Schoolwide Systems of Positive Behavior Support: Implications for Students at Risk and With Emotional/Behavioral Disorders

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The use of schoolwide multitiered systems of support to address challenging social and emotional behavior has been established in >20,000 schools across the United States and 19 other countries worldwide. The systems approach of schoolwide positive behavior support is guided by implementation science and embeds evidence-based behavioral interventions across a continuum based on documented student need. The extant research base to date, including randomized controlled trials, is robust with respect to universal or Tier I interventions and supports. Less is known about the impact on students who are at high risk for manifesting a disability, as well as those currently served under the Individuals with Disabilities Education Act. The purpose of this article is to provide a rationale for, and overview of, schoolwide positive behavior support as a comprehensive framework to support children and youth with emotional/behavioral disorders and review the research to date across a continuum of supports. Research, professional development and implementation, and policy implications are discussed.

Keywords: *positive behavior support, schoolwide, emotional and behavioral disorders, multitiered systems, behavioral interventions*

I<small>N</small> comparison with those of typically developing peers, postsecondary outcomes for children and youth with disabilities illustrate the potential lifelong impact that a disability can have. Children and youth with disabilities pursue fewer postsecondary education opportunities, are often unemployed or underemployed, and manifest comorbid mental health challenges (Wagner, Newman, & Cameto, 2004). The potential impact on postsecondary success is especially acute for children and youth with emotional/behavioral disorders (EBD; Bradley, Doolittle, & Bartolotta, 2008). Annual reports to Congress on the implementation of the Individuals with Disabilities Education Improvement Act (IDEIA; 2004) and longitudinal research report that more than half of students with EBD drop out of school and less than half of those who remain graduate with a diploma (Wagner, Kutash, Duchnowski, Epstein, & Sumi, 2005). Pair poor social and academic performance and it is not surprising that students with EBD are at greater risk of incarceration in the juvenile and adult correction systems (National Research Council & Institute of Medicine, 2009). In fact, one-fifth of students with EBD are arrested at least once before they leave school, and more than half are arrested within a few years of leaving school. Among those who have dropped out, 70% have been arrested (Van Acker, 2004). Students with EBD, in comparison with other students with disabilities and with typically developing children and youth, also experience the highest rates of unemployment, substance abuse, homelessness, and mental health issues (National Research Council & Institute of Medicine, 2009; Wagner et al., 2005).

Postsecondary outcomes to date for children and youth with EBD paint a bleak picture. In one of the strongest indictments of education's efforts to address the needs of students with EBD, Walker and Bullis (1991) stated, "The public schools' record of effectively accommodating students with behavioral disorders . . . is close to abysmal . . . [A] strong case can be made regarding their neglect of students experiencing serious behavior problems" (p. 78). At the same time, in the absence of IDEIA and the past 40 and 50 years of educational research, the outcomes would most

assuredly be worse. Nearly 30 years ago, leading scholars in the area of EBD produced a synthesis of existing practices and system considerations that had, at that time, strong empirical evidence of effectiveness (Peacock Hill Working Group, 1991). The group advocated (a) the use of systematic data-based interventions, (b) continuous assessment and monitoring of progress, (c) provision for practice of new skills, (d) treatment matched to problem, (e) multicomponent treatment, (f) programming for transfer and maintenance, and (g) commitment to sustained intervention. Unfortunately, the same decade saw frequent calls to address the ongoing "research to practice gap" that continues today (Carnine, 2000). In the spirit of Peacock Hill, reviews and syntheses of empirically validated behavioral supports continue through the Institute of Education Sciences' What Works Clearinghouse, and yet a gap continues between the knowledge base recommending instructional and proactive supports and the well-documented continued use of non-evidence-based exclusionary discipline practices to address challenging behavior (Massar, McIntosh, & Eliason, 2015).

At present, there are several empirically validated behavioral support strategies (e.g., Epstein, Atkins, Cullinan, Kutash, & Weaver, 2008). In addition, with respect to challenging behavior, the field is unanimous on the need for early intervention and prevention (Conroy, Hendrickson, & Hester, 2004; Walker et al., 1996). The remaining challenge is the design and implementation of efficient systems that build schoolwide environments that simultaneously prevent problem behavior and provide a continuum of supports to match the intensity of behavioral challenges, such as multitiered systems of support (MTSS; Lewis, Jones, Horner, & Sugai, 2010).

The need for comprehensive supports is twofold: first, to ensure that students with EBD are more likely to experience success; second, to ensure that educators tasked to work with challenging students also experience success. Research continues to show a high turnover of teachers leaving the field early in their careers, with nearly 25% dropping out in the first 4 years (Boe, Cook, & Sunderland, 2005) and with attrition rates for teachers of students' EBD almost double (Henderson, Klein, Gonzalez, & Bradley, 2005), which leads to chronic shortages (National Center for Education Statistics, 2015). Among both general and special educators, one of the leading reasons cited for leaving the profession is dealing with student problem behavior (Sass, Seal, & Martin, 2010).

Over the past two decades, comprehensive academic, social, and emotional supports to improve educational outcomes for all students have been increasingly implemented through MTSS. MTSS provide a logic model and framework allowing educators to implement academic, social, and emotional supports from *universal*, designed to meet the needs of all students, to *highly individualized*, based on student need. Response to intervention uses careful progress monitoring among key academic outcomes (e.g., prerequisite math skills needed for complex equations) to guide amount, intensity, and student-tailored instructional strategies (Clarke, Lembke, Hampton, & Hendricker, 2011). Schoolwide positive behavior support (SWPBS) also uses careful progress monitoring among key social/emotional behavior indicators (e.g., behavioral infractions, time out of instruction) to similarly guide amount, intensity, and individual need-driven social behavioral instructional and environmental supports (Sugai & Horner, 2006). The remainder of this article provides a rationale for building MTSS that address behavior through SWPBS, essential features of SWPBS, and a review of the evidence of effectiveness to date. Implications for future research, educator professional development, and policy are discussed.

Logic for Prevention and Early Intervention

A common response to unwanted behavior in schools is exclusionary discipline, or removing students from the learning environment through timeout, office discipline referrals, suspensions, or expulsions. Despite a slight decrease in their use in recent years (U.S. Department of Education Office for Civil Rights, 2016), suspension and other forms of exclusionary discipline (e.g., office discipline referrals, expulsion) remain common responses to problem behavior in schools. The underlying assumption behind exclusionary discipline is that it is necessary to maintain safety in schools and it acts as a deterrent for future unwanted behavior. However, patterns of use indicate that exclusionary discipline is used primarily for nonviolent behavior, such as disrespect, and does not serve to deter future incidents (Massar et al., 2015). Moreover, exclusionary discipline is provided disproportionately to students of color and students with disabilities, particularly those with EBD (Losen, Hodson, Keith, Morrison, & Belway, 2015). To this point, approximately 20% of school districts in the United States have suspended >50% of their male African American students with disabilities at least once, at the secondary level (Losen, Ee, Hodson, & Martinez, 2015).

To assess the future impact of exclusionary discipline practices, Rumberger and Losen (2016) completed an analysis of the effects of suspensions on high school dropout rates and the economy. First, suspensions dramatically increased rates of dropout. Students who were suspended (either in school or out of school) in Grade 10 were 23% less likely to graduate than students who were not. This increased risk remains statistically significant even when controlling for environmental factors (e.g., family income, parental education, household composition) and individual student factors (e.g., attendance, grades, retention). Second, suspension is exceedingly costly for taxpayers and society. Given that a single dropout costs taxpayers $163,340 (in terms of possible incarceration and social services) and society $527,695

(in terms of loss of productivity), suspension costs society an estimated $11 billion in tax revenue and $35.7 billion in potential lost productivity. According to their figures, Rumberger and Losen estimate that even a 1% reduction in the use of suspensions, reducing the likelihood of student dropout, would result in a taxpayer benefit of $691 million and a social benefit of $2.2 billion.

An equally alarming and related outcome to the projected economic impact of exclusionary discipline is the educational impact of lost instruction. Students who frequently receive exclusionary responses to their problem behavior, including those with disabilities, fall further behind academically and are more likely to misbehave, thereby creating a cyclical pattern that leads to dropout and the development of chronic antisocial patterns of behavior to the point that this cycle has been identified as one of the key elements of creating a "school to prison pipeline" (Christle, Jolivette, & Nelson, 2005). Not only is it an ineffective reaction to problem behavior, but it also does little to prevent future unwanted behavior. More likely, it signals to the student just what kinds of transgressions will get him or her out of an uncomfortable learning environment in which one is failing (McIntosh, Fisher, Kennedy, Craft, & Morrison, 2012). In essence, it is a reactive response, whereas a preventive response is indicated and clearly recommended in the professional literature.

Prevention also makes sense from a purely statistical standpoint. Although it may seem to make the most sense to devote all of our behavior resources to supporting only students who qualify for special education, research from public health describes the importance of dedicating efforts to prevention (Greenberg, 2016). Rose (1981) described the "prevention paradox," in which a particular condition can be treated most effectively by investing in interventions that prevent its occurrence, rather than by responding to those who have it. Therefore, when it comes to individual students and society, preventing problem behavior is more effective than reacting to it, and it comes at a fraction of the cost.

In the reality of today's schools, some combination of prevention and early intervention is necessary to enhance student outcomes. First, creating effective learning environments for all students is likely to benefit all students to some degree, which prevents challenges and optimizes educational outcomes for those at risk (McIntosh & Goodman, 2016). Second, no screening or identification system is perfectly accurate (Severson, Walker, Hope-Doolittle, Kratochwill, & Gresham, 2007). As a result, providing preventive support to all students, regardless of risk, allows educators to support students who might otherwise slip through the cracks of a universal screening system. Third, building effective social, emotional, and academic supports will also provide a de facto strategy to identify those students who are minimally responding to universal prevention efforts, thereby allowing educators to address challenges

through a continuum of supports as soon as minimal responders are identified.

Critical Features of SWPBS

Over the past 20 years, systemic implementation of evidence-based practices to prevent and provide early intervention for students at risk, as well as support to those identified with a disability, has been implemented through MTSS. Specific to social and emotional challenges in school and building on the prevention/early intervention logic and science, SWPBS[1] is a multitiered framework to build appropriate social behavior and enhance school climate (Horner, Sugai, & Anderson, 2010; Sugai et al., 2000; Sugai & Horner, 2006). SWPBS emphasizes a data-driven problem-solving process whereby school and district leadership teams

- select culturally and contextually relevant outcomes based on current patterns of challenges identified through multiple data sources (e.g., increase attendance, decrease office referrals and suspensions),
- implement empirically supported practices to address student needs (e.g., teaching and reinforcing a small number of positive expectations),
- establish positive and proactive systems of professional development and technical assistance to support staff (e.g., local capacity developed in school and district leadership teams, job-embedded professional development and recognition for all staff), and
- use data to monitor implementation fidelity and outcomes and inform problem solving to ensure that practices and systems are equitable (i.e., produce positive outcomes for all students and staff members; Sugai, O'Keefe, & Fallon, 2012).

Figure 1 provides an illustration of the problem-solving logic of SWPBS.

Continuum of Supports

Within the SWPBS framework, school and district leadership teams organize empirically supported practices along a continuum of supports. This continuum is typically operationalized to include three tiers. All staff members implement Tier I or universal practices to support all students in all school settings. Tier I practices typically include structuring the environment to prompt appropriate behavior; selecting, teaching, and recognizing students for meeting a small number of positive expectations (e.g., respect self, others, and environment); and employing a range of instructionally focused consequences to respond to inappropriate behavior (e.g., brief correction, reteaching expectations; Sugai & Horner, 2009). For students who continue to display problem behavior in addition to continually receiving
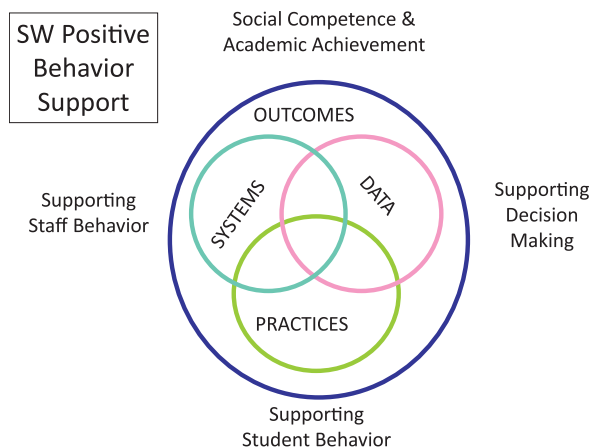
FIGURE 1. *The problem-solving logic used in schoolwide (SW) positive behavior support: Data guide and drive practice selection and serve to progress monitor; systems are established to ensure implementation fidelity. (Used with permission from Office of Special Education Programs' Center on Positive Behavioral Interventions, pbis.org.)*

universal supports, educators implement Tier II practices, which may include a self-management strategy, small group social skills instruction, structured mentoring, and similar empirically supported approaches (Anderson, Christenson, Sinclair, & Lehr, 2004; Cheney et al., 2009; Crone, Hawken, & Horner, 2010; D. C. Grossman et al., 1997; J. Grossman & Tierney, 1998; Hawken & Horner, 2003; Lane et al., 2003). For students whose behaviors are minimally responsive to Tier I and II supports or are chronic and severe, educators develop and implement intensive individualized Tier III practices. Tier III educational practices are driven by a functional behavioral assessment to design function-based individual positive behavior intervention plans (Crone & Horner, 2003; Gage, Lewis, & Stichter, 2012). In addition, for students with complex needs requiring multidisciplinary services, teams employ a person-centered or wraparound process to ensure that student and family needs are at the center of supports (Artesani & Mallar, 1998; Eber et al., 2009; Scott & Eber, 2003).

Empirical Evidence for SWPBS

To date, through multiple replications incorporating universal SWPBS essential features, there is strong experimental and quasi-experimental support demonstrating the positive effects of SWPBS (Horner et al., 2010; Mitchell, Bruhn, McDaniel, & Lewis, 2016). Several studies have examined the impact of SWPBS implementation on overall school climate and safety and on educationally relevant student outcomes, such as reductions in problem behavior and improvements in social and academic engagement (Bradshaw, Mitchell, & Leaf, 2010; Bradshaw, Reinke,

Brown, Bevans, & Leaf, 2008; Horner et al., 2009; Simonsen, Britton, & Young, 2010). Within the last 10 years, several evaluation studies of SWPBS relative to the prevention of aggressive and antisocial behavior problems that are common among students at high risk for EBD have been completed (Benedict, Horner, & Squires, 2007; Farkas et al., 2012). Additionally, recent studies have examined the integration of social behavioral and academic support systems in an attempt to provide for students who experience comorbid challenges across these domains (Chaparro, Smolkowski, Baker, Hanson, & Ryan-Jackson, 2012). Other studies have analyzed the contextual features needed to support implementation over time in typical school settings (Barrett, Bradshaw, & Lewis-Palmer, 2008; Muscott, Mann, & LeBrun, 2008; Simonsen et al., 2012). Most recently, research demonstrating results through randomized controlled trials have shown similar positive impact.

Universal-Level Implementation

Existing descriptive, quasi-experimental, and experimental research has provided a solid base demonstrating the impact of SWPBS on reducing problem behavior and improving appropriate behavior (Lewis, Mitchell, Bruntmeyer, & Sugai, 2016). To date, the majority of the research has been conducted primarily with elementary school implementers at the universal level of support (Mitchell, Hatton, & Lewis, 2015). Findings from these studies show that SWPBS can be effectively delivered and maintained within the context of a statewide networking system and that training, technical assistance, and coaching are required for schools to reach and sustain high-fidelity implementation of the universal-level system (Bradshaw, Koth, Bevans, Ialongo, & Leaf, 2008; Horner et al., 2009).

Additional studies show that SWPBS implementation with fidelity is associated with several positive outcomes at the schoolwide level and at the student level. For example, recent findings have shown improvements in perceptions of school safety and climate, as well as in overall organizational health or effectiveness (Bradshaw et al., 2008; Bradshaw, Koth, Thornton, & Leaf, 2009; Horner et al., 2009). Measures of student outcomes are promising and have included reductions in frequency of office discipline events, school suspension rates, and referral for more intensive support, each of which are indicators associated with students at risk for aggressive and antisocial behavioral patterns (Bradshaw et al., 2010). Other studies have shown that implementation at the universal level is experimentally linked with decreases in teacher ratings of student bullying behaviors and peer rejection and with improvements in teacher ratings of student prosocial and emotion regulation behaviors (Waasdorp, Bradshaw, & Leaf, 2012). In addition, preliminary evidence suggests that implementation at the universal level is associated with improved academic

performance (e.g., proportion of students meeting state reading standards) among elementary school students (Bradshaw et al., 2010; Horner et al., 2009).

Given the positive outcomes associated with SWPBS, another emerging line of research relates to sustainability of implementation once fidelity is attained. For example, McIntosh and colleagues (McIntosh, Mercer, Nese, Strickland-Cohen, & Hoselton, 2016) completed an analysis of data from approximately 3,000 schools implementing universal SWPBS to assess the influence of particular state-, district-, and school-level factors on sustained implementation. Findings showed that school grade level (e.g., elementary vs. high school) and speed of initial attainment of fidelity (i.e., schools that met criterion by end of Year 1) were significant but small predictors of sustainability. Implications from this work suggest that middle and high school implementers may be at greater risk for low implementation and/or abandonment of efforts and that early success may be important to long-term sustainability. Outcomes from this work also show that variance in sustainability of implementation was most influenced by state-level factors, rather than school- or district-level factors. This finding implies that strong state leadership and capacity may play an important role in initial and sustained implementation over time.

Tiers II and III Within the Context of MTSS

While much of the current literature has focused on universal-level implementation, research reporting the positive impact of Tier II and III interventions within the context of a multitiered approach is also evident (Bruhn, Lane, & Hirsch, 2014; Mitchell, Bruhn, & Lewis, 2016; Mitchell, Stormont, & Gage, 2011). For example, social skills instruction, self-management strategies, academic supports, and use of functional behavioral assessment data to develop individual behavior intervention plans are common treatments provided within a tiered framework and have been verified as effective for changing behavior (e.g., Bessette & Wills, 2007; Christensen, Young, & Marchant, 2007; Hansen, Wills, Kamps, & Greenwood, 2014; Liaupsin, Umbreit, Ferro, Urso, & Upreti, 2006; Skinner, Veerkamp, Kamps, & Andra, 2009).

Evidence for several similar group-oriented self-management programs has shown positive results. For example, check-in/check-out is a school-based self-monitoring intervention that is commonly implemented with elementary and middle school students showing early signs of, or already experiencing, behavioral difficulties (Crone et al., 2010). Investigations of the check-in/check-out intervention consistently demonstrate decreases in behavioral infractions requiring administrative action (e.g., Hawken, MacLeod, & Rawlings, 2007), increases in academic engagement (Campbell & Anderson, 2008; Hawken & Horner, 2003),

and reduced frequency of disruptions or negative social interactions (e.g., Campbell & Anderson, 2008; McIntosh, Campbell, Carter, & Dickey, 2009).

Recent work by Bradshaw and colleagues has empirically examined the full continuum of tiered supports within an MTSS framework (Bradshaw, Pas, Goldweber, Rosenberg, & Leaf, 2012). Schools that received supports on building a complete continuum of behavior supports showed significant improvements when compared with those that received universal training alone, in staff ratings of their perceived efficacy for handling behavioral issues, and in teacher ratings of student achievement. In addition, intervention schools reported a reduced need for student behavioral supports in the classroom and fewer students receiving special education services because of behavioral challenges. Implications from the findings of this study include initial evidence of school personnel's ability to successfully integrate the universal and Tier II levels of a multitiered system and the subsequent improvements in staff- and student-level outcomes when staff are provided with training and coaching to address student behavioral needs. While research to date is promising, multiple replications are clearly warranted before firm inferences can be drawn to the larger population of students at risk and those with disabilities.

Impact of SWPBS on At-Risk Students and Students With EBD

In addition to the body of evidence documenting the school-level effects of SWPBS, several empirical studies have documented the effect of SWPBS on students with, and at risk for, EBD. These studies have been conducted in a variety of settings, including elementary schools (Cheney, Flower, & Templeton, 2008; Lane et al., 2008; Wills, Kamps, Abbott, Bannister, & Kaufman, 2010), secondary schools (Ness, Sohlberg, & Albin, 2011), public schools (Lane et al., 2002; Little et al., 2010; Marchant et al., 2007), and alternative education settings (Farkas et al., 2012: George, George, Kern, & Fogt, 2013; McDaniel, Robinson, & Houchins 2016). The majority of work to date has utilized single-case designs (Kamps et al., 2011; Lane et al., 2010); however, a few quasi-experimental designs have been conducted (Cheney et al., 2008; Wills et al., 2010). Research to date has examined the impact of Tier I behavior supports on the social behaviors of students with EBD and Tier II interventions on academic and social behaviors of students with and at risk for EBD. Taken as a whole, these studies demonstrate that SWPBS has emerging empirical evidence on the positive impact on social and academic behaviors for students with and at risk for EBD (Lane et al., 2002; Little et al., 2010; Marchant et al., 2007).

In three case studies, researchers examined the effects of implementing the universal tier of SWPBS in two alternative K–12 education settings serving students with EBD (Farkas

et al., 2012; Fogt & Piripavel, 2002; George et al., 2013). Farkas et al. (2012) reported a correlation between implementation of the universal tier of SWPBS and increases in appropriate student behavior, as well as a decrease in behavioral infractions. Fogt and Piripavel (2002) and George et al. (2013) reported a correlation between the implementation of the universal SWPBS and decreases in physical restraints, seclusionary timeouts, suspensions, police involvement in disciplinary actions, and truancy.

Researchers also have studied the effect of Tier II academic interventions delivered within the context of MTSS on reading and writing outcomes for students with or at risk for EBD through a response-to-intervention logic model. Again, given the heterogonous nature of students with EBD, the majority of research to date has employed single-case designs. For example, research based on self-regulated strategy development instruction has demonstrated increases in the number of literary elements included in a writing passage, the number of words in writing passage, and the overall quality of writing passage among students with EBD (Lane et al., 2008; Lane et al., 2010; Little et al., 2010). Across these studies, most students showed improvement in all areas; however, Little et al. (2010) noted that some students with internalizing behaviors did not show improvement in the number of words in the writing passage or the overall quality of the writing passage. Studies reporting findings associated with reading outcomes employed single-case design (Lane et al., 2002) and a quasi-experimental design (Wills et al., 2010). Lane et al. (2002) reported that Tier II literacy training resulted in decreased total disruptive behaviors, decreased negative social interactions, increased word fluency, and increased oral reading fluency for most students. Wills et al. (2010) reported that a combination of Tier I and II reading interventions maximized teaching and learning outcomes in elementary classrooms.

Researchers have also studied the effect of Tier II behavioral interventions delivered within the context of MTSS on social behavioral outcomes for students with or at risk for EBD. Tier II behavioral interventions studied to date include classwide function-related intervention teams (Kamps et al., 2011); check, connect, and expect (Cheney et al., 2008; McDaniel et al., 2016); social skills instruction (Gresham, Van, & Cook, 2006; Lane et al., 2003); and multicomponent intervention packages (Marchant et al., 2007; Ness et al., 2011). Kamps et al. (2011) found that classwide function-related intervention teams increased on-task behavior for students at risk for EBD and decreased disruptive behavior for the majority of the same students. Cheney et al. (2008) reported positive change on the daily progress report of the majority of students at risk for EBD participating in check, connect, and expect. McDaniel et al. (2016) extended these findings showing a significant increase in daily progress report scores with the onset of intervention and continued improvement throughout the intervention phase. Lane et al.

(2003) found that social skills instruction decreased total disruptive behaviors and negative social interactions for students at risk for EBD. Gresham et al. (2006) reported slightly more variable results for students at risk for EBD who were receiving social skills instruction and differential reinforcement of desired behaviors. Three of four participants decreased total disruptive behaviors; two of four decreased negative social interactions; and three of four decreased alone time. Similarly, researchers examining the effects of multicomponent intervention packages found varying effects for students with, or at risk for, EBD. Marchant et al. (2007) found that a combination of social skills instruction, self-management strategies, and differential reinforcement results in more effective communication and appropriate peer play for students at risk for EBD. However, Ness et al. (2011) found no functional relationship between a treatment package including organizational skills and self-monitoring and assignment attack behavior for a student with EBD.

Conclusion and Implications

The risks associated with having a disability on current and future functioning, as well as the associated costs of failing in school due to challenging behavior, have been well documented. The field has empirically validated several behavioral strategies that are designed to influence children and youth along a continuum of intensity from prevention to early intervention and ongoing individualized supports. The logic of MTSS for addressing academic and social needs has been widely called for in the professional literature and recently codified in the recent reauthorization of the Elementary and Secondary Education Act, known as the Every Student Succeeds Act (2015), specifically to improve school climate and safety. The empirical evidence on the impact of SWPBS at the universal level is strong on reduction of general problem behavior but limited with respect to specific impact on students with EBD. In addition, the documented essential features are not commonplace within teacher and administrator preparation programs (Lewis & Thomas, 2014).

Research Implications

As noted, the literature base on the direct impact of SWPBS on students with EBD is at best characterized as emerging (Lewis et al., 2010). SWPBS is a problem-solving framework that incorporates previously empirically validated practices across multitiers. The evidence supporting universal SWPBS practices in addressing social and emotional challenges among all students is strong (Mitchell et al., 2015). Less is known about the systemic impact of a comprehensive approach to preventing and supporting problem behavior. Future research is clearly warranted examining the longitudinal impact of a complete continuum of supports,

implemented with fidelity, on improving the outcomes for children and youth. Specifically, additional replications with Tier II and III supports, within a continuum of SWPBS, are critical to demonstrate the "value added" of connecting social/emotional supports to universal supports. For example, the impact of Tier II and III supports among students at risk and those with disabilities remains a critical target for future research in terms of generalized responding, improved social/emotional health, maintenance of intervention impact, and improvements in postsecondary functioning.

In addition to empirically examining MTSS across a range of academic, social, and emotional outcomes for students with disabilities, including those with EBD, research on related issues of school and district capacity building, sustaining implementation fidelity, and scaling up SWPBS across states and regions should be a continued priority. For example, lines of inquiry examining a cost-benefit analysis of adopting a prevention/early intervention MTSS framework (academic and social/emotional) in terms of associated school and postsecondary costs would further add to our understanding of adopting prevention/early intervention systems of support.

Professional Development and Implementation Implications

Essential to the documented successes within the SWPBS literatures is the ongoing systemic skills-based professional development with technical assistance (Horner et al., 2014). As noted by McIntosh and colleagues (2016), schools were more likely to sustain implementation efforts if the school reached fluency with ongoing technical assistance to reduce the likelihood of inconsistent or incorrect implementation. An additional predictor of sustainability was state-level implementation priority and support (McIntosh et al., 2016). To ensure implementation fidelity at the school level, educators must have access to (a) skills-based professional development, (b) ongoing technical assistance, (c) a range of support materials and exemplars, and (d) performance feedback provided by qualified trainers and coaches (Lewis, Barrett, et al., 2016). This will require preservice educator preparation programs to prepare teachers, administrators, and related personnel to work in teams, use data to guide decision making, identify and match evidence-based practices to student need, and continually evaluate implementation fidelity (Lewis & Thomas, 2014). Once educators in the profession, school districts, regional educational cooperatives, and state departments of education in partnership with universities must provide continued in-service professional development opportunities that incorporate the features described here.[2]

Policy Implications

The success and continued funding of related research and evaluation efforts, with the federally funded technical assistance center, is and will remain a critical step to meet the ongoing research and implementation needs of educators. The newly reauthorized Elementary and Secondary Education Act will require states to address how they will build, support, and measure outcomes of MTSS for academic and social behavior. Likewise, the current requirements of IDEIA mandate that when students with disabilities are subjected to repeated exclusionary discipline practices, educators will build in individual supports, and they are encouraged to build in comprehensive schoolwide supports (U.S. Department of Education, 2016). State departments of education should codify the regulations, as well as the spirit and intent of the legislation, into policies that reflect current best practice and that are amenable to revisions as research, evaluation, and demonstration efforts continue to identify efficacious systems of support for all students, especially those with EBD.

Notes

1. For additional information on critical features, see Office of Special Education Programs' Center on Positive Behavioral Interventions and Supports (pbis.org).

2. See "Training and Professional Development Blueprint for Positive Behavioral Interventions and Supports" (available at pbis.org).

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