Hammill Institute on Disabilities

Behavioral Disorders
2018, Vol. 43(3) 393–406

DOI: 10.1177/0198742917753612
journals.sagepub.com/home/bhd
SAGE

District Practices Associated With Successful SWPBIS Implementation

Heather Peshak George, PhD[1], Karen Elfner Cox, MA[1], Devon Minch, PhD[1], and Therese Sandomierski, PhD[1]

Abstract

Schoolwide positive behavior interventions and supports (SWPBIS) is a widely implemented model for systematically supporting the social and behavioral development of students with and without disabilities, including those with and at risk for emotional and behavioral disorders. Identifying district factors associated with SWPBIS implementation fidelity and improved student outcomes can assist district personnel with appropriate allocation of resources, including professional development and school-based implementation support. Due to the limited empirical support for district-level factors that influence school practices and student outcomes, this exploratory study was conducted with the goal of identifying characteristics associated with school districts that have a high proportion of schools implementing SWPBIS with fidelity and sustained positive student discipline outcomes. Six high-implementing districts were identified, and semi-structured interviews with district staff were then conducted to identify common features staff attributed to their district's positive outcomes. Analysis of those interviews revealed eight themes including District Coordinator, Coaches, District Teaming, Internal Implementation Drivers, Leadership Buy-In and Support, District Data Infrastructure, Direct Support to Schools, and Communication. Limitations and implications are discussed.

Keywords

SWPBIS, organizations, student outcomes

Students with emotional and behavioral disorders (EBD) have the highest risk for poor school outcomes of any disability category (Wagner & Cameto, 2004). When students with EBD engage in ongoing patterns of challenging behavior, they are at higher risk of peer rejection, negative teacher interactions, and isolation from their community (Dunlap et al., 2006). In addition, challenging student behaviors often overwhelm district- and school-level personnel as they strive to address high rates of disciplinary incidents. Schoolwide positive behavior interventions and supports (SWPBIS) is a model that addresses student behavior by systematically supporting the social behavior development of all students in schools (Sugai & Horner, 2009; Walker et al., 1996). SWPBIS is a prevention framework for delivering a continuum of supports that integrates systems, data, and practices critical to obtaining desired schoolwide and student outcomes (Sugai & Horner, 2002).

An increasing number of schools have adopted the SWPBIS framework, which consists of a three-tiered continuum of evidence-based practices and organizational systems, emphasizing data-driven decision making, team-based problem solving, and multitiered systems of support (MTSS) to achieve academic and social success for students with and without disabilities (Lo, Algozzine, Algozzine, Horner, & Sugai, 2010; Office of Special Education Programs [OSEP] Technical Assistance Center on Positive Behavioral Interventions and Supports [PBIS Center], 2015). When implemented with fidelity, SWPBIS has been shown to result in decreases in office discipline referrals (ODRs) and out-of-school suspensions (OSS), as well as improved school climate, academic outcomes, and student engagement (Algozzine & Algozzine, 2007; Bradshaw, Koth, Bevans, Ialongo, & Leaf, 2008; Bradshaw, Koth, Thornton, & Leaf, 2009; Bradshaw, Mitchell, & Leaf, 2010; Bradshaw, Waasdorp, & Leaf, 2012; Childs, Kincaid, & George, 2010; Gage, Leite, Childs, & Kincaid, 2017; Gage, Sugai, Lewis, & Brzozowy, 2015). District support for SWPBIS is regarded as a critical component of successful school implementation, in that it directs allocation of resources and other supports for implementation. Given the potential of SWPBIS to support students with challenging behavior and prevent unnecessary referrals to more intensive settings, it is important to understand the mechanisms by which district support may influence implementation fidelity and student outcomes.

[1]University of South Florida, Tampa, USA

Corresponding Author:
Heather Peshak George, University of South Florida, 13301 N. Bruce B Downs Blvd., CBCS/CFS/FCIC, Tampa, FL 33612, USA.
Email: hgeorge@usf.edu

In 2014, to build capacity for the effective implementation of multitiered behavior support frameworks, the U.S. Department of Education's Office of Safe Schools allocated US$53 million for School Climate Transformation (SCT) grants to state and local education agencies. In the SCT grants, a primary mechanism for building local capacity was the requirement for all awardees across 38 states to develop leadership teams whose primary function was to oversee and guide all training and technical assistance in building multitiered systems for social and behavioral support. The federal government's focus on building local capacity is further evidenced in the 2002 creation of the PBIS Center. This collaborative was put in place to aid in building district and state capacity to organize and sustain multitiered behavioral frameworks such as SWPBIS. The PBIS Center reported that more than 25,000 schools across the country have adopted an approach to positively and proactively address the behavior of all students using SWPBIS (OSEP PBIS Center, 2017).

Florida's PBIS: MTSS (FLPBIS: MTSS) Project aims to build local district capacity for implementation of SWPBIS. The FLPBIS: MTSS Project provides training and technical assistance to Florida school districts in the following areas: (a) supporting districts' strategic plans to scale-up SWPBIS across schools and/or tiers of support; (b) providing training and technical assistance to district- and school-based leadership teams; and (c) supporting the use of needs assessment, student outcome, and implementation fidelity data to improve practices. To align support provision with the unique needs of each district, the FLPBIS: MTSS Project utilizes and applies research-supported systems-change procedures to develop models, resources, tools, activities, and support structures that build district capacity for implementing SWPBIS (e.g., Curtis, Castillo, & Cohen, 2008; Hall & Hord, 2015).

The FLPBIS: MTSS Project supports district leadership teams overseeing SWPBIS implementation through a strategic, data-based planning process that utilizes the PBIS Center's *Implementation Blueprint and Self-Assessment* as an organizing framework (OSEP PBIS Center, 2015; see George & Kincaid, 2008). The *Blueprint* is a user-friendly guide to improving the efficiency and success of large-scale replications of SWPBIS by providing a thorough implementation structure for districts to consider when developing strategic plans, sustaining those efforts, and planning for scale-up. The *Blueprint* describes crucial implementation "drivers," a term used to denote "key components of capacity that enable the success of innovations," and works to establish a functional infrastructure that enables a program's overall success (State Implementation & Scaling-Up of Evidence-Based Practices Center [SISEP] & National Implementation Research Network [NIRN], 2013).

The *Blueprint* provides resources for understanding the "what" and "why" of each driver as they apply to PBIS implementation in schools, and how districts may organize resources appropriately. The essential implementation drivers for effective district-level planning outlined by the *Blueprint* include (a) leadership team, (b) funding, (c) visibility and dissemination, (d) political support, (e) policy and systems alignment, (f) personnel readiness, (g) professional development, (h) coaching and technical assistance, (i) evaluation and performance feedback, (j) content expertise, and (k) demonstrations (OSEP PBIS Center, 2015). States and districts use the *Blueprint* when providing technical assistance and support to evaluate capacity and inform goals to develop a strategic plan. The *Blueprint* is an easy-to-use organizing tool that is readily available online.

The domains identified in the *Blueprint* draw upon the literature that identifies key systems practices associated with effective school practices and improved student outcomes (Fixsen, Naoom, Blasé, Friedman, & Wallace, 2005; Fullan, 2010; Hall & Hord, 2015; Leithwood, 2010; Leithwood & Azah, 2017) and areas known to be problematic for district improvement efforts (Snipes, Doolittle, & Herlihy, 2002). Specifically, the district leadership team emphasizes the communication within and across departments and team members as a critical practice for implementing successful innovations (Fullan, 2010; Hall & Hord, 2015; Leithwood & Azah, 2017). Through effective district teaming, policy and systems alignment allow for sufficient resources, funding, visibility, and dissemination of information and supports (e.g., professional development, coaching, technical assistance, evaluation, performance feedback, demonstrations) regarding the innovation (e.g., SWPBIS), fostering effective districtwide adoption (Anderson, 2006; Leithwood & Azah, 2017). However, many of the studies on which these findings are based focused on improved academic outcomes for students; less is known about these district-level practices and their relationship with implementation fidelity of *behavioral* innovations and subsequent improved behavioral outcomes for students.

Despite the alignment between the domains of the *Blueprint* and key practices of effective districts, the *Blueprint* is not empirically validated. In fact, relatively little research exists that informs the relative importance of the domains as specifically related to SWPBIS implementation within districts. Bradshaw and Pas (2011) conducted a multilevel analysis of factors associated with SWPBIS training and program adoption. The authors examined district factors, which included per pupil district expenditures (corresponding to the funding category of the *Blueprint*), the percent of schools in the district receiving Title I funds (funding), the percent of schools participating in the SWPBIS state initiative (demonstrations), and the percent of full-time equivalency provided by a SWPBIS coordinator in the district (coaching and technical assistance). Whereas the authors found a few district-level factors were significantly related to school receipt of training or SWPBIS adoption (i.e., district size, number of active SWPBIS schools in a district), none of the district-level factors outlined in the *Blueprint* were significantly associated with measures of implementation fidelity. The authors noted

additional research is needed to better assess district-level coordination and support on the SWPBIS adoption and implementation process. Likewise, in a study of the Schoolwide Universal Behavior Support Sustainability Index, McIntosh et al. (2013) conducted a factor analyses with participants from 217 schools that revealed two district-level factors: District Priority and Capacity Building. The District Priority factor (e.g., SWPBIS integrated into district initiatives) was not significantly related to sustained implementation when controlling for other factors. However, District Capacity Building (e.g., school team is connected to a community of practice) was found to be a significant predictor to sustaining implementation.

The need to bridge the research-to-practice gap by identifying information that is useful to real-life implementation contexts is essential. Due to the limited empirical support for recognized district-level factors, including those in the widely used *Blueprint*, and the importance of effective SWPBIS implementation for students with and at risk for EBD, we conducted an exploratory study to examine characteristics associated with districts that have a high proportion of schools implementing SWPBIS with fidelity and reporting positive student discipline outcomes. The current study explores the activities, strategies, features, and/or conditions that characterize districts with high levels of implementation fidelity and positive student disciplinary outcomes. In other words, what features are evident in high-implementing districts that achieve SWPBIS success?

Method

Quantitative criteria were used to identify a small group of districts successfully implementing SWPBIS (Phase 1) for participation in qualitative interviews regarding district practices that supported SWPBIS implementation (Phase 2).

Measures

The measures used in Phase 1 were taken from end-of-year evaluation reports submitted to the FLPBIS: MTSS Project by schools throughout the state. These reports included the schoolwide benchmarks of quality (BoQ), schoolwide enrollment totals, and schoolwide discipline totals (i.e., total ODR events and total days of OSS). The BoQ is a valid, comprehensive measure of SWPBIS implementation fidelity completed by school-based leadership teams at the end of the school year (Cohen, Kincaid, & Childs, 2007; Kincaid, Childs & George, 2010). The BoQ is an internationally used self-assessment tool that examines the implementation fidelity at the Tier 1/universal level of SWPBIS. The assessment uses a 53-item rating scale and scoring rubric, and the results can guide teams in specific action planning (George & Childs, 2012). Extensive technical assistance modalities were available to assist with completion of the BoQ (e.g., online training modules, on-site trainings, materials), but it was ultimately up to the school teams to report the data to the FLPBIS: MTSS Project unless otherwise mandated by their district.

At the end of each academic year, school teams also reported school-level student outcome data to the FLPBIS: MTSS Project, which included the number of ODRs and days of OSS for all students. Schools reported data through a secure, web-based evaluation system hosted by FLPBIS: MTSS Project. Data from all actively reporting FLPBIS: MTSS Project schools were used to calculate Florida discipline rates. National data for the number of ODRs and days of OSS were obtained from the 2013–2014 Schoolwide Information System Annual Report (OSEP TA Center, 2017).

Phase 1: Quantitative Identification of High-Performing SWPBIS Districts

Participant selection. Purposeful criterion sampling (Palinkas et al., 2015) was used to identify "high-performing" districts, from which PBIS District Coordinators (DCs) would participate in the semi-structured interview. The initial data set used for this study included 50 school districts in Florida, representing 1,329 SWPBIS-trained schools that could have submitted the required demographic, implementation, and discipline data to the FLPBIS: MTSS Project for the 2013–2014 school year. Districts that had at least 50% of their SWPBIS-trained schools submitting required annual evaluation data were identified. Evaluation data included school-level enrollment, two PBIS Implementation Checklists, a schoolwide BoQ (Kincaid et al., 2010), and Outcome Data Summary (including numbers of ODRs and OSS days). Thirty-three of the original 50 districts met these criteria and were used in the subsequent analysis to identify high-performing SWPBIS districts.

Identifying high-performing districts. The following quantitative criteria related to the implementation of SWPBIS were used to identify a subset of high-performing districts (see Table 1):

- Eighty percent or more of schools reported BoQ scores for at least 80% of the years since being initially trained by the FLPBIS: MTSS Project. This criterion could be met by schools that reported implementation data regularly, but whose BoQ scores may have fallen below 70% during any (or all) of those years.
- Eighty percent or more of schools within the district reported BoQ scores of 70% or higher for at least 80% of the years since being initially trained by the FLPBIS: MTSS Project.

Table 1. District PBIS Implementation and Outcome Data.

	Implementation			Outcomes							
District	Sustaining	Sustained fidelity	Good BoQ	OSS change	ODR change	ODR median	FL ODR median	ODR lowest quartile	FL ODR lowest quartile	OSS *M*	FL OSS *M*
D 1	N/A	N/A	**100**	67	**83**	**80**	**100**	40	40	60	60
D 2	N/A	N/A	**100**	**100**	**100**	0	**100**	0	0	**100**	**100**
D 3	**100**	62	72	**89**	78	44	50	19	6	**81**	**94**
D 4	**100**	56	**87**	73	73	54	38	31	15	54	**77**
D 5	**100**	33	**89**	67	56	11	11	0	0	44	56
D 6	**100**	**100**	**91**	**82**	73	60	40	20	20	20	60
D 7	**83**	33	**91**	57	61	36	41	9	9	45	68
D 8	**92**	31	66	45	76	50	38	27	8	12	42
D 9	N/A	N/A	33	0	**100**	**100**	**100**	**67**	**100**	67	**100**
D 10	**95**	**84**	**96**	24	55	55	53	30	21	**85**	**100**
D 11	50	25	**86**	52	52	**80**	60	35	30	55	**75**
D 12	**100**	75	**89**	47	58	43	43	14	7	29	57
D 13	**88**	38	79	75	54	29	29	10	5	29	48
D 14	**100**	**100**	**83**	50	67	**100**	67	**67**	33	67	67
D 15	**92**	**83**	**100**	53	73	**77**	**85**	**54**	38	**85**	**92**
D 16	**85**	30	**82**	68	61	68	59	32	45	59	68
D 17	**100**	**100**	**100**	67	67	33	0	0	0	67	**100**
D 18	**87**	53	**92**	48	64	**77**	59	36	36	64	**82**
D 19	**100**	63	**83**	44	39	27	20	13	7	27	53
D 20	69	27	**86**	68	68	44	31	18	7	7	26
D 21	33	33	**100**	0	50	50	50	**50**	**50**	50	50
D 22	**100**	**100**	**100**	75	**100**	50	0	0	0	25	50
D 23	**91**	45	**81**	63	75	25	19	13	6	6	25
D 24	**85**	26	**84**	56	78	**75**	**91**	**59**	**63**	**75**	**91**
D 25	**100**	43	78	44	33	38	25	25	19	6	19
D 26	63	25	67	**100**	50	25	0	0	0	**100**	**100**
D 27	N/A[a]	N/A[a]	**92**	62	62	**80**	**81**	**60**	**54**	**89**	**98**
D 28	N/A	N/A	**80**	**80**	40	50	25	25	25	25	25
D 29	75	75	50	50	75	**75**	**75**	**75**	25	**75**	**75**
D 30	55	23	**86**	43	67	21	16	5	0	0	21
D 31	50	50	**100**	67	**100**	50	0	0	0	0	0

Note. Sustaining = % of schools reporting schoolwide BoQ data for ≥80% of years; sustained fidelity = % of schools with schoolwide BoQ score >70% for ≥80% of years; good BoQ = % of SWPBIS-trained schools with schoolwide BoQ score >70% in most recent year; OSS change = % of schools with <15% increase in OSS; ODR change = % of schools with <15% increase in ODR; ODR median = % of schools < national median for ODR; FL ODR median = % of schools < FL median for ODR; ODR lowest quartile = % of schools in lowest quartile for national ODR; FL ODR lowest quartile = % of schools in lowest quartile for FL ODR; OSS *M* = % of schools below national mean for OSS; FL OSS M = % of schools below FL mean for OSS. Bold indicates that a district met the criteria for the measure. N/A indicates insufficient data to complete the analysis. Shaded districts met at least two measures in both implementation and outcome measures. PBIS = positive behavior interventions and supports; BoQ = benchmarks of quality; OSS = out-of-school suspensions; ODR = office discipline referral; FL = Florida; SW = schoolwide; MTSS = multitiered systems of support.
[a]District trained by non-FLPBIS: MTSS Project personnel and did not collect fidelity measures until 2013–2014 school year.

- Eighty percent or more of SWPBIS-trained schools in the district reported a BoQ score of 70% or higher during the current school year (2013–2014).

Student outcome data were also used to identify high-performing districts. These criteria were developed based on discipline data available from the National Technical Assistance Center on PBIS (median national ODR rate and mean national OSS rate), data available through standard evaluation practices of the FLPBIS: MTSS Project (described below), and historical practices involving evaluation data. The following positive student outcome criteria were used:

- Eighty percentage or more of a district's schools had no more than a 15% increase in OSS or ODR rates

between 2012–2013 and 2013–2014. This cutoff has historically been used by the FLPBIS: MTSS Project to identify schools with generally stable or improved outcomes, as some variations in discipline data are expected due to changes in student populations and/or fluctuations in staff reporting practices;
- Greater than 75% of schools in a district were equal to or less than the median ODRs per 100 students for their school type (elementary, middle, or high; national and state);
- Greater than 50% of schools were in the lowest quartile of ODRs per 100 students for their school type (elementary, middle, or high; national and state); and
- Greater than 75% of schools in a district were equal to or less than the mean OSS per 100 students for their school type (elementary, middle, or high; national and state).

The final sample of high-performing districts was established by identifying the districts that met at least two of the high-implementing criteria and two of the student outcome criteria. These thresholds were established to ensure the final sample reflected districts whose schools achieved high-implementation fidelity as well as positive student outcomes. Of the 33 initial districts with sufficient data to be included in the sample, six districts met two high-implementing criteria and two student outcome criteria, creating a small sample conducive to in-depth interviews. Table 1 displays the data assessed for the 33 districts and identifies the six high-performing districts. Table 2 provides a descriptive summary of the six high-performing districts.

Phase 2: Qualitative Structured Interview Procedures

For this portion of the study, we employed a neo-positivist orientation, seeking to obtain valid and credible knowledge about participants' experiences and perceptions while minimizing the influence of our own perspectives (Roulston, 2010).

Participants. The PBIS DC from each of the six high-performing districts identified in Phase 1 participated in semi-structured interviews. Each district appoints a DC who works with the district leadership team to develop an annual strategic plan outlining PBIS training and technical assistance supports for the school year, and thus has detailed knowledge of school- and district-level plans and implementation challenges. The DC also serves as the main point of contact between school teams implementing SWPBIS and the FLPBIS: MTSS Project.

Project staff offered each DC the opportunity to invite additional district staff to participate in the interview if the DC felt the staff member played an important role in coordination of SWPBIS implementation during the 2013–2014 school year. One district included both their DC who was newly appointed toward the end of 2013–2014 and the outgoing DC who served as the primary spokesperson due to a greater historic perspective. The other five interviews involved only the DC. Participants were all female, four of whom had 6 years experience as a DC, one with 4 years, one with 3 years of experience, and one with 3 months experience in her role.

Procedures. The study's primary investigators met with the FLPBIS: MTSS Project staff who served as the primary support person for each of the six high-performing districts. The primary support staff shared information with the investigators that summarized issues critical to strategic planning and supports for their participating district and reviewed selected permanent products from their district. These products included the (a) pre-planning interview (qualitative data) and the (b) pre-planning survey data (quantitative data associated with *Blueprint* domains). The pre-planning interview and pre-planning survey data were used by FLPBIS: MTSS Project staff to gather information on a district's activities related to the *Blueprint* domains. The information helped identify priorities for discussion at an annual action-planning meeting with the district's leadership team. The study investigators also solicited FLPBIS: MTSS Project staff for potential inclusion of additional district staff in the interviews with the DC. Investigators and Project staff coordinated scheduling of the interviews with the DCs from each of the six high-performing districts.

All six high-performing districts participated in the telephone interview phase of data collection. At least two of the study investigators participated in each interview. The primary prompt for the interview was: "From the extant data, we have learned about some of the great things happening in your district that have resulted in fidelity of SWPBIS implementation and good student discipline outcomes. Please share with us more about how these practices were made possible." If additional prompts were necessary, the themes identified in the pre-annual planning survey served as the foundation for generating responses (e.g., "Your SWPBIS District Leadership Team is integrated with your MTSS Leadership Team and meets monthly to plan and problem solve; how did this come to be?"). Each interview lasted from 1 to 2 hr with notes taken by at least one of the investigators. The district staff were asked to review the notes for accuracy and make clarifications if necessary. Final notes were typed and saved for coding.

Coding. A constant comparative analysis technique (Glaser & Strauss, 1967) was used to analyze the qualitative data. The inductive coding processes employed open-ended coding, during which the authors created codes based on participants' expressed perceptions and experiences. Thought units (Lincoln & Guba, 1985), known as coherent and distinct meanings

Table 2. Characteristics of the High-Performing Districts.

District ID	% trained schools	Trained schools	Active schools	Inactive schools	No. of students	No. of free or reduced lunch	% of free or reduced lunch	Locale	No. of years PBIS collaboration
D10	100	60	57	3	43,238	26,792	62	Suburb: Midsize	10
D14	45	20	7	2	8,446	2,266	27	Town: Remote	6
D15	76	33	20	5	25,885	10,470	40	Suburb: Large	9
D18	87	46	32	8	33,218	14,799	45	City: Midsize	10
D24	95	64	59	2	64,344	28,886	45	Suburb: Large	10
D27	94	198	186	0	176,901	98,051	55	Suburb: Large	2

Note. % trained schools = percentage of schools in district trained by PBIS staff; trained schools = number of schools trained by PBIS staff; active schools = number of trained schools actively participating; inactive schools = number of trained schools no longer participating; PBIS = positive behavior interventions and supports.

within transcripts, were compared against each other to examine similarities and differences. A codebook was developed based on the thought-unit codes. If new codes were considered to be similar to previously coded units, they were assigned the same code. Conceptually different thought units were assigned novel codes. Regular (i.e., weekly) meetings to discuss patterns, observations, and questions about the information shared by participants and codes being assigned to the information were conducted by the study investigators.

To establish a team research method of triangulation in coding (Taylor & Bogdan, 1984), three members of the study team formed three unique pairings of coding dyads, which were each assigned a set of transcripts to code. Each team member coded their assigned transcripts independently and then reviewed the codes with their assigned partner for the transcript. Any disagreements for codes within a transcript were discussed between dyad members until consensus was reached. If consensus could not be reached between dyad partners, the coding was discussed among the three team members and a decision was made regarding how to code the segment of transcription.

Data analysis. The final codes were reviewed and related codes were aggregated into axial codes to represent meaningful conceptual relationships. A relevant name for each group of related codes was established, which resulted in the titles of the themes and subthemes. The number of times each coding unit appeared was counted, thus enabling a code count for each corresponding subtheme and theme. In addition to the team triangulation approach described in the coding method, each district participant was asked to review the coded results of their interview to further ensure accuracy and credibility of the thematic summaries. The district participants agreed with the results indicated in the thematic summary.

Results and Discussion

This qualitative investigation utilized quantitative criteria to identify a small group of Florida school districts that had a majority of schools implementing SWPBIS with fidelity *and* achieving positive student disciplinary outcomes. Qualitative interviews identified eight major themes (see Table 3) related to district-level supports for SWPBIS: DC, Coaches, District Teaming, Internal Implementation Drivers, Leadership Buy-In and Support, District Data Infrastructure, Direct Support to Schools, and Communication. Multiple subthemes were identified for each of the major themes with the exception of Communication (see Table 3). Participants from a minimum of two districts endorsed all of the 23 identified subthemes, with three or more districts (at least half of participating districts) endorsing 20 of the subthemes. Note that some participants referred to SWPBIS as "PBS" (positive behavior support) and the terms are used synonymously in this article.

District Coordinator

A DC is considered the lead contact between a state project and the local school team that oversees all SWPBIS activities within their district. This theme contained the greatest number of codes, although it is not one of the *Blueprint* elements. This theme also included the most highly coded subtheme, "Relationships." Relationships refer to positive, trusting, and collaborative social connections with various stakeholders (e.g., administrators, coaches, school team leaders; Leithwood, 2010; Leithwood & Azah, 2017). For instance, one DC leveraged a relationship established in a previous position to promote PBS: "She [the DC] was a guidance counselor who rose to the Assistant Director position. She talked him [superintendent] into pushing PBS." Another participant commented that the DC "has to know behavior AND be able to build relationships with principals, and relationships with parents both informal and formal."

Although the FLPBIS: MTSS Project focused on supporting the DC to engage in explicit activities (e.g., ensuring schools complete evaluations on time, disseminating information), the results of this evaluation indicate characteristics or personal attributes of the individual as being key to successful implementation (i.e., the DC is passionate,

Table 3. Qualitative Themes.

Theme	Code count	No. of districts endorsing	Subtheme	Code count	No. of districts endorsing
District Coordinator	49	6	Relationships	24	6
			Passionate	19	4
			Knowledge and skills	4	3
			Administrative experience	2	2
Coaches	42	6	Training	19	6
			Technical assistance	13	5
			Roles and responsibilities	6	2
			Input valued	4	2
District Teaming	29	6	PBS/MTSS integration	15	6
			Team activities	9	3
			Collaboration	5	3
District Team Activities	29	6	Visibility	7	3
			Recognition	6	4
			Funding	6	4
			Incentives	5	3
			Accountability	5	3
Leadership Buy-In and Support	23	6	District-level	15	5
			School-level	8	3
District Data Infrastructure	23	5	Infrastructure	19	5
			Collaboration and communication	4	3
Direct Support to Schools	21	5	Differentiated supports	14	5
			Training	5	3
Communication	18	5	Infrastructure	15	5

Note. PBS = positive behavior support; MTSS = multitiered systems of support.

knowledgeable, connected/has relationships with critical staff and/or district leaders). Notably, participants' comments underscored that although the simple completion of key tasks was crucial for schools' success, the DC's enthusiasm for his or her role was what led district leaders to endorse SWPBIS as a way of work. These findings are consistent with systems change and school reform research that identifies interpersonal characteristics, change agents' communication styles, and relational trust among individuals in a system as being crucial to improvement efforts (Bryk & Schneider, 2002; Hall & Hord, 2015; Leithwood, 2010; Leithwood & Azah, 2017).

Coaches

Coaches serve as an additional support to schools and district teams by facilitating collaborative team-based problem solving to enhance SWPBIS implementation fidelity and student outcomes. The number of coaches a district may support depends upon available resources, and coaches may be established at the school (internal) and/or district level (external). Coaches may provide direct on-site technical assistance but may also serve in a formal training capacity as a district trainer. Coaches was the second most frequently coded theme. It was comprised of two highly coded subthemes, Training and Technical Assistance, which were identified in five of the six districts. Training involved training school staff in standardized curriculum delivered in didactic or workshop-style settings, whereas Technical Assistance focused on more individualized, embedded, and alternative supports to implementation.

Our findings expand on the description of coaching found in the *Blueprint* to encompass district-level activities focused on developing capacity for coaching. For example, whereas the *Blueprint* identified the importance of identifying coaches' roles and responsibilities to ensure task completion, timely evaluation, and adherence to fidelity, the current study highlights the importance of coaches' training. Specifically, participants indicated the importance of attending to the personnel included in the training, the relevancy of the training to individuals' current roles, and how information is planned and communicated. For example, participants commented, "Every fall—gather new PBS coaches and do a booster training with them—half day," "They [coaches] get professional development in-service points toward recertification," and "[the DC] taught coaches the data that was needed and how to pull graphs and drill into the data [to effectively support team implementation]." Findings also highlight the importance of

follow-up technical assistance to coaches. Transcripts illustrated how DCs and others in district leadership support their school-based coaching staff: "sharing of best practices at coaches meeting," "internal coaches are on a distribution email list. They are sent resources," and "[DC] provides 1 to 1 support to individual coaches as needed."

These findings are consistent with the systems-change research emphasizing the collective capacity of systems to implement innovations successfully by including effective professional development approaches (i.e., coaching, professional learning communities; Fullan, 2010; Leithwood, 2010; Leithwood & Azah, 2017). Participants identified developing the capacity of local systems to support SWPBIS through effective coaching as a key to their districts' success. This finding is central to the FLPBIS: MTSS Project's efforts as well as the national PBIS Center.

District Teaming

Our findings related to district team members' roles and functions aligned with the guidelines provided in the *Blueprint*. District Teaming involves a diverse range of stakeholders that have the authority to influence the district in SWPBIS activities (e.g., superintendent; directors from various departments such as curriculum and instruction, special education, student services, transportation). This theme's most frequently coded subtheme was PBS/MTSS Integration (i.e., alignment of policies and practices to support MTSS implementation across all content areas). The theme emphasized team member participation ("PBS DC ran the [MTSS Leadership Committee] meetings"), as well as team structure and integration with other district improvement efforts (e.g., collaboration across departments, integration of SWPBIS and academics within MTSS). For instance, "The goal is for everyone to have a common language and understanding across the district, schools, staff, and administrators, especially in regards to MTSS terminology and practices," and "Initially PBS was not included [in MTSS delivery and coaching] but started modeling at the district level with integrated coaches' meetings (braiding initiative), MTSS and PBS coaches together 100+" (over 100 people participating).

The current study advanced the *Blueprint* definition of district teaming to identify the importance of collaborative and integrated teaming, planning, and data-based problem solving. This extends the alignment of district goals and priorities to encompassing the integration and blending of initiatives as part of the bigger strategic plan (Leithwood, 2010; Leithwood & Azah, 2017). These findings are consistent with Fullan's (2010) work identifying that effective districts "run in a focused, coherent all-systems-go mode" (p. 12) in which there are no silos across departments—rather, multiway partnerships focused on practices and outcomes become the organization's way of work.

District Team Activities

District Team Activities tied for the third most frequently coded theme. This finding is not surprising given that it takes a team to implement many of the activities across a district. District Team Activities included ongoing action planning, communication with community stakeholders (e.g., school board members, business partners, families, and agencies), and monitoring and reporting implementation data. District Team Activities included several subthemes consistent with the District Leadership Team's responsibilities described in the *Blueprint* such as securing funding, building and maintaining political support, showcasing and recognizing excellence, and ensuring broad visibility (e.g., from staff to school board to community members). The most frequently coded subtheme was visibility, as reflected in, "There is such an eyeball on the school system by the community that if the number of model schools dropped from 40 to 39 there would be an uproar." This statement indicates that the community has high expectations and is highly aware of the model schools in their area. Further statements such as "Every June during the Leadership Academy week SWPBIS was on the agenda" and "She [DC] had access to principals" demonstrate that additional opportunities were utilized to expose school leaders to PBS on a frequent basis.

Study findings enrich the *Blueprint* team activity descriptions by featuring the use of incentives (e.g., acknowledgment for attendance at trainings, recognition for teams' use of data for problem solving) as a method to increase SWPBIS implementation and raise visibility/support across stakeholder groups. Interestingly, something not emphasized in the *Blueprint* but identified in this evaluation was the importance of district accountability for school-based implementation (e.g., verification of meeting as teams, using data, holding administrators responsible). This is consistent with the notion of setting high expectations and providing follow-through and support for meeting those expectations, which has been identified in the research as a critical practice for successful schools and districts (Leithwood, 2010; Leithwood & Azah, 2017; Louis, Leithwood, Wahlstrom, & Anderson, 2010). Multiple participants noted, "What gets inspected, gets respected," indicating that data-based evaluations are prioritized and important for district success.

Leadership Buy-In and Support

Leadership Buy-In and Support was the fourth most frequently coded theme with district-level as the most frequently coded subtheme. Although it is not a specific domain of the *Blueprint*, leadership buy-in and support are required to achieve any of the elements identified in the *Blueprint*. This theme is consistent with previous

findings that district- and school-level leadership are critical for the successful implementation of innovations (Epstein, Galindo, & Sheldon, 2011; Hall & Hord, 2015; Leithwood, 2010). Participants' comments related to district-level leadership buy-in and support include "District administration—top down—there is a realization that it is as important to work on behavior as it is to work on academics" and "[District MTSS which led the PBS efforts] Team met 11 of 12 months and [having] access to decision makers and support when needed [was essential]."

Participants identified the importance of both district- and school-level leadership support, with several participants describing the value of leaders who made their start in schools implementing SWPBIS, and then rose through the ranks to district-level leadership while carrying the support for SWPBIS with them. For example, the "Assistant Superintendent—now CAO (Chief Academic Officer) was fully supportive of PBS [and] had been a [previous] principal" indicated district-level buy-in. This process of leadership development highlights the role of institutional knowledge within districts as an important strategy for supporting SWPBIS implementation.

District Data Infrastructure

District Data Infrastructure was the fifth most frequently coded theme with Infrastructure as the most frequently coded subtheme. Participants described effective data systems related to behavior, discipline, and SWPBIS implementation as being crucial to the district's success. "[We use the] data system called SMART. They built from the ground up [with the DC providing input along the way]." Notably, participants identified the importance of obtaining input regarding the data system development and use from critical personnel (i.e., DC, coaches, and administrators). "The DC was invited by district leadership to sit in on the presentations by data system vendors—demonstrating their commitment to the systems being useful for database problem solving." They also identified the need to have a representative from the district's data management system work alongside the district leadership team to ensure the data system addressed unique needs related to student behavior (e.g., user-friendly reports and graphs, including function of behavior). "[DC's Supervisor] communicates with the EDW [Educational Data Warehouse] and Forms Department for regular updates to reports. For example, an attendance report was requested and generated." These activities align with the Evaluation and Performance Feedback domain in the *Blueprint*; however, our findings related to the multiple layers in establishing an effective data infrastructure articulate more specific features that have limited support in existing literature (Leithwood, 2010).

Direct Support to Schools

Direct Support to Schools was the sixth most frequently coded theme with Differentiated Supports as the most frequently coded subtheme. Direct Support to Schools is aligned with the *Blueprint* domains of Coaching, Training, and Technical Assistance. To deliver direct supports to schools, DCs reported the need to first build their *own* skill repertoire (i.e., professional development) and receive ongoing supports from the FLPBIS: MTSS Project so they could implement the newly acquired skills (i.e., technical assistance to schools and coaches) directly to the schools and onsite coaching support personnel. In contrast to the DC theme that primarily focused leadership and advocacy strategies, Direct Support to Schools reflected the importance of considering what supports are needed by implementers for them to meet performance expectations. In particular, participants identified that training in an environment conducive to learning was highly relevant to participants. Specific examples included ease of parking, comfortable training facility, participant incentives, and snacks. Although these may appear to be incidental compared with essential system components, this finding parallels the school-level research highlighting the importance of school environments that are conducive to student learning and outcomes (Tanner, 2006, 2008, 2009). Based on the reports of DCs in this study, although training and professional development can occur in many places, the format, setting, and experience of the trainer affects SWPBIS implementation.

Our findings illuminate the use of data to differentiate supports provided to schools to address the needs of students with and without disabilities. Districts must access meaningful school data to appropriately allocate district resources (e.g., implementation and student outcome data may identify high-need schools that require more district support). Examples of the Differentiated Direct Support to Schools from the transcripts included, "The PBS lead would provide peer support and help schools that were struggling to move up in what they did to implement" and "If they identify something at a coaches' meeting that is a barrier [for example] the principal won't send the thank you to business for contributing, the DC follows up with the principal . . . and then the principal followed through." This example extends beyond the traditional support provided to schools by serving as a conduit that is advantageous for both the community partner and school.

Communication

Communication was the least frequently coded theme with Infrastructure as the only subtheme. This theme included both the content of the communication and the systems used to deliver the message. For example, participants indicated that providing information on how SWPBIS aligned with

other initiatives and how SWPBIS was supported in existing strategic plans were important. Related to how content was communicated, participants indicated the importance of establishing consistency through a common language that is publicly communicated across stakeholders (e.g., administrators, district leaders, educators, staff, families, students, community partners) and across a variety of platforms (e.g., website, school marquees, school board meetings, newsletters). For example, participants made statements such as "Goal is for everyone to have a common language and understanding across the district, schools, staff, and administrators especially in regard to MTSS terminology and practices," and "Have monthly coaching meetings facilitated by DC. They get ideas from each other and have each other to talk to and problem solve—they use the same language and find this really helpful."

Establishing priorities through active and ongoing communication with administration is essential to maintaining the momentum of an initiative. Participants described the staying power for the recommended strategies and shared the importance of addressing questions related to buy-in and maintaining sustainability across time such as, "Is this an initiative that will be replaced next year?" Sustaining priorities requires constant communication of updates to maintain the interest of those it affects. The recommended strategies included, "Are all the district leaders using a common language that supports the same message?" Common messaging is critical for cohesiveness and large-scale systems change. Also described was the consistency of the communications such as, "Do stakeholders seem to be relaying the same message across the district?" Conflicting messages can cause confusion across stakeholders and impede momentum. It is critical that district leaders carefully plan their priorities and the method of communication across stakeholders. These findings are consistent with existing research emphasizing diffusion of innovations and the importance of communicating effectively and consistently about the innovation at all levels of the system to ensure its success (Hall & Hord, 2015; Leithwood, 2010; Leithwood & Azah, 2017).

Summary

Because the FLPBIS: MTSS Project structured its district planning and support process around the widely used *Blueprint*, many of the statements made by participating districts were consistent with the *Blueprint* domains (e.g., Training, Coaching, Visibility, Coordination, Funding Supports). Many themes identified in this analysis highlighted specific and/or unexpected features of the *Blueprint* domains and provided rich, vivid illustrations of each concept. As depicted in Figure 1, some themes identified in this study directly align with *Blueprint* domains, whereas other themes are unique to this study or the *Blueprint*. Although our coding of the qualitative data produced differences in domain titles in some instances (such as Direct Support to Schools vs. the *Blueprint*'s Professional Development), many of the basic ideas underlying the themes are consistent with domains of the *Blueprint*.

When themes in the present study overlapped with *Blueprint* domains, study findings often highlighted important characteristics not explicitly included in the popular *Blueprint.* For example, the rich detail interviewees provided related to the themes of DC and District Teaming revealed the unique contributions of the DC and the importance of an integrated teaming structure. Similarly, the attributes of the district implementers (DC and coaches) were emphasized throughout the qualitative analysis, with participants across districts identifying the relationships, passion, knowledge, skills, and administrative experience of the DC as critical features. Although these attributes are not specifically discussed in the *Blueprint* as necessary components to ensure successful implementation, they align with existing research that underscores the importance of relational trust and communication of innovations as critical to successful implementation of school improvement efforts (Bryk & Schneider, 2002; Hall & Hord, 2015; Leithwood, 2010; Leithwood & Azah, 2017). Notably, although relationships and passion are difficult to observe and measure in a reliable and valid way, participants identified these concepts as being particularly important to effective implementation within a district. Another example of the importance of relationships is reflected in district leadership team valuing the input from coaches to inform strategic planning efforts (Input Valued subtheme of the Coaches theme). This supports the notion that it is not just coaches' knowledge and skills that are important to SWPBIS implementation, but also give-and-take communication with site-based coaches and the district team.

Receiving training in SWPBIS does not necessarily result in action at the campus level, and additional district-level supports may be required for schools to reach a level of implementation that positively impacts all students. It is important to consider how implementation is situated and integrated within the larger district context to best support effective practices, as this could affect SWPBIS in a variety of stages based upon the perceived priorities and available resources (Fixsen et al., 2005; Leithwood, 2010). Although focused on the implementation of SWPBIS, the current study's findings offer implications for districts to consider when faced with a variety of initiatives, siloed personnel, and/or a dysfunctional organization of various departments that make coordinated and collaborative strategic planning inefficient or challenging. An emphasis on supporting district implementation by building district capacity through an established bidirectional coaching framework (coaching the district and school team leaders) that is founded in problem solving may be one effective strategy to build leadership skills and ensure team-based approaches to multitiered implementation supported by multiple district departments (e.g., student support services, special education,

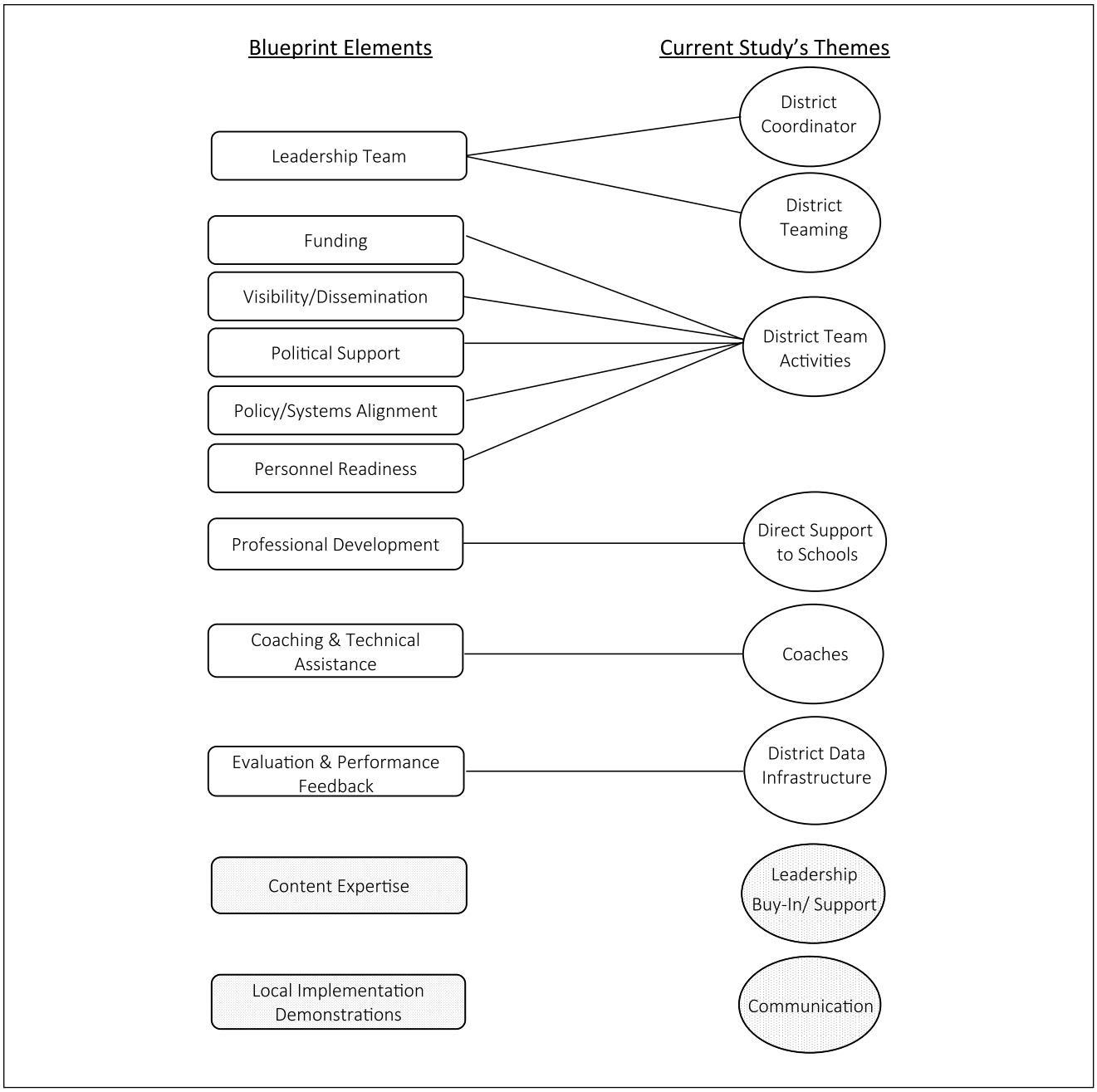

Figure 1. Alignment between positive behavior support: implementers' blueprint and self-assessment elements and the current study's identified themes.
Source. Adapted from OSEP Technical Assistance Center on PBIS (2015).
Note. Items connected by lines indicate alignment. Shaded items without connections are unique to the respective work.

curriculum, and instruction). The current study identifies district-level strategies used by six high-performing districts to facilitate the implementation of SWPBIS. Empirically validating the efficacy of these approaches through experimental research that examines whether these practices cause improved SWPBIS implementation and student outcomes is a critical next step.

Limitations and Implications for Future Research and Practice

We note the existence of limitations to the current study. First, the study included a small number of mostly larger Florida districts (at least 20,000 students each) that may not generalize beyond the current sample. Second, this was an

exploratory evaluation that did not employ an experimental design from which causality can be inferred. Third, the criteria for creating a small group of high-performing school districts were arbitrary and may have resulted in selecting districts that were not uniformly high performing in relation to SWPBIS implementation and student disciplinary outcomes. Finally, the data used to identify high-performing (i.e., successful) districts were self-reported (e.g., collected and submitted by the schools and districts themselves). Although the FLPBIS: MTSS Project trained DCs and coaches in how to collect and monitor data with integrity, self-reporting of data is susceptible to inaccuracies, and the reliability of the data reported for the study was not assessed. Despite these limitations, the current study highlights important features of implementation that can inform strategic and effective supports to bridge the research-to-practice gap in real-life implementation contexts.

Additional experimental research is needed to empirically validate whether and the degree to which the district-level practices identified in this study and elsewhere cause improved SWPBIS implementation and behavioral outcomes for students. Given the popularity of SWPBIS and districts' frequent reliance on the *Blueprint* for implementation planning, it is important to clearly identify the critical features within each of the established domains and align district resources to those activities that clearly affect implementation. Furthermore, it will be important to operationally define and measure the relatively nebulous district-level practices (e.g., relational trust and communication strategies) associated with effective SWPBIS implementation in this and other studies.

Another implication of this study speaks to the importance district personnel assign to their local context and capacity prior to their decision to adopt an innovation. Several of the major themes identified in this evaluation reflected a need to integrate SWPBIS with existing district initiatives (DC, District Teaming, District Team Activities, and Leadership Buy-In/Support), use data systems that provide relevant information about student needs and implementation status (District Data Infrastructure and Direct Support to Schools), and build the technical knowledge and "soft skills" of persons with responsibility for overseeing district and school implementation (Coaching, Direct Support to Schools, and Communication). Despite participants' emphasis of these themes, these characteristics are often treated as an afterthought in district planning meetings, where the focus centers around the number of school personnel who may attend a training—rather than changes in scheduling, professional development configurations, or data systems that might allow personnel to implement change more efficiently. The interviewees' emphasis on these themes suggests that district strategic planning meetings may benefit from a reconsideration of long-term goals and resource allocations, a consideration of practical strategies for job-embedded skill acquisition, and the identification of strategies to help implementers maintain momentum and institutional knowledge for long-term sustainability.

In spite of the current study's limitations, districts interested in using SWPBIS as a framework for supporting the behavioral needs of all students, including those with or at risk for EBD, might consider ways to incorporate some of the strategies described by this sample of high-implementing districts. Although SWPBIS implementation requires significant energy to initiate, without proper maintenance, the impact can be limited, which in turn may limit the impact on student outcomes. Additional training, resources, and information specific to each of the eight themes identified in the current evaluation should be explored to support district implementation and sustainability of these features with the goal of improving schools' appropriate implementation of SWPBIS and enhanced student outcomes.

Acknowledgments

The authors wish to thank Chris Barclay for his assistance in data collection and initial analysis.

Authors' Note

The opinions expressed are those of the authors and do not represent views of the Offices or U.S. Department of Education.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This research was supported by the Office of Special Education Programs (H326S130004) and the Office of Safe and Healthy Students (S184F140023), U.S. Department of Education.

References

Algozzine, K., & Algozzine, B. (2007). Classroom instructional ecology and school-wide positive behavior support. *Journal of Applied School Psychology*, *24*, 29–47.

Anderson, S. E. (2006). The school district's role in educational change. *International Journal of Education Reform*, *15*(1), 13–37.

Bradshaw, C. P., Koth, C. W., Bevans, K. B., Ialongo, N., & Leaf, P. J. (2008). The impact of School-Wide Positive Behavioral Interventions and Supports (PBIS) on the organizational health of elementary schools. *School Psychology Quarterly*, *23*, 462–473. doi:10.1037/a0012883

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), 100–115. doi: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*, 133–148.

Bradshaw, C. P., & Pas, E. T. (2011). A statewide scale up of positive behavioral interventions and supports: A description of the development of systems of support and analysis of adoption and implementation. *School Psychology Review*, *40*, 530–548.

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*, e1136–e1145.

Bryk, A., & Schneider, B. (2002). *Trust in schools: A core resource for improvement*. New York, NY: Russell Sage Foundation.

Childs, K. E., Kincaid, D., & George, H. P. (2010). A model for statewide evaluation of a universal positive behavior support initiative. *Journal of Positive Behavior Interventions*, *12*, 198–210.

Cohen, R., Kincaid, D., & Childs, K. E. (2007). Measuring school-wide positive behavior support implementation. *Journal of Positive Behavior Interventions*, *9*, 203–213.

Curtis, M. J., Castillo, J. M., & Cohen, R. C. (2008). Best practices in systems-level change. In A. Thomas & J. Grimes (Eds.), *Best practices in school psychology* (Vol. V, pp. 223–234). Washington, DC: National Association of School Psychologists.

Dunlap, G., Strain, P. S., Fox, L., Carta, J. J., Conroy, M., Smith, B., & Sowell, C. (2006). Prevention and intervention with young children's challenging behavior: Perspectives regarding current knowledge. *Behavioral Disorders*, *32*, 29–45.

Epstein, J. L., Galindo, C. L., & Sheldon, S. B. (2011). Levels of leadership: Effects of district and school leaders on the quality of school programs of family and community involvement. *Educational Administration Quarterly*, *47*, 462–495.

Fixsen, D. L., Naoom, S. F., Blasé, K. A., Friedman, R. M., & Wallace, F. (2005). *Implementation research: A synthesis of the literature*. Tampa: University of South Florida, Louis de la Parte Florida Mental Health Institute, The National Implementation Research Network (FMHI Publication #231).

Fullan, M. (2010). *All systems go: The change imperative for whole system reform*. Thousand Oaks, CA: Corwin.

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. doi:10.1177/1098300717693556

Gage, N. A., Sugai, G., Lewis, T. J., & Brzozowy, S. (2015). Academic achievement and school-wide positive behavior supports. *Journal of Disability Policy Studies*, *25*, 199–209. doi:10.1177/1044207313505647

George, H., & Kincaid, D. (2008). Building district-level capacity for positive behavior supports. *Journal of Positive Behavior Interventions*, *10*, 20–32.

George, H. P., & Childs, K. E. (2012). Evaluating implementation of schoolwide behavior support. *Preventing School Failure*, *56*, 197–206.

Glaser, B. G., & Strauss, A. L. (1967). *The discovery of grounded theory: Strategies for qualitative research*. Chicago, IL: Aldine Publishing Company.

Hall, G. E., & Hord, S. M. (2015). *Implementing change: Patterns, principles and potholes* (4th ed.). Boston, MA: Pearson.

Kincaid, D., Childs, K., & George, H. P. (2010). *School-Wide Benchmarks of Quality (BoQ)* (Unpublished instrument). Department of Child and Family Studies, University of South Florida, Tampa. Retrieved from http://www.pbis.org/evaluation/evaluation-tools

Leithwood, K. (2010). Characteristics of school districts that are exceptionally effective in closing the achievement gap. *Leadership and Policy in Schools*, *9*, 245–291.

Leithwood, K., & Azah, V. N. (2017). Characteristics of high-performing school districts. *Leadership and Policy in Schools*, *16*, 27–53.

Lincoln, Y. S., & Guba, E. (1985). *Naturalistic inquiry*. Newbury Park, CA: SAGE.

Lo, Y.-y., Algozzine, B., Algozzine, K., Horner, R. H., & Sugai, G. (2010). Schoolwide positive behavior support. In B. Algozzine, A. P. Daunic, & S. W. Smith (Eds.), *Preventing problem behaviors: Schoolwide programs and classroom practices* (2nd ed., pp. 33–51). Thousand Oaks, CA: Corwin.

Louis, K. S., Leithwood, K., Wahlstrom, K. L., & Anderson, S. E. (2010). *Learning from leadership: Investigating the links to improved student learning*. Saint Paul: Center for Applied Research and Educational Improvement, University of Minnesota.

McIntosh, K., Mercer, S. H., Hume, A. E., Frank, J. L., Turri, M. G., & Mathews, S. (2013). Factors related to sustained implementation of schoolwide positive behavior support. *Exceptional Children*, *79*, 293–311.

Office of Special Education Programs Technical Assistance Center on Positive Behavioral Interventions and Supports. (2015). *Positive behavioral interventions and supports (PBIS) implementation blueprint and self-assessment*. Eugene: University of Oregon. Available from https://www.pbis.org

Office of Special Education Programs Technical Assistance Center on Positive Behavioral Interventions and Supports. (2017). Eugene: University of Oregon. Available from https://www.pbis.org

Palinkas, L. A., Horwitz, S. M., Green, C. A., Wisdom, J. P., Duan, N., & Hoagwood, K. (2015). Purposeful sampling for qualitative data collection and analysis in mixed method implementation research. *Administration and Policy in Mental Health*, *42*, 533–544.

Roulston, K. (2010). *Reflective interviewing: A guide to theory and practice*. London, England: SAGE.

Snipes, J., Doolittle, F., & Herlihy, C. (2002). *Foundations for success: Case studies of how urban school systems improve student achievement. MDRC for the Council of the Great City Schools*. Retrieved from https://www.mdrc.org/sites/default/files/foundations_for_success_summary.pdf

State Implementation & Scaling-Up of Evidence-Based Practices Center & National Implementation Research Network. (2013). *Implementation drivers* (Handout 12). Retrieved from http://implementation.fpg.unc.edu/resources/handout-12-implementation-drivers

Sugai, G., & Horner, R. (2002). The evolution of discipline practices: School-wide positive behavioral supports. *Child*

& Family Behavior Therapy, *24*, 23–50. doi:10.1300/J019v24n01_03

Sugai, G., & Horner, R. H. (2009). Responsiveness-to-intervention and school-wide positive behavior supports: Integration of multi-tiered approaches. *Exceptionality*, *17*, 223–237.

Tanner, C. K. (2006). Effects of the school's physical environment on student achievement. *Educational Planning*, *15*(2), 25–44.

Tanner, C. K. (2008). Explaining relationships among student outcomes and the school's physical environment. *Journal of Advanced Academics*, *19*, 444–471.

Tanner, C. K. (2009). Effects of school design on student outcomes. *Journal of Educational Administration*, *47*, 381–399.

Taylor, S., & Bogdan, R. (1984). *Introduction to qualitative research methods: The search for meanings*. New York, NY: John Wiley.

Wagner, M., & Cameto, R. (2004, August). *The characteristics, experiences, and outcomes of youth with emotional disturbances* (NLTS2 Data Brief Vol. 3, No. 2). Retrieved from http://www.ncset.org/publications/default.asp#nlts2

Walker, H. M., Horner, R. H., Sugai, G., Bullis, M., Sprague, J. R., Bricker, D., & Kaufman, M. J. (1996). Integrated approaches to preventing antisocial behavior patterns among school-age children and youth. *Journal of Emotional and Behavioral Disorders*, *4*, 194–209.