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Francis L. Huang & Dewey G. Cornell

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Teacher Support for Zero Tolerance Is Associated With Higher Suspension Rates and Lower Feelings of Safety

Francis L. Huang^a and Dewey G. Cornell^b

^aUniversity of Missouri; ^bUniversity of Virginia

ABSTRACT

Zero tolerance as an approach to school safety has been around for almost 3 decades. Despite widespread criticisms of zero tolerance policies, few empirical studies have investigated the relationship of zero tolerance with school safety. More generally, the Government Accountability Office report on school shootings noted the need for research on the link between school discipline and school safety. Using a statewide survey from 108,888 students and 10,990 teachers from almost all Virginia middle schools, we found that a majority of surveyed teachers (74%) supported the use of zero tolerance as an effective discipline practice. Analysis using both linear and logistic regression indicated that support for zero tolerance was associated with higher rates of out-of-school suspension. Contrary to the goals of zero tolerance, both students and teachers in schools with greater support for zero tolerance had lower feelings of safety at school, even after controlling for school and student characteristics associated with safety. These findings offer new evidence to support efforts by school psychologists to discourage the use of zero tolerance and promote more effective school discipline practices.

IMPACT STATEMENT

- Despite widespread criticism of zero tolerance policies, approximately 74% of middle school teachers in Virginia supported the use of zero tolerance as an effective disciplinary practice.
- Higher support for zero tolerance was associated with higher out-of-school student suspension rates and lower feelings of safety as reported by both students and teachers.
- Alternative disciplinary practices that advocate for the use of nonexclusionary disciplinary sanctions should consider teacher beliefs about the value of zero tolerance policies.

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REVISITING ZERO TOLERANCE AND SCHOOL SAFETY

As advocates for effective school discipline, school psychologists must deal with the widespread use of zero tolerance (National Association of School Psychologists [NASP], 2018). Zero tolerance policies were introduced to schools in the 1990s in an attempt to reduce school violence (McAndrews, 2001). Although their positions have evolved, many key education stakeholders, such as the American Federation of Teachers and the National Education Association, supported zero tolerance because of the conviction that it would send a strong message about school discipline, deter student misbehavior, and keep schools safer (Boylan & Weiser, 2002). There is no universal definition of the term, but zero tolerance generally refers to a “philosophy or policy that mandates the application of predetermined consequences, most often severe

and punitive in nature, that are intended to be applied regardless of the gravity of behavior, mitigating circumstances, or situational context” (American Psychological Association [APA] Zero Tolerance Task Force, 2008, p. 852). For example, a student caught possessing a firearm at school would automatically be expelled regardless of circumstance or prior behavioral record.

Originally introduced to reduce gun-related violence in schools, the use of zero tolerance expanded beyond firearms and illegal drugs to include both violent and non-violent infractions (Hoffman, 2014; Welch & Payne, 2018). Under a philosophy of zero tolerance that extended well beyond federal and state mandates, schools began to suspend or expel students for minor infractions such as pointing a gun drawn on a piece of paper at classmates, bringing a plastic axe to school as part of a Halloween costume, or using a cell phone at school (Skiba, 2014).¹ In Virginia, a second-grade student was suspended for playfully pointing

CONTACT Francis L. Huang  huangf@missouri.edu  Department of Educational, School, and Counseling Psychology, University of Missouri, 16 Hill Hall, Columbia, MO 65211 USA.

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a pencil at a friend and making gun noises (McNamara, 2013). Authorities justified the suspension as a reflection of the school's zero tolerance weapons policy.

An assumption of zero tolerance policies is that removing misbehaving students from school will deter others from engaging in dangerous behaviors and create a safer, more orderly school environment (Ewing, 2000; Skiba, 2014). The first question addressed by the APA's Zero Tolerance Task Force (2008) was "Have zero tolerance policies made schools safer?" (p. 853). More than a decade ago, the APA Zero Tolerance Task Force could find no scientific evidence that zero tolerance improved school climate or school safety. If zero tolerance theory is correct, schools that use this approach should have fewer students engaging in disruptive behaviors and both students and staff should feel safer. However, expert views on the validity of this assumption have moved from support to disapproval. The *School Discipline Consensus Report* (Morgan et al., 2014), which synthesized research and input on school discipline from national experts in education, behavioral health, law enforcement, and juvenile justice, called for the complete elimination of zero tolerance policies that remove discretion in the use of school suspension and expulsion. Direct tests of whether schools using zero tolerance were objectively or subjectively safer were lacking. However, the report criticized a zero tolerance philosophy as encouraging the use of harmful, strict punishment for even minor misbehavior.

NASP (2018) recommends the use of disciplinary practices that reduce the use of suspension and other forms of exclusionary discipline. Other professional organizations (e.g., American Academy of Pediatrics, 2013; APA Zero Tolerance Task Force, 2008) and civil rights groups (Losen & Skiba, 2010) take a similar position; nevertheless, zero tolerance remains a relatively understudied practice (Curran, 2016). Although a few studies have shown the association of zero tolerance with exclusionary discipline practices (e.g., Curran, 2016; Heilbrun et al., 2015; Hoffman, 2014), we found no empirical studies showing the association of zero tolerance with perceptions of safety.

Questions about the association of zero tolerance and school safety arose again after several high-profile school shootings in 2018. The White House formed a Federal Commission on School Safety (2018) to examine the causes of school violence and consider the possibility that shootings might be the result of lax school discipline. One of the more controversial conclusions of this commission was that the U.S. Department of Education should rescind the federal "Rethink School Discipline" guidance released under the prior administration because it was viewed as weakening the disciplinary standards used in schools. In particular, the guidance had encouraged schools to place

greater emphasis on positive interventions over student removal from school, which was a decisive move away from the zero tolerance approach. In response to the White House commission report, the U.S. House of Representatives directed the Government Accountability Office (GAO, 2020) to investigate whether there was a link between school shootings and school disciplinary practices. The GAO report found a dearth of research on the association between school disciplinary practices and safety in general and school shootings in particular.² The GAO report noted the need for research directly testing claims about the association between school discipline and safety.

To address this gap in the literature, we investigated how teacher support for zero tolerance was related to the use of out-of-school suspensions and perceptions of school safety using statewide survey data from teachers and students from almost all (404 out of 422 schools; 96%) Virginia middle schools.³ If zero tolerance policies were effective as a deterrent, support for zero tolerance should be related to lower suspension rates and higher feelings of school safety.

Zero Tolerance, Suspensions, and Safety

The foundations of zero tolerance policies are based on deterrence theory, which is often cited in criminology (Tomlinson, 2016). Deterrence theory is grounded on three main processes of severity, certainty, and celerity (i.e., immediacy); that is, that certain misbehaviors will be automatically and swiftly met with extreme punishments (Nagin, 2013). Theoretically, if the sanction is sufficiently severe, would-be perpetrators are discouraged from committing those offenses (Nagin, 2013). Through the use of automatic and extreme sanctions, discretion is said to be removed from the decision-making process, and this condition sends a clear message to would-be offenders. A few case studies suggested how zero tolerance policies could reduce incidents of fighting, bullying, suspensions, and expulsion (Burke & Herbert, 1996; Litke, 1996). However, "problems with fairness, impartiality, uniformity, and flexibility have caused the effectiveness, validity, and justification of zero tolerance policies to be questioned" (American Academy of Pediatrics, 2013, p. e1001).

Skiba (2000) identified exclusionary disciplinary practices (e.g., expulsions, suspensions) as the cornerstone of zero tolerance policies. Advocates of suspension and zero tolerance suggest that removing offending students from school will result in a more conducive climate where teachers can teach and students can learn (Martinez, 2009). One study of suspensions in North Carolina middle schools found that exposure to disruptive behaviors was related to

lower academic achievement for students in general; this finding was interpreted to mean that removing misbehaving students would result in improved academic achievement (Kinsler, 2013).

However, numerous studies have raised the potential negative consequences of exclusionary disciplinary practices, such as students experiencing a higher likelihood of dropping out of school, being held back a grade, or becoming involved with the law (Arcia, 2006; Costenbader & Markson, 1998; Cuellar & Markowitz, 2015; Fabelo et al., 2011; Nicholson-Crotty et al., 2009). Cuellar and Markowitz (2015) found that, rather than deterring offenders, suspending students may result in increased criminal offending behavior and double the probability of arrest. The APA Zero Tolerance Task Force (2008) indicated that suspensions and expulsions resulting from the use of zero tolerance “has not proven an effective means of improving school behavior” (p. 860).

A concern with the use of zero tolerance is that Black students are suspended at higher rates compared to White students, contributing to the racial disparities in school suspensions (Heilbrun et al., 2015). Although research over the decades has documented the differences in suspension rates between Black and White students (Huang, 2020), very few studies have actually examined the link between zero tolerance policies and racial disparities in suspensions (Curran, 2016; Heilbrun et al., 2015; Hoffman, 2014). The limited available research found that use of zero tolerance was associated with higher rates of suspension or expulsions for Black and other minority students (Curran, 2016; Hoffman, 2014).

In one diverse school district serving more than 24,000 students where the zero tolerance policies abruptly changed from one school year to the next, Hoffman (2014) conducted a study examining the use of expulsions in the years before and after the policy was implemented. The policy change expanded the list of offenses that were subject to zero tolerance, and certain offenses that had previously been dealt with at the school level now required students to be suspended for 5 days with a recommendation for expulsion. Findings of the quasi-experimental study showed that in the years after the policy changed, Black students were approximately twice as likely to be expelled (2.2% before the policy change and 4.5% expulsion rate after the policy change) compared to students of other race/ethnicities (e.g., Hispanic students had an expulsion rate of 0.8% before the policy change and 1.0% after the policy change).

Curran (2016) estimated the effect of state zero tolerance laws on suspensions, the racial discipline gaps, and student suspensions using longitudinal data (from 1989 to 2005) from the National Center for Education Statistics

and the U.S. Department of Education Office of Civil Rights. After the introduction of state zero tolerance laws, using fixed effects models, results showed a 0.5 percentage point increase in district suspension rates and no consistent decrease in problem behaviors. This approach relies on the distal effects of state laws, which must be mediated by school interpretations of the law and subjective judgments by school teachers and other staff regarding whether a student’s misbehavior constitutes a violation. Moreover, the philosophy of having no tolerance for student misbehavior and responding with punitive exclusionary measures for even minor violations could extend to infractions that are not specifically covered by the law, as was seen when the federal mandate against firearms was expanded to toy guns and to weapons that were not firearms (APA Zero Tolerance Task Force, 2008).

Predictors of Suspension and Safety

To isolate the relationship of zero tolerance with suspensions and safety, several school- and individual-level factors should be accounted for simultaneously. Skiba et al. (2014) noted that school-level factors such as racial composition at school may be even stronger predictors of suspension compared to individual-level factors. Variables such as school-level poverty and enrollment size have also been shown to be important predictors of suspensions (Gregory et al., 2011; Heilbrun et al., 2018; Ksinan et al., 2019).

In terms of student-level predictors, several studies have documented how race/ethnicity (Huang, 2020), gender (Costenbader & Markson, 1998), disability status (Ganao et al., 2013), grade point average (Gregory et al., 2010), and economic disadvantage (Fenning & Rose, 2007; Wu et al., 1982) were all associated with the likelihood of student suspensions. On average, Black students (Huang, 2020), males (Finn & Servoss, 2015), and students with disabilities (Krezmien et al., 2006) were more likely to be suspended compared to their White and female counterparts. Students from single-parent families and economically disadvantaged households were also more likely to be suspended (Hinojosa, 2008; Loveless, 2017). Finally, over and above sociodemographic variables, actual student misbehaviors such as engaging in bullying behaviors or fighting were robust and strong predictors of suspension (Huang & Cornell, 2017; Losen & Skiba, 2010).

Prior studies using middle school students have found that economically disadvantaged students (Henrich et al., 2004) and both female and younger students (Varjas et al., 2009) feel less safe at school. Compared to their White and Asian counterparts, Black and Hispanic students have also reported feeling less safe at school (Lacoe, 2015).

Experiences of individual victimization for both students and teachers (e.g., being threatened, having something stolen) should also be predictive of safety with greater victimization associated with lower feelings of safety (Berg & Cornell, 2016; Henrich et al., 2004; Lacoé, 2015). Students who were bullied reported greater feelings of distress and lower engagement (Datta et al., 2017). In addition, the presence of gangs at school has been found to predict victimization at school (Wynne & Joo, 2011). Because experiences of victimization would directly affect a teacher's or student's feelings of safety, we controlled for these experiences in the analyses. Controlling for victimization experiences is a more rigorous way to test whether support for zero tolerances is associated with greater or lesser feelings of safety. An unanswered question is how the presence of a zero tolerance approach to discipline will be associated with safety in the context of these other influences.

The Current Study

Research on zero tolerance has been limited in part because schools may not document their use of zero tolerance in written policies, even though it is embedded in the philosophy and beliefs of school staff (Curran, 2019). In Virginia, like other states, there are zero tolerance laws for firearms and controlled substances (Atkinson, 2005). These laws do not adequately reflect the extent to which a philosophy of zero tolerance is reflected in teacher decisions to respond to student misbehavior in a strict, automatic manner with school exclusion as a routine consequence. Suspension for firearms (< 1%) and controlled substances (< 2%) constitute only a small fraction of school suspensions in Virginia (Virginia Department of Education, 2018). The most common reasons for school suspension are more subjective offenses such as defiance/insubordination (14%), classroom disruption (12%), and disruptive demonstrations (11%).

There is a long history of concern about middle schools, because students in these grade levels often experience a decline in motivation and an increase in misbehavior (Schaefer et al., 2016). Zero tolerance is of particular concern in middle school, where suspension rates and racial/ethnic disparities are especially high (Ksinan et al., 2019; Losen & Skiba, 2010). In Virginia, the three grades of a traditional middle school (6–7–8) have more suspensions than the six grades of elementary school (K–5) and four grades of high school (9–12; Woolard et al., 2018). Several studies have identified student disciplinary problems in middle school as especially important in determining whether students are successful or fail and drop out of high school (Balfanz et al., 2003; Losen & Skiba, 2010).

Because zero tolerance is a philosophy of discipline that is not necessarily spelled out in formal written requirements, it is difficult to study. One alternative research strategy is to examine educator support for zero tolerance. Faced with a defiant statement or disruptive action by a student, an educator must decide whether to respond more punitively or take a more positive and educative approach. School authorities who value the concept of zero tolerance may be more likely to suspend students for misbehavior than authorities who believe in less punitive and exclusionary discipline. As noted above, most suspensions are for relatively minor infractions such as defiant and disruptive behavior that involve a subjective judgment. Therefore, the extent to which an administrator or teacher believes that zero tolerance is an appropriate and effective approach to school discipline may be a more proximal and influential factor in the everyday decisions that school authorities make about suspending a student for misbehavior.

We identified two studies of the association between attitudes toward zero tolerance and the use of school suspension. A study by Skiba and Edl (2004) found that Indiana school principals who supported zero tolerance had a higher rate of suspension than principals with a prevention orientation. A more recent study found that principal attitudes that favored a zero tolerance approach were associated with higher suspension rates for both Black and White students (Heilbrun et al., 2015). Other than a telephone survey of education stakeholders documenting teacher support for zero tolerance in 2002 (Boylan & Weiser, 2002), we found no studies of teacher attitudes toward zero tolerance. However, our preliminary analyses of Virginia middle schools (see online supplement) found that administrator support for zero tolerance (40%) was much lower than teacher support (73%). Furthermore, the correlation between administrator and teacher support for zero tolerance was just .30. These observations suggested that teacher support for zero tolerance may be an important, but heretofore overlooked, factor in school discipline research. Teacher support for zero tolerance is critical because teachers play a central role in school discipline, identifying student misbehavior, deciding that the observed infraction is serious, and referring the student to the office. Arguably, teacher support for zero tolerance is more relevant to understanding discipline practices than whether the school policy makes explicit reference to zero tolerance.

Because American education has moved toward the adoption of evidence-based practices (Cook et al., 2012), the claim that zero tolerance will improve student behavior and make schools safer should be examined. Although national organizations (e.g., NASP, APA) have issued statements about the need to find and test alternatives to zero

tolerance policies, studies of the persistence of support for zero tolerance are nonexistent. It is important to recognize the widespread support for zero tolerance among teachers because it poses a substantial barrier for school psychologists in advocating alternative forms of discipline. Zero tolerance is fundamentally inconsistent with positive behavioral approaches that school psychologists advocate, such as teaching positive behaviors over punishment of undesirable behaviors (Sugai & Simonsen, 2012), as well as programs that encourage social-emotional learning to give students alternatives to negative behavior (Greenberg et al., 2003). Teacher adherence to zero tolerance may be especially acute for restorative justice practices, which are framed as an alternative to the punitive and exclusionary approach of zero tolerance discipline (Gregory et al., 2018). However, if teachers remain invested in zero tolerance, it does not seem surprising that efforts to implement restorative discipline have “stumbled” (Gregory & Evans, 2020). From this perspective, it is important to examine the extent of support for zero tolerance and to demonstrate whether it is positively or negatively associated with disciplinary outcomes and school safety.

In our current study, we specifically asked:

- How widespread is teacher support for zero tolerance in middle schools? Does teacher support for zero tolerance differ based on teacher gender and race/ethnicity?
- Is there an association between teacher support for zero tolerance and student suspension? Is this relationship moderated by student race/ethnicity?
- Is there an association between teacher support for zero tolerance and feelings of school safety by both students and teachers?

METHODS

Data for the current study came from the Virginia Secondary School Climate Survey (Cornell et al., 2017) administered in spring 2019 as part of the annual school safety audit. Both students and teachers from 422 middle schools were invited to participate. All eligible middle schools participated in the survey, which was administered anonymously online in English and Spanish.

Participants

Survey data were collected from 118,389 students from Grades 6 to 8 and 11,276 teachers. The 100% school participation rate was achieved through the help of the Virginia Department of Criminal Justice Services, which encouraged participation.

Student Surveys

Based on principal reports of the survey process, approximately 150,000 students were invited to participate resulting in a response rate of 78% (average of 281 student observations per school). School principals were given two sampling options for students: (a) all students at the school were invited to participate or (b) at least 25 students per grade level were selected using a provided random number list tailored for each school. Approximately 58% of principals decided to use the whole school option. To account for uneven selection probabilities of students responding within schools, all analyses used normalized sampling weights computed using the inverse of the probability of selection of the student at the school divided by the mean of the weights (Hahs-Vaughn, 2005).

Completed student surveys were screened for response validity using two procedures. In the survey, students were asked: “I am telling the truth on this survey” and “How many questions on this survey did you answer truthfully?” Students who did not indicate telling the truth on either item were excluded from the analytic sample (6.1%; $n=7,312$). An additional 31 students were also excluded because they did not indicate their correct grade level. Students who also completed the survey too fast (i.e., less than 6 min; $n=157$ or 0.2%) were not included to exclude careless responders (Meade & Bartholomew, 2012). These validity screening procedures have been found to improve the overall quality of survey results (Cornell, Klein, et al., 2012; Jia et al., 2018).

The valid student sample consisted of 110,889 respondents (51% female) from sixth (32%), seventh (35%), and eighth (33%) grades. The racial and ethnic breakdown of respondents was 48% White, 15% Black, 19% Hispanic, 4% Asian, and 14% indicating some other race/ethnicity or two or more races. Forty-eight percent of respondents indicated that their parents had completed at least a 4-year college degree and 42% were eligible for free or reduced price meals (FRPM) at school, a commonly used proxy for socioeconomic status. Eleven percent of respondents were eligible for special education services

Teacher Surveys

Based on principal reports of participation, the teacher survey had an estimated response rate of 52% ($n=11,276$). Administration of the teacher survey for 2019 was complicated by the fact that the Virginia Department of Education conducted a separate staff survey with overlapping content during the same time period. Some teachers might have confused the two surveys or been less inclined to complete them both. School principals invited teachers to participate by a letter. Out of the 422 schools, there was

an average of 35 respondents per school and only one school did not return any completed teacher surveys.

Valid responses included those who indicated that they agreed that they were reading the survey carefully ($n = 11,122$ or 99%). Most valid respondents were female (77%) and respondents identified as White (81%), Black (9%), or some other race/ethnicity (10%). Approximately half of the respondents had worked at their current school for 1 to 5 years (52%), 18% for 6 to 10 years, 29% for more than 10 years, and less than 1% ($n = 71$) declined to respond.

Analytic Sample

Because the focus of the study was concerned with the level of support for zero tolerance at the school by teachers, only schools that had responses from both students and teachers were considered ($n = 421$). Additional schools were excluded if they had fewer than five teachers responding to the survey ($n = 14$), if they were considered outliers (i.e., more than 3 *SD* away from the mean) based on the main predictor of interest ($n = 2$), and if they were missing all school demographic information ($n = 1$). The final analytic sample included 404 schools out of the population of 422 eligible middle schools (96%), 108,888 student surveys, and 10,990 teacher surveys.

Measures

Students and teachers were administered the Authoritative School Climate Survey (Cornell et al., 2016). The survey included approximately 100 questions focused on school climate (such as student engagement in school) and safety conditions (such as the prevalence of bullying) as well as demographic information. However, our study was focused on teacher support for zero tolerance and both student and teacher perceptions of school safety. Students completed the survey in classrooms or computer labs under teacher supervision using a standard set of instructions. Teachers were emailed a link to the survey, which they could complete at any time while the survey window remained open. Surveys were administered online using Qualtrics software from February to mid-April. The median survey completion time was 18 min for students and 13 min for teachers.

The main predictor of interest was school-level support for zero tolerance at the school as reported by teachers. The teacher surveys asked: "I support the use of zero tolerance discipline at this school. (Zero tolerance is defined as the practice of imposing an automatic and severe punishment for any violation of a certain rule.)" Likert-scale response options ranged from 1 = *strongly disagree* to 6 = *strongly agree*. Support for zero tolerance was dichotomized using a nonarbitrary cut point (i.e., disagree vs.

agree) and responses were aggregated to the school level, which indicated the percentage of teachers who supported the use of zero tolerance.⁴

As the predictor of interest, we used a latent mean (LM) approach to obtain more reliable estimates to account for the differing number of respondents per cluster. For example, for some schools 5 teachers responded and for others more than 50 teachers responded. We used the procedure outlined by Croon and van Veldhoven (2007) where the LM is a reliability weighted composite based on the school mean and the grand mean. The reliability (λ_j) of the cluster mean (Raudenbush & Bryk, 2002) can be obtained by using the variance components and estimating:

$$\lambda_j = \frac{\tau^2}{\tau^2 + \sigma^2 / n_j}$$
 where τ^2 refers to the level 2 variance, σ^2 refers to the level 1 variance, and n_j is the number of respondents in school j . The empirical Bayes estimate of

the latent group mean was then $(1 - \lambda_j)\bar{X} + \lambda_j\bar{X}_j$, where

\bar{X} refers to the grand mean and \bar{X}_j refers to the school mean. As a result, the less reliable the estimate of the school mean resulting from a limited number of informants, the LM would then place a greater weight on the overall mean and vice versa ($M = 74$, range 58–87).

Teacher Safety

Teachers were asked: "I feel physically safe at this school." Response options ranged from 1 = *strongly disagree* to 6 = *strongly agree*. Responses were dichotomized to indicate that the staff agreed (1) or disagreed (0) with feeling safe at school ($M = 89.6\%$).

Student Safety

Students were asked: "I feel safe in this school." Response options included *strongly disagree*, *disagree*, *agree*, and *strongly agree*. Results were dichotomized to indicate whether the student felt safe (1) or not (0; $M = 78.9\%$).

Student Suspension

The survey asked: "How many days have you been suspended out of school this year?" Response options included: "I have not been suspended from school this year," "I have been suspended for 1 day," "I have been suspended for 2 days," "I have been suspended for 3 days," "I have been suspended for 4 days," and "I have been suspended for 5 or more days." Students who were suspended at least one or more days received a 1 and those who were not suspended received a 0 for the outcome ($M = 7.0\%$), similar to what is done with national surveys such as the Youth Risk Behavioral Surveillance System (Centers for Disease Control & Prevention, 2015).

In addition to student-reported suspension, school administrative records (for the whole school year) were used to calculate the overall school short-term suspension rates (suspended out of school for 1 to 10 days). The correlation between computed school-level suspension rates using individual student reports and the school-level suspension rates based on administrative records was .85. A few schools ($n=7$) did not report administrative data for suspensions, so school-level suspension rates computed from the student-reported data for these schools were used instead.

Staff Victimization Index

Five survey items asked: “A student stole or damaged my personal property,” “A student threatened to harm me,” “A student physically attacked, pushed, or hit me,” “A student said rude or insulting things to me,” and “A student threatened me with a weapon.” Response options included 0 = *no*, 1 = *one time*, 2 = *more than once*, and 3 = *many times*. The items were summed to create an overall victimization index ($M=2.24$, $SD=2.22$, range = 0–15).

Student Victimization Index

Three survey items asked: “A student stole my personal property,” “A student physical attacked, pushed, or hit me,” “A student threatened to hurt me.” Response options were the same as in the staff survey and items were also summed to create an overall victimization index ($M=2.02$, $SD=2.33$, range = 0–9).

Fights

Students were asked: “During the past 12 months, how many times were you in a physical fight on school property?” Response options included 0 times (80.3%), 1 time (10.0%), 2 or 3 times (5.8%), 4 or 5 times (1.6%), 6 or 7 times (0.6%), 8 or 9 times (0.4%), 10 or 11 times (0.2%), and 12 or more times (1.2%). For the current analysis, the variable was dichotomized to indicate whether the student had been in one or more fights at school (1) or not (0).

Bullying Behavior

After being shown a general definition of bullying, students were asked whether they had bullied another student at school this year with response options of never (87.2%), once or twice (10.5%), about once per week (1.0%), and more than once per week (1.2%). For the current study, bullies were those who engaged in the activity at least one or more times (because students may be suspended for any bullying behavior).

Bullying Victimization

Students were asked: “I have been bullied at school this year (since school started in the fall).” Response options included never, once or twice, about once per week, and more than once per week. If a student had experienced any sort of bullying, victimization = 1. If not, victimization = 0 ($M=29.7\%$).

Grade Point Average

A survey item asked, “What grades did you make on your last report card?” The seven response options ranged from 1 (*mostly A's*) to 7 (*mostly D's and F's*). Student responses were recoded to approximate the standard 4-point metric for grade point average ($M=3.24$, $SD=0.76$). Students with mostly A's were scored as 4; mostly A's and B's; 3.5, mostly B's; 3; and so on, with a response of mostly D's and F's scored as a 1.

Gangs

Both students and staff were asked:

Now we'd like to know about gangs at your school this year. You may know these as street gangs, fighting gangs, crews, or something else. Gangs may use common names, signs, symbols, or colors. For this survey we are interested in all gangs. Have gangs caused problems at your school this year (such as fights or sale of drugs)?

Response options were yes, no, and don't know. Results were dichotomized to yes (1) and no/don't know (0). Five percent of teachers and 11.5% of students indicated that gangs had caused problems at their school.

Student Demographics

Student demographic information (as described in the Participants section) included sex, race, eligibility for special education services, eligibility for FRPM, and highest level of parental education. Students were also asked whether they lived with their biological or adoptive parents, and 78% lived with two parents, 20% lived with one parent, and 2% did not live with their parents.

Teacher Demographics

Staff demographic information included gender, race, and number of years working at the school. In order to protect anonymity, additional demographic information was not collected.

School-Level Covariates

At the school level, the following controls were included: the percentage of students eligible for FRPM ($M=43.25$, $SD=18.40$), the percentage of minority students enrolled

($M = 43.75$, $SD = 27.40$), and enrollment size (in hundreds of students; $M = 7.56$, $SD = 4.42$). Of the schools, 20% were in urban areas, 31% were in suburban areas, 11% were in towns, and 39% were in rural areas.

Analytic Strategy

To address our research questions, we conducted our analysis over four phases. In the first phase, teacher support for zero tolerance was compared by gender and race/ethnicity using linear regression models with cluster robust standard errors. Next, using school-level variables, we investigated the prevalence of the support for zero tolerance and its relationship with teacher and student perceptions of school safety and suspensions using bivariate correlations. Results are also shown visually with scatterplots and histograms.

Next, still using school-level variables, we used two linear regression models to predict Black and White suspension rates separately with support for zero tolerance as the predictor of interest while controlling for school-level characteristics (i.e., percentage Black students enrolled, enrollment size, urbanicity, poverty, percentage English language learners, percentage eligible for special education). Because we were interested in potential racial disparities, we limited our analyses to schools with at least 30 Black and 30 White students (approximately 10 per grade level) to have a sample with some amount of diversity. Regression diagnostics were conducted and heteroscedasticity consistent standard errors were used.

Finally, a series of logistic regression models were run with student (suspensions and safety) and teacher (safety) outcomes. Both student- and school-level predictors were included in the model and cluster robust standard errors were used to account for the nesting of observations within schools. Results are shown using the commonly used odds ratios (ORs), with ORs > 1 indicating a greater likelihood of an outcome and ORs < 1 indicating lower odds. Linear probability models gauged differences in terms of percentage points.

For student suspensions as the outcome, in addition to including student- and school-level demographic variables, we included student misbehaviors that were likely to result in suspensions (i.e., fighting, bullying). For feelings of safety, for the student model, we included individual-level victimization variables (i.e., bullied by student, victimization index) and a contextual variable (i.e., gangs have caused problems at school). For teacher safety, the models included the individual-level victimization index and whether gangs caused problems at school. In addition, the teacher's individual-level support for zero tolerance was included.

For all of the logistic regression models, the main predictor of interest was the school-aggregated teacher

support for zero tolerance. Including the school-level support for zero tolerance allows us to investigate whether support for zero tolerance is associated with the outcomes of interest, over and above the other variables already included in the model. To investigate a differential relationship of zero tolerance and suspensions, interactions with student race were tested.

RESULTS

Overall, 73.8% of teachers in our sample supported the use of zero tolerance. The difference in the support for zero tolerance by gender was not statistically significant (ZT Support_{MALE} = 73.7 vs. ZT Support_{FEMALE} = 73.8). Based on race/ethnicity, Black teachers had slightly higher support for zero tolerance (ZT Support_{BLACK} = 75.05) compared to both White teachers and teachers of other races/ethnicities (ZT Support_{WHITE} = 73.69, ZT Support_{OTHER} = 73.33; $ps < .01$). The difference between White and teachers of other races/ethnicities was not statistically significant.

School-level aggregates for support for zero tolerance, suspension rates (based on administrative data), and perceptions of safety at school (for both students and teachers) were created. Of the 404 schools, one outlier school had reported suspension rates that were above 60% (the next closest schools had suspension rates $\sim 30\%$) and was excluded from the visual analysis ($n = 403$). Based on the school-level aggregates (see Table 1 for descriptives), 73.7% (range 58.3–86.8) of teachers supported the use of zero tolerance⁵ and a majority of teachers felt physically safe at school ($M = 89.4$, range 0.14–1). The school average suspension rate was 9.2% (range 0%–37.1%) and 79.4% (range 39%–100%) of students felt safe at school.

We visually examined the relations among variables using scatterplots and histograms (see Figure 1). Correlation coefficients (all $ps < .01$) indicated that schools with higher levels of support for zero tolerance had higher suspension rates ($r = .26$) and lower feelings of safety as reported by teachers ($r = -.13$) and students ($r = -.27$). In addition, higher suspension rates were associated with lower feelings of safety by both teachers and students ($rs = -.49$ and $-.62$, respectively). Additional school-level tests were conducted using a more limited sample of administrators from 232 schools. In addition, analyses were repeated using the full continuous 6-point scale for teacher support for zero tolerance. Supplementary results can be found in the online appendix and results did not differ substantively.

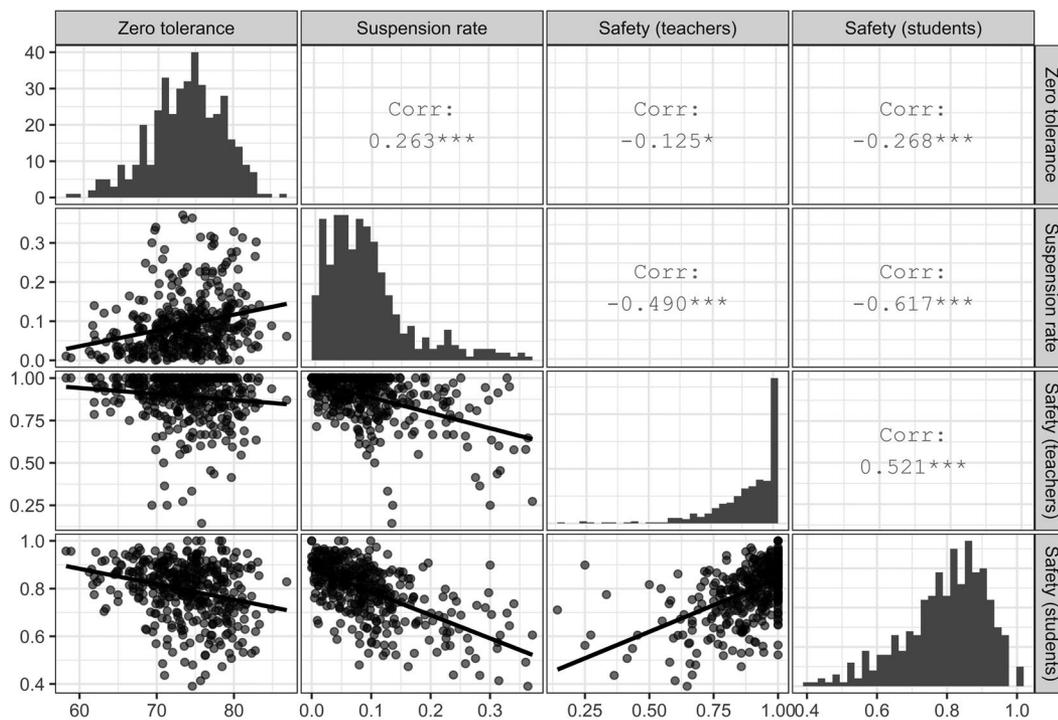
Another way to view the relationship of the variables was to create deciles based on the support for zero tolerance and investigate the mean feelings of safety and suspension rates per group based on the student-reported data (see Figure 2). Visually, the lowest levels of support

Table 1. School-Level Descriptives in Analytic Sample Comparing Black and White Suspension Rates

Variable	Sample for Visual and Correlational Analysis (<i>n</i> = 403)		Sample for School Suspension Rate Analysis (<i>n</i> = 288)	
	<i>M</i> (<i>SD</i>)	<i>N</i> (%)	<i>M</i> (<i>SD</i>)	<i>N</i> (%)
Overall suspension rate ^a	0.09 (0.07)		0.10 (0.07)	
Black suspension rate	0.14 (0.11)		0.15 (0.10)	
White suspension rate	0.06 (0.05)		0.06 (0.05)	
Support for zero tolerance	73.74 (4.87)		73.87 (4.98)	
Percentage Black students enrolled	21.95 (22.79)		26.74 (20.48)	
School size (in hundreds)	7.56 (4.42)		8.86 (4.44)	
Urbanicity				
Urban		79 (19.6)		70 (24.3)
Suburban		124 (30.8)		113 (39.2)
Town		45 (11.2)		19 (6.6)
Rural		155 (38.5)		86 (29.9)
Percentage ELL	8.83 (12.98)		11.23 (14.34)	
Percentage eligible for FRPM	45.15 (18.33)		42.87 (18.45)	
Percentage eligible for SPED	14.01 (3.48)		13.71 (3.20)	

Note. ELL = English language learners; FRPM = free or reduced price meals; SPED = special education services.

^aRates are averages of school-level rates.

Figure 1. Relationship of Support for Zero Tolerance, Suspension Rates, and Perceptions of Safety (*n* = 403 Schools)

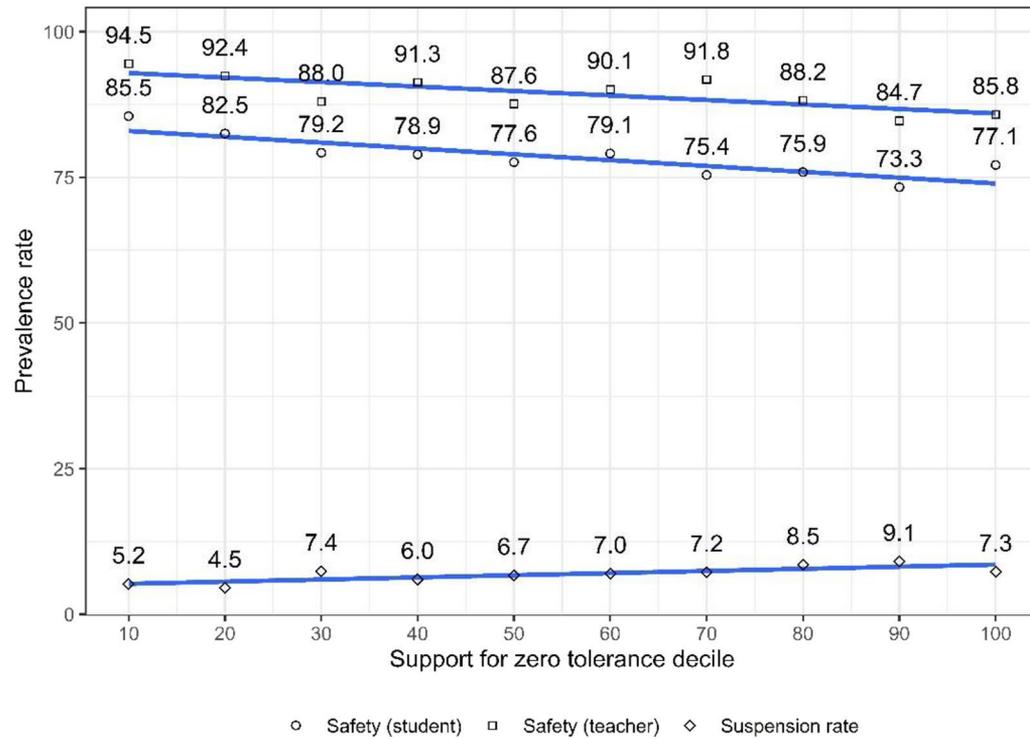
for zero tolerance were related to higher levels of safety (by both students and teachers) and lower suspension rates. However, as an initial step, these results do not account for the individual- and school-level factors that may explain variations in suspensions or feelings of safety.

Regressions Predicting School-Level Suspension Rates

In comparing how well support for zero tolerance predicted Black and White suspension rates, we limited the analyses

to 288 schools that had some level of racial diversity (see Table 1 for school-level descriptives). Within this sample, the Black student suspension rate was 15% compared to the White student suspension rate of 6% ($r = .73$).

Regression results (see Table 2) indicated that support for zero tolerance was associated with a higher suspension rate for Black ($B = 0.22, p < .05$) and White ($B = 0.10, p < .05$) students, controlling for all other variables in the model. For every 10-point increase in support for zero tolerance, within the same schools, suspension rates for Black students were 2.2 percentage points higher (i.e.,

Figure 2. Relationship of Support for Zero Tolerance and Feelings of Safety and Suspension Rates by Decile ($n = 403$ Schools)**Table 2.** Linear Regressions Predicting School-Level Suspension Rates ($n = 288$ Schools)

	Black Suspension Rate	White Suspension Rate
Support for zero tolerance	0.222* (0.094)	0.104* (0.046)
% Black enrollment	0.139*** (0.030)	0.032* (0.015)
Enrollment size (in hundreds)	-0.063 (0.115)	-0.054 (0.057)
% Eligible for FRPM	0.144*** (0.040)	0.111*** (0.020)
Suburban ^a	-2.231 (1.224)	0.037 (0.601)
Town ^a	-3.256 (1.959)	0.924 (0.962)
Rural ^a	-2.332 (1.244)	0.798 (0.611)
% English language learners	-0.107* (0.042)	-0.053* (0.021)
% Eligible for SPED services	0.265 (0.151)	0.093 (0.074)
Constant	-4.732 (7.396)	-2.313 (3.632)
R^2	.45	.45

Note. FRPM = free or reduced price meals; SPED = special education.

^aUrban is the reference group. Robust standard errors within parentheses.

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

0.22×10) compared to around 1.0 percentage point higher for White students (i.e., 0.10×10). Descriptively, support for zero tolerance was a stronger predictor of Black than White suspension rates. Regression diagnostics were conducted and studentized residuals were visually inspected. Residuals were approximately normally distributed with a skewness for both models not

exceeding 0.60, well below suggested thresholds provided by Lomax and Hahs-Vaughn (2012). Variance inflation factors and influence statistics (e.g., Cook's distance) did not indicate any problematic observations. Interactions between support for zero tolerance and the percentage of Black student enrollment were nonsignificant (not shown).

Predicting Suspensions

The results of the logistic regression model (see Table 3), which allows for the inclusion of several covariates known to predict suspensions, indicated that support for zero tolerance at the school level was associated with a higher likelihood of suspensions ($OR = 1.02, p = .01$). The effect is relatively small compared to the other predictors in the model (e.g., fighting). In terms of probabilities, a 10 percentage point change in support for zero tolerance was associated with around a 0.7 percentage point change in the likelihood of suspension, on average. However, what is notable is that the OR is >1 , which indicates that more support for zero tolerance was associated with a higher rather than lower suspension rate. An additional model tested the interaction of support for zero tolerance and race and the interaction terms were not statistically significant (not shown). These results suggest that zero tolerance was not differentially associated with increased suspensions based on race.

Predicting Student Safety

Similar to the results presented using simple correlations, the logistic regression model (see Table 4) predicting student safety showed that increased support for zero tolerance was associated with a lower likelihood of feeling safe at school ($OR = 0.97, p < .001$), controlling for all other variables in the model. A 1-point increase in support for

zero tolerance was associated with lower odds of feeling safe by a factor of 0.97. In terms of probabilities, a 10 percentage point increase in support for zero tolerance was associated with approximately a 4 percentage point reduction in feeling safe at school.

Predicting Teacher Safety

With regard to teachers feeling physically safe at school, two zero tolerance variables were included in the logistic regression models: a school-level aggregate and the individual level of support of the teacher for zero tolerance. In the regression models (see Table 5), both school- and teacher-level variables predicted safety, over and above all of the other variables included in the model. At the school level, $OR = 0.97, p < .05$, and at the teacher level, $OR = 0.77, p < .01$. A 10 percentage point increase in support for zero tolerance at the school level translates into approximately 2 percentage points of lower feelings of safety. Both school- and individual-level results indicate that support for zero tolerance was associated with lower feelings of safety at the school.

DISCUSSION

In response to our first research question, we found that the majority (74%) of middle school teachers across a large statewide sample support a zero tolerance approach to

Table 3. Logistic Regression Results Using ORs and Confidence Intervals Predicting Student-Reported Suspension ($n = 108,888$ Students)

Variable	OR	95% CI
School level		
Support for zero tolerance	1.02*	(1.00, 1.04)
School size	0.97*	(0.94, 0.99)
% Eligible for FRPM	1.01*	(1.00, 1.01)
% Minority	1.00	(1.00, 1.01)
Suburban ^a	0.71**	(0.57, 0.88)
Town ^a	0.77*	(0.62, 0.96)
Rural ^a	0.75**	(0.61, 0.92)
Student level		
Male	1.31***	(1.19, 1.45)
Eligible for SPED	1.60***	(1.43, 1.79)
Race: Asian ^b	0.79	(0.47, 1.35)
Race: Black ^a	1.84***	(1.56, 2.17)
Race: Hispanic ^a	1.53***	(1.33, 1.77)
Race: Other ^a	1.40***	(1.19, 1.64)
Grade point average	0.60***	(0.57, 0.63)
Parental education	0.94**	(0.90, 0.98)
Eligible for FRPM	1.22***	(1.10, 1.37)
Living with no parents ^c	1.92***	(1.54, 2.39)
Living with one parent ^c	1.29***	(1.17, 1.43)
Grade 7 ^d	1.13	(1.00, 1.29)
Grade 8 ^d	1.36***	(1.18, 1.56)
Bullied others	1.99***	(1.66, 2.39)
Got into a fight	8.85***	(7.97, 9.83)

Note. Cluster robust standard errors used. CI = confidence interval; FRPM = free or reduced priced meals; SPED = special education.

^aReference group is urban. ^bReference group is White. ^cReference group is living with both parents. ^dReference group is Grade 6.

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

Table 4. Logistic Regression Results Using ORs and Confidence Intervals Predicting Student Safety ($n = 108,888$ Students)

Variable	OR	95% CI
School level		
Support for zero tolerance	0.97***	(0.96, 0.98)
School size	1.00	(0.99, 1.02)
% Eligible for FRPM	0.99***	(0.99, 0.99)
% Minority	0.99***	(0.99, 1.00)
Suburban ^a	0.98	(0.84, 1.14)
Town ^a	1.11	(0.91, 1.32)
Rural ^a	0.99	(0.83, 1.17)
Student level		
Male	1.44***	(1.35, 1.54)
Eligible for SPED	1.10*	(1.02, 1.22)
Race: Asian ^b	1.19	(0.98, 1.43)
Race: Black ^b	0.80***	(0.73, 0.87)
Race: Hispanic ^b	0.89*	(0.81, 0.97)
Race: Other ^b	0.80***	(0.73, 0.88)
Grade point average	1.17***	(1.11, 1.20)
Parental education	0.98	(0.96, 1.02)
Eligible for FRPM	1.18***	(1.09, 1.27)
Living with no parents ^c	0.79**	(0.68, 0.93)
Living with one parent ^c	0.93*	(0.86, 1.00)
Grade 7 ^d	0.75***	(0.69, 0.82)
Grade 8 ^d	0.61***	(0.56, 0.67)
Bullied by student	0.67***	(0.56, 0.66)
Victimization index	0.80***	(0.79, 0.81)
Gang presence	0.47***	(0.43, 0.51)

Note. Cluster robust standard errors used. CI = confidence interval; FRPM = free or reduced priced meals; SPED = special education.

^aReference group is urban. ^bReference group is White. ^cReference group is living with both parents. ^dReference group is Grade 6.

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

Table 5. Logistic Regression Results Using ORs and Confidence Intervals Predicting Teacher Safety ($n = 10,990$ Teachers)

Variable	OR	95% CI
School level		
Support for zero tolerance	0.97*	(0.95, 0.99)
School size	0.99	(0.96, 1.02)
% Eligible for FRPM	0.99**	(0.98, 1.00)
% Minority	1.00	(0.99, 1.00)
Suburban ^a	1.09	(0.80, 1.47)
Town ^a	1.45	(0.91, 2.31)
Rural ^a	1.11	(0.81, 1.53)
Teacher level		
Support for zero tolerance	0.77**	(0.66, 0.91)
Race: Black ^b	1.04	(0.79, 1.37)
Race: Other ^b	0.89	(0.71, 1.13)
Female	0.51***	(0.42, 0.62)
Experience: 5–10 years ^c	0.86	(0.70, 1.07)
Experience: 10+ years ^c	0.80*	(0.68, 0.95)
Experience: not indicated ^c	0.57	(0.27, 1.20)
Gang presence	0.42***	(0.34, 0.53)
Victimization index	0.64***	(0.62, 0.66)

Note. Cluster robust standard errors used. CI = confidence interval; FRPM = free or reduced priced meals.

^aReference group is urban. ^bReference group is White. ^cReference group is working at school for 1–5 years.

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

school discipline. This widespread support may seem surprising in light of the many professional organizations and advocacy groups, including the National Education Association (Boccanfuso & Kuhfeld, 2011; National Education Association, 2020), that have rejected zero tolerance and its associated practices of exclusionary discipline in recent years. Nevertheless, teachers are the frontline

professionals who identify student misbehavior and decide when it rises to the level of an office referral for disciplinary action. School psychologists as well as researchers in the field of school discipline should be aware of the strong support for zero tolerance among middle school teachers.

Teacher support for zero tolerance is important to recognize because it represents a substantial barrier to school

reform and improvement. Almost 2 decades ago, a survey of the American Federation of Teachers and the National Education Association indicated that teachers were the biggest supporters of zero tolerance and indicated the need for better teacher training to help teachers manage their classrooms with students who have a range of behavioral needs (Boylan & Weiser, 2002). Now that most professional organizations have moved away from support for zero tolerance, there may be a disconnect between those organizations and their teacher constituents.

Teacher support for zero tolerance stands in contrast to calls to reform school discipline and use approaches that are antithetical to zero tolerance such as restorative practices (Gregory et al., 2018) and positive behavioral interventions and supports (Morgan et al., 2014). Alternatives to suspensions that are more supportive compared to “get tough” approaches are often not well received by parents and teachers (Collier et al., 2019). Supportive approaches have been criticized as a weak approach to student misbehavior that produces an unsafe school environment (Stern, 2016). This allegation was raised again by the White House Federal Commission on School Safety (2018), although the subsequent GAO (2020) report for Congress did not find scientific support for it. Nevertheless, school psychologists cannot expect their schools to adopt practices such as restorative discipline that are contrary to zero tolerance if their teachers continue to believe that zero tolerance is an effective practice that keeps them safe.

Teacher support for zero tolerance also poses a barrier to longstanding efforts to reform middle schools (Schaefer et al., 2016). Students often show an increase in misbehavior and a decline in engagement in middle school (Busteed, 2013). Furthermore, problems in middle school are linked to academic difficulties and eventual dropout in high school (Balfanz et al., 2003). One conclusion from this study is that school psychologists should pay more attention to teacher beliefs about school discipline and safety that could conflict with the programs and changes they want to initiate. Teacher support for a zero tolerance approach could undermine the implementation fidelity of programs that stress a more tolerant approach to student behavior.

Ironically, Virginia was the first state to require student threat assessment as a violence prevention strategy in its public schools (Cornell & Maeng, 2018). Threat assessment is intended to provide schools with an alternative to a zero tolerance approach because it explicitly does not treat all threats the same and emphasizes a careful assessment of the circumstances and seriousness of the student's behavior (O'Toole, 2009). The threat assessment model developed in Virginia (Cornell, 2018) explicitly discourages the use of exclusionary discipline in favor of a less punitive approach. Several controlled studies have found

that schools using this model make comparatively little use of school suspension for students identified as making threats (Cornell, Allen, et al., 2012; Cornell et al., 2018; Nekvasil & Cornell, 2015). However, threat assessments are only conducted when a student is identified as making a threat; fewer than 2,000 Virginia middle school students received a threat assessment for threatening to harm another person during the 2017–2018 school year compared to more than 23,000 Virginia middle schoolers who were suspended for a wide variety of offenses (Cornell & Maeng, 2020).

Suspension Rates

In response to our second research question, teacher support for zero tolerance was associated with higher school-level suspension rates for both Black and White students using school records. Although the correlations were small, they contributed to the higher suspension rates beyond the contributions made by other correlates, including the demographic composition of the student body. Teacher support for zero tolerance was also associated with suspension levels at the student level using student self-reports. Thus, the effect was found using two independent measures of school suspension. One advantage of the student self-report measure was that it permitted analysis of a variety of individual-level as well as school-level factors not usually considered in studies of school suspension. Support for zero tolerance is associated with a small increase in suspension rates beyond the contributions of school-level factors that included school size, the percentage of low-income students, percentage of minority students, and whether the school was located in an urban, suburban, town, or rural location. Notably, suspension rates were consistently higher in urban middle schools than schools in other locations, with only small contributions by school size and the percentage of low-income students in the school and no association with the percentage of minority students.

Many student-level characteristics were associated with suspension. As previous studies have shown, students who are male, in special education, from low-income families, of Hispanic background, or identified as Black or another race (other than Asian) were suspended at higher rates (Ksinan et al., 2019). In addition, our study found that students with lower academic grades, lower parental education, and living with one or fewer parents were also at increased risk of suspension. All of these factors might plausibly be interpreted as indicating a social or educational disadvantage. The strongest predictors of suspension, however, were the student's self-report of bullying others and getting into a fight, which are behaviors under the student's control.

Remarkably, despite the inclusion of all of these factors, the extent of teacher support for zero tolerance still increased the likelihood that a student would be suspended. In other words, the zero tolerance assumption that suspending a few students will have specific and general deterrence effects was not supported. On the contrary, other studies have found that students who are suspended are more likely to misbehave and get suspended again, steadily increasing the risk for further academic decline and dropout (Noltemeyer et al., 2015).

Perceptions of Safety

Our third research question focused on the association of support for zero tolerance with perceptions of safety. Although teachers believe that zero tolerance is important to safety, our results indicated a small relationship in the opposite direction. Schools with the strongest support for zero tolerance were perceived as less safe than schools with lower support for zero tolerance. These findings were consistent for both teacher and student reports of whether they felt safe in their school. For students, there were some experiences that would understandably reduce feelings of safety, such as being bullied or victimized in some other way by peers or being in a school with gangs. Students with disadvantages of being a racial minority (other than Asian), Hispanic, from a lower income family, and living with fewer than two parents were more likely to feel unsafe, too. Not surprising, male students were less likely to report feeling unsafe than female students, which may be due in part to sex differences in willingness to admit vulnerability. Curiously, students in special education and students with higher grade point averages were more likely to report feeling safe, which are findings that need more investigation.

For teachers, support for zero tolerance at both the individual and school levels was associated with feeling less safe, even with other relevant factors controlled. The strongest ORs contributing to feeling less safe were being female, working in a school with gang activity, and being a victim of student aggression. More experienced teachers felt less safe at school than new teachers, perhaps because their longer length of service meant that they were more likely to have had personal experiences of victimization or observed incidents that undermined their feelings of safety.

Limitations

Several limitations should be considered when interpreting study findings. First, this is a correlational and cross-sectional study that cannot demonstrate causal effects. A longitudinal study could better assess whether

changes in support for zero tolerance were associated with subsequent changes in suspension rates and feelings of safety or vice versa. Prior studies that have investigated zero tolerance took advantage of abrupt or sudden changes in school/state policies to approximate the effect of increasing support of zero tolerance (Curran, 2016; Hoffman, 2014). A more rigorous test would be to conduct a randomized controlled study that implemented an increase or decrease in zero tolerance practices and then observed the impact on suspension rates and feelings of safety.

Second, it is possible that support for zero tolerance, suspension rates, and feelings of safety influence one another in some kind of feedback loop. However, such a feedback loop would run contrary to the expectations of zero tolerance advocates. Support for zero tolerance rests largely on the conviction that this policy will improve student behavior, which should reduce the need for suspension and increase feelings of safety; on the contrary, the results of this study are in the opposite direction and suggest that zero tolerance is not effective. For example, if teachers perceive their school to be unsafe, they might shift toward a zero tolerance approach that increases the rate of student suspensions but does not make the school safer and ironically may lead to even higher rates of student misbehavior that make the school less safe, and this could prompt teachers to further strengthen their support for zero tolerance.

Finally, even though we had a large data set from the Commonwealth of Virginia, we are unsure of how findings may generalize to other states across the country. The support for zero tolerance in other areas of the country may be influenced by factors such as prior events (e.g., school shootings) or statewide policies/mandates.

CONCLUSIONS

Under the NASP (2020) professional standards adopted in May 2020, school psychologists have an obligation to support and advocate for school-wide practices that promote learning (Domain 5), which includes policies and practices that support effective discipline. School psychologists can incorporate evidence-based strategies into their consultation services and contribute to school improvement plans and efforts to maintain a positive school climate. School psychologists must be aware that efforts to improve middle schools may be impeded if teachers have a fundamental belief in zero tolerance that is contrary to the reforms they want to institute and could undermine their acceptance and adoption. Efforts to implement restorative practices and encourage positive behavior in students might benefit from explicit attention to teacher attitudes toward zero tolerance. School psychologists involved with school-wide efforts to improve school discipline should recognize that

teachers may hold empirically unsupported beliefs about the value of zero tolerance as a safety practice. School psychologists should provide education and consultation on effective school discipline and the limitations of the zero tolerance approach. When suitable occasions arise, school psychologists should engage teachers in a constructive discussion of zero tolerance and associated practices of harsh exclusionary discipline.

NOTES

1. For examples of other minor offenses, see Skiba and Peterson (1999).
2. The GAO (2020) reported that school shootings were so rare that a study linking school discipline to shootings did not exist but that studies of school discipline and safety would be more practical.
3. A more limited set of analysis based on 380 administrator responses from 232 schools is included in the online appendix.
4. The continuous version of the variable is analyzed in the online appendix.
5. The number is slightly different (by 0.1) as a result of using school-level means compared to individual-level means because one is a mean of the aggregates.

DISCLOSURE

Dewey Cornell discloses that he is the principal developer of the Comprehensive School Threat Assessment Guidelines.

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AUTHOR BIOGRAPHICAL STATEMENTS

Francis L. Huang is an associate professor in the Statistics, Measurement, and Evaluation in Education program in the

College of Education at the University of Missouri and the Methodology Director of the Missouri Prevention Center, Columbia, Missouri. His research focuses on both methodological (e.g., analysis of clustered data) and substantive (e.g., school climate, bullying, disparities in disciplinary sanctions) areas of interest.

Dewey G. Cornell holds the Virgil Ward Chair as Professor of Education at the School of Education and Human Development at the University of Virginia, Charlottesville, Virginia. His research focuses on school climate and safety, school threat assessment, and the prevention of youth violence and bullying.