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The relationship between school disciplinary resolutions with school climate and attitudes toward school

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ABSTRACT

Studies suggest that out-of-school suspensions (OSS) are negatively associated with student perceptions of school climate and attitudes toward school. However, this relationship has not been considered in the case of disciplinary approaches such as restorative practices (RP) and in-school suspensions (ISS). Using a sample of 30,799 secondary school students from a large urban school district, student-level survey data were matched with discipline records to investigate whether the type of disciplinary resolution received was related to student perceptions of disciplinary structure, supportive relationships, school bonding, disengagement, and safety. The findings of the current study suggest that students who received suspensions generally had worse perceptions of school climate and more negative attitudes toward school than their peers without a record of discipline incidents.

KEYWORDS

Attitudes toward school; disciplinary resolutions; restorative practices; school climate; suspensions

Managing challenging student behavior is a common concern among educators. Students who break school rules are often reprimanded to deter other students from committing the same infraction and to preserve order and safety (Gregory, Skiba, & Noguera, 2010). Although research has shown that certain discipline practices may be related to a variety of negative student outcomes (e.g., lower engagement, greater chances of incarceration, higher likelihood of dropping out), this research has focused almost exclusively on out-of-school suspensions (OSS; Fabelo et al., 2011; Noltemeyer, Ward, & Mcloughlin, 2015). Less is known about the relationship between other forms of disciplinary resolutions, such as in-school suspensions (ISS) and restorative practices (RP), with students' perceptions of school climate and their attitudes toward school. Yet educators and policy makers may be increasingly turning to these approaches because they are assumed to be less harmful than OSS (Cholewa, Hull, Babcock, & Smith, 2018).

However, alternative practices such as ISS may not necessarily be associated with better outcomes than OSS. Students with an ISS may also demonstrate lower levels of academic achievement and an increased likelihood of dropout (Cholewa et al., 2018; Hwang, 2018; Noltemeyer et al., 2015). Although viewed as less severe compared to an OSS (because students with an ISS remain in school), these approaches have not yet been compared directly. Concerns remain about ISS because this resolution still involves removing a student from the classroom, usually to sit in an administrator's office or a designated study area, resulting in

lost instructional time (Gonzalez, 2012; Osher, Poirier, Jarjoura, Brown, & Kendziora, 2015).

Another alternative disciplinary resolution, restorative practices (RP),¹ is being adopted by school districts across the nation (Song & Swearer, 2016). RP refer to a range of approaches that can be used to prevent conflict or intervene when an incident has occurred (Amstutz & Mullet, 2005; Wachtel, Costello, & Wachtel, 2009). Although promising and gaining in popularity, the empirical research base on RP has been described as not rigorous, of limited generalizability and low validity, and still in its infant or nascent stages (Fronius, Persson, Guckenburg, Hurley, & Petrosino, 2016). RP demands much more effort from the various involved stakeholders than OSS or ISS (Fronius et al., 2016) and has been described as an effective but exhausting alternative to suspensions (Dominus, 2016). To date, only two randomized control trials (RCTs) have been conducted investigating the effectiveness of RP in relation to reducing peer victimization and improving school climate (Acosta et al., 2019; Augustine et al., 2018) with several more underway.²

Given the limited research base with regard to ISS and RP, educators may not necessarily be informed about the relationship of such alternative disciplinary resolutions³ with various student perceptions and attitudes. The current study aimed to fill the gaps in the literature by investigating the relationship between disciplinary resolutions and student perceptions of school climate (i.e., disciplinary structure, student support, safety) and attitudes toward school (i.e., school bonding, disengagement) using data from 30,799 6th–12th

grade students from 116 schools in one large school district in the Southwestern United States.

School discipline resolutions

School discipline resolutions refer to the decisions made by school administrators about consequences for, or responses to, student misconduct. Decisions about serious and objective infractions, such as bringing a firearm to school, are often dictated by state, federal, and district policy. However, most discipline incidents involve subjective concerns such as disruptive behavior and defiance (Bradshaw, Mitchell, O'Brennan, & Leaf, 2010; Losen & Martinez, 2013; Skiba, Michael, Nardo, & Peterson, 2002). Discipline resolutions for these forms of misbehavior are at administrators' discretion, but in- or out-of-school suspensions are the most frequently implemented consequence, whereas the use of restorative practices to resolve school discipline incidents is a more recent phenomenon (Noguera & Wing, 2006; Payne & Welch, 2015; Skiba et al., 2002; Vavrus & Cole, 2002).

Out-of-school suspension (OSS)

Out-of-school suspensions involve the removal of students from school as a form of punishment, usually for low-level misconduct or conflict (Losen & Martinez, 2013; Skiba et al., 2002). A growing number of studies have indicated that students who are suspended from school are more likely to have lower standardized test scores, be held back a grade level, leave school, become involved in the juvenile justice system, or experience subsequent arrest (Hwang, 2018; Lacoe & Steinberg, 2019; Mowen & Brent, 2016; Noltemeyer et al., 2015). Similarly, school-level rates of OSS are correlated with lower academic achievement and higher dropout rates (Noltemeyer et al., 2015).

In-school suspension (ISS)

In-school suspensions usually involve the removal of students from the classroom to a dedicated space in the school building where they are confined to complete coursework, and in some cases, receive support services. Although in-school suspensions may be a relatively common practice, research on this discipline resolution is more limited than studies on OSS (Cholewa et al., 2018). A meta-analysis (Noltemeyer et al., 2015) of twelve studies indicated a consistently negative relationship between rates of ISS and academic achievement. This finding was partially replicated in a more recent longitudinal study by Hwang (2018) who employed fixed effects models to account for unobserved differences between students, with results indicating that multiple in-school suspensions were negatively related to math achievement.

Restorative practices (RP)

Although RP may refer to a range of approaches to prevent conflict, the current manuscript focuses on practices such as circles, mediations, and conferences that are used to

intervene and resolve conflicts at school after they happen. These interventions are based on the idea that harm should be acknowledged openly and that collectively finding a solution for repairing the harm can be empowering to all parties, while also holding individuals accountable for their actions (Zehr, 2015). Research on restorative practices in American schools using single group designs found that implementation of the approach is associated with school-wide reductions in office discipline referrals and OSS rates (Riestenberg, 2013). Multivariable and longitudinal studies have also shown that students who participate in RPs after a discipline incident are less likely to have additional office referrals, or subsequent suspensions (Anyon, Gregory, et al., 2016;; Gregory, Huang, Anyon, Greer, & Downing, 2018).

School climate and disciplinary resolutions

Although there is no agreed upon definition, school climate generally encompasses "the patterns of people's experiences of school life and reflects norms, goals, values, interpersonal relationships, teaching and learning practices, and organizational structures" (Cohen, McCabe, Michelli, & Pickeral, 2009, p. 182). A positive school climate has been shown to be related to various positive behavioral and academic outcomes including reduced rates of aggression and violence, lower substance use, higher feelings of school connectedness, motivation, and greater academic achievement. (Cornell, Shukla, & Konold, 2016; Cornell & Huang, 2016; Huang, Cornell, & Konold, 2015).

Often, school climate instruments include measures related to school safety, disciplinary structure (e.g., student perceptions that rules are fair), and student support (e.g., using measures of teacher-student relationships) (Cornell & Huang, 2019; Wang & Degol, 2016). School safety and school climate are intertwined concepts and safety may be considered a prerequisite for a positive school climate as an unsafe school impairs student learning (Cornell & Huang, 2019). School climate studies have generally highlighted two domains or core constructs: disciplinary structure and student support (Bear, Gaskins, Blank, & Chen, 2011; Wang & Eccles, 2013). For example, Johnson's (2009) review of 25 studies indicated that "schools with less violence tend to have students who are aware of school rules and believe they are fair" and "have positive relationships with their teachers" (p. 451).

Studies have considered the relationship between students' perceptions of school climate and school-level OSS rates (Gregory, Cornell, & Fan, 2011; Heilbrun, Cornell, & Konold, 2018). Correlational studies have shown that positive perceptions of disciplinary structure at the school-level, operationalized as school rules that were both strict and fair, were associated with lower OSS rates among middle and high school students (Gregory et al., 2011; Heilbrun et al., 2018). In addition, several studies have shown that the likelihood of sanctions is related to student perceptions of caring and perceived fairness (Hinojosa, 2008; Yeager, Purdie-Vaughns, Hooper, & Cohen, 2017). Higher OSS rates, especially for Black students, were associated with lower

perceptions of student support (Anyon, Zhang, & Hazel, 2016). Given that exclusionary disciplinary practices remove students from the classroom, potentially breaking bonds between students and teachers, it seems likely that the increased use of suspensions will result in negative perceptions of school climate.

Theoretically, restorative practices, which focus on treating students fairly and building/mending relationships, should not result in lower perceptions of school climate. Gregory, Clawson, Davis, and Gerewitz (2016) argue that, “RP aims to transform how students and adults interact with one another thereby creating a more positive school climate” (p. 2). Indeed, having different school community members (e.g., victims and offenders) involved in the RP process may help increase the perception of the fairness of educator actions in response to misbehaviors (Tyler, 2006). Yet there is limited empirical research suggesting that the use of RP, particularly in response to discipline incidents, is related to improved school climate. One study of preventative restorative practices in the classroom found that students reported a more positive relationship with teachers that implemented the approach with fidelity (Gregory et al., 2016). Morrison (2002) also found, using a pre-post single-group survey, that after receiving RP training, participants reported greater feelings of school safety. Drawing on case studies from six schools in the United States, Lewis (2009) documented that students in schools using RP reported improved perceptions of school climate. However, many of these studies did not have comparison or control groups, or were comprised primarily of anecdotal reports or case studies (Fronius et al., 2016; Mirsky, 2011).

Disciplinary resolutions and attitudes toward school

Attitudes toward school reflect personal, individual-level perceptions of school bonding and engagement (Slaten, Ferguson, Allen, Brodrick, & Waters, 2016). Attitudes toward school is another strong predictor of student academic outcomes (Henry, Knight, & Thornberry, 2012). For example, the weakening of school bonds and increased disengagement from school that suspended students are more likely to experience due to their forced isolation from the rest of the student body may eventually result in dropping out of school. Chronic absenteeism, another strong predictor of dropping out, may be a sign of disengagement and a lack of school connectedness (Balfanz, Herzog, & Mac Iver, 2007; Finn, 1989). Students who do not engage or identify with school are also more likely to emotionally withdraw from school (Finn, 1989). Emotional withdrawal from school can be the result of being suspended, or it can result in being suspended if students engage in challenging behaviors that lead to their removal from school. Students who are disciplined with exclusionary practices are often placed on a path toward school disengagement, social isolation, and exclusion (Peguero, Merrin, Hong, & Johnson, 2016).

However, little is known about RP or ISS and their relationship with student attitudes toward school. RP has been associated with increases in school connectedness, based on

pre-post training surveys from 59 students and 73 family members in Minneapolis (McMorris, Beckman, Shea, Baumgartner, & Eggert, 2013). Unlike exclusionary sanctions which remove students from the classroom and may promote absenteeism, schools that implement RP have shown decreases in absenteeism (Jain, Bassey, Brown, & Kalra, 2014).

The relationship of individual characteristics with climate and attitudes

In order to isolate the relationship between disciplinary sanctions with school climate and attitudes toward school, other potentially confounding student characteristics should be accounted for. Compared to White students, students of color (particularly Black students) report more negative perceptions of school climate, feeling less safe at school, and lower levels of connectedness to school adults (Anyon, Zhang, et al., 2016; Ingels et al., 2005; Konold, Cornell, Shukla, & Huang, 2017). Gender is another strong predictor of school climate outlook, with males generally reporting less positive perceptions (Koth, Bradshaw, & Leaf, 2008). Higher socioeconomic status (SES) has been associated with more positive perceptions of school climate (Datta, Cornell, & Huang, 2017) whereas increased levels of poverty was associated with a poorer outlook (Koth et al., 2008).

In addition to sociodemographic characteristics, research has also suggested that school climate and socioemotional learning (SEL; which includes emotional regulation skills) are positively related (Osher & Berg, 2018). A four-year study in eight school districts has shown that improvements in SEL were associated with increased student perceptions of school climate (Osher, Friedman, & Kendziora, 2014). Other factors like student grade level may also be associated with their perceptions of climate and attitudes—a national survey has shown that school disengagement increased as students progressed through school (Busteed, 2013).

The current study

Although the relationship of OSS and school climate/attitudes toward school has been investigated, research is needed that considers the association between these outcomes and ISS or RP, while controlling for other possible confounding variables. Considering that alternatives to OSS are being considered by school districts around the country (Cholewa et al., 2018), and given the importance of school climate and attitudes toward school, it is imperative to understand the perceptions and attitudes of students who have received an ISS or RP. Previous literature suggest that OSS and ISS are likely related to lower perceptions of school climate and attitudes toward school. Suspended students are physically separated from the rest of the study body, which likely results in a loss of school bonding and increased disengagement (Peguero et al., 2016). However, we hypothesize that RP, which focuses on the reparation of harm rather than punishment or exclusion (Zehr, 2015), will not be negatively related to these outcomes. For the current study,

Table 1. Descriptive statistics of study sample ($n = 30,799$ students in 116 schools).

	<i>M (SD)</i>	<i>n (%)</i>
School Climate and Attitudes toward School ^a		
Disciplinary structure	12.23 (2.47)	
Student support	15.88 (2.85)	
School bonding	12.03 (2.14)	
School disengagement	6.79 (2.04)	
School safety	22.06 (3.92)	
Disciplinary Resolution		
None		28,054 (91.1)
Out of school suspension		859 (2.8)
In school suspension		694 (2.3)
Restorative practice		438 (1.4)
Combined resolution		754 (2.4)
Grade level		
6		5,595 (18.2)
7		5,197 (16.9)
8		5,004 (16.2)
9		4,820 (15.6)
10		4,166 (13.5)
11		3,452 (11.2)
12		2,565 (8.3)
Racial Identity		
White		6,375 (20.7)
Asian		1,087 (3.5)
Black		4,135 (13.4)
Latino		17,841 (57.9)
Other ^b		1,361 (4.4)
Male		15,345 (49.8)
Eligible for free or reduced price meals (FRPM)		20,847 (67.7)
Eligible for special education		2,891 (9.4)
Emotional regulation problems	4.14 (1.55)	
Number of discipline incidents by level of offense		
Level 2	0.12 (0.63)	
Level 3	0.08 (0.37)	
Level 4	0.02 (0.14)	
Level 5	0.00 (0.04)	

^aAll scales indicate the higher the better, with the exception of school disengagement.

^bNative American or Alaska Native, Pacific Islander or Native Hawaiian, and Multiracial.

we ask: “How do student perceptions of various aspects of school climate and attitudes towards school relate to the receipt of different disciplinary resolutions?” Specifically, we compared students with a range of resolutions (e.g., OSS, ISS, RP) to their nondisciplined peers, while controlling for other school and student characteristics.

Methods

Participants

Participants included 30,799 students from 116 secondary schools from a large urban district who completed a Student Satisfaction Survey (SSS) in the spring of 2016 (see Table 1 for descriptives). Students were from grades 6 to 12 (males = 50%). Sixty eight percent of participants were eligible for free or reduced price meals (FRPM; a proxy for socioeconomic status) and 58.0% were Latino, 20.7% were White, 13.4% were Black, 4.4% were from other racial groups (Native American or Alaska Native, Pacific Islander or Native Hawaiian, and Multiracial), and 3.5% were Asian. Data from the SSS were merged with district disciplinary and administrative records using a common student identifier.

Measures

Dependent variables

Five school climate scales were created from the SSS. Based on Authoritative School Climate theory (Cornell & Huang, 2016; Huang, Eklund, & Cornell, 2017), the constructs of disciplinary structure, student support, school bonding, school disengagement, and overall safety were investigated. For each item, intraclass correlation coefficients (ICCs) which indicate the variability due to the school, were examined and ranged from .03 (“if I have a problem or concern, there is at least one adult in the school I feel comfortable talking to”) to .13 (“I’m getting a good education at my school.”).

The measures were simultaneously evaluated using multi-level confirmatory factor analysis (MCFA; Huang & Cornell, 2016) with one overall model to account for the clustered nature of the data (i.e., students within schools). MCFA was done using Mplus 6.1 (Muthen & Muthen, 2011) specifying the hypothesized factors defined by the corresponding items (see Appendix). The same factor structure was specified at the first and second levels with the factors correlating freely with each other. Responses options on a four-point Likert scale with options ranging from *Strongly Disagree*, *Disagree*, *Agree*, and *Strongly Agree*. Estimation was done using weighted least squares (WLSMV) estimation (Finney & DiStefano, 2006) due to ordinal nature of the data.

Various model fit indices were examined and results suggested that the model fit the data well (RMSEA = .03, CFI = .98, TLI = .98, SRMR = .05). Each item was summed together to create an overall scale for each factor and all measures had acceptable measures of internal consistency (omega = .64 to .88). The intraclass correlations (ICCs) for the scales ranged from .06 (for student support) to .08 (for school bonding and disengagement) (see Table 2).

Independent variables

We merged SSS responses with discipline records for all students in the district. Based on this data, 2.8% ($n = 859$) of the survey sample received one or more one out-of-school suspensions (OSS), 2.3% ($n = 694$) received one or more in-school suspensions (ISS), 1.4% ($n = 438$) participated in one or more restorative practices (RP), and 2.4% ($n = 754$) received a combination of two or more resolutions over the course of the school year. We created the combination category in order to isolate outcomes for students that received just one type of disciplinary resolution. The majority of students who completed the SSS did not have any disciplinary resolutions on record (91.1%, $n = 28,054$).

Covariates

Several student-level covariates were included (i.e., gender, race/ethnicity, eligibility for FRPM, eligibility for special education, student grade level, number of discipline incidents by offense level). White male students who were not eligible for FRPM or special education served as the

Table 2. Scale intraclass correlation coefficients (ICC), reliability, and number of items.

Scale	ICC	School level reliability	Student level reliability	Number of items	Range
Disciplinary structure	.070	.88	.82	4	4–16
Student support	.061	.90	.84	5	5–20
School bonding	.077	.79	.74	4	4–16
School disengagement	.077	.69	.64	3	3–12
School safety	.069	.92	.87	7	7–28

Notes. Reliability coefficients shown using Omega. See appendix for specific items.

reference group. Grade level was entered as a set of dummy coded variables with sixth graders as the reference group.

Both the severity and the number of discipline incidents are closely related to the type of disciplinary resolution a student is likely to receive, confounding statistical efforts to isolate the relationship between students' experience with a particular type of consequence and their perceptions or attitudes about school (Theriot, Craun, & Dupper, 2010). For example, research suggests that "safety-threatening or criminal behaviors lead more reliably to school exclusion" (Skiba et al., 2014, p. 644). Moreover, administrators' decisions about the type of discipline resolution(s) to apply in a particular incident are also influenced by whether or not the student(s) involved has a history of repeated infractions (Gregory et al., 2018) or is perceived as a "high flyer" (Anyon, Wiley, et al., 2016). Therefore, to capture the extent and seriousness of students' discipline histories over the course of the school year, we created variables that reflected the number and nature of discipline incidents recorded in the administrative dataset for each student.

The higher the offense level, the more serious the discipline incident. Level-1 incidents included severe disrespect or defiance, petty theft, and false activation of a fire alarm. Level-2 incidents involved the possession of drugs or alcohol, minor fights, and bullying. Level-3 incidents ranged from unlawful sexual contact and hazing, to more serious fights and harassment of school staff. Level-4 incidents included possession of a dangerous weapon, drug distribution, and first- or second-degree assault. For each offense level, dummy codes indicated whether a student had no incidents at that level (the reference group), one discipline incident at that level, or two or more incidents at that level. Dummy codes were used to be flexible in capturing the associations between the type and number of discipline incidents and student perceptions or attitudes, without assuming these relationships would be linear.

In light of evidence suggesting that students who have difficulty regulating their emotions are also more likely to be disciplined at school (Osher & Berg, 2018), we created a covariate for emotional regulation problems by summing participants' responses to two items from the SSS assessing the degree to which they got angry or upset easily ($M = 4.15$, $SD = 1.55$, $\omega = .64$).

Analytic strategy

Fixed effect regression models (Allison, 2009; Huang, 2016) were used to investigate the relationship of different discipline outcomes with each of the five school climate scales. Cluster robust standard errors were used in all analyses to

account for the nesting of students within schools. All outcomes were standardized ($M = 0$, $SD = 1$) as was the emotional regulation problem scale (used as a covariate).

Of particular interest were if students exclusively received one or more 1) out-of-school suspensions (OSS), 2) in-school-suspensions (ISS), or 3) restorative practice interventions (RP). Each of the predictor variables of interest were dummy coded (1 = one or more, 0 = none). Some observations were missing data (only on scale items) and 91% of observations had complete data. Multiple imputation was used to account for missing data and all results were combined appropriately using Rubin's (2004) rules to account for between- and within-group variation. Imputation was performed using the MICE (multiple imputation using chained equations; van Buuren & Groothuis-Oudshoorn, 2011) package in R 3.4 (R Core Team, 2018). As outcomes were standardized, dummy coded predictors can be interpreted as effect sizes based on Cohen's (1992) guidelines (e.g., ~ 0.20 = small, ~ 0.50 = medium, ~ 0.80 = large).

Results

The first set of school fixed effects models (see Table 3) only included disciplinary resolutions as the predictor of interest for each of the five outcomes. No covariates were included in the initial models. All disciplined students reported poorer perceptions for all outcomes. The R^2 s for the models ranged from .05 (for student support) to .08 (for school disengagement and safety).

Based on results in the second set of models which included the full set of covariates (see Table 4), students who had received an OSS reported poorer perceptions of disciplinary structure ($d = -0.14$, $p < .05$), school bonding ($d = -0.16$, $p < .05$), school safety ($d = -0.13$, $p < .05$) and higher levels of school disengagement ($d = 0.12$, $p < .01$) compared to students with no disciplinary infractions. In addition, students who had received an ISS also reported lower perceptions of disciplinary structure ($d = -0.13$, $p < .05$), school bonding ($d = -0.13$, $p < .05$), and school safety ($d = -0.12$, $p < .05$). Students who received an RP also reported slightly more negative perceptions and attitudes than their peers who had no contact with their school discipline system (d s ranged from $-.08$ to $.06$), but none of the differences were statistically significant (all p s $> .05$). In other words, students who received an OSS or an ISS generally had poorer perceptions of school climate and attitudes toward school compared to non-disciplined students. Model R^2 s ranged from .10 (for disciplinary structure and student support) to .26 (for school disengagement).

Table 3. Linear regression coefficients predicting outcomes: No covariates ($n = 30,799$).

	Disciplinary Structure	Student Support	School Bonding	School Disengagement	School Safety
Disciplinary resolution ^a					
OSS	−0.238*** (0.040)	−0.336*** (0.037)	−0.355*** (0.043)	0.411*** (0.041)	−0.253*** (0.044)
ISS	−0.199*** (0.044)	−0.318*** (0.046)	−0.331*** (0.038)	0.322*** (0.036)	−0.232*** (0.041)
RP	−0.148** (0.055)	−0.273*** (0.052)	−0.209** (0.064)	0.342*** (0.062)	−0.177** (0.060)
Combination	−0.227*** (0.056)	−0.435*** (0.047)	−0.327*** (0.047)	0.416*** (0.048)	−0.245*** (0.037)
R^2	.06	.05	.06	.08	.08

Notes. OSS = out of school suspension. ISS = in school suspension. RP = restorative practice. Combined = Combination of disciplinary resolutions.

^aStudents with no sanctions form the reference group. All models include school fixed effects. Cluster robust standard errors in parenthesis.

* $p < .05$, ** $p < .01$, *** $p < .001$.

We also directly compared differences in perceptions between suspended students and those who received RP, given interest in this approach as an alternative to OSS. To do so, we estimated the same models presented in Table 4, but treated the reference group as students who received an RP rather than students with no discipline incidents (not shown). Although students who received RP tended to have better perceptions of school climate and more positive attitudes toward school compared to those who received an OSS, these differences were not statistically significant (all $ps > .05$).

With respect to the relationships between covariates and the dependent outcomes, emotional regulation problems predicted poorer perceptions for all outcomes (β s ranged from -0.25 to 0.42 , all $ps < .05$). Results also indicated a consistently negative relationship between higher grade levels and the outcomes of interest (ds ranged from -0.22 to -0.55 , all $ps < .05$). Racial group differences were most pronounced for the outcomes of disciplinary structure and school bonding. Asian, Black, and Latino students (ds ranged from 0.04 to 0.12 , all $ps < .05$) reported better perceptions and attitudes in these two domains than their White peers. On the other hand, Latino ($d = 0.05$, $p < .05$) and students from other racial groups ($d = 0.10$, $p < .05$) tended to report more disengagement from school than White students. Similarly, students with disabilities, males, and students from low-income families generally reported better perceptions of school climate (ds ranged from 0.00 to 0.11) than their peers, though these same groups were also more disengaged from school (ds ranged from 0.01 to 0.16).

Contrasting the results from the models with and without the covariates reveals the importance of including other individual-level covariates as they relate to student perceptions of climate and attitudes toward school. The largest increase in R^2 is evident in the models for school disengagement (.08 to .26), indicating the relatively large contribution of student characteristics in predicting disengagement.

Discussion

Results of the current study show that students who received one or more out-of-school suspensions or in-school suspensions generally had poorer perceptions of school climate and more negative attitudes toward schooling than their non-

disciplined peers. However, these differences were relatively small in terms of effect sizes (i.e., $ds = 0.12 - 0.16$). Although students who participated in one or more RPs also tended to report more negative outcomes than students who had never entered their school's discipline system, these relationships weakened and were not statistically significant once other confounds were taken into account ($ds = 0.01 - 0.08$, $ps > .05$). Relatedly, students with a history of RPs generally reported higher perceptions of climate and stronger attitudes toward school than youth who received an OSS, but these differences were also small and not statistically significant. Last, our results indicate that student-level covariates are related to young people's perceptions of school climate and their attitudes toward schooling, particularly the grade-level variable.

These findings are aligned with extant research that has quantitatively considered the relationships between OSS and school climate or attitudes toward school. These studies have documented that these associations are consistently negative, regardless of whether the independent variable is the school-level OSS rate or student-level likelihood of being sanctioned (Gregory et al., 2011; Heilbrun et al., 2018; Hinojosa, 2008). Most researchers have argued that the causal mechanism underlying these trends is students' experience of exclusion, which they may interpret as an indicator of lack of care or concern on the part of school adults, or as an unfair and potentially racially discriminatory practice that does not address the complexity of most conflicts that lead to a discipline incident (e.g., Gregory et al., 2011).

The current study also extends and deepens our understanding of how ISS may be related to student outcomes. ISS typically removes students from their classrooms to a designated area for all or part of the day as a form of punishment. Our findings suggest that ISS, like OSS, may similarly disrupt young people's connection to educational institutions and weaken their trust in school officials. These trends are not surprising in light of research that has found ISS rooms can function as a "holding tank," where students with challenging behaviors can spend their time "simply watching the clock" (Gregory, Nygreen, & Moran, 2006, p. 134). That said, it is possible that the negative relationship

Table 4. Linear regression coefficients predicting outcomes: With covariates ($n = 30,799$).

	Disciplinary Structure	Student Support	School Bonding	School Disengagement	School Safety
Disciplinary resolution^a					
OSS	−0.138* (0.056)	−0.094 (0.053)	−0.156* (0.062)	0.122** (0.044)	−0.130* (0.056)
ISS	−0.130* (0.051)	−0.089 (0.058)	−0.129* (0.050)	0.044 (0.044)	−0.116* (0.046)
RP	−0.079 (0.062)	−0.045 (0.059)	−0.013 (0.080)	0.055 (0.065)	−0.056 (0.066)
Combination	−0.095 (0.062)	−0.089 (0.064)	−0.039 (0.067)	−0.001 (0.053)	−0.071 (0.060)
Grade^b					
7	−0.339*** (0.036)	−0.294*** (0.035)	−0.330*** (0.039)	0.179*** (0.030)	−0.129*** (0.028)
8	−0.375*** (0.041)	−0.217*** (0.035)	−0.271*** (0.038)	0.153*** (0.030)	−0.015 (0.033)
9	−0.493*** (0.041)	−0.368*** (0.038)	−0.472*** (0.044)	0.304*** (0.039)	−0.185*** (0.033)
10	−0.518*** (0.037)	−0.353*** (0.035)	−0.474*** (0.039)	0.332*** (0.035)	−0.142*** (0.032)
11	−0.550*** (0.036)	−0.341*** (0.037)	−0.484*** (0.037)	0.350*** (0.034)	−0.122*** (0.029)
12	−0.491*** (0.047)	−0.226*** (0.041)	−0.377*** (0.052)	0.272*** (0.050)	−0.080* (0.038)
Racial identity^c					
Asian	0.119** (0.037)	0.004 (0.027)	0.128*** (0.031)	−0.035 (0.031)	−0.023 (0.037)
Black	0.101*** (0.030)	−0.014 (0.027)	0.120*** (0.035)	0.045 (0.026)	0.035 (0.037)
Latino	0.095*** (0.022)	−0.034 (0.020)	0.049* (0.025)	0.055* (0.019)	0.063 (0.034)
Other	−0.014 (0.033)	−0.074** (0.025)	−0.001 (0.031)	0.100*** (0.023)	.015 (0.032)
Special education eligibility	0.106*** (0.024)	0.112*** (0.026)	0.054* (0.021)	0.014 (0.021)	0.038 (0.022)
FRPM eligibility	0.094*** (0.017)	−0.025 (0.016)	0.056** (0.018)	0.023 (0.016)	0.002 (0.017)
Male	0.058*** (0.015)	0.002 (0.014)	−0.028 (0.015)	0.160*** (0.013)	0.087*** (0.013)
Emotional regulation problems	−0.140*** (0.008)	−0.173*** (0.009)	−0.188*** (0.010)	0.423*** (0.010)	−0.098*** (0.010)
Number of incidents by level of offense					
Level 2 (One incident)	−0.049 (0.034)	−0.168*** (0.039)	−0.142*** (0.041)	0.110*** (0.032)	−0.044 (0.041)
Level 2 (Two or more)	−0.059 (0.061)	−0.207*** (0.059)	−0.220*** (0.061)	0.164** (0.053)	−0.015 (0.061)
Level 3 (One incident)	−0.025 (0.045)	−0.092 (0.049)	−0.076 (0.049)	0.049 (0.039)	0.004 (0.047)
Level 3 (Two or more)	−0.093 (0.083)	−0.245** (0.087)	−0.121 (0.091)	0.113 (0.065)	0.025 (0.090)
Level 4 (One incident)	−0.042 (0.057)	−0.139 (0.082)	−0.068 (0.078)	0.034 (0.062)	−0.004 (0.079)
Level 4 (Two or more)	0.020 (0.205)	0.268 (0.207)	0.137 (0.144)	0.122 (0.137)	0.171 (0.161)
Level 4 (One incident)	−0.224 (0.145)	−0.496** (0.168)	−0.246 (0.153)	0.144 (0.150)	−0.135 (0.197)
R ²	.10	.10	.11	.26	.08

Notes. OSS = out of school suspension. ISS = in school suspension. RP = restorative practice. Combination = a combination of disciplinary resolutions.

^aThe reference group is students with no recorded discipline incidents.

^bThe reference group is 6th grade students.

^cThe reference group is White students. The classification of "Other" includes Native American or Alaska Native, Pacific Islander or Native Hawaiian, and Multiracial students. FRPM = free or reduced priced meals. All models include school fixed effects. Cluster robust standard errors in parenthesis.

* $p < .05$, ** $p < .01$, *** $p < .001$.

between ISS and student outcomes would be more attenuated if youth had access to academic instruction, mental health supports, and/or social-emotional learning opportunities through ISS.

Our findings about ISS seem especially timely given major policy reforms across the country that limit the use of

out-of-school suspensions for low-level student misconduct or conflict (Lacoe & Steinberg, 2019). In response to these regulatory demands, schools are increasingly implementing ISS, in part based on the belief that this practice is less harmful to students. Our findings complicate this notion and suggest that schools should be more cautious in their

implementation of ISS. In particular, school officials should thoughtfully consider how ISS can be designed to strengthen students' perceptions of school climate and their attitudes toward school by leveraging ISS to link students to additional academic and support services that address the root causes of their challenging behavior.

The implications of our findings related to RP are less clear, as our analyses revealed no statistically significant differences (all d s = 0.01 – 0.08, ns), either when the reference group was students without any discipline incidents or youth with an OSS. One interpretation of results may be that students who participated in an RP did not display more negative attitudes and perceptions related to climate and engagement compared to nondisciplined students. These results may reflect a limitation of our dataset, which did not include any information about the degree to which RP was implemented with fidelity. For example, in Gregory et al. (2016) study, implementation fidelity was strongly related to students' perceptions of their relationships with teachers who used RP in their classroom. Another possibility is that RP is less powerful as a reactive intervention for resolving conflict than it is as a school-wide, prevention-oriented approach to promoting a positive school climate. Prior research that has documented a positive relationship between RP and student perceptions of safety or climate used case study designs that considered how all students in the school, not just students with discipline incidents, were impacted by the introduction of school-wide RP initiatives (Lewis, 2009; Morrison, 2002). In contrast, our dataset only included a variable for student-level participation in an RP mediation, conference or circle, after a discipline incident occurred.

Limitations

Although we used a large dataset and used fixed effects models that completely accounted for school-level variation, the study is correlational in nature and we cannot assume the directionality of effects. Studies may assume that students who are suspended may become disengaged but then it is also possible that disengaged students were more likely to commit an infraction which results in their suspension. Longitudinal student data, which is not commonly found using anonymous school climate data, may help in such analyses. As more and more school climate data are being collected nationally, we see this as a promising direction for future research. In addition, only a relatively small number of students had infractions that resulted in the disciplinary resolutions we focused on. Last, with the case of the RP which has several components (e.g., conferences, circles), we had no way of assessing the fidelity of its implementation nor of assessing which component was most effective.

Conclusion

This study used a series of school fixed effects linear regression models to analyze data from a self-report school climate survey of secondary students, merged with administrative discipline records, in order to consider the

relationship between students' experiences with different discipline resolutions and their perceptions of school climate or attitudes toward school. Statistical analyses accounted for several confounding student-level factors, including grade-level, racial identity, special education eligibility, free and reduced lunch eligibility, gender, and the number and type of discipline incidents each study participant was involved in, if any. Findings generally suggest that suspended (in- or out-of-school) students reported worse perceptions of disciplinary structure and school bonding than youth who were not disciplined, though effect sizes were small. Students with out-of-school suspensions also reported greater disengagement, whereas study participants who had a history of ISS perceived their school to be less safe. On the other hand, once covariates were taken into account, differences between students who participated in restorative practices and their non-disciplined peers were not practically meaningful nor statistically significant. These findings add to a growing body of literature suggesting that exclusionary school discipline practices are related to a range of negative outcomes, and that RP may be a promising approach to resolving rule-breaking behavior and conflict at school. Future research in this area should include measures of implementation fidelity for RP, and information about any services provided to students through ISS, in order to better assess the relationship between these growing discipline practices and students' perceptions or attitudes about school.

Notes

1. These practices are also referred to as restorative justice (RJ) and restorative interventions (RI) in other manuscripts.
2. See <https://nij.gov/funding/awards/pages/award-detail.aspx?award=2014-CK-BX-0025>, <https://www.morningsidecenter.org/news/morningside-center-selected-i3-award-advance-equity-schools>.
3. We use the term disciplinary resolution vs. disciplinary sanction since RP is not considered a form of punishment.

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Appendix: Scale Items from the Student Satisfaction Survey (SSS)

Disciplinary structure

- DISFAIR: Discipline for those who break the rules is consistent and fair
- DISKNOWRUL: I know the rules at my school
- DISBULCONS: There are consequences for bullies or people who harass others
- DISRULECON: There are consequences for students who break the rules

Student support

- ADULTHW: An adult at my school is available when I need help with my schoolwork
- ADULTPROB: If I have a problem or concern there is at least one adult in the school I feel comfortable talking to
- ADULTCARE: Most of my teachers care about how I am doing in their class
- ADULTENC: Most of my teachers encourage me to do my best
- ADULTRESP: Most of the adults who work at the school treat me with respect

School bonding

- ENJOYSCHOO: I enjoy going to school.
- HOMEWORK: My homework is valuable and relates to what I learn in class.
- APARTSCHOO: I feel like I am part of this school
- GOODED: I am getting a good education at my school

School disengagement

BORED: I am bored in school
 TRYHARD: I don't try very hard in school
 WISH: I wish I went to a different school

School safety

SAFEBATH: I feel safe in different parts of the school: Bathroom
 SAFECLASS: I feel safe in different parts of the school: Classrooms
 SAFEHALL: I feel safe in different parts of the school: Hallways

SAFECAFETE: I feel safe in different parts of the school: Cafeteria
 SAFEOUT: I feel safe in different parts of the school: Outside the school
 SAFEHOME: I sometimes stay home because I don't feel safe at school (Reverse scored)
 SAFENOADUL: I feel safe in school when adults are not around

Emotional regulation problems

EASYUPSET: I am easily upset
 ANGRY: I get angry easily