizational health and staff burnout. *Journal of School Psychology, 52,* 567-582.

Bradshaw, C., Pas, E., Bloom, J., Barrett, S., Hershfeldt, P., Alexander, A., McKenna, M., Chafin, A., & Leaf, P. (2012). A state-wide partnership to promote safe and supportive schools: The PBIS Maryland Initiative. *Administrative Policy Mental Health, 39,* 224-237.

Bradshaw, C. P., Waasdorp, T. E., & Leaf, P. J. (2012). Effects of school-wide positive behavioral interventions and supports on child behavior problems. *Pediatrics, 130,* e1136-e1145.

Bradshaw, C., Mitchell, M., O'Brennan, L., & Leaf, P. (2010). Multilevel exploration of factors contributing to the overrepresentation of black students in office disciplinary referrals. *Journal of Educational Psychology, 102,* 508-520.

Child and Adolescent Health Measurement Initiative. (2011/12). *National survey of children's health.* Retrieved from www.childhealthdata.org/browse/survey?q=2257&r=1

Copeland, W., Keeler, G., Angold, A., & Costello, J. (2007). Traumatic events and posttraumatic stress in childhood. *Archives of General Psychiatry, 64,* 577-584.

Cornell, D., & Huang, F. (2016). Authoritative school climate and high school student risk behavior: A cross-sectional multi-level analysis of student self-reports. *Journal of Youth and Adolescence*. Advance online publication. doi: 10.1007/s10964-016-0424

Cornell, D. & Lovegrove, P. (2015). Student threat assessment as a method for reducing student suspensions. In D. Losen (Ed.), *Closing the School Discipline Gap: Research for Policymakers* (pp. 180-191). New York, NY: Teachers College Press.

Cornell, D., Shukla, K., & Konold, T. (2016). Authoritative school climate and student academic engagement, grades, and aspirations in middle and high schools. *AERA Open, 2,* 1-18.

Denver Public Schools (2008, August 21). *Policy JK-R—student conduct and discipline procedures*. Retrieved from http://ed.dpsk12.org:8080/policy/FMPro?-db=policy.fp3&-format=detail.html&-lay=policyview&File=JK&-recid=32967&-find=

Denver Public Schools & Denver Police Department. (2013). *Intergovernmental agreement concerning the funding, implementation, and administration of programs involving police officers in schools.* Retrieved from http://b.3cdn.net/advancement/e746ea2668c2ed19b3_urm6iv28k.pdf

DuBois, D. & Silverthorn, N. (2005). Natural mentoring relationships and adolescent health: evidence from a national study. *American Journal of Public Health, 95: 518.*

Durlak, J., Weissberg, R., Dymnicki, A., Taylor, R., & Schellinger, K. (2011). The impact of enhancing students' social and emotional learning: A meta-analysis of school-based universal interventions. *Child Development, 82,* 474-501.

Fabelo, T., Thompson, M., Plotkin, M., Carmichael, D., Marchbanks, M., & Booth, E. (2011). Breaking schools' rules: A statewide study of how school discipline relates to students' success and juvenile justice involvement. New York, NY: Council of State Governments Justice Center.

Finkelhor, D., Vanderminden, J., Turner, H., Shattuck, A. & Hamby, S. (2016) At-School Victimization and Violence Exposure Assessed in a National Household Survey of Children and Youth, *Journal of School Violence, 15,* 67-90.

González, T. (2011). Restoring justice: Community organizing to transform school discipline policies. *U.C. Davis Journal of Law and Policy, 15*, 1–36.

González, T. (2012). Keeping kids in schools: Restorative justice, punitive discipline, and the school to prison pipeline. *Journal of Law and Education, 41,* 281–335.

Gregory, A., Cornell, D., & Fan, X. (2011). The relationship of school structure and support to suspension rates for black and white high school students. *American Educational Research Journal, 48,* 904–934.

Gregory, A., Korth, J., Clawson, K., Davis, A., Gerewitz., J., Green, C., Schotland, M., & Roderick, T. (2016). *RP-Observe Manual, v4.* Unpublished manual. New Brunswick, NJ: Rutgers University.

Gottfredson, D., Cook, T., Gardner, F., Gorman-Smith, D., Howe, G., Sandler, I., Zafft, K. (2015). Standards of evidence for efficacy, effectiveness, effectiveness, and scale-up research in prevention science: Next generation. *Prevention Science, 16,* 893-926.

Gottfredson, G.D., Gottfredson, D.C., Payne, A.A., & Gottfredson, N.C. (2005). School climate predictors of school disorder: Results from a national study of delinquency prevention and schools. *Journals of Research in Crime and Delinquency, 42*, 412-444.

Heilbrun, A., Cornell, D., & Lovegrove, P. (2015). Principal attitudes and racial disparities in school suspensions. *Psychology in the Schools, 52,* 489-499.

Heilbrun, K., DeMatteo, D., Brooks, S., Yasuhara, S., Anumba, N., King, C., & Pich, M. (2011). Risk-need assessment: Bridging disciplinary and regional boundaries. *Criminal Behavior and Mental Health, 21,* 1-7.

Hoge, R., & Andrews, D. (2010). *Evaluation for Risk of Violence in Juveniles.* New York: Oxford University Press.

Hunt., K., Martens, P., & Belcher, H. (2011). Risky business: Trauma exposure and rate of posttraumatic stress disorder in African American children and adolescents. *Journal of Traumatic Stress, 24*, 365-369.

Individuals with Disabilities Education Act (IDEA), 20 U.S.C. §§ 1400-1487 (1990).

Individuals with Disabilities Education Improvement Act of 2004 (P.L. 108-446).

Irvin, L. K., Horner, R. H., Ingram, K., Todd, A. W., Sugai, G., Sampson, N. K., & Boland, J. B. (2006). Using office discipline referral data for decision making about student behavior in elementary and middle schools: An empirical evaluation of validity. *Journal of Positive Behavior Interventions, 8*, 10-23.

Jia, Y., Konold, T., & Cornell, D. (2015). Authoritative school climate and high school dropout rates. *School Psychology Quarterly*. Advance online publication. http://dx.doi.org/10.1037/spq0000139

JustChildren and Cornell, D. (2013). *Prevention v. punishment: Threat assessment, school suspensions, and racial disparities*. Retrieved from http://curry.virginia.edu/uploads/resourceLibrary/UVA_and_JustChildren_Report_-_Prevention_v._Punishment.pdf

Katsiyannis, A., Thompson, M., Barret, D., & Kingree, J. (2012). School predictors of violent criminality in adulthood: Findings from a nationally representative longitudinal study. *Remedial and Special Education, 34*, 205-214.

Losen, D. (2015). *Closing the school discipline gap: Equitable remedies for excessive exclusion.* New York, NY: Teachers College Press.

Macready, T. (2009). Learning social responsibility in schools: A restorative practice. *Educational Psychology in Practice, 25*, 211–220.

Meehan, B., Hughes, J., & Cavell, T. (2003). Teacher-student relationships as compensatory resources for aggressive children. *Child Development, 74,* 1145-1157.

Morgan, E., Salomen, N., Plotkin, M., & Cohen, R, (2014). *The school discipline consensus report: Strategies from the field to keep students engaged in school and out of the juvenile justice system.* The Council of State Governments Justice Center, New York, NY. Retrieved from http://csgjusticecenter.org/wp-content/uploads/2014/06/The_School_Discipline_Consensus_Report.pdf

Morrison, B. E. (2003). Regulating safe school communities: Being responsive and restorative. *Journal of Educational Administration, 41*, 690–704.

Morrison, B. E. (2007). *Restoring safe school communities*. Sydney, Australia: Federation.

Morrison, B. E., Blood, P., & Thorsborne, M. (2005). Practicing restorative justice in school communities: The challenge of culture change. *Public Organization Review, 5*, 335–357.

Losen, D., & Skiba, R. (2010). *Suspended education: Urban middle schools in crisis.* Montgomery, AL: Southern Poverty Law Center.

Perry, B., & Szalavitz., M. (2006). *The boy who was raised as a dog and other stories from a child psychiatrist's notebook: What traumatized children can teach us about love, loss, and healing.* New York, NY: Basic Books.

Pianta, R. C., Mashburn, A. J., Downer, J. T., Hamre, B. K., Justice, L. (2008). Effects of web-mediated professional development resources on teacher-child interactions in pre-kindergarten class- rooms. *Early Childhood Research Quarterly, 23*, 431-451.

Porowski, A., O'Connor, R., & Passa, A. (2014). *Disproportionality in school discipline: An assessment of trends in Maryland, 2009-12*. (REL 2014-017). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Mid-Atlantic. Retrieved from http://ies.ed.gov/ncee/edlabs.

Raffaele Mendez, L. M., Knoff, H. M., & Ferron, J. M. (2002). School demographic variables and out-of-school suspension rates: A quantitative and qualitative analysis of a large, ethnically diverse school district. *Psychology in the Schools, 39,* 259–277.

Reschly, D. J. (1997). *Disproportionate minority representation in general and special education: Patterns, issues, and alternatives*. Des Moines, IA: Mountain Plains Regional Resource Center, Drake University.

Roy, L. (2012). *An analysis of various measures of racial/ethnic disproportionality in special education: The case for a joint measures approach.* California Department of Education: Sacramento, California. Retrieved from ftp://ftp.cde.ca.gov/sp/se/ds/Disproportionality%20Measures.pdf

Sedlak, A. J., Mettenburg, J., Basena, M., Petta, I., McPherson, K., Greene, A., & Li, S. (2010). *Fourth National Incidence Study of Child Abuse and Neglect (NIS–4): Report to Congress.* Washington, DC: U.S. Department of Health and Human Services, Administration for Children and Families. Retrieved from http://www.acf.hhs.gov/sites/default/files/opre/nis4_report_congress_full_pdf_jan2010.pdf

Shirley, E., & Cornell, D. (2011). The contribution of student perceptions of school climate to understanding the disproportionate punishment of African American students in middle school. *School Psychology International, 33*, 115-134.

Shollenberger, T. (2015). Racial disparities in school suspension and subsequent outcomes: evidence from the National Longitudinal Survey of Youth 1997. In D. J. Losen (Ed.), *Closing the school discipline gap: Research for policymakers*. New York, NY: Teachers College Press.

Skiba, R. J., Horner, R. H., Chung, C.-G., Rausch, M. K., May, S. L., & Tobin, T. (2011). Race is not neutral: A national investigation of African American and Latino disproportionality in school discipline. *School Psychology Review, 40*, 85–107.

U.S. Department of Education, Office of Civil Rights. (2014). *Civil rights data collection: Data snapshot: School discipline* (Issue Brief No.1). Washington, DC. Retrieved from http://www2.ed.gov/about/offices/list/ocr/docs/crdc-discipline-snapshot.pdf

U.S. Department of Justice and U.S. Department of Education (2014). *Dear Colleague Letter on the Nondiscriminatory Administration of School Discipline*. Retrieved from http://www2.ed.gov/about/offices/list/ocr/letters/colleague-201401-title-vi.pdf

U.S. Department of Education (2014). *Guiding principles: A resource guide for improving school climate and discipline.* Washington, D.C. Retrieved from http://www2.ed.gov/policy/gen/guid/school-discipline/guiding-principles.pdf

Voisin, D. (2007). The effects of family and community violence exposure among youth: Recommendations for practice and policy. *Journal of Social Work Education, 43*, 51-66.

Wachtel, T. (2001). Restorative justice in everyday life: Beyond the formal ritual. *Reclaiming Children and Youth: The Journal of Strength-Based Interventions, 12*, 83-87.

Zehr, H. (2003). *The little book of restorative justice*. Intercourse, PA: Good Books.