

Principal Beliefs Predict Responses to Individual Students' Misbehavior

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National policies have targeted widespread exclusionary discipline in schools which is associated with negative academic outcomes. Principals play an important role in making disciplinary decisions, yet little is understood about how their mindsets might impact these decisions. We hypothesized that principals' mindsets regarding the purpose of discipline (exclusion vs. prevention) would predict their responses to misbehavior. In a random, nationwide sample ($N = 234$), principals responded to misbehavior by a hypothetical Black or White student. Exclusion beliefs predicted more severe discipline, whereas prevention beliefs predicted greater endorsement of referring the student to a school counselor. Principal mindsets also predicted exclusionary discipline in real-world contexts.

Keywords: administration; attitude; classroom research; correlational analysis; experimental design; principals; psychology; regression analyses; school psychology; survey research

Roughly 2.7 million K–12 students received at least one out-of-school suspension during the 2017–2018 academic year (U.S. Department of Education, 2018). This number is especially alarming given that suspensions and expulsions are associated with decreased academic achievement and increased likelihood of dropping out of school, outcomes highlighted in recent policy reform and research (Okonofua et al., 2020).

School policies and their implementation are driven by the mindsets of principals (Curran, 2017). As arbitrators of school policy, principals determine how and when discipline policy is administered. Principals, teachers, and researchers alike indicate that principals have more influence over discipline policy compared to other school policies (e.g., staffing, curriculum; Curran, 2017; Ni et al., 2018). Principal leadership styles and propensity for utilizing different discipline options have consequential effects on the academic and life outcomes of the student body (Grissom et al., 2013; Sorensen et al., 2021). Specifically, disparities in discipline have been shown to vary more between versus within schools (Anderson & Ritter, 2017) and thus typically vary from one principal to another, highlighting the need to understand how principals' individual differences influence their implementation of school discipline.

While various purposes for school discipline have been identified, preliminary principal mindset research pinpoints motivations that stem from one component of their beliefs, exclusion or

prevention, as key determinants of discipline practices (Skiba et al., 2007). Principals with exclusion beliefs endorse removing misbehaving students from the school environment to deter misbehavior. Alternatively, principals with prevention beliefs endorse providing students resources (e.g., counseling) in the school to help curb misbehavior. Principals with exclusion beliefs are more likely to agree that “zero tolerance sends a clear message to disruptive students about appropriate behavior in schools,” whereas principals with prevention beliefs are more likely to implement “conflict resolution, peer mediation, [and] weekly progress checks.” (Skiba et al., 2007, p. 3). Correlational research finds that schools with principals who have prevention beliefs have lower suspension rates (Skiba et al., 2007), and this correlation is as strong, if not stronger, than other variables, such as school climate (Skiba et al., 2014). However, research has yet to experimentally investigate how beliefs can shape principals' discipline decisions in their usage of various discipline methods (e.g., counseling, expulsion) and views toward students (e.g., perceived likelihood of reoffenses). Furthermore, it remains unclear how principals' beliefs shape their response to an individual student.

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Table 1
School-Level Demographic Information

Student body size	Range = 6–4,348 students	<i>M</i> = 696 students
Student-to-teacher ratio	Range = 7–90 students	<i>M</i> = 34 students
Percentage of students on free-or-reduced lunch	Range = 0%–100 %	<i>M</i> = 52.3%
School level ^a	Elementary schools	50.5%
	Middle schools	40.9%
	High school	38.2%
	White	56.3%
Race/ethnicity ^a	Hispanic/Latino	22.6%
	Black/Black American	11.3%
	Two or more races	4.3%
	Asian/Asian American	3.9%
	Native American	1.7%
	Hawaiian/Pacific Islander	0.4%
U.S. region	Northeast	15.9%
	Midwest	27.3%
	South	22.23%
	West	34.5%

Note. *N* = 220 schools (across 39 U.S. states).

^aParticipants could and did choose multiple answers. Thus, percentages do not add up to 100%.

Table 2
Adapted Discipline Practices Survey

Factor	Item	<i>M</i>	<i>SD</i>
Exclusion	Certain students are not gaining anything from school and disrupt the learning environment for others. In such a case, the use of suspension and expulsion is justified to preserve the learning environment for students who wish to learn.	3.01	1.87
	It is sad but true that, in order to meet increasingly high standards of academic accountability, some students will probably have to be removed from school.	3.02	2.00
Awareness	Students who are suspended or expelled are only getting more time on the streets that will enable them to get in more trouble.	5.05	1.63
	Suspensions make students less likely to misbehave in the future. (R)	4.88	1.75
	Suspension and expulsion do not really solve disciplinary problems.	5.20	1.73
	I believe suspension is unnecessary if we provide a positive school climate and challenging instruction.	4.65	1.83
	Out-of-school suspension is a necessary tool for maintaining school order. (R)	4.13	1.94
	Suspensions and expulsions hurt students by removing them from academic learning time.	5.98	1.26
	Regardless of the severity of a student's behavior, my objective as a principal is to keep all students in school.	5.50	1.68
Prevention	Developing and implementing prevention programs pays off in terms of decreased disruption and disciplinary incidents.	6.45	0.84
	There is really nothing a school can do if students are not willing to take responsibility for their behavior. (R)	5.68	1.46

Note. R = reverse-coded.

In theory, an exclusion mindset could lead a person to respond to student misbehavior in a more punitive and exclusionary manner. In one study, schoolteachers completed a brief priming exercise, read about a hypothetical student's misbehavior, and shared how they would respond to the misbehavior. Teachers primed with a control (vs. empathetic) mindset wanted more punitive discipline (Okonofua et al., 2016). Previous research also showed that principals were more likely to assign more severe discipline to Black (vs. White) students (Jarvis & Okonofua, 2020). The present research extends past research to

explore how principals' mindsets may serve as a mechanism for this racial disparity.

The present study tests the effect of principals' beliefs (Skiba et al., 2007) on their disciplinary responses to a hypothetical misbehaving student (Jarvis et al., 2021; Jarvis & Okonofua, 2020) and explores effects of the student's race. This research presents a key example of the kind of research needed to better understand the pivotal outcome of exclusionary discipline, processes by which it occurs, and how it can be strategically mitigated. We tested three preregistered hypotheses (<https://osf.io/2z8u3>):

Table 3
Multiple Regressions Testing the Effects of Mindset Factors and Student Race on Exclusionary Discipline Outcomes

Outcome	Belief	Main Effect of Mindset						Main Effect of Race						Interaction					
		b	t (df)	p	95% CI		b	t (df)	p	95% CI		b	t (df)	p	95% CI				
					Lower	Upper				Lower	Upper				Lower	Upper			
Discipline severity	Exclusion	0.16	3.78 (227)	<.001	0.08	0.24	-0.47	-1.62 (227)	.107	-1.04	0.11	0.10	0.08 (227)	.258	-0.07	0.26			
	Prevention	-0.10	-1.60 (227)	.111	-0.23	0.03	-0.82	-1.14 (227)	.255	-2.26	0.62	0.12	0.98 (227)	.328	-0.13	0.38			
Detention	Exclusion	0.15	4.99 (225)	<.001	0.09	0.22	0.27	1.31 (225)	.191	-0.14	0.69	-0.11	-1.82 (225)	.071	-0.23	0.01			
	Prevention	-0.18	-3.94 (225)	<.001	-0.27	-0.09	-1.04	-1.99 (225)	.047	-2.08	0	0.18	1.98 (225)	.049	0	0.37			
Future suspension	Exclusion	0.10	3.81 (226)	<.001	0.05	0.15	0.01	0.08 (226)	.940	-0.36	0.39	-0.04	-0.68 (226)	.497	-0.14	0.07			
	Prevention	-0.07	-1.81 (226)	.071	-0.15	0.01	-0.80	-1.76 (226)	.080	-1.71	0.11	0.13	1.63 (226)	.106	-0.03	0.29			
Troublemaker	Exclusion	0.16	5.06 (229)	<.001	0.10	0.23	-0.54	-2.42 (229)	.016	-0.98	-0.10	0.11	1.73 (229)	.085	-0.02	0.24			
	Prevention	-0.21	-4.38 (229)	<.001	-0.31	-0.12	-0.37	-0.68 (229)	.498	-1.47	0.73	0.04	0.40 (229)	.690	-0.16	0.23			

Note. Analyses were performed as multiple regressions within each belief factor within each outcome variable.

Hypothesis 1: Principals with greater exclusion beliefs would be more likely to endorse greater punitive discipline (e.g., suspension).

Hypothesis 2: Principals with greater prevention beliefs would be more likely to endorse empathic discipline (e.g., counseling).

Hypothesis 3: To the extent that principals hold exclusion beliefs, they would respond to misbehavior by a Black student with greater discipline endorsements and be more likely to label the student a troublemaker than a White student.

Principals ($N = 234$) were systematically recruited from across the United States (for school-level demographics, see Table 1). Principals were shown an image of a school and were asked to imagine that they were a principal managing the school on a regular day. They then read two teacher referrals about a student's misbehavior (i.e., insubordination or disruption, counterbalanced) over a four-day period and answered questions about how they would respond to the misbehavior. Finally, principals rated their broad agreement with exclusion statements, emphasizing discipline as a tool to maintain system efficiency, and prevention statements, promoting support for resource-based activities and programs, from an adapted version of the Disciplinary Practices Survey (Skiba et al., 2007; for scale development, see items in Table 2 and preregistered materials on OSF). All materials, methods, and code are available publicly (<https://osf.io/xk7qn/>).

Results

Linear regressions tested the relationship between a principal's mindset scores and dependent measures. Principals' exclusion beliefs predicted endorsing greater discipline severity,¹ $b = 0.15$, $t(229) = 3.66$, $p < .001$, 95% confidence interval [CI] = [0.07, 0.24]; more days of detention, $b = 0.15$, $t(227) = 5.04$, $p < .001$, 95% CI = [0.09, 0.22]; and a greater likelihood to suspend the student later, $b = 0.10$, $t(228) = 3.79$, $p < .001$, 95% CI = [0.05, 0.15]. Higher prevention beliefs inconsistently predicted endorsements of prevention activities. Principals' prevention beliefs predicted endorsing seeing a school counselor, $b = 0.13$, $t(223) = 3.10$, $p = .002$, 95% CI = [0.05, 0.21], but did not predict endorsement of an extracurricular activity, $b = 0.03$, $t(227) = 0.66$, $p = .507$, 95% CI = [-0.07, 0.14], or belief the parents would get involved, $b = 0.04$, $t(230) = 0.83$, $p = .408$, 95% CI = [-0.06, 0.15]. In addition, principal prevention mindsets from our sample were negatively correlated and exclusion mindsets were positively correlated with the amount of discipline experienced by their students (e.g., proportion of students suspended, average days of school missed due to suspension) using data from the 2017—2018 school year (for analyses, see online supplementary materials available on the journal website). There were no race-related interactions between principals' beliefs and the race of the student (for results, see Table 3).

Discussion

While structural factors, such as school policy, can contribute to discipline problems, principals' beliefs can be a key determinant


of student outcomes (Skiba et al., 2007). The present research explores how principals' beliefs—exclusion or prevention—predict responses to individual students' misbehaviors. These findings inform the need for broader education theory (i.e., by integrating principal mindsets and other psychological variables) and more direct experimentation (i.e., to control for other variables) for how we interpret alarming discipline rates. Understanding how beliefs shape principals' discipline decisions for individual students also lends itself to future intervention work (e.g., empathic or relationship-orienting) that targets perceptions of and responses to individual misbehaviors (for examples, see Okonofua et al., 2022a; Walton et al., 2021).


This study found no race-related disparities in discipline as a function of principal beliefs, yet disparities persist in the education system. The present sample may have been impacted by selective participation such that principals who were less biased or were more likely to respond in socially desirable ways were more likely to participate. Alternatively, future research should investigate whether it could be the case that beliefs other than those investigated here play a role in racial bias or that racial bias affects decision-making in classrooms. Additionally, it should be investigated whether interventions can mitigate disparities in school outcomes when individuals' measured biases may not be the driving factor for disparities (Okonofua et al., 2022b).


The present research focuses on beliefs about the purpose of discipline, but of additional interest is how these beliefs develop among school leaders. Perhaps there are characteristics of the school culture or training that increase the likelihood a principal would develop one perspective over the other. Future research should explore these broader possibilities and the potential for strategic integration of education policy, skill building, and psychological interventions with principals, in addition to teachers, to mitigate discipline problems (Okonofua et al., 2020).

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NOTES

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¹Because there was no main effect of race between Time 1 and Time 2, the discipline severity scores were averaged into one "severity" score.

REFERENCES

- Anderson, K., & Ritter, G. (2017). *Do school discipline policies treat students fairly? A second look at school discipline rate disparities*. SSRN. <https://doi.org/10.2139/ssrn.2700707>
- Curran, F. C. (2017). Influence over school discipline policy: Variation across levels of governance, school contexts, and time. *Education Policy Analysis Archives*, 25, Article 119. <https://doi.org/10.14507/epaa.25.3141>

- Grissom, J. A., Loeb, S., & Master, B. (2013). Effective instructional time use for school leaders: Longitudinal evidence from observations of principals. *Educational Researcher*, 42(8), 433–444. <https://doi.org/10.3102/0013189x13510020>
- Jarvis, S. N., Ferguson, Z. E., & Okonofua, J. (2021, March 4). *A test of racial disparities in principals' disciplinary decisions in a national sample*. PsyArXiv. <https://doi.org/10.31234/osf.io/j2kd8>
- Jarvis, S. N., & Okonofua, J. A. (2020). School deferred: When bias affects school leaders. *Social Psychological and Personality Science*, 11(4), 492–498. <https://doi.org/10.1177/1948550619875150>
- Ni, Y., Yan, R., & Pounder, D. (2018). Collective leadership: Principals' decision influence and the supportive or inhibiting decision influence of other stakeholders. *Educational Administration Quarterly*, 54(2), 216–248.
- Okonofua, J. A., Goyer, J. P., Lindsay, C. A., Haugabrook, J., & Walton, G. M. (2022a). A scalable empathic-mindset intervention reduces group disparities in school suspensions. *Science Advances*, 8(12), Article eabj0691. <https://doi.org/10.1126/sciadv.abj0691>
- Okonofua, J. A., Harris, L. T., & Walton, G. M. (2022b). Sidelining bias: A situationist approach to reduce the consequences of bias in real-world contexts. *Current Directions in Psychological Science*, 31(5), 395–404. <https://doi.org/10.1177/09637214221102422>
- Okonofua, J. A., Paunesku, D., & Walton, G. M. (2016). Brief intervention to encourage empathic discipline cuts suspension rates in half among adolescents. *Proceedings of the National Academy of Sciences*, 113(19), 5221–5226. <https://doi.org/10.1073/pnas.1523698113>
- Okonofua, J. A., Perez, A. D., & Darling-Hammond, S. (2020). When policy and psychology meet: Mitigating the consequences of bias in schools. *Science Advances*, 6(42), Article eaba9479. <https://doi.org/10.1126/sciadv.aba9479>
- Skiba, R. J., Chung, C. G., Trachok, M., Baker, T. L., Sheya, A., & Hughes, R. L. (2014). Parsing disciplinary disproportionality: Contributions of infraction, student, and school characteristics to out-of-school suspension and expulsion. *American Educational Research Journal*, 51(4), 640–670. <https://doi.org/10.3102/0002831214541670>
- Skiba, R., Edl, H., & Rausch, M. (2007, April). *How do principals feel about discipline? The Disciplinary Practices Survey*. Paper presented at the Annual Convention of the American Educational Research Association, Chicago, IL. Supplementary Materials.
- Sorensen, L. C., Bushway, S. D., & Gifford, E. J. (2021). *Getting tough? The effects of discretionary principal discipline on student outcomes* (EdWorkingPaper: 20-216). <https://doi.org/10.26300/vz9t-hd28>
- U.S. Department of Education Office for Civil Rights. (2018). *2015-16 civil rights data collection: School climate and safety*.
- Walton, G. M., Okonofua, J. A., Remington Cunningham, K., Hurst, D., Pinedo, A., Weitz, E., Ospina, J. P., Tate, H., & Eberhardt, J. L. (2021). Lifting the bar: A relationship-orienting intervention reduces recidivism among children reentering school from juvenile detention. *Psychological Science*, 32(11), 1747–1767. <https://doi.org/10.1177/09567976211013801>

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