

The Roles of Suspensions for Minor Infractions and School Climate in Predicting Academic Performance Among Adolescents

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African American adolescents are grossly overrepresented in rates of school suspensions for minor disciplinary infractions; however, the consequences associated with this disciplinary practice are unknown. African American adolescents who were suspended for minor infractions may perceive school rules and adults as unfair and illegitimate, and these poor perceptions toward school may compromise their social and interpersonal resources necessary for academic success. The present study investigates: (a) whether suspensions for minor infractions predict lower school grades longitudinally, and (b) whether poor school climate perceptions mediate the longitudinal link between suspensions for minor infractions and school grades. Based on 3 years of school records and social survey data from 2,381 adolescents (35% African American, 65% White), results illustrated that more African American adolescents were suspended for minor infractions than their White peers who committed similar infractions. In addition, African American adolescents suspended for minor infractions also had lower grades 1 and 2 years later. The longitudinal relation between suspensions for minor infractions and subsequent grades was partially mediated by African American adolescents' school climate perceptions. Implications are discussed in relation to racial biases and developmentally appropriate, equitable disciplinary practices.

Public Significance Statement

The present study shows that more African American youth are suspended for minor infractions than White youth. In addition, these suspensions predicted poor school grades and school climate perceptions for African American youth. These findings raise concerns about school adults' discretion in using punitive school discipline policies and practices, as they may be contributing to academic disparities.

Keywords: academic performance, school climate, school discipline, school suspension

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Racial disparities in school discipline remain persistent features of American schools and are related to widely adopted zero-tolerance policies. Such policies mandate

predetermined punishment in response to student misbehavior, regardless of the behavior's context or rationale. Much like minimum sentencing guidelines in the criminal justice system, zero-tolerance policies have fallen under scrutiny due to punitive discipline's pervasiveness, including suspensions, among African American adolescents (American Psychological Association Zero Tolerance Task Force, 2008; Hirschfield, 2008). As such, American schools have been shifting away from zero-tolerance policies and encouraging educators' discretion when assigning disciplinary infractions (Maxime, 2018; Pigott et al., 2018); especially when transgressions are minor and nonviolent (Fabelo et al., 2011).

Unfortunately, though, implicit racial biases may be influencing educators' decision-making when it comes to disciplinary

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responses. For instance, these biases may paint teachers' views of African American students' behaviors as more troubling (Okonofua & Eberhardt, 2015), aggressive (Neal et al., 2003), or suspicious (Gilliam et al., 2016) than those of their White peers. Educators with these biases are also more likely to suspend African American students for discretionary and nonviolent infractions (Gregory & Weinstein, 2008; Raffaele Mendez & Knoff, 2003; Skiba et al., 2002). Despite advances in understanding how racially disparate school discipline can impact adolescents' academic outcomes, most studies have not differentiated their findings by the type or severity of infraction leading to a suspension. We specify the severity of the infraction to supply scientists with information regarding the psychological mechanism linking harsh school discipline and poor academic performance. For instance, adolescents may become upset if they view their suspension for a minor infraction (e.g., violation of dress codes) as unwarranted and severe. In addition, suspensions for minor infractions (i.e., minor infraction suspensions) may confirm and heighten African American adolescents' distrust and negative views toward the school climate, especially if these students are aware of negative stereotypes about their group in school (Yeager et al., 2017). After minor infraction suspensions, negative school climate perceptions may then impose barriers to students' academic learning (Wang et al., 2019). Although school climate has been proposed to mediate the link between harsh school discipline and academic performance (Skiba et al., 2014), no longitudinal study has formally tested this process. By identifying school climate as a malleable contributor to the relation between school discipline and academic performance, researchers can inform efforts to avert the negative effects of suspensions (Wang et al., 2020).

To address these gaps, we examined three years of longitudinal survey and school-record data from a sample of African American and White adolescents. School records included the number of minor infraction suspensions and students' grade point averages, while survey data assessed adolescents' school climate perceptions. We first tested whether minor infraction suspensions predicted students' academic performance longitudinally. To unpack why minor infraction suspensions predicted lower school grades, we then examined whether adolescents' perceived school climate mediated the link between minor infraction suspensions and academic performance. In particular, we tested whether adolescents who received minor infraction suspensions reported less favorable perceptions toward their school and whether their school climate perceptions in turn predicted their school grades. Using data with repeated assessments enabled us to address the developmental complexity of the longitudinal interrelations among school discipline, perceived school climate, and academic performance.

School Minor Infraction Suspensions and Academic Performance

Minor infraction suspensions are commonly used and can negatively contribute to academic outcomes (Fabelo et al., 2011; Skiba et al., 2014). In their review of extant studies, Skiba et al. (2014) found that most student suspensions were in response to nonviolent, minor infractions, and Fabelo et al. (2011) used longitudinal state-level data to show that 98% of suspensions and expulsions resulted from a discretionary infraction. Moreover, Skiba et al. (2014) proposed that minor infraction suspensions contributed to lost instruction time, dampened relationships with educators, and school alienation sentiments. Indeed, suspensions have been associated with lower academic performance over time (Arcia, 2006), a lower likelihood of on-time graduation from high school (Raffaele Mendez, 2003), and an increased likelihood of lower achievement scores and dropout (Noltemeyer et al., 2015). As such, researchers have suggested that the widespread use of minor infraction suspensions may explain the link between suspensions and poor academic outcomes (Raffaele Mendez, 2003; Skiba et al., 2014); however, this suggestion has yet to be investigated empirically.

While it is considered developmentally normative for youth to engage in minor infractions during adolescence (Blakemore, 2018; Steinberg et al., 2018), these transgressions may put students in jeopardy for suspensions. Adolescence is characterized by a heightened engagement in risk-taking behaviors, with the intention that such behaviors will result in peer group acceptance (Blakemore, 2018). Unfortunately, teachers often respond to adolescents' developmentally normative behavioral transgressions (i.e., minor infractions) with harsh punishment, as these behaviors are seen as distracting and an affront to classroom order (American Psychological Association Zero Tolerance



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Task Force, 2008). As a result, adolescents who receive official disciplinary infractions for these transgressions may develop animosity toward educators and perceive school rules as unfair (Amemiya et al., 2020). For instance, adolescents may believe that a suspension is too harsh for a minor infraction (e.g., sending a text during class), and this belief may trigger reactance and lead adolescents to question the legitimacy of school rules. In fact, a growing literature has revealed that minor infractions were associated with a higher likelihood of grade retention (Fabelo et al., 2011) and with more engagement in delinquent behaviors over time (Amemiya et al., 2020).

In addition to concerns over the appropriateness of punitive and consequential discipline for developmentally normative adolescent transgressions, African American adolescents are more likely than their White peers to be suspended for minor infractions. It may be that the racially biased interpretations of African American students' behaviors contribute to this discipline gap, particularly in schools with large African American student populations. As the proportion of African American students increases in a school, stereotypes of African American youth as criminals may become more salient among White school adults. These stereotypes can threaten White educators' perceived safety in school, erroneously leading them to take disproportionately harsh disciplinary action for nonviolent, discretionary infractions when committed by African American students (i.e., racial threat hypothesis; Welch & Payne, 2010). Prior studies have shown that even in schools with primarily African American student populations, suspensions among African American youth are disproportionate (Welch & Payne, 2010) and are issued in response to subjective infractions (e.g., loitering, excessive

noise; Fabelo et al., 2011; Skiba et al., 2002). When punitive discipline is used to address minor infractions, such as talking out of turn, students may rightfully raise questions about educators' decisions (Okonofua, Walton, & Eberhardt, 2016; Yeager et al., 2017). Indeed, African American students have reported greater racial inequity in schools where infractions are met with racially disparate discipline responses (Bottiani et al., 2017). Thus, severe discipline for minor infractions may heighten African American youth's concerns about their relationship quality with school adults and contribute to their negative school climate perceptions (Wang et al., 2020).

The Mediating Role of School Climate

Unfavorable perceptions of school climate have been well-documented among African American adolescents. School climate is a multidimensional construct comprised of the interpersonal relationships, values, and organizational structures held by school members and the school as an institution (Thapa et al., 2013). Relative to their White peers, African American youth paint a much more negative picture of school climate, including poorer relationships with educators (Voight et al., 2015), lower school belonging (Walton & Cohen, 2007), and greater perceptions that school adults treat students from different racial groups unfairly (Watkins & Aber, 2009). African American students' school climate perceptions become even more negative after the initial transition into adolescence. Specifically, these youth have reported increases in school distrust, perceived racial bias in school disciplinary decisions, and discrimination from educators across the middle school years (Hughes et al., 2017; Yeager et al., 2017).

Given that school climate is highly responsive to context and strongly tied to academic achievement (Wang et al., 2020), school climate can mediate the link between school discipline and academic performance (Skiba et al., 2014). Although researchers have not formally tested the role of school climate as a mediator, empirical studies have suggested that such a role is possible. For instance, African American adolescents who perceived that their school-issued harsher discipline for students of color than for White students were more likely to have declining trust in school as an institution (Yeager et al., 2017). Students also tend to have poor school climate perceptions after receiving a suspension, including reports of unfavorable relationships with school adults (Gregory et al., 2011; Huang & Cornell, 2018) and unfair school discipline practices (Huang & Cornell, 2018). In turn, students' poor school climate perceptions are connected to lower grades (Benner et al., 2008) and a lower likelihood of pursuing higher education (Yeager et al., 2017). To extend this literature, we position school climate as a mechanism through which minor

infraction suspensions reduce African American youth's engagement and performance in school.

Because of the racial disparity in minor infraction suspensions (Skiba et al., 2014), studies that examine the link between school discipline and academic performance are recommended to account for other race-related processes, including racial discrimination, ethnic-racial identity exploration, and school diversity (Hughes et al., 2016). Extant measures of school-based discrimination have typically aggregated items addressing interpersonal discrimination (e.g., receiving a lower grade than deserved, being called on less in class, perceiving low expectations due to race) with those addressing unfair disciplinary practices (Fisher et al., 2000; Wong et al., 2003). Moreover, youth who search for information about their racial group membership (i.e., ethnic-racial identity exploration; Phinney & Ong, 2007) are more readily able to perceive and attribute unfair treatment to discrimination (Del Toro et al., 2020). Lastly, youth who attend more racially diverse schools also report more discrimination from other perpetrators (e.g., law enforcement; Hagan et al., 2005). We accounted for these race-related processes (i.e., perceived racial discrimination from teachers, ethnic-racial identity exploration, and school diversity) to isolate the effect of minor infraction suspensions on academic performance from other forms of interpersonal discrimination.

The Present Study

In this study, we analyzed three years of longitudinal data from a sample of African American and White adolescents, including school records on disciplinary infractions, the corresponding disciplinary responses for these infractions, and each participant's grade point averages. Using these school records, we tested whether minor infraction suspensions were linked to academic performance over time. In addition, we examined whether school climate perceptions mediated the link between school suspensions and academic performance. This study advances the field's understanding of the temporal order among minor infraction suspensions, school climate, and academic performance by addressing two research questions: (1) Do minor infraction suspensions predict African American adolescents' academic performance longitudinally, and (2) do African American adolescents' school climate perceptions mediate the longitudinal link between minor infraction suspensions and their academic performance?

Because minor infraction suspensions may lead adolescents to develop more cynical views toward educators and school rules, we predicted that adolescents who received minor infraction suspensions would have lower grades 1 year later. Moreover, we postulated that adolescents' perceived school climate would mediate the link between minor infraction suspensions and school grades. That is, adolescents who received minor infraction suspensions

would report unfavorable school climates 1 year later, which in turn would predict lower grades 1 year thereafter. In addition, we examined the direction of effects among our key constructs and tested whether our results differed between African American and White youth.

Method

Our initial sample included 2,381 African American ($n = 818$) and White ($n = 1,563$) adolescents from an urban Mid-Atlantic city in the United States. However, among the 1,563 White adolescents, only .7%, .4%, and 1.2% of such youth received minor infraction suspensions in Years 1, 2, and 3, respectively. On the other hand, approximately 1-in-10 African American youth received a minor infraction suspension in Years 1 (9.7%), 2 (10.1%), and 3 (13.8%). Because they received too few minor infraction suspensions for reliable racial group comparisons, White youth's data were used for descriptive purposes and exploratory comparisons with the African American sample in regard to the pattern of results. Our final analytic sample included 818 African American adolescents ($M_{\text{age}} = 13.56$, $SD_{\text{age}} = 1.67$ at Year 1; 48.7% males; 91.9% qualified for free-priced lunch) enrolled in 12 public middle and high schools. Table 1 includes the distribution of students by gender, grade level, and school.

Supplemental Table 1 presents demographic characteristics (i.e., race, socioeconomic status, gender, grade level, and age range) by each school. Only 10% of students

Table 1
Descriptive Statistics of Key Demographic Variables for the Analytic Sample of African American Adolescents ($n = 818$)

Demographic variables	Descriptive statistics
Age: M (SD); range at Year 1	13.56 (1.67); 11–17
Gender	
%Boys	48.7
Lunch status	
%Free lunch	91.9
%Pay lunch	8.1
Grade level at Year 1 (n)	
Sixth-grade students	348
Eighth-grade students	273
Tenth-grade students	197
School (n ; racial diversity score; %student body is low-income)	
School 1 (.53; .56)	116
School 2 (.52; .56)	259
School 3 (.53; .37)	39
School 4 (.23; .78)	84
School 5 (.37; .73)	97
School 6 (.58; .69)	18
School 7 (.23; .78)	31
School 8 (.47; .79)	34
School 9 (.61; .73)	56
School 10 (.31; .80)	33
School 11 (.42; .81)	24
School 12 (.37; .73)	36

attended schools that were numerically balanced between African American and White students. The remaining 90% of students attended schools where over 60% of students identified as African American. Additionally, 51% of our students were enrolled in predominantly economically disadvantaged schools in which 69% or more of the student population were labeled as low-income by school records. The remaining 49% of our students were enrolled in schools where approximately half of the student population was labeled as economically disadvantaged. Each school was evenly distributed by gender. Our sample included nine middle schools and three high schools.

Procedure

In the fall term of the 2015–2016 academic year, all sixth-, eighth-, and tenth-grade students in each of the 12 schools were invited to participate in a longitudinal study on school engagement. These 12 schools were selected because they were rated as being some of the top schools in the nation to overly rely on exclusionary school discipline, and the school leaders were willing to work with researchers to identify potential approaches to address disciplinary issues. Thus, our sample may not be representative of this mid-Atlantic city or of other urban school districts, given our purposive sampling approach.

With assistance from the students' teachers, the research team distributed letters that described the study and opt-out forms for students and their parents. Parents who did not want their child to participate were instructed to return the opt-out form, and students reviewed study information before providing assent. Only 2% of students returned parental opt-out forms, resulting in 98% of students who were present on data collection days participating in the study. We received approval for a waiver of signed parental consent from the Institutional Review Board at the University of Pittsburgh to include all students who did not return an opt-out form. However, if caregivers denied consent at any point of the study, then their child was no longer included. Opt-out procedures were used instead of opt-in procedures in an effort to ensure that each student had the opportunity to contribute their voice to the study and that home-life situations would not bias the sample of students from whom we were able to collect parental consent (Liu et al., 2017).

Research staff then administered surveys to eligible students during instructional time. Participating students completed computer-based surveys that took approximately 45–60 min. To address potential literacy difficulties, all survey questions were audio-recorded, and students were provided with headphones to listen to the questions. At the end of each school year, school personnel provided the research team with deidentified school record data, which included students' demographic information, disciplinary data, and academic

achievement data. All study procedures were approved by the University of Pittsburgh's Institutional Review Board.

Measures

Suspensions for Minor Infractions

Data on minor infraction suspensions were obtained from school records for each academic year. Teachers entered infractions into an online system used for behavioral management purposes that recorded all infractions and their associated disciplinary responses. Minor infractions included behaviors that were prototypical of adolescents (e.g., using a cell phone or technology) or instrumental to adolescents' goals for seeking peers' approval (e.g., a dress code violation, inappropriate language, and horseplay). Infractions coded as "minor" could not be violent, a definitive marker of interpersonal problems with teachers or peers, or related to aggression, drugs, or insubordination. A comparable and well-defined coding system was developed to standardize codes of student conduct between the two participating school districts. Ultimately, we found very few inconsistencies between school districts' respective codes of conduct. This coding practice is consistent with prior studies, though most disciplinary infraction coding schemes in the literature are study-specific (e.g., Anyon et al., 2016; Bradshaw et al., 2010; Forsyth et al., 2015; for detailed rationale and validity assessment for our coding scheme of minor infractions, see the online supplemental materials).

We used a two-cycle coding process where all infractions were independently coded twice by two coders, with all disagreements being resolved by a third independent coder. The initial agreement between the two coders was 95% across all infractions before discrepancies were discussed and resolved. Because there was a restricted range and low variability in the count of minor infraction suspensions each year ($M_{\text{Year1}} = .22$, $SD_{\text{Year1}} = .84$; $M_{\text{Year2}} = .24$, $SD_{\text{Year2}} = .85$; $M_{\text{Year3}} = .18$, $SD_{\text{Year3}} = .51$), we recoded minor infraction suspensions into a binary variable that indicated whether an adolescent was ever suspended for a minor infraction within each year (0 = *never suspended for minor infraction*, 1 = *ever suspended for minor infraction*). In the present article, "minor infraction suspensions" refers to suspensions for minor infractions.

Academic Performance

Adolescents' grade point averages (GPAs; range = 0–4) were obtained from school records across each subject for each academic year of the study period.

School Climate

For each year of the 3-year study period, school climate was measured as a latent variable using the following existing well-established indicators: adolescents' perceived teacher support, school belonging, consistency and clarity of school

rules, and school fairness (see online supplemental materials for the school climate latent variable's construct, discriminant, and concurrent validity assessments). These indicators were based on extant conceptualizations and categorizations regarding the multiple dimensions of school climate (Brand et al., 2003; Thapa et al., 2013; Wang & Degol, 2016). The *teacher support* scale assessed emotional support from teachers toward students (four items; e.g., "Teachers respect students' opinions."; $\alpha_{\text{time-range}} = .85$ to $.87$; Patrick et al., 2007). The *school belonging* scale assessed adolescents' affect about and commitment to school (four items; e.g., "I feel proud to belong to this school"; $\alpha_{\text{time-range}} = .60$ to $.69$; Goodenow, 1993). Items related to the *consistency and clarity of school rules* measured the extent to which adolescents felt that school adults clearly communicated and consistently enforced school rules (four items; e.g., "If some students are acting up in class, the teacher will do something about it."; $\alpha_{\text{time-range}} = .77$ to $.82$; Brand et al., 2003). The *school fairness* scale assessed adolescents' perceptions of equitable treatment in school rules (two items; e.g., "When students break rules, they are treated fairly."; $r_{\text{time-range}} = .64$ to $.70$; Libbey, 2004). All indicators were measured using five-point Likert scales (1 = *never*, 5 = *always*). As detailed in the online supplemental materials, a series of multigroup confirmatory factor analyses suggested that the school climate latent variable met the criteria for partial scalar measurement invariance across time.

Covariates

We controlled for age, gender (0 = *girls*, 1 = *boys*), grade level, lunch status (0 = *free-priced lunch*, 1 = *pay lunch*), cohort, school racial diversity (Graham, 2016; Simpson, 1949), perceived racial discrimination from teachers at baseline (Wong et al., 2003), and ethnic-racial identity exploration at baseline (Phinney & Ong, 2007; see online supplemental materials for measurement information).

Missing Data

Among the 2,381 African American and White adolescents, 2,198 (92%) were recruited in Year 1, and 183 (8%) were recruited in Year 2. Relative to those recruited in Year 2, adolescents recruited in Year 1 had better school grades each year along with higher reports of teacher support in Year 2, school belonging in Years 2 and 3, consistency/clarity of school rules in Year 2, and school fairness in Year 2. No mean-level differences emerged between these two groups on minor infraction suspensions in any year or perceived teacher support, school rule consistency/clarity, and school fairness in Year 3. After their first participation, 1,899 (80%) students participated in all possible waves, 388 (16%) students missed one wave, and 94 (4%) missed two waves. Zero-order bivariate correlations indicated no relation between waves of missing data and adolescents' gender, but African American adolescents,

older adolescents, and adolescents enrolled in free lunch programs were less likely to participate in all three assessments than White peers, younger peers, or peers who paid for lunch, respectively.

After controlling for our covariates, partial correlations indicated that no significant relations emerged between study participation and students' grades or minor infraction suspensions at each year. In examining whether expulsions or school transfer rates contributed to our missing data patterns, we found that no participant in our sample received an expulsion and that study participation was unrelated to the likelihood of transferring each year. Overall, these dynamics reflect a frequent problem faced by research conducted with academically vulnerable student populations, as socioeconomic status predicts participation in research. To retain sample variability and diversity, we used full information maximum likelihood to handle missing data (Enders, 2001).

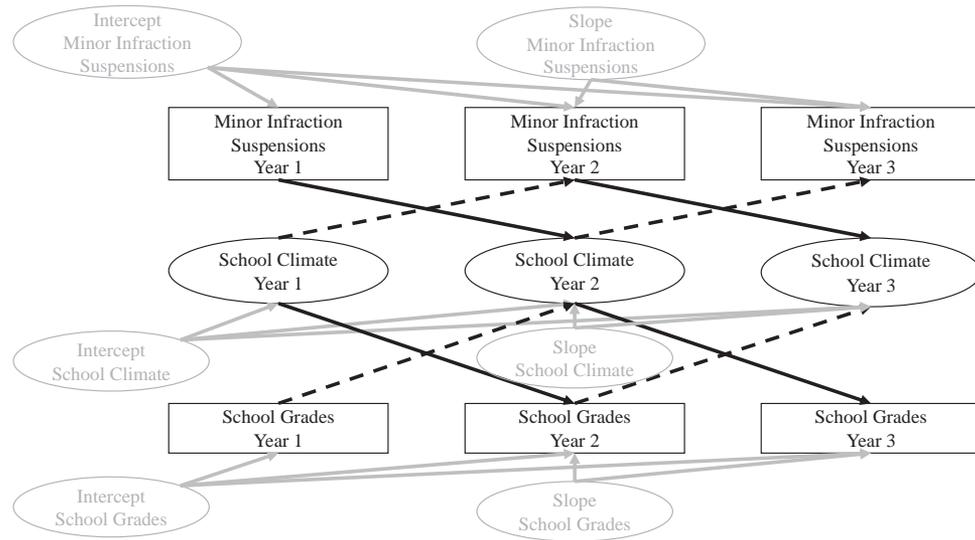
Analytic Plan

All analyses were estimated in *Mplus* Version 8.3 (Muthén & Muthén, 1998–2019) using maximum likelihood with robust standard errors and TYPE = COMPLEX to account for school clustering effects. To examine the longitudinal interrelations among key constructs, we estimated two autoregressive latent trajectories (ALTs; Bollen & Curran, 2004). Figure 1 presents a visual depiction of an ALT. Building on the traditions of cross-lagged and autoregressive path models, an ALT includes a random intercept and, if applicable, a random slope (i.e., a linear trajectory) to partial out within-person variation to assess more precise cross-lagged paths (see online supplemental materials for information on model construction). In our first ALT, we examined whether minor infraction suspensions predicted school grades longitudinally. A second ALT analysis was used to test whether school climate mediated the longitudinal interrelations between minor infraction suspensions and school grades. In all models, we tested whether school outcomes predicted minor infraction suspensions to support the direction of effects in our hypotheses. Stability coefficients, within-wave correlations, and cross-lagged paths were constrained in all models to be invariant across time for the sake of model parsimony, as these constraints did not result in a significant decrement in model fit (Kenny, 1975).

Results

Table 2 illustrates descriptive statistics for key measures by adolescents' race. During the 3-year study period, 26% of African American adolescents received at least one minor infraction suspension, whereas only 2% of White youth did. African American youth's GPAs were on average a little over a 2.5 each year, while White youth's GPAs were on average a little over a 3.0 each year. For our school climate indicators, we created binary scores to capture racial disparities in students' school climate perceptions (i.e.,

Figure 1
A Visual Depiction of an Autoregressive Latent Trajectory Analysis Examining the Longitudinal Interrelations Among Minor Infraction Suspensions, School Climates, and School Grades



Note. Solid lines indicate hypothesized significant paths; dotted lines indicate our predicted nonsignificant paths. The interrelations among latent growth factors are suppressed to ease visual representation.

percentage of youth who reported above the scale midpoint) at baseline. More White youth rated their school climates more positively than did African American youth (i.e., teacher support: 84% vs. 67%; school belonging: 80% vs. 74%; school rule consistency/clarity: 92% vs. 86%; school fairness: 78% vs. 62%, respectively). Zero-order bivariate correlations were estimated among key constructs (see Table 3) and between covariates and key constructs for African American youth (see Supplemental Table 3).

Minor Infraction Suspensions and School Grades

In Supplemental Table 4, after we controlled for covariates and school random effects, minor infraction suspensions predicted lower grades 1 year later. The model fit the data well, $\chi^2(16) = 26.50, p < .05$, root mean square error of approximation (RMSEA) .03, 90% confidence interval (CI) [.00, .05], comparative fit index (CFI) .94, standardized root mean square residual (SRMR) .10.

Table 2
Mean-Level Racial Group Differences on Key Constructs for Full Sample and by Race

Key constructs	Full sample (N = 2,381)	African American youth (n = 818)	White youth (n = 1,563)	χ^2 /independent samples t-tests
Minor infraction suspensions Year 1	4.20%	10.80%	0.70%	$\chi^2(1) = 126.70, p < .001$
Minor infraction suspensions Year 2	3.90%	10.60%	0.20%	$\chi^2(1) = 146.01, p < .001$
Minor infraction suspensions Year 3	5.80%	13.60%	1.30%	$\chi^2(1) = 157.95, p < .001$
School grades Year 1	3.11 (0.72)	2.68 (0.88)	3.30 (0.55)	$t(846) = 16.23, p < .001$
School grades Year 2	3.04 (0.82)	2.57 (0.98)	3.26 (0.61)	$t(990) = 17.22, p < .001$
School grades Year 3	2.94 (0.84)	2.51 (0.93)	3.15 (0.70)	$t(1,152) = 16.41, p < .001$
Teacher support Year 1	3.58 (0.95)	3.28 (0.96)	3.72 (0.91)	$t(2,046) = 10.19, p < .001$
Teacher support Year 2	3.43 (0.96)	3.14 (0.97)	3.58 (0.93)	$t(1,954) = 9.59, p < .001$
Teacher support Year 3	3.48 (0.92)	3.16 (0.87)	3.61 (0.91)	$t(1,034) = 9.82, p < .001$
School belonging Year 1	3.53 (0.93)	3.36 (0.88)	3.61 (0.94)	$t(2,042) = 5.69, p < .001$
School belonging Year 2	3.38 (0.92)	3.28 (0.87)	3.43 (0.94)	$t(1,385) = 3.46, p < .01$
School belonging Year 3	3.35 (0.86)	3.23 (0.79)	3.40 (0.88)	$t(1,072) = 4.05, p < .001$
Clear school rules Year 1	3.90 (0.81)	3.82 (0.86)	3.93 (0.78)	$t(1,184) = 2.75, p < .01$
Clear school rules Year 2	3.71 (0.85)	3.62 (0.86)	3.75 (0.85)	$t(1,960) = 3.23, p < .01$
Clear school rules Year 3	3.69 (0.84)	3.56 (0.85)	3.74 (0.83)	$t(1,730) = 4.30, p < .001$
School fairness Year 1	3.31 (1.01)	3.00 (1.02)	3.45 (0.97)	$t(2,049) = 9.58, p < .001$
School fairness Year 2	3.32 (1.02)	3.06 (1.00)	3.45 (1.00)	$t(1,961) = 8.19, p < .001$
School fairness Year 3	3.41 (0.95)	3.13 (0.92)	3.54 (0.94)	$t(1,730) = 8.25, p < .001$

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Table 3
Zero-Order Bivariate Correlations Among All Key Constructs for African American Adolescents ($n = 818$)

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
1. Minor infraction suspensions Y1	1																		
2. Minor infraction suspensions Y1	.30	1																	
3. Minor infraction suspensions Y3	.18	.10	1																
4. Teacher support Y1	-.08	-.16	-.03	1															
5. Teacher support Y2	-.03	-.10	.01	.45	1														
6. Teacher support Y3	-.06	-.06	-.07	.31	.40	1													
7. School belonging Y1	-.09	-.14	-.02	.46	.27	.22	1												
8. School belonging Y2	-.02	.00	.04	.24	.36	.16	.34	1											
9. School belonging Y3	-.08	-.05	-.07	.19	.25	.44	.24	.39	1										
10. Clear school rules Y1	-.10	-.14	-.01	.55	.27	.21	.38	.25	.22	1									
11. Clear school rules Y2	-.06	-.08	-.03	.40	.57	.28	.27	.28	.17	.55	1								
12. Clear school rules Y3	-.04	-.12	-.06	.30	.37	.54	.19	.21	.39	.37	.43	1							
13. School fairness Y1	-.02	-.11	-.04	.54	.32	.21	.33	.21	.14	.43	.34	.23	1						
14. School fairness Y2	.01	-.05	.02	.37	.55	.33	.17	.36	.21	.24	.42	.27	.33	1					
15. School fairness Y3	-.07	-.04	-.03	.25	.35	.56	.14	.22	.41	.22	.18	.39	.29	.29	1				
16. School grades Y1	-.27	-.18	-.13	.12	.01	.00	.03	.01	.06	.22	.09	.15	.14	.09	.10	1			
17. School grades Y2	-.23	-.19	-.11	.20	.05	.04	.06	.09	.02	.23	.08	.11	.16	.07	.06	.75	1		
18. School grades Y3	-.12	-.11	-.20	.10	.08	.14	.03	.06	.09	.07	.06	.12	.07	.01	.10	.61	.56	1	

Note. Bolded values indicate p values below .05; nonbolded values indicate p values .05 and greater. Y1 = Year 1; Y2 = Year 2; Y3 = Year 3.

The Mediating Role of School Climate

Table 4 presents parameters examining the longitudinal interrelations among minor infraction suspensions, school climate, and school grades after controlling for covariates and school random effects. African American adolescents who received at least one minor infraction suspension reported unfavorable school climates and had lower grades 1 year later. African American adolescents who had more favorable school climate perceptions had better grades 1 year later. A minor infraction suspension at Year 1 had a significant and negative total effect on grades at Year 3 ($B = -.19$, $SE = .06$, $p < .01$), with an indirect effect via Year 2 school climate ($B = -.01$, $SE = .00$, $p < .05$). The direct effect of a minor infraction suspension at Year 1 on grades at Year 3 remained significant and negative ($B = -.11$, $SE = .04$, $p < .01$), suggesting that Year 2 school climate partially mediated the link between Year 1 minor infraction suspensions and Year 3 grades. Although the effect size of a single minor infraction suspension on grades was small for the one-in-four adolescents who received a minor infraction suspension at least once ($\beta = -.21$), 13.6% of African American adolescents who received two or more minor infraction suspensions experienced a medium-to-large negative effect ($\beta = -.42$ or greater). The model fit the data well, $\chi^2(211) = 249.51$, $p < .05$, RMSEA .01, 90% CI [.00, .02], CFI .93, SRMR .13.

Sensitivity Analyses

We conducted additional analyses to support the results' robustness and validity. We first examined whether youth's poor school grades and school climate perceptions predicted minor infraction suspensions longitudinally. After controlling for our covariates and school random effects, we found that neither school climate nor grades predicted minor infraction suspensions 1 year later (see Table 4).

We next examined whether the relations between minor infraction suspensions and school grades differed between African American and White youth (see online supplemental materials). Results revealed that minor infraction suspensions predicted poor grades 1 year later for African American youth, but minor infraction suspensions were unrelated to grades 1 year later for White youth. Because so few White youth received minor infraction suspensions, this finding should be interpreted with caution.

Given the distribution of students in the sixth, eighth, and tenth grades representing early, middle, and late adolescence, respectively, we tested whether disaggregating our results by grade level at baseline revealed developmental differences. According to Supplemental Table 5, the count of minor infraction suspensions increased over time for sixth graders ($n = 17_{\text{Year 1}}$, $24_{\text{Year 2}}$, and $59_{\text{Year 3}}$), declined for eighth graders ($n = 49_{\text{Year 1}}$, $34_{\text{Year 2}}$, and $37_{\text{Year 3}}$), and stabilized for 10th graders ($n = 13_{\text{Year 1}}$, $25_{\text{Year 2}}$, and $17_{\text{Year 3}}$).

Table 4
An Autoregressive Latent Trajectory Analysis Among African American Adolescents (n = 818)

Pathway	B (SE)	β
Stability coefficients ($t \rightarrow t + 1$)		
Minor infraction suspensions Year 1 \rightarrow Minor infraction suspensions Year 2	.60 (.07)***	.52
Minor infraction suspensions Year 2 \rightarrow Minor infraction suspensions Year 3	.60 (.07)***	.55
Within-wave covariation ($t \leftrightarrow t$)		
Minor infraction suspensions Year 1 \leftrightarrow School climate Year 1	-.08 (.04)*	-.22
Minor infraction suspensions Year 2 \leftrightarrow School climate Year 2	-.08 (.04)*	-.21
Minor infraction suspensions Year 3 \leftrightarrow School climate Year 3	-.08 (.04)*	-.22
Minor infraction suspensions Year 1 \leftrightarrow School grades Year 1	-.24 (.05)***	-.42
Minor infraction suspensions Year 2 \leftrightarrow School grades Year 2	-.24 (.05)***	-.35
Minor infraction suspensions Year 3 \leftrightarrow School grades Year 3	-.24 (.05)***	-.42
School climate Year 1 \leftrightarrow School grades Year 1	.03 (.01)***	.11
School climate Year 2 \leftrightarrow School grades Year 2	.03 (.01)***	.09
School climate Year 3 \leftrightarrow School grades Year 3	.03 (.01)***	.11
Cross-lagged effects ($t \rightarrow t + 1$)		
Minor infraction suspensions Year 1 \rightarrow School climate Year 2	-.08 (.03)**	-.11
Minor infraction suspensions Year 2 \rightarrow School climate Year 3	-.08 (.03)**	-.14
School climate Year 1 \rightarrow Minor infraction suspensions Year 2	-.05 (.04)	-.03
School climate Year 2 \rightarrow Minor infraction suspensions Year 3	-.05 (.04)	-.03
School grades Year 1 \rightarrow School climate Year 2	-.02 (.03)	-.02
School grades Year 2 \rightarrow School climate Year 3	-.02 (.03)	-.02
School climate Year 1 \rightarrow School grades Year 2	.06 (.02)*	.05
School climate Year 2 \rightarrow School grades Year 3	.06 (.02)*	.05
Minor infraction suspensions Year 1 \rightarrow School grades Year 2	-.12 (.04)**	-.12
Minor infraction suspensions Year 2 \rightarrow School grades Year 3	-.12 (.04)**	-.16
School grades Year 1 \rightarrow Minor infraction suspensions Year 2	-.06 (.05)	-.04
School grades Year 2 \rightarrow Minor infraction suspensions Year 3	-.06 (.05)	-.04
Covariation between latent growth factors		
Intercept School climate \leftrightarrow Intercept School grades	.04 (.00)***	.04
Intercept School climate \leftrightarrow Slope School grades	.00 (.00)	.00
Intercept School grades \leftrightarrow Slope School grades	.00 (.00)	.00

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

However, the unequal group sizes who received minor infraction suspensions left us underpowered to reliably compare whether our final model varied across different grade levels.

In the online supplemental materials, we also examined whether our results were robust to alternative models. The major findings remained the same when we removed potential confounds (i.e., racial discrimination, ethnic-racial identity exploration, and school diversity; see Supplemental Table 6). We also explored whether gender moderated the observed relations, which it did not.

Discussion

American schools have widely adopted zero-tolerance policies and punitive disciplinary practices to maintain a safe learning environment for all students (American Psychological Association Zero Tolerance Task Force, 2008; Hirschfield, 2008). However, such practices and recent implementations of discretionary school discipline can have unintended negative consequences for youth's academic adjustment (Amemiya et al., 2020; Fabelo et al., 2011). We integrated school record and survey data to test whether minor infraction suspensions predicted lower school grades longitudinally and whether school climate perceptions

mediated the longitudinal link between minor infraction suspensions and school grades. We found that more African American adolescents received minor infraction suspensions than did White adolescents. In addition, African American adolescents who received minor infraction suspensions also had lower grades 1 and 2 years later. School climate mediated the longitudinal link between minor infraction suspensions and grades; that is, adolescents who received minor infraction suspensions also reported unfavorable school climate 1 year later, which in turn predicted lower grades 1 year thereafter.

One-in-four African American youth received at least one minor infraction suspension, whereas only 2% of White youth did. As the data were collected from schools with large African American student populations and predominantly White teachers, these findings suggest that in schools with these particular demographic settings, White educators are more likely to misinterpret African American youth's developmentally normative behaviors as nefarious, criminal, and warranting of disciplinary action (Welch & Payne, 2010). The low prevalence of minor infraction suspensions among White youth also supports the possibility that unmeasured teacher-level factors, such as racial biases, were present and contributed to the racial disparity in minor infraction suspensions. A host of studies have addressed

how White teachers' unconscious racial biases shape the frequency and intensity of disciplinary responses to African American students' innocuous behaviors (Gilliam et al., 2016; Okonofua, Walton, & Eberhardt, 2016); however, we did not directly examine teachers' racial biases. As such, our supposition regarding racial bias is speculative and should be addressed by future research.

Adolescents who received at least one minor infraction suspension also had lower grades 1 and 2 years later. This finding likely has developmental underpinnings. Adolescence is a period when youth engage in risky behaviors to elicit social rewards from peers (Wang & Degol, 2014). Given that minor misbehaviors are developmentally normative and instrumental, adolescents may not view texting a peer in class or violating a dress code as an egregious violation of school policies worthy of a suspension. Hence, when adolescents are suspended for a harmless minor infraction, they may understandably begin to view school adults and the rules they enforce as controlling and unfair. Minor infraction suspensions may also damage adolescents' trusting relationships with educators, lower students' sense of belonging in school, and result in fewer interpersonal resources found to help students perform well in school. With each of these elements representing a key facet of school climate, it should come as no surprise that students' school climate perceptions partially mediated the link between minor infraction suspensions and school grades.

As evidenced by the partial mediation effect, a minor infraction suspension predicted poorer academic performance through negative school climate perceptions that are common among African American youth. Relative to White youth, African American youth are at risk of developing belonging uncertainty in school (Walton & Cohen, 2007) and are more aware of racial biases in school disciplinary practices (Yeager et al., 2017). The fact that objective measures of minor infraction suspensions predicted decrements in adolescents' perceived school climate—including perceived consistency, clarity, and fairness in school rules—indicates that African American adolescents accurately interpret school disciplinary practices as unfair and inequitable. Consistent with racial disparities in the use of minor infraction suspensions, African American youth rated their school climate more negatively than did White youth in the present study. In turn, poor school climate has long-term implications, as it contributes to worse academic trajectories (Walton & Cohen, 2007; Wang & Degol, 2016).

Neither school climate nor grades predicted minor infraction suspensions 1 year later, which challenges the idea that student misbehavior is the impetus behind increased school suspensions or suboptimal school climate. From a deterrence perspective, proponents of punitive discipline may argue that these practices deter student misbehavior and improve school climate by removing disruptive students. If this were true, then we should have found that minor infraction suspensions

predicted positive school climates. Contrary to the deterrence theory, we found that minor infraction suspensions predicted poor school climates. In addition, school grades did not predict minor infraction suspensions 1 year later. This null relation challenges the notion that adolescents with poor grades carry individual-level traits (e.g., poor self-control and high-sensation seeking) that lead them to engage in misconduct (Moffitt et al., 2011; Steinberg et al., 2018). If this were the case, then significant bidirectional effects would have emerged between poor school grades and greater minor infraction suspensions; ultimately, they did not.

Our results remained robust, even after accounting for adolescents' perceived discrimination from teachers, ethnic-racial identity exploration, and school racial diversity. Self-reported discrimination and ethnic-racial identity exploration are proxies for youth who are attuned to racial discrimination (Del Toro et al., 2020); that is, youth who perceive more discrimination or who engage in more ethnic-racial identity exploration may attribute more unfair treatment to discrimination than their peers who are less attuned to such dynamics. In addition, students who attend more racially diverse schools may be exposed to more conflicts between racial groups (Hughes et al., 2016). Because school discipline is related to perceived discrimination and identity processes, critics may attribute our findings to youth who perceived discrimination from other perpetrators or who overly attributed unfair treatment to discrimination rather than to minor infraction suspensions per se. If this pattern were present in our data, then we would have found nonsignificant relations between minor infraction suspensions and school grades after controlling for perceived discrimination, ethnic-racial identity exploration, and school diversity. As our results remained significant, this finding suggests that the African American youth in the present study, even those who may be less attuned to racial dynamics, are negatively affected by minor infraction suspensions.

Limitations and Directions for Future Research

The present study has several limitations that can guide future research. First, self-reported school climate may not reflect actual school climates. Yet, adolescents' subjective experiences of school may be more desirable than objective measures, as these perceptions are strongly predictive of academic and psychosocial outcomes (Wang et al., 2020). Second, the study participants attended racially segregated, urban schools with stratified school discipline practices; thus, our ability to generalize results to different school contexts is limited. Third, although it remains plausible that the mediation effect identified in the present study may extend to White students, the extremely low rate of minor infraction suspensions among White youth was underpowered to validly explore racial group differences; thus, we are unable

to conclude whether the mechanism identified for African American youth will apply to other racial groups. Fourth, our assessment of youth's socioeconomic status (SES) was limited to whether youth were economically disadvantaged using enrollment in free lunch programs as a proxy. Future studies should account for other proxies of SES, such as maternal education or family income. Fifth, the increasing and declining rates of minor infraction suspensions for early and middle adolescents, respectively, support extant propositions that youth engage in more minor misbehaviors at the beginning of adolescence than at the end (Steinberg et al., 2018); however, the unequal distributions of adolescents from different grade levels who received minor infraction suspensions limited our capacity to examine whether age moderated the impact of school discipline. Thus, future research should address the question of whether age moderates the consequences of minor infraction suspensions. Sixth, some of our partnering schools did not distinguish between in-school versus out-of-school suspensions. Among the schools that did make such distinctions, the number of students who received either one in-school or out-of-school suspension was too small for reliable comparisons. Studies have shown that in-school suspensions can be as harmful to youth's academic success as out-of-school suspensions (Cholewa et al., 2018; Noltemeyer et al., 2015); thus, future research should examine whether suspension type differentially predicts students' academic outcomes. Lastly, recent research suggests that adolescents show poor academic performance when they witness a peer receive a suspension (Pearman et al., 2019; Perry & Morris, 2014). Future research should explore whether these effects exist when youth witness peers receive minor infraction suspensions.

Implications and Conclusion

Implicit, unconscious racial biases may influence educators' interpretations of African American youth's nonviolent and minor behavior as problematic (Losen, 2013; Okonofua & Eberhardt, 2015; Welch & Payne, 2010). In turn, this unintentionally biased discretion contributes to the overrepresentation of African American youth receiving minor infraction suspensions (Fabelo et al., 2011; Losen, 2013). Recently, scholars have proposed a number of strength-based and culturally responsive approaches to lower rates of discretionary discipline referrals, including increases in educators' perceptions of accountability and a reduced sense of crime-control in schools (Del Toro & Wang, 2020; Swencionis & Goff, 2017). For instance, research has demonstrated that individuals are less likely to behave in biased ways when they know their decision-making processes will be reviewed by others (Ford et al., 2004); ergo, a system in which educators are held accountable for frequent referral rates may help constrain biases that lead to inequitable disciplinary responses. School administrators can also provide educators with the training and resources to replace punitive disciplinary practices with more empathic

responses to student misbehavior. In fact, training teachers to value student perspectives and foster positive interactions with students has been found to reduce school suspension rates by approximately 50% (Okonofua, Paunesku, & Walton, 2016). These changes in practice have the potential to reduce disparities and promote greater equity in schools so as to better support African American youth's academic trajectories.

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