



CENTER ON

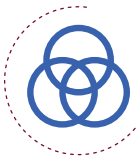
PBIS

Positive Behavioral
Interventions & Supports

IS POSITIVE BEHAVIORAL INTERVENTIONS AND SUPPORTS (PBIS) AN EVIDENCE-BASED PRACTICE?

MARÍA REINA SANTIAGO-ROSARIO, KENT MCINTOSH, SARA IZZARD,
DANA COHEN LISSMAN, & ELYSE CALHOUN

September 2023



Is Positive Behavioral Interventions and Supports (PBIS) an Evidence-Based Practice?

Authors María Reina Santiago-Rosario
Kent McIntosh
Sara Izzard

Dana Cohen Lissman
Elyse Calhoun

Purpose

Positive Behavioral Interventions and Supports (PBIS) is a widely implemented framework for promoting positive school systems and fostering students' social, emotional, behavioral, and mental health. Numerous studies indicate that PBIS implementation improves student outcomes, educator practices, and school systems. This brief presents the findings of a systematic literature review exploring how Tier 1 PBIS implementation affects valued educational outcomes. Findings demonstrate that PBIS can be designated an evidence-based practice for reducing exclusionary discipline and improving social, emotional, and behavioral outcomes.



Is Positive Behavioral Interventions and Supports (PBIS) an Evidence-Based Practice?

Policymakers, practitioners, students, and families have an interest in implementing and supporting practices that are most likely to improve valued outcomes for each and every student. To do so, it is important to examine the evidence to make informed choices about where to invest time and resources to maximize educational effectiveness. Since the initial development of Positive Behavioral Interventions and Supports (PBIS), many researchers and educators have implemented this approach and examined its outcomes across schools in the United States and internationally (e.g., Australia, Canada, France, Germany, Japan, Norway, Taiwan). As a result, ample research now exists regarding its effectiveness and identification as an evidence-based practice.

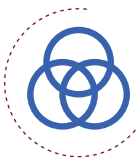
The purpose of this document is to present a summary of evidence from a recent literature review assessing the effects of implementing PBIS. This brief summarizes evidence from a systematic literature review inclusive of studies meeting the following criteria: (a) implemented PBIS across a continuum of Tier 1, 2, and 3 supports; (b) measured intervention effects on students, educators, and institutional outcomes; (c) conducted in educational settings (i.e., schools, residential or alternative setting, juvenile justice programs); (d) compared business as usual control schools with PBIS implementation schools OR school or district outcomes during baseline years

Key Takeaways

Numerous studies, conducted by multiple teams, consistently show that PBIS:

- Reduces the use of and inequities in exclusionary discipline
- Improves social, emotional, and behavioral competencies
- Reduces disruptive behavior
- Can improve student academic outcomes
- Can positively influence attendance
- Improves school climate, school safety, and organizational health
- Enhances teacher use of classroom management practices and efficacy
- Can reduce student referrals for support

with outcomes during or after PBIS implementation; and (e) studies designed as randomized controlled trials, quasi-experimental research studies, descriptive or correlational, single-case studies, case studies, and meta-analyses. The evidence presented below is a summary and not a comprehensive report of all PBIS research findings. An exhaustive list of research studies examining PBIS can be found in the [References for the Evidence Base of PBIS spreadsheet](#) on the Center for PBIS website. Although criteria for identifying evidence-based practice vary, the research base is sufficient to support a number of conclusions regarding PBIS, as described in this brief.



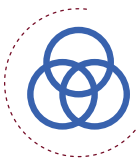
PBIS Reduces the Use of and Inequities in the Use of Exclusionary Discipline

PBIS implementation has been consistently shown to reduce the use of exclusionary discipline practices across numerous studies, including randomized controlled trials. Many studies in elementary schools show that PBIS implementation reduced overall rates of discipline referrals (Algozzine et al., 2012; Bohanon et al., 2006; Bradshaw, Mitchell, O'Brennan, et al., 2010; Bradshaw et al., 2012; Collins & Ryan, 2016; Curtis et al., 2010; Horner et al., 2009; Lassen et al., 2006; Luiselli et al., 2005; McCrary et al., 2012; McDaniel & Bloomfield, 2020; Nelson et al., 1998; Nelson et al., 2002; Otsui et al., 2022; Scott & Barrett, 2004; Sherrod et al., 2009; Sprague et al., 2001; Ward & Gersten, 2013), and reduced inequities in exclusionary discipline for Black students (Payno-Simmons, 2021) and students with disabilities (Bradshaw et al., 2015). Similarly, PBIS has been found to reduce discipline referral rates in middle and high schools (Caldarella et al., 2011; Flannery et al., 2014; Freeman et al., 2016; Gage et al., 2018; Malloy et al., 2018; McCrary et al., 2012; McDaniel & Bloomfield, 2020; Morrissey et al., 2010; Otsui et al., 2022; Sprague et al., 2001), as well as for students with disabilities in alternative settings implementing PBIS (Farkas et al., 2012; Johnson et al., 2013; Kalke et al., 2007; Simonsen et al., 2010).

Studies have also shown that overall suspension

rates (both in and out of school suspensions) and the number of school days missed due to suspension decrease after PBIS implementation for elementary, middle, and high school students (Bradshaw, Mitchell, & Leaf, 2010; Curtis et al., 2010; Gage et al., 2020; Gage et al., 2018; Grasley-Boy et al., 2019; Lassen et al., 2006; Lee et al., 2021; Luiselli et al., 2005; McCrary et al., 2012; McDaniel & Bloomfield, 2020; Nelson et al., 2002; Pas et al., 2019; Scott & Barrett, 2004; Smolkowski et al., 2016), as well as for male students (Lee et al., 2021), Black students (Grasley-Boy et al., 2019; Lee et al., 2021), and students with disabilities (Lee et al., 2021; Simonsen et al., 2022). A study also indicated a reduction in the number of students expelled, referred to alternative settings or law enforcement, and arrested as a result of school-related behaviors (Lee et al., 2021). Gage and colleagues (2018) also found a reduction in expulsion rates for elementary students with disabilities after PBIS implementation.

Relatedly, partner groups may be interested in the effects of PBIS on the use of restraint and seclusion. Case studies in alternative settings indicate decreased use and duration of restraint (Gelbar et al., 2015; Kalke et al., 2007; Simonsen et al., 2010) and seclusion (Gelbar et al., 2015) for students with emotional and behavioral disorders following the implementation of PBIS.



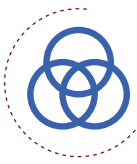
PBIS Improves Social, Emotional, and Behavioral Competencies

According to several studies, PBIS implementation leads to improved social, emotional, behavioral, and mental health outcomes for students. For instance, after PBIS implementation, early childhood teachers reported enhanced adaptive skills in preschoolers (Feil et al., 2009). Further, fidelity of implementation was associated with teacher-reported improvements in preschoolers' social skills (Hemmeter et al., 2016). Additional studies have shown that elementary school students are more likely to demonstrate prosocial skills and emotional regulation after PBIS implementation (Bradshaw et al., 2012; Ohkubo et al., 2022). Further, PBIS implementation has been associated with improved on-task behavior among elementary students (Algozzine & Algozzine, 2007; Caldarella et al., 2017; Wu et al., 2019). Finally, elementary school teachers also reported improvement in student behavior and social skills (e.g., assertiveness, communication, cooperation, empathy, engagement, peer relations; Caldarella et al., 2018; Nelson et al., 2002; Smolkowski et al., 2016).

Compared to the research in elementary schools, there have been fewer studies in secondary schools, but there is still substantial evidence of effectiveness. Following the implementation of PBIS in secondary settings, teachers reported an increase in academic engagement when Tier 2 PBIS efforts were incorporated into a solid Tier 1 foundation (Van Camp et al., 2021).

PBIS Reduces Disruptive Behavior

PBIS implementation also leads to the reduction of disruptive behavior in early childhood settings. After PBIS implementation, early childhood teachers reported a reduction in aggressive behaviors and contextually inappropriate behaviors in preschoolers (Feil et al., 2009; Hemmeter et al., 2016). Implementing PBIS has also been linked to reductions in off-task behavior, behavior incidents, aggressive behavior, and disruptive behavior among elementary students (Algozzine & Algozzine, 2007; Bradshaw et al., 2012; Lewis et al., 2002; Solomon et al., 2012; Ward & Gersten, 2013; Wu et al., 2019), especially among students who struggle with behavioral issues (Condliffe et al., 2022). Additionally, teachers reported less bullying behavior and lower levels of rejection over time in schools randomly assigned to implement PBIS (Waasdorp et al., 2012). Lastly, elementary schools that combined PBIS and social-emotional learning (SEL) implementation showed the greatest improvements in mental health, with the biggest reduction in externalizing behavior challenges (Cook et al., 2015). Following the implementation of PBIS in secondary settings, there have been documented reductions in observed inappropriate behavior incidents, as well as reported by teachers (Flannery et al., 2014; Oswald et al., 2005; Solomon et al., 2012). Further, teachers in secondary schools reported a decrease in disruptive behavior when Tier 2 PBIS efforts were incorporated into a solid Tier 1 foundation (Van Camp et al., 2021).

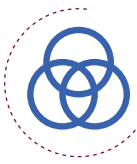


PBIS Can Improve Student Academic Outcomes

Research also shows that implementing PBIS in elementary and secondary schools can improve student academic outcomes, but these effects are not as consistently strong as those on social, emotional, and behavioral outcomes. For instance, in schools implementing PBIS, first-grade students were more likely to exceed early literacy benchmarks and less likely to require strategic or intensive reading intervention (Chaparro et al., 2012). Additionally, more students in third, fourth, and fifth grade in these schools scored as proficient from pre- to post-test on the state achievement assessment (Chaparro et al., 2012). Several studies have also indicated that students in PBIS schools achieve higher proficiency levels in reading and math (Algozzine et al., 2012; Bradshaw, Mitchell, & Leaf, 2010; Gage et al., 2017; Horner et al., 2009; Houchens et al., 2017; Lassen et al., 2006; Luiselli et al., 2005; Nelson et al., 2002; Pas et al., 2019). Further, according to Madigan and colleagues (2016), elementary students in PBIS-implementing schools also performed better in science, social studies, arts and humanities, vocational studies, and writing. However, several studies have found that overall reading and math proficiency scores did not differ significantly (Bradshaw, Mitchell, & Leaf, 2010; Condliffe et al., 2022; Lassen et al., 2006; Ryoo et al., 2018) but there is evidence of significantly improved academic performance for students requiring additional behavior support (Condliffe et al., 2022).

In addition to improving academic outcomes, PBIS implementation has been linked to positive elementary students' feelings about their academic performance. One study found that students reported an improved academic self-concept, improved planning of study time, and improved completion of schoolwork (Yeung et al., 2009). Bradshaw and colleagues (2015) also found that when PBIS was implemented with fidelity, fewer students were retained or required to repeat a grade than their peers in control schools.

In secondary settings, implementation of PBIS was associated with higher reading and math proficiency scores (Pas et al., 2019), along with higher academic scores (including math, reading, science, social studies, arts and humanities, vocational studies, and writing) both in middle and high school (Madigan et al., 2016). Additional studies, however, have not found that reading and math proficiency scores in middle and high school differed significantly (Freeman et al., 2015; Freeman et al., 2016; Ryoo et al., 2018; Scherer & Ingle, 2020), nor did student grade point averages (Caldarella et al., 2011). According to Johnson and colleagues (2013), descriptive increases in both academic achievement and certifications earned were seen for secondary students in alternative settings implementing PBIS.



PBIS Can Positively Influence Attendance

Following the implementation of PBIS, research conducted over the past decade has revealed varying outcomes for student attendance. For the most part, research shows elementary school students' tardiness was reduced after PBIS implementation (McDaniel & Bloomfield, 2020; Smolkowski et al., 2016). However, some research did not show improvements in elementary students' truancy (Pas et al., 2019) or absences (McDaniel & Bloomfield, 2020). Similarly, in middle and high schools, as well as alternative settings, PBIS improved student attendance rates or reduced students' tardiness, unexcused absences, and truancy rates (Caldarella et al., 2011; Freeman et al., 2015; Freeman et al., 2016; Johnson et al., 2013; Pas et al., 2019; Smolkowski et al., 2016). Likewise, some research in middle schools and high schools has found tardiness rising after implementation (McDaniel & Bloomfield, 2020). In addition to school attendance, PBIS implementation research indicated descriptive reductions in student dropout rates (Freeman et al., 2015; Malloy et al., 2018).

PBIS Improves School Climate, School Safety, and Organizational Health

Research also shows that PBIS can significantly improve perceptions of the school context. Elementary and secondary school students, teachers, and staff in PBIS-implementing schools reported more positive attitudes toward school. It has been found that students enjoy attending school more (Ohkubo et al., 2022; Yeung et al., 2009), school climate perceptions become more positive (Algozzine et al., 2012; Kubiszewski et al., 2023), and personnel perceive



schools to be safer (Horner et al., 2009). Students in PBIS schools reported improved relationships with teachers, sense of safety, and educational support from educators (Kubiszewski et al., 2023). Teaching conditions improved in elementary schools that adopted PBIS (Houchens et al., 2017). Additionally, staff in schools implementing PBIS reported improved student-teacher relationships (Condliffe et al., 2022), more positive staff affiliation (e.g., warmer or friendlier interactions among colleagues, more commitment to students, a higher sense of accomplishment; Bradshaw et al., 2009; Bradshaw et al., 2008; Condliffe et al., 2022), greater focus on academics (e.g., higher students' cooperation in the classroom, their respect for peers, and drive to improve; Bradshaw et al., 2009; Bradshaw et al., 2008; Condliffe et al., 2022), and increased resource allotment (e.g., the ability of the administrator to lobby and allocate resources for school initiatives; Bradshaw et al., 2009; Bradshaw



et al., 2008). The most improvement was reported by staff in schools with the lowest ratings of climate before PBIS implementation (Bradshaw et al., 2009; Bradshaw et al., 2008).

PBIS Enhances Teacher Use of Classroom Management Practices and Efficacy

PBIS implementation enhances teacher efficacy and proactive behavior supports. After the implementation of PBIS in early childhood settings, teachers reported improved use of behavior management practices and emotional support provided to preschoolers (Cunningham et al., 2020; Hemmeter et al., 2016). Similarly, teachers have been found to improve proactive behavior management skills after PBIS implementation in elementary (Condliffe et al., 2022; Sørli et al., 2016) and secondary schools (Sørli et al., 2016). Lastly, two studies examining elementary collective efficacy and/or self-efficacy showed teachers reported improvement in these areas after PBIS implementation (Kelm & McIntosh, 2012; Sørli et al., 2016).

PBIS Can Reduce Student Referrals for Support

In schools where PBIS was implemented with fidelity, referrals to intensive support for students may be reduced. In one study, the proportion of students requiring targeted (Tier 2) and intensive (Tier 3) support decreased (Bohanon et al., 2006). Bradshaw and colleagues (2015) also found that schools randomly assigned to implement PBIS had a lower percentage of students referred for counseling support or special education evaluations after implementation.

Summary

It is important for educators to invest in the systems and practices that are proven to work in school. Researchers from multiple universities (including those not involved in the development of PBIS) have shown that Tier 1 PBIS implemented with fidelity improves valued outcomes like student social, emotional, behavioral, and mental health, academic achievement, and attendance. It also improves classroom behavior support practices and efficacy reported by teachers, as well as school climate, safety, and organizational health. The evidence also shows reduced rates of exclusionary discipline practices and contextually inappropriate behavior, with some research indicating reduced inequities in the use of exclusionary discipline practices. As PBIS continues to be implemented, its research base continues to grow, and valued outcomes continue to be improved across educational settings.



References

- Algozzine, B., Wang, C., White, R., Cooke, N., Marr, M. B., Algozzine, K., Helf, S. S., & Duran, G. Z. (2012). Effects of multi-tier academic and behavior instruction on difficult-to-teach students. *Exceptional Children*, 79(1), 45-64. <https://doi.org/10.1177/001440291207900103>
- Algozzine, K., & Algozzine, B. (2007). Classroom instructional ecology and school-wide positive behavior support. *Journal of Applied School Psychology*, 24(1), 29-47. https://doi.org/10.1300/J370v24n01_02
- Bohanon, H., Fenning, P., Carney, K. L., Minnis-Kim, M. J., Anderson-Harriss, S., Moroz, K. B., Hicks, K. J., Kasper, B. B., Culos, C., Sailor, W., & Pigott, T. D. (2006). Schoolwide application of positive behavior support in an urban high school: A case study. *Journal of Positive Behavior Interventions*, 8(3), 131-145. <https://doi.org/10.1177/10983007060080030201>
- Bradshaw, C. P., Koth, C. W., Thornton, L. A., & Leaf, P. J. (2009). Altering school climate through school-wide positive behavioral interventions and supports: Findings from a group-randomized effectiveness trial. *Prevention Science*, 10(2), 100. <https://doi.org/10.1007/s11121-008-0114-9>
- Bradshaw, C. P., Mitchell, M. M., & Leaf, P. J. (2010). Examining the effects of schoolwide positive behavioral interventions and supports on student outcomes: Results from a randomized controlled effectiveness trial in elementary schools. *Journal of Positive Behavior Interventions*, 12(3), 133-148. <https://doi.org/10.1177/1098300709334798>
- Bradshaw, C. P., Mitchell, M. M., O'Brennan, L. M., & Leaf, P. J. (2010). Multilevel exploration of factors contributing to the overrepresentation of black students in office disciplinary referrals. *Journal of Educational Psychology*, 102(2), 508-520. <https://doi.org/10.1037/a0018450>
- Bradshaw, C. P., Reinke, W. M., Brown, L. D., Bevans, K. B., & Leaf, P. J. (2008). Implementation of school-wide positive behavioral interventions and supports (PBIS) in elementary schools: Observations from a randomized trial. *Education & Treatment of Children (West Virginia University Press)*, 31(1), 1-26. <https://doi.org/10.1353/etc.0.0025>
- Bradshaw, C. P., Waasdorp, T. E., & Leaf, P. J. (2012). Effects of school-wide positive behavioral interventions and supports on child behavior problems. *Pediatrics*, 130(5), e1136-1145. <https://doi.org/10.1542/peds.2012-0243>
- Bradshaw, C. P., Waasdorp, T. E., & Leaf, P. J. (2015). Examining variation in the impact of school-wide positive behavioral interventions and supports: Findings from a randomized controlled effectiveness trial. *Journal of Educational Psychology*, 107, 546-557. <https://doi.org/https://doi.org/10.1037/a0037630>
- Caldarella, P., Larsen, R. A. A., Williams, L., Wills, H., Kamps, D., & Wehby, J. H. (2018). Effects of CW-FIT on teachers' ratings of elementary school students at risk for emotional and behavioral disorders. *Journal of Positive Behavior Interventions*, 20(2), 78-89. <https://doi.org/10.1177/1098300717723353>
- Caldarella, P., Shatzer, R. H., Gray, K. M., Young, K. R., & Young, E. L. (2011). The effects of school-wide positive behavior support on middle school climate and student outcomes. *RMLE Online*, 35(4), 1-14. <https://doi.org/10.1080/19404476.2011.11462087>
- Caldarella, P., Williams, L., Jolstead, K. A., & Wills, H. P. (2017). Managing student behavior in an elementary school music classroom: A study of class-wide function-related intervention teams. Update: Applications of *Research in Music Education*, 35(3), 23-30. <https://doi.org/10.1177/8755123315626229>

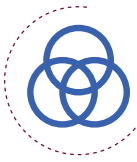
- Chaparro, E. A., Smolkowski, K., Baker, S. K., Hanson, N., & Ryan-Jackson, K. (2012). A model for system-wide collaboration to support integrated social behavior and literacy evidence-based practices. *Psychology in the Schools*, 49(5), 465-482. <https://doi.org/https://doi.org/10.1002/pits.21607>
- Collins, J. C., & Ryan, J. B. (2016). Extension of positive behavioral intervention and supports from the school to the bus: A case study. *The Journal of At-Risk Issues*, 19(1), 29 - 33. <https://files.eric.ed.gov/fulltext/EJ1104428.pdf>
- Condliffe, B., Zhu, P., Doolittle, F., van Dok, M., Power, H., Denison, D., & Kurki, A. (2022). *Study of training in multi-tiered systems of support for behavior: Impacts on elementary school students' outcomes* (NCEE 2022-008). In U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance. <http://ies.ed.gov/ncee>
- Cook, C. R., Frye, M., Slemrod, T., Lyon, A. R., Renshaw, T. L., & Zhang, Y. (2015). An integrated approach to universal prevention: Independent and combined effects of PBIS and SEL on youths' mental health. *School Psychology Quarterly*, 30(2), 166. <https://doi.org/10.1037/spq0000102>
- Cunningham, J. E., Hemmeter, M. L., & Kaiser, A. P. (2020). The relation between teachers' positive behavior support and language support. *Topics in Early Childhood Special Education*, 40(3), 131-142. <https://doi.org/10.1177/0271121420943653>
- Curtis, R., Van Horne, J. W., Robertson, P., & Karvonen, M. (2010). Outcomes of a school-wide positive behavioral support program. *Professional School Counseling*, 13(3), 159-164. <http://www.jstor.org/stable/42732889>
- Farkas, M. S., Simonsen, B., Migdole, S., Donovan, M. E., Clemens, K., & Cicchese, V. (2012). Schoolwide positive behavior support in an alternative school setting: An evaluation of fidelity, outcomes, and social validity of tier 1 implementation. *Journal of Emotional and Behavioral Disorders*, 20(4), 275-288. <https://doi.org/10.1177/1063426610389615>
- Feil, E. G., Walker, H., Severson, H., Golly, A., Seeley, J. R., & Small, J. W. (2009). Using positive behavior support procedures in Head Start classrooms to improve school readiness: A group training and behavioral coaching model. *NHSA Dialog*, 12(2), 88-103. <https://doi.org/10.1080/15240750902774676>
- Flannery, K. B., Fenning, P., Kato, M. M., & McIntosh, K. (2014). Effects of school-wide positive behavioral interventions and supports and fidelity of implementation on problem behavior in high schools. *School Psychology Quarterly*, 29(2), 111-124. <https://doi.org/10.1037/spq0000039>
- Freeman, J., Simonsen, B., McCoach, D. B., Sugai, G., Lombardi, A., & Horner, R. (2015). An analysis of the relationship between implementation of school-wide positive behavior interventions and supports and high school dropout rates. *The High School Journal*, 98(4), 290-315. <http://www.jstor.org/stable/44077793>
- Freeman, J., Simonsen, B., McCoach, D. B., Sugai, G., Lombardi, A., & Horner, R. (2016). Relationship between school-wide positive behavior interventions and supports and academic, attendance, and behavior outcomes in high schools. *Journal of Positive Behavior Interventions*, 18(1), 41-51. <https://doi.org/10.1177/1098300715580992>
- Gage, N. A., Katsiyannis, A., Carrero, K. M., Miller, R., & Pico, D. (2020). Exploring disproportionate discipline for Latinx students with and without disabilities: A national analysis. *Behavioral Disorders*, 47(1), 3-13. <https://doi.org/10.1177/0198742920961356>
- Gage, N. A., Lee, A., Grasley-Boy, N., & Peshak George, H. (2018). The impact of school-wide positive behavior interventions and supports on school suspensions: A statewide quasi-experimental analysis. *Journal of Positive Behavior Interventions*, 20(4), 217-226. <https://doi.org/10.1177/1098300718768204>

- Gage, N. A., Leite, W., Childs, K., & Kincaid, D. (2017). Average treatment effect of school-wide positive behavioral interventions and supports on school-level academic achievement in Florida. *Journal of Positive Behavior Interventions*, 19(3), 158-167. <https://doi.org/10.1177/1098300717693556>
- Gelbar, N. W., Jaffery, R., Stein, R., & Cymbala, H. (2015). Case study on the implementation of school-wide positive behavioral interventions and supports in an alternative educational setting. *Journal of Educational and Psychological Consultation*, 25(4), 287-313. <https://doi.org/10.1080/10474412.2014.929958>
- Grasley-Boy, N. M., Gage, N. A., & Lombardo, M. (2019). Effect of SWPBIS on disciplinary exclusions for students with and without disabilities. *Exceptional Children*, 86(1), 25-39. <https://doi.org/10.1177/0014402919854196>
- Hemmeter, M. L., Snyder, P. A., Fox, L., & Algina, J. (2016). Evaluating the implementation of the pyramid model for promoting social-emotional competence in early childhood classrooms. *Topics in Early Childhood Special Education*, 36(3), 133-146. <https://doi.org/10.1177/0271121416653386>
- Horner, R. H., Sugai, G., Smolkowski, K., Eber, L., Nakasato, J., Todd, A. W., & Esperanza, J. (2009). A randomized, wait-list controlled effectiveness trial assessing school-wide positive behavior support in elementary schools. *Journal of Positive Behavior Interventions*, 11(3), 133-144. <https://doi.org/10.1177/1098300709332067>
- Houchens, G. W., Zhang, J., Davis, K., Niu, C., Chon, K. H., & Miller, S. (2017). The impact of positive behavior interventions and supports on teachers' perceptions of teaching conditions and student achievement. *Journal of Positive Behavior Interventions*, 19(3), 168-179. <https://doi.org/10.1177/1098300717696938>
- Johnson, L. E., Wang, E. W., Gilinsky, N., He, Z., Carpenter, C., Nelson, C. M., & Scheuermann, B. K. (2013). Youth outcomes following implementation of universal SW-PBIS strategies in a Texas secure juvenile facility. *Education and Treatment of Children*, 36(3), 135-145. <http://www.jstor.org/stable/42900216>
- Kalke, T., Glanton, A., & Cristalli, M. (2007). Positive behavioral interventions and supports: using strength-based approaches to enhance the culture of care in residential and day treatment education environments. *Child Welfare*, 86(5), 151-174. <https://www.jstor.org/stable/45400423>
- Kelm, J. L., & McIntosh, K. (2012). Effects of school-wide positive behavior support on teacher self-efficacy. *Psychology in the Schools*, 49(2), 137-147. <https://doi.org/10.1002/pits.20624>
- Kubiszewski, V., Carrizales, A., & Lheureux, F. (2023). Can school-wide positive behavioral interventions and supports (SWPBIS) improve adolescents' perceptions of school climate? *Journal of School Psychology*, 99, 101223. <https://doi.org/10.1016/j.jsp.2023.101223>
- Lassen, S. R., Steele, M. M., & Sailor, W. (2006). The relationship of school-wide positive behavior support to academic achievement in an urban middle school. *Psychology in the Schools*, 43(6), 701-712. <https://doi.org/10.1002/pits.20177>
- Lee, A., Gage, N. A., McLeskey, J., & Huggins-Manley, A. C. (2021). The impacts of school-wide positive behavior interventions and supports on school discipline outcomes for diverse students. *The Elementary School Journal*, 121(3), 410-429. <https://doi.org/10.1086/712625>
- Lewis, T. J., Powers, L. J., Kely, M. J., & Newcomer, L. L. (2002). Reducing problem behaviors on the playground: An investigation of the application of schoolwide positive behavior supports. *Psychology in the Schools*, 39(2), 181-190. <https://doi.org/https://doi.org/10.1002/pits.10029>



- Luiselli, J. K., Putnam, R. F., Handler, M. W., & Feinberg, A. B. (2005). Whole-school positive behaviour support: Effects on student discipline problems and academic performance. *Educational Psychology*, 25(2-3), 183-198. <https://doi.org/10.1080/0144341042000301265>
- Madigan, K., Cross, R. W., Smolkowski, K., & Strycker, L. A. (2016). Association between schoolwide positive behavioural interventions and supports and academic achievement: A 9-year evaluation. *Educational Research and Evaluation*, 22(7-8), 402-421. <https://doi.org/10.1080/13803611.2016.1256783>
- Malloy, J. M., Bohanon, H., & Francoeur, K. (2018). Positive behavioral interventions and supports in high schools: A case study from New Hampshire. *Journal of Educational and Psychological Consultation*, 28(2), 219-247. <https://doi.org/10.1080/10474412.2017.1385398>
- McCrary, D., Lechtenberger, D., & Wang, E. (2012). The effect of schoolwide positive behavioral supports on children in impoverished rural community schools. Preventing School Failure: *Alternative Education for Children and Youth*, 56(1), 1-7. <https://doi.org/10.1080/1045988X.2010.548417>
- McDaniel, S. C., & Bloomfield, B. S. (2020). School-wide positive behavior support telecoaching in a rural district. *Journal of Educational Technology Systems*, 48(3), 335-355. <https://doi.org/10.1177/0047239519886283>
- Morrissey, K. L., Bohanon, H., & Fenning, P. (2010). Positive behavior support: Teaching and acknowledging expected behaviors in an urban high school. *Teaching Exceptional Children*, 42(5), 26-35. <https://doi.org/10.1177/004005991004200503>
- Nelson, J. R., Martella, R., & Galand, B. (1998). The effects of teaching school expectations and establishing a consistent consequence on formal office disciplinary actions. *Journal of Emotional and Behavioral Disorders*, 6(3), 153-161. <https://doi.org/10.1177/106342669800600303>
- Nelson, J. R., Martella, R. M., & Marchand-Martella, N. (2002). Maximizing student learning: The effects of a comprehensive school-based program for preventing problem behaviors. *Journal of Emotional and Behavioral Disorders*, 10(3), 136-148. <https://doi.org/10.1177/10634266020100030201>
- Ohkubo, K., Tsukimoto, H., Otsui, K., Tanaka, Y., Noda, W., & Niwayama, K. (2022). Effectiveness and social validity of tier 1 intervention with school-wide positive behavioural support in a public elementary school in Japan. *International Journal of Positive Behavioural Support*, 12(2), 4-18. <https://www.ingentaconnect.com/content/bild/ijpbs/2022/00000012/00000002/art00004>
- Oswald, K., Safran, S., & Johanson, G. (2005). Preventing trouble: making schools safer places using positive behavior supports. *Education & Treatment of Children (West Virginia University Press)*, 28(3), 265-278.
- Otsui, K., Niwayama, K., Ohkubo, K., Tanaka, Y., & Noda, W. (2022). Introduction and development of school-wide positive behavioural support in Japan. *International Journal of Positive Behavioural Support*, 12(2), 19-28. <https://www.ingentaconnect.com/content/bild/ijpbs/2022/00000012/00000002/art00005>
- Pas, E. T., Ryoo, J. H., Musci, R. J., & Bradshaw, C. P. (2019). A state-wide quasi-experimental effectiveness study of the scale-up of school-wide positive behavioral interventions and supports. *Journal of School Psychology*, 73, 41-55. <https://doi.org/https://doi.org/10.1016/j.jsp.2019.03.001>
- Payno-Simmons, R. L. (2021). Centering equity in school discipline: The Michigan PBIS equity pilot. *Preventing School Failure: Alternative Education for Children and Youth*, 65(4), 343-353. <https://doi.org/10.1080/1045988X.2021.1937024>

- Ryoo, J. H., Hong, S., Bart, W. M., Shin, J., & Bradshaw, C. P. (2018). Investigating the effect of school-wide positive behavioral interventions and supports on student learning and behavioral problems in elementary and middle schools. *Psychology in the Schools, 55*(6), 629-643. <https://doi.org/10.1002/pits.22134>
- Scherer, C. A., & Ingle, W. K. (2020). PBIS implementation fidelity and student outcomes in an urban school district. *Voices of Reform: Educational Research to Inform and Reform, 3*(2), 96-117. <https://doi.org/10.32623/3.10007>
- Scott, T. M., & Barrett, S. B. (2004). Using staff and student time engaged in disciplinary procedures to evaluate the impact of school-wide PBS. *Journal of Positive Behavior Interventions, 6*(1), 21-27. <https://doi.org/10.1177/1098300704006001040>
- Sherrod, M. D., Getch, Y. Q., & Ziomek-Daigle, J. (2009). The impact of positive behavior support to decrease discipline referrals with elementary students. *Professional School Counseling, 12*(6), 421-427. <http://www.jstor.org/stable/42732763>
- Simonsen, B., Britton, L., & Young, D. (2010). School-wide positive behavior support in an alternative school setting. *Journal of Positive Behavior Interventions, 12*(3), 180-191. <https://doi.org/10.1177/1098300708330495>
- Simonsen, B., Freeman, J., Gambino, A. J., Sears, S., Meyer, K., & Hoselton, R. (2022). An exploration of the Relationship between PBIS and discipline outcomes for students with disabilities. *Remedial & Special Education, 43*(5), 287-300. <https://doi.org/10.1177/07419325211063490>
- Smolkowski, K., Strycker, L., & Ward, B. (2016). Scale-up of safe & civil schools' model for school-wide positive behavioral interventions and supports. *Psychology in the Schools, 53*(4), 339-358. <https://doi.org/10.1002/pits.21908>
- Solomon, B. G., Klein, S. A., Hintze, J. M., Cressey, J. M., & Peller, S. L. (2012). A meta-analysis of school-wide positive behavior support: An exploratory study using single-case synthesis. *Psychology in the Schools, 49*(2), 105-121. <https://doi.org/10.1002/pits.20625>
- Sørli, M.-A., Ogden, T., & Olseth, A. R. (2016). Examining teacher outcomes of the school-wide positive behavior support model in Norway: Perceived efficacy and behavior management. *SAGE Open, 6*(2), 2158244016651914. <https://doi.org/10.1177/2158244016651914>
- Sprague, J., Walker, H., Golly, A., White, K., Myers, D. R., & Shannon, T. (2001). Translating research into effective practice: The effects of a universal staff and student intervention on indicators of discipline and school safety. *Education and Treatment of Children, 24*(4), 495-511. <http://www.jstor.org/stable/42900505>
- Van Camp, A. M., Wehby, J. H., Copeland, B. A., & Bruhn, A. L. (2021). Building from the bottom up: The importance of tier 1 supports in the context of tier 2 interventions. *Journal of Positive Behavior Interventions, 23*(1), 53-64. <https://doi.org/10.1177/1098300720916716>
- Waasdorp, T. E., Bradshaw, C. P., & Leaf, P. J. (2012). The impact of schoolwide positive behavioral interventions and supports on bullying and peer rejection: A randomized controlled effectiveness trial. *Archives of Pediatrics & Adolescent Medicine, 166*(2), 149-156. <https://doi.org/10.1001/archpediatrics.2011.755>
- Ward, B., & Gersten, R. (2013). A randomized evaluation of the safe and civil schools model for positive behavioral interventions and supports at elementary schools in a large urban school district. *School Psychology Review, 42*(3), 317-333. <https://doi.org/10.1080/02796015.2013.12087476>



Wu, Y.-C., Chen, P.-Y., Tsai, S.-P., Tsai, S.-F., Chou, Y.-C., & Chiu, C.-Y. (2019). The effects of the class-wide function-related intervention teams on behaviors of an elementary student with autism spectrum disorder in an inclusive classroom in Taiwan. *International Journal of Developmental Disabilities*, 65(5), 368-377. <https://doi.org/10.1080/20473869.2019.1647031>

Yeung, A. S., Mooney, M., Barker, K. L., & Dobia, B. (2009). Does school-wide positive behaviour system improve learning in primary schools? Preliminary findings. *New Horizons in Education*, 57, 17 - 32. <https://acuresearchbank.acu.edu.au/item/86454/does-school-wide-positive-behaviour-system-improve-learning-in-primary-schools-preliminary-findings>

This document was supported from funds provided by the Center on Positive Behavioral Interventions and Supports cooperative grant supported by the Office of Special Education Programs (OSEP) and Office of Elementary and Secondary Education (OESE) of the U.S. Department of Education (H326S180001). Mohamed Soliman, MA, EdS serves as the project officer. The views expressed herein do not necessarily represent the positions or policies of the U.S. Department of Education. No official endorsement by the U.S. Department of Education of any product, commodity, or enterprise mentioned in this document is intended or should be inferred.

Suggested Citation for this Publication

Santiago-Rosario, M. R., McIntosh, K., Izzard, S., Cohen Lissman, D., & Calhoun, T. E. (September 2023). *Is Positive Behavioral Interventions and Supports (PBIS) an Evidence-Based Practice?* Center on PBIS, University of Oregon. www.pbis.org