Building Inclusive School Cultures Using School-Wide Positive Behavior Support: Designing Effective Individual Support Systems for Students With Significant Disabilities

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School-wide positive behavior support (SWPBS) is a systematic and effective approach for broadly improving student behavior across school environments. SWPBS includes data-based strategies for supporting all students along a continuum of need and intensity based on a three-tiered model of prevention. Students with the most significant behavioral challenges are provided with assessment-based, individualized supports. To date, considerable evaluation research has demonstrated the benefits of SWPBS, documenting behavioral improvements using the whole school as the unit of analysis. Notably, less evaluation research has focused on the effects of SWPBS on the behavior of individual students with the most significant disabilities. In this paper, we describe SWPBS with an emphasis on the conceptual and procedural elements that are intended to benefit the full range of students within a school, with a particular focus on those students with the most intense needs. We discuss the SWPBS process, provide case illustrations, and call for additional research on the inclusion of students with significant disabilities with all applications of SWPBS.

DESCRIPTORS: inclusion, school-wide positive behavior support, systems change, severe disabilities

Children with significant disabilities have often been excluded from the larger school culture, relegated to the sidelines and thus not experiencing a sense of belonging (Goosling, 1998; Karagianis, Stainback, & Stainback, 1996). Although it is difficult to pinpoint precise and consensual meanings of the term “significant disabilities” because any disability can be significant in a person’s life, for the purposes here, children with significant disabilities are those who experience cognitive, sensory, and motor impairments that make it difficult to communicate with adults and peers and/or have significant emotional disabilities that make it difficult to successfully navigate the social culture of schools. Thus, we are referring to a heterogeneous group with diverse levels and types of cognitive, movement, sensory, behavioral, and emotional disability (Snell & Brown, 2000). Regardless of the type of significant disability, what these children have in common is that they are frequently placed in segregated settings, separated from the cultural and academic experiences of other students. Even in so-called inclusive settings, children with significant disabilities can coexist with their peers in general

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education settings without being truly integrated in ways that are positive and meaningful (Pearpoint, Forest, & O’Brien, 1996; Smith & Ryndak, 1996). Reasons for such exclusion are rationalized as stemming from the number of students with unique medical and social challenges within the school, teacher availability, time and energy, creativity, logistical challenges, and resource availability (Ferguson, Willis, & Meyer, 1996).

One way to address the complex issues related to exclusion is to adopt a school-wide approach for planning and implementing inclusive practices intended to benefit all students. As noted by Weigle (1997), a strategy that encourages a more integrated and inclusive culture in schools is school-wide positive behavior support (SWPBS). SWPBS is a systems-level approach designed to assist schools in implementing and sustaining evidence-based practices for improving valued social and learning outcomes for all students (Turnbull et al., 2002). SWPBS encourages schools to provide a continuum of supports addressing the needs of all students including those with the most significant learning and/or behavior challenges by matching the intensity of educational practice and intervention to every child’s unique needs (Carr et al., 2002; Sugai et al., 2000).

SWPBS involves team-based strategies that are aimed at bringing together general and special education teachers, administration, families, students, and related personnel to learn new skills, make decisions, and implement educational strategies that support learning and development of all students.

In SWPBS, school staff learn a common language as they begin implementing educational practices and interventions aimed at benefiting students with and without significant disabilities. This language blends positive strategies from general and special education to unify all staff within the school. Such systems-change efforts require that a critical mass of individuals within a school share a common vision and agree that a particular set of systemic processes and outcomes should be adopted (Liaupsin, Jolivette, & Scott, 2004). SWPBS creates opportunities for a school to build such a vision and make decisions on a regular basis by focusing on outcomes, practices, systems, and data to guide and provide direction for school-wide, specialized, and individual supports (Horner, Sugai, Todd, & Lewis-Palmer, 2005).

A body of evidence has already established the effectiveness of individualized behavior support plans that are derived from functional assessment and include multi-component interventions (e.g., Ellingson, Miltenberger, Stricker, Galensky, & Garlinghouse, 2000; English & Anderson, in press; Harding et al., 1999; Hetzroni & Roth, 2003; Lewis & Sugai, 1996; Smith & Sugai, 2000) while including broader person-centered values and strategies adapted from systems theory (Carr et al., 2002). A continuing challenge has been to develop and apply research-based strategies to move individual behavior support toward practice on a larger scale in schools and communities. One of the reasons that even the most technically accurate behavior support plans may not succeed is if the resources, people, and time to implement them are not available within a school-wide context. Without a systems approach for sustaining school-wide individualized planning processes, the full adoption of effective practices is likely to be incomplete (Sugai & Horner, 1999), leading to poor outcomes for students with and without disabilities. SWPBS can contribute to the already established, research-validated behavioral technology by providing a template for creating systems and practices that encourage sustained implementation and use of positive behavior support intended to benefit all students in the school.

Although a growing number of schools across the United States are beginning to implement SWPBS (Chapman & Hofweber, 2000; Colvin & Fernandez, 2000; Lohrman-O’Rourke et al., 2000; Nakasato, 2000; Nersesian, Todd, Lehmann, & Watson, 2000; Putnam, Luiselli, Handler, & Jefferson, 2003; Sadler, 2000; Taylor-Greene & Kartub, 2000), many of these schools are still in the beginning stages of designing effective systems for students with the most challenging behaviors. As a result, and with some notable exceptions (e.g., Turnbull et al., 2002), very few examples have appeared in the research-based practice literature describing the effects of SWPBS for individual students with the most significant disabilities. Students with significant disabilities may or may not engage in severe or chronic problem behavior. However, like their peers without disabilities, contemporary values suggest that all students with significant disabilities should be able to benefit from social skills instruction. A concern voiced by practitioners in the field is that even when schools implement SWPBS, students with the most significant disabilities often continue to be placed in segregated settings. Thus, it is timely to describe and document how students with significant disabilities can be supported within SWPBS.

Our purpose in this paper is to describe the potential for building inclusive school cultures using SWPBS. In the following sections, we (a) provide a brief summary of the core features of SWPBS, (b) clarify the role of individual behavior supports within the SWPBS approach for students with significant disabilities, (c) describe how individual behavior support plans for all students may be more effective if they are implemented within a school-wide foundation, (d) offer descriptive data showing how individual behavior support plans for students with disabilities can succeed within SWPBS, and (d) suggest a program of research that would build on this emerging descriptive database.

School-Wide Positive Behavior Support

SWPBS is based on several core themes, array of specific procedures, and emphases on systems change
that supports the use of effective educational practices. The core themes of SWPBS focus on (a) investment in the social culture of the whole school as a foundation for both social and academic success, (b) emphasis on prevention of problem behavior, (c) reliance on directly teaching appropriate skills to all students, as well as rearrangement of both antecedents and consequences when necessary, (d) use of a three-tiered continuum of behavior support practices to facilitate prevention of problem behavior, and (e) active collection and use of data for decision making.

The three-tiered prevention approach is particularly relevant for students with significant disabilities and has been adapted from the community health literature (see Walker et al., 1996). The basic thesis of this model is that effective prevention efforts necessarily include primary, secondary, and tertiary intervention levels. As applied within education, primary prevention involves all students and adults within the school and is implemented across all school and school-related settings. The goal is to create a positive social culture in which prosocial behaviors are explicitly taught and reinforced for all students, and all adults respond to the occurrence of problem behavior in a consistent manner. Secondary prevention is intended to support students who have learning, behavior, or life histories that put them at risk of engaging in more serious problem behavior. Strategies for secondary prevention are intended to address the needs of students before more intensive individualized supports are needed. Tertiary prevention strategies focus on the smaller number of students whose needs are more individualized than is included in primary and secondary prevention practices. Individualized and comprehensive plans are needed to address the unique needs of children who engage in serious and/or chronic problem behavior.

The purpose of this three-tiered approach is to support all students and when necessary tailoring to provide more intensive supports. It is not intended to label students by placing them in categories or a hierarchy. In SWPBS, students with disabilities are involved in learning school-wide expectations along with all of their peers. As is the case with all students, additional learning opportunities and support from school staff are available as needed (Turnbull et al., 2002). When students with disabilities need additional supports beyond school-wide programs aimed at primary prevention of problem behavior, their needs are identified in the same ways as their general education peers (e.g., teacher referral).

SWPBS planning teams are essential to success and consist of representatives from all areas of the school (e.g., regular education, special education, administration, special services). The team works with the entire staff to gather data and create an action plan for implementing SWPBS. The action plan is designed based upon a self-assessment of the school’s strengths and needs for improvement. Examples of data gathered for the self-assessment include information on the school’s capacities to collect, summarize, and use office referral, suspension and expulsion data, and direct observation data of students in a given setting or settings, along with measures of SWPBS implementation fidelity in the school, academic outcomes, and school safety and climate measures. These data are essential for effective decision making about how to build on existing school strengths and how to implement the most effective and efficient school-wide academic and behavioral programs.

Implementing SWPBS involves a multyear commitment. During the first year, experienced trainers introduce planning team members to all elements of SWPBS. First year teams learn how to evaluate school data and work with faculty to design plans for teaching school-wide expectations, creating reward systems, and improving consistency of staff responses to student problem behavior. Although most teams spend the first year preparing for the implementation of primary/universal school-wide strategies to foster prosocial behavior by all students, team members are also actively involved in developing secondary and tertiary prevention strategies and practices to provide students with increasingly higher levels of individualized support on an as-needed basis. Teams learn the basics of classroom management and individualized support systems. Team leaders, referred to as coaches, are identified by their districts and are trained in SWPBS to provide a leadership role by facilitating school planning teams, networking with other coaches, and assisting teams in problem solving. A goal of SWPBS is to teach natural leaders within schools and districts to facilitate the implementation of SWPBS, thereby decreasing reliance on outside “experts” and avoiding traditional “one-shot” workshop approaches.

Also in the first year, district and/or school planning teams start initial discussions and action plans for ensuring that resources are available for implementing individualized support systems, as they are needed within the school. The amount of time focused on primary, secondary, or tertiary levels of prevention varies during Year 1, depending upon the unique strengths and needs of each school. However, a major goal for districts and schools is to identify school coaches who will learn from experienced trainers how to facilitate comprehensive plans for individual students within the context of SWPBS. These coaches will become responsible for “growing their own” internal trainers in subsequent years. It takes time to learn how to effectively facilitate individual PBS plans. Districts and schools must dedicate time and resources early in the SWPBS implementation process to train school professionals who can and will take responsibility for facilitating comprehensive individual positive behavior support plans for students.
**SWPBS as a Foundation for Individual Supports**

Investing time in building a foundation for SWPBS may make it easier for staff members within the school to become more effective participants in developing and implementing individualized student supports. Establishing a school-wide primary prevention environment facilitates the development of an essential shared staff vision and common language that emphasizes an important element of inclusion: All students should have the same opportunities to learn and grow together within the school environment. SWPBS processes emphasize the importance of addressing all students’ needs within the school, thus including, by definition, students with and without disabilities. Blending the vision and processes for inclusion with SWPBS practices can optimize the success of both by providing strategies, tools, and processes for maximizing opportunities for all students to be successful within general education settings.

An important cultural message embedded in the first year of SWPBS training is that change in adult behavior and educational practice in schools and the community leads to improved student behavior. At the primary/universal level of prevention of problem behavior, staff learn the importance of teaching and reinforcing social skills and establishing a positive environment. Effective staff application of concepts of positive reinforcement at the universal school-wide level is essential for the success of SWPBS and leads more naturally, when needed, to appropriate use in all individualized support plans. School staff master using office discipline referral data for decision making about student behavior before learning how to write operational definitions and designing measurement systems to evaluate the outcomes of individual PBS plans. In a similar manner, staff learn the basics about events that may maintain behavior (e.g., attention from adults, peer attention, avoidance of tasks) before they tackle more complex decisions about how to support students whose problem behavior might be related to a complex interaction between environmental and physiological variables or occurring across multiple and different school routines and classroom periods. Schools that successfully implement primary and secondary problem behavior prevention programs often report decreases in the number of students engaging in problem behaviors (Horner et al., 2005; Luiselli, Putnam, & Sunderland, 2002; Taylor-Greene et al., 1997). The time that was previously spent responding to students with more minor problem behaviors became more available for supporting students with more intensive needs. As described above, school-wide programs aimed at primary prevention of problem behavior may be easier for schools to implement than systems and programs for secondary “targeted” or tertiary “intensive” levels of prevention of problem behavior. Although the relative complexity, interrelation, and/or elements of success of implementing primary, secondary, and tertiary prevention strategies have not been empirically validated, the skills necessary to learn how to implement function-based supports for students and facilitate comprehensive positive behavior support plans requires that at least one person on a school’s behavior support team achieves mastery of the principles of applied behavior analysis whereas primary prevention strategies do not require this higher level of skill development. The authors’ anecdotal observations and experience suggest that school planning teams that are successful in implementing primary prevention strategies appear to experience momentum toward tackling the elements of individualized student supports (i.e., those that require more complex organizational and behavioral changes on the part of the school and staff). In addition, by starting with programs for primary prevention of problem behavior, schools give themselves the necessary lead time to begin building the conditions needed for developing and implementing successful individual behavior support systems.

**Designing Individualized Student Support Systems Within SWPBS**

Schools with effective and sustainable systems for supporting secondary and tertiary prevention programs vary in terms of their structural features for implementation of SWPBS. For example, one approach has been to establish an SWPBS planning team, a secondary support team, and a tertiary level team. Other schools have used two teams to guide their implementation of SWPBS: (a) a planning team to focus on overall SWPBS efforts, and (b) a behavior support team that leads and facilitates both secondary prevention and tertiary individualized support programs in the school. In this latter two-team approach, different team members take the lead in (a) identifying and facilitating specific secondary programs that provide targeted interventions for groups of students and (b) coordinating more intensive individual behavior supports at the tertiary level. For example, a school counselor might manage and monitor secondary prevention efforts such as a social skills program for a number of students who need it, whereas a school psychologist provides leadership in facilitating more intensive behavior support plans tailored for individual students who can benefit from them as part of a tertiary prevention program. Although such approaches vary in their designs for supporting secondary and tertiary prevention programs within SWPBS, teams guiding individual student support efforts share a number of defining characteristics including (a) team-based decision making, (b) active team members with expertise facilitating individualized student supports, (c) efficient and effective meeting strategies, and (d) experience using data to make decisions (Todd, Horner, Sugai, & Colvin, 1999).

Teams implementing supports for secondary and tertiary problem behavior prevention should consider...
how to intersect smoothly with any current systems in place for supporting students with academic difficulties, as well as with any other interdisciplinary education and multidisciplinary teams that currently operate within the school. For instance, a staff person may participate both on a behavior support team managing individualized tertiary prevention programs as well as on a team managing and monitoring a targeted small group intervention at the secondary prevention level such as a check-in/check-out program that increases the level of support and supervision a student receives throughout the day from an adult within the school (Crone, Horner, & Hawken, 2004). In other situations, teams for academic assistance, behavioral support, and other student needs may meet on a regular basis to share information about individual students and make decisions about what types of academic and behavioral programs and services those students need to be successful (Crone & Horner, 2003). An essential strategy for maintaining coordination and communication is to ensure that one or more team members from the school planning team are also attending other meetings where behavior support issues overlap.

Staff training, interaction, and input is needed when SWPBS is introduced and initiated in a school to facilitate staff understanding of the new school-wide processes for supporting students. Planning teams need to be sensitive to staff perceptions, concerns, and assumptions about the mission and purpose of the newly organized team(s) and should create multiple opportunities for staff to participate, plan, and implement the changes being made. Care must be taken to ensure that all staff understand how individual students with significant disabilities can and will be supported within the new SWPBS system. For instance, some teachers may assume that SWPBS teams providing secondary and tertiary prevention programs are intended only for general education students because students with disabilities have interdisciplinary education plans (IEP). Requests may never be made for secondary or tertiary level assistance to support an individual student with an IEP if staff do not understand that the behavior support team is available and intended to serve the needs of all students. The levels of complexity of individualized supports will vary depending upon the intensity of a student’s behavioral needs. Individualized supports at the secondary and tertiary prevention level are intended to meet the lower-to-higher intensity needs of different students and should be tailored for each individual student.

**Individualized “Targeted” Supports at the Secondary Prevention Level**

Individualized supports at the secondary prevention level start with a simple assessment to identify the function problem behaviors serve. At the secondary prevention level, students with similar needs may be referred to an intervention program “targeted” to support a small group of students. These secondary prevention level targeted group interventions often involve placing one or more students in programs that provide the additional social skills or academic instruction they need, or in programs that are targeted specifically on their individual problem behaviors (such as the check-in/check-out program described earlier). These targeted group interventions are intended to address the reasons why the student is having difficulties. For instance, a number of students within a school may be engaging in problem behavior in class to escape from difficult reading tasks. These students may be invited to participate in a “reading buddy program” with peers who have mastered the reading assignments. This allows the students participating in the targeted group intervention with additional opportunities to practice reading in a supportive and inclusive atmosphere before a difficult assignment is presented in class. A check-in/check-out program, on the other hand, provides individual students with immediate feedback on their behavior as well as increased positive teacher attention. All such systems though are set up for groups of students to participate and thus allow efficient use of resources and time.

Targeted group interventions at the secondary prevention level may not be sufficient to successfully support a student. At the secondary prevention level, an individualized plan for a student may include modifications to a targeted group intervention, any or all of which are based on the function maintaining a student’s problem behavior. Examples of modifications to a targeted group intervention include adding additional reinforcers or adult supervision or increasing prompts for appropriate behavior.

In some cases, a student may need a secondary prevention level targeted individual support plan that is tailored to meet the needs of the student. Assessment-based intervention strategies include a range of options such as (1) teaching the student to use new skills as a replacement for problem behaviors, (2) rearranging the environment so that problems can be prevented and desirable behaviors can be encouraged, (3) identifying clear plans for responding to problem behavior, and (4) monitoring, evaluating, and reassessing this simple plan over time. These assessment-based interventions may be added to the targeted group intervention already in place for the student. For instance, a student receiving support at the secondary prevention level may participate in a targeted group intervention, with additional function-based interventions to use when problematic setting events occur (i.e., poor nights sleep, allergies, family transitions). An individual support plan at the secondary prevention level is relatively simple and often includes a short functional behavioral assessment and small team of individuals who brainstorm with the student to identify function-based interventions that are
often modified from a secondary prevention level group intervention. If a secondary prevention level individualized plan is not effective or a student’s problem behavior is severe, a more comprehensive individualized behavior support plan is needed at the tertiary prevention level.

**Individualized Supports at the Tertiary Prevention Level**

An individualized plan at the tertiary problem behavior prevention level is designed when secondary prevention efforts are not meeting the needs of an individual student. The amount of time dedicated to assessment and implementation of individualized supports at the tertiary prevention level increases and the complexity of the functional behavioral assessment and interventions implemented is higher due to the individualized needs of the student.

The student’s team at the tertiary prevention level typically includes family members, school professionals, and community members who meet on a regular basis to plan, implement, and monitor an individualized plan of support. As a result, tertiary prevention plans should frequently include interventions across home, school, and community settings and address student/family needs across multiple life domains (Eber, 2005; Eber, Nelson, & Miles, 1997; Eber, Sugai, Smith, & Scott, 2002; Turnbull et al., 2002). In all cases, the designated team is responsible for developing a comprehensive individualized plan, training/supporting all individuals involved in the plan, monitoring its effectiveness, and making modifications as needed.

A process that can facilitate success at the tertiary prevention level is wraparound or person-centered planning (PCP). The extent to which wraparound or person-centered strategies are included in individualized supports varies across circumstances and implementers; based upon the experience of the authors, we recommend that wraparound or PCP be used whenever intensive supports are needed.

**Wraparound and PCP**

Wraparound and PCP can be used to facilitate tertiary prevention by designing team-based plans for improving a student’s quality of life as determined by the student, the student’s family, and other members of the school and community (Scott & Eber, 2003). Although wraparound and PCP have some similarities, they originated to support different student populations (those with emotional and behavioral disorders and developmental disabilities respectively).

Wraparound is a philosophy of care and a team-based planning process involving the child and family and results in a unique set of individualized supports services and interventions aimed at achieving positive outcomes (Burchard, Bruns, & Burchard, 2002; Burns and Goldman, 1999). In particular, wraparound has been a valuable process for supporting children and adolescents with emotional and behavioral problems (Burns & Goldman, 1998). The comprehensive wraparound plan is strength based and addresses needs defined by the child and parents and those closest to them (e.g., family, friends, and teachers; Eber et al., 1997). A core feature of the wraparound process is the emphasis placed on including families as full and active partners, inclusion of informal community resources and flexibility in funding and approach (VanDenBerg, 1998). Although behavior and academic interventions are included, wraparound plans are more comprehensive because multiple life domains (i.e., medical, basic needs, safety, cultural, spiritual, etc.) and settings (i.e., home, school, community) are addressed (Eber et al., 2002; Scott & Eber, 2003). Wraparound teams include interagency teams designed for children and adolescents with multiagency support needs (Eber et al., 1997).

PCP strategies were developed to support children and adults with developmental disabilities in discovering and contributing their unique gifts to their communities (O’Brien & O’Brien, 2002). The PCP process is an ongoing problem-solving process that is used by a group of people who are interested in helping the student achieve a lifestyle based upon his or her preferences, needs, and choices (Flannery et al., 2000; Holburn, 2002; Lyle O’Brien, O’Brien, & Mount, 1997). Although a number of PCP models and processes are available (Mount, 1992; O’Brien et al., 1997; Smull & Burke Harrison, 1992; Turnbull & Turnbull, 1996), the intended outcomes are similar (Flannery & Slovic, 2001; Kincaid & Fox, 2002). The purpose of a PCP is to build a context in which a student can create a vision for how he or she wants to live and to brainstorm, strategize, and plan to make that vision a reality (Flannery et al., 2000).

Instead of fitting a child into an existing program structure, wraparound and PCP are used either to alter existing supports or create new supports to meet the unique needs of the youth and family (Eber et al., 1997). The focus is on ensuring that those who spend the most time with the students have full ownership and commitment to the outcomes as well as to the specific strategies used to achieve those outcomes (Clark & Hieneman, 1999; Eber, 2003) while maintaining the voice, values, and dignity of the student and his or her family. It can be helpful to initiate wraparound or PCP before specific function-based behavioral interventions are designed (O’Neill et al., 1997) because problem behaviors may be eliminated or significantly reduced by helping a student address important needs and improving quality of life (Risley, 1996). In addition, wraparound and PCP provide important information that can be used in the functional behavioral assessment for those behaviors that persist after a team begins addressing quality-of-life outcomes (Kincaid & Fox, 2002).
Designing Effective Individualized Support Plans for Tertiary Prevention of Problem Behavior

The individual components of effective PBS are well established and are not new to the field of behavior support (Crone & Horner, 2003; Horner, Sugai, Todd, & Lewis-Palmer, 1999; Sprague, Sugai, & Walker, 1998; Watson & Steege, 2003). These elements include the use of preintervention functional behavioral assessment to identify the functions maintaining a student’s problem behavior, multicomponent individualized programs derived from the functional behavior assessment, and a team-based process to ensure that the plan is not only technically adequate but also fits the values, skills, and resources of the individuals implementing the plan.

Students with more significant disabilities who are referred to a tertiary behavior support team may have a number of physiological, health, communication, learning, or social challenges that require a more in-depth functional behavioral assessment. Some students, especially those who experience serious emotional disturbance (SED), may have broader family support issues that need to be addressed before engaging in an FBA process around specific behaviors of concern to the school (Eber et al., 1997). Tertiary level plans should use PCP or wrap-around activities to address the broader quality of life and family support needs in addition to technical assistance for teachers and school staff to help ensure that all strategies and programs are effectively implemented. The individualized plan is a blueprint for staff members to use in order to facilitate student success in fully inclusive settings.

Transition plans for supporting students with disabilities who are moving into more integrated and inclusive school activities are addressed within the plan as well.

Sometimes teams designing supports for students with significant disabilities embed elements of an individual support plan within the context of ongoing targeted group interventions in a school. Earlier, we described how students at the secondary prevention level who do not respond to a targeted group intervention may benefit from modifications to that targeted group intervention by individualizing or tailoring elements based upon the students’ unique needs. In other situations, teams may add a targeted group intervention to improve situations and settings where students already receiving individualized tertiary prevention level supports are included with their peers who also engage in problematic behavior. The following case study describes how a school in Oregon that has been implementing SWPBS for over 7 years designed strategies to support two students with disabilities who engaged in problem behavior by modifying secondary level targeted intervention strategies within the classroom and modifying individual student support plans.

SWPBS in Oregon

Castle Elementary, a school with 404 students, has been implementing SWPBS at all levels for over 7 years. Castle Elementary is located in a low-income area of a medium-sized urban city in the Pacific Northwest with a population of approximately 200,000 in the metropolitan area, including surrounding smaller urban and rural towns. The school demographics included 80% Caucasian, 20% Hispanic, and 10% other minorities, with 17% of students receiving individual education plans. Nearly half of the students at the school qualified for free/reduced lunch.

Recent evaluative measures of implementation [i.e., the School-Wide Evaluation Tool (SET); Sugai, Lewis-Palmer, Todd, & Horner, 2001] indicate that SWPBS is implemented with very high fidelity (a SET score of 100% on implementation indicators resulting in 93% of students receiving 0–1 office discipline referrals). Students at risk for or engaging in problem behavior are supported at the secondary and tertiary problem behavior prevention levels. The behavior support team meets at least weekly and manages all requests for assistance from other school staff. When appropriate, the team identifies a “targeted” secondary prevention program such as a social skills training group or the check-in/ check-out program described earlier (Crone et al., 2004) and assists the student’s teacher, other adults who work with the student, and the targeted group coordinator in beginning the program with the student.

The team members responsible for monitoring progress can request further assistance from the behavior support team if the targeted program is not successful. At this point, the behavior support team may either modify the targeted program or refer the child to the behavior support team as needed (e.g., the counselor, special education teacher, and speech and language specialist). This team meets at least once a month to review the progress of all students receiving either secondary or tertiary problem behavior prevention support. The team uses a variety of data to guide their decisions, including prosocial behavior and office referral data and teacher feedback forms. If students are not making progress increasing prosocial behavior, the team makes minor adjustments to the plan or sets up a behavior support team/interdisciplinary education team meeting. These team members have received training on functional behavioral assessment, PBS planning, and implementation and can request a district behavior specialist if they need additional support or expertise.

To illustrate how intensive individualized supports have been embedded within the context of SWPBS at Castle Elementary, we now describe two students, Trey and Mitch, as they progressed from kindergarten through third grade. Both Trey and Mitch participated in the primary or “universal” problem behavior prevention program for all students in the school. Trey received special education services under the category emotionally disturbed and had been diagnosed with attention deficit/hyperactivity disorder, oppositional defiant disorder, and bipolar disorder. Trey was referred
to the behavior support team during kindergarten due to a variety of problem behaviors, including hitting other students, self-injurious behavior, inappropriate use of objects (e.g., eating staples, putting things up his nose, cutting his hair, poking other students with scissors), and screaming. Mitch received special education services under the category of autism spectrum disorder. He was referred to the behavior support team in kindergarten for assistance with elopement (he often left school grounds or hid in places within the school) for aggression toward peers and for enuresis and encopresis, sometimes on a daily basis.

For both students, the team began with a secondary targeted prevention program, a check-in/check-out system (Crone et al., 2004) already in place in the school. This program was supplemented with individualized supports as needed, including a 1:1 aide in some inclusive settings to help the students learn to independently navigate such settings, social skills instruction, speech therapy, and resource room assistance.

When the boys were in third grade, a new challenge presented itself. Their third grade teachers were concurrently trying to work with multiple students presenting significant behavioral challenges. On average, seven students in each third grade classroom were also participating in a secondary level targeted prevention program or had individualized support plans for tertiary level prevention of problem behaviors. Teachers reported that they were not able to work effectively with Trey and Mitch given the challenges they already faced.

Rather than significantly modifying the boys’ tertiary prevention individualized behavior support plans, the team decided to implement a secondary level targeted group intervention for all of the students in the third grade classrooms. The team assisted the teachers in conducting a functional behavior assessment of the classroom structure by identifying (1) frequently occurring problem behaviors within the classroom (e.g., noncompliance, talking out of turn, getting out of seat, verbal defiance, aggression); (2) routines within which problem behaviors were most likely to occur (e.g., afternoon transitions, teacher-delivered instructions); and (3) frequently occurring consequences (e.g., attempts to redirect, peer attention). This information was used to help the teachers develop a problem behavior prevention program that could be used across all third grade classes. The program consisted of several components: (a) environmental modifications including changing the seating arrangement; (b) check-in/check-out to acknowledge and reward appropriate behavior using frequent in-class reward and positive phone calls home; (c) review of rules and expectations prior to the start of a difficult time (e.g., a transition) and using active supervision; and (d) consistent responses to problematic behavior. All children, including Trey and Mitch, made significant improvements as a result of the whole-classroom approach.

To summarize, Trey and Mitch belong to a school with a long history of SWPBS implementation. The school used a secondary level prevention program to support all of the third grade students in general education settings while providing additional supports for two students with significant disabilities within general education classrooms. By investing in support systems at the primary and secondary prevention level, schools implementing SWPBS established team-based problem solving processes that have been helpful when they encountered challenging situations.

**SWPBS in Illinois**

Lamar, a third grader, African American general education student in Illinois, received support in a school that was still in the process of establishing SWPBS (see Eber, 2005). Lamar’s elementary school was located in a metropolitan area and had an enrollment of 530 students in kindergarten through third grade. The demographics of Lamar’s school included 80.2% Caucasian, 5% Hispanic, 8.5% African American, 6.2% Asian, and 0.2% Native American students with 11% of students identified as coming from low-income households.

Lamar engaged in a number of problem behaviors that included being disrespectful toward both adults and peers, lying and stealing, and disrupting class activities. In addition, Lamar’s academic performance was poor. Lamar did not respond to secondary targeted problem behavior prevention programs (e.g., a group of students received increased monitoring and reinforcement for the three school-wide expectations) that were in place at the school. Some teachers believed that Lamar needed a special education placement and suggested he may have emotional and behavioral disorders. Lamar’s school had been implementing school-wide primary prevention activities, knew about the basic elements of SWPBS, and had established a new behavior support team that had started its involvement by monitoring, supporting, and maintaining secondary or “targeted” problem behavior prevention supports for students.

Although the members of the behavior support team were generally aware of wraparound processes, they did not know how to facilitate implementation and subsequent management of the process. However, Lamar’s school was able to access wraparound facilitation through the statewide SWPBS network that was supporting their implementation efforts. The members of the behavior support team invited Lamar and his family to participate in wraparound planning, and in the meantime the team began conducting an assessment to evaluate whether Lamar needed special education services as well.

With support from the statewide network, a wraparound facilitator and the school’s social worker visited...
Lamar’s mother to introduce the wraparound process and to gather information necessary for Lamar’s special education assessment. The facilitator and social worker learned that Lamar’s mother was losing her eyesight and had lost much of her own independent functioning. Lamar was spending a lot of time in the house because his mother was concerned about whether with her diminished eyesight she could supervise her children if they went outside. The initial wraparound planning identified the family strengths and barriers in achieving the quality of life Lamar and his family desired. The team brainstormed strategies for building on Lamar’s strengths (which included increasing his opportunities to go to an after-school gym by sharing rides with another student and his family), adapting some of his academic activities and conducting a functional behavioral assessment of Lamar’s problem behaviors. Lamar’s eyesight was evaluated as well due to concerns raised about it during the wraparound meeting.

Lamar’s wraparound process continued with regular meetings to assess progress. Lamar’s PBS plan, developed after wraparound planning started, focused on teaching and reinforcing social and academic skills and making modifications to his targeted secondary problem behavior prevention plan. Lamar’s teacher reported that although Lamar completed his work in a different way compared to his peers, his grades and confidence had increased. Lamar received glasses based on his eye exam, which appeared to be associated with additional increases in his academic success and self-confidence and decreases in his problem behaviors. School personnel described Lamar as “a new person.” The special education assessment determined that Lamar had a learning disability, but no special education placement was made because by then the school staff felt they were already addressing Lamar’s needs with the curriculum adaptations in the general education setting.

Staff members in Lamar’s school were able to recognize and begin learning how to move to tertiary level prevention because they had a team established and a problem-solving process in place. Although Lamar was not identified as having a significant disability, it is possible that over time without intervention he may have been identified as in need of special education services related to emotional and behavioral disorders. Increasingly, more schools in Illinois are implementing SWPBS at the secondary and tertiary prevention level and learning how to support students like Lamar more effectively.

Evaluating Individual Student Supports in Illinois

SWPBS in Illinois began by building upon an existing project that started in 1990 to improve outcomes for students with emotional and behavioral disabilities by providing interagency, family-based supports. The project incorporated SWPBS based upon the belief that the improvement of outcomes for students with special needs would require supports to be integrated into general education settings to enhance successful learning for all students. In 1998, a statewide implementation of SWPBS began with 23 schools. In 2005, there are now over 520 schools implementing SWPBS across the state of Illinois.

The Illinois model includes a three team approach for implementing SWPBS at the primary, secondary, and tertiary level. The school-wide leadership team plans and implements school-wide primary prevention programs. The secondary or “targeted” problem behavior prevention program team reviews data for all of the students who show greater needs for more support and identifies whether targeted group programs or a simple individual plan is needed. When these secondary primary prevention efforts are not sufficient for effectively supporting a student, a school professional is identified to facilitate the team in providing tertiary level support. At the tertiary level, a staff member with expertise in wraparound establishes an individualized team that focuses on the strengths and needs of the student and his or her family. The staff member facilitating the individualized plan helps the group identify their mission, develop quality-of-life goals, and develop interventions to address the “larger” needs that will have the greatest impact on the quality of life of the family and student. These wraparound teams may include a functional behavioral assessment and behavior intervention plan as one part of a complete wraparound process. At the tertiary level of problem behavior prevention, the Illinois approach includes a functional behavioral assessment and behavior plan as an important element for wraparound teams to use in supporting a student.

The evaluation data collected in Illinois and reported below were not part of a controlled research study. Rather, the data have been collected as part of the overall data-based decision-making process at the state-wide level to monitor, to modify, and to improve technical assistance efforts. However, the Illinois evaluation process and the resulting data serve our purpose in this paper by demonstrating how to approach evaluating the implementation and effectiveness of wraparound and other systems for supporting individual student’s more intensive needs within the context of SWPBS for all students. Two different measurement tools, the SET and the School Profile, were used to collect data for evaluating the effectiveness of individual behavior support planning within Illinois’ SWPBS implementation.

School-Wide Evaluation Tool

The SET (Horner, Todd, et al., 2004; Sugai et al., 2001) was used to evaluate implementation of the primary prevention systems and practices associated with
SWPBS by staff in Illinois schools that also submitted the School Profile. Assessment with the SET involves document review, interviews, and direct observation and was conducted by an individual trained in SET assessment practices and not affiliated with the school. Twenty-eight items are included in the SET across seven subscales: (a) school-wide behavioral expectations are defined; (b) expectations are taught; (c) rewards are provided for following the behavioral expectations; (d) a continuum of consequences for problem behavior is in place; (e) data on problem behavior are collected and used for decision making; (f) an administrator actively supports SWPBS; and (g) the school district supports SWPBS. Each item on the SET is scored as “in place” (2 points), “partially in place” (1 point), or “not in place” (0 point), and scores are summarized as an overall percentage score and individual subscale percentage scores. For evaluation purposes, schools are considered to be implementing SWPBS when the score on the overall summary for a school is 80% or higher and the score on the individual subscale “expectations taught” is over 80% (Horner, Todd, et al., 2004). SET observations, interviews, and record reviews in the Expectations Taught subscale category include information describing the following: (a) how and when students are taught positive social behaviors; (b) whether staff indicate that positive social behaviors are taught; (c) the extent to which school team members indicate that students are taught positive social behaviors annually; (d) if directly asked, 70% of 15 or more students can state 67% of the school rules; and (e) when interviewed, 90% or more of the staff asked can list 67% of the school rules (Sugai et al., 2001).

School Profile

The School Profile, developed by Illinois leaders for the purposes of evaluation, is completed by school-based teams at the end of the school year and included information regarding each team’s activities. Teams were asked to record the number of supports implemented under the following types of SWPBS: (a) school-wide (primary prevention); (b) targeted group (secondary prevention of problem behavior involving interventions for two or more students); (c) targeted individual (secondary problem behavior prevention involving a simple individual student support plan); or (d) intensive strategies for individual students (tertiary problem behavior prevention involving a more comprehensive individual student support plan).

For example, one targeted group intervention recorded on the School Profile could include a social skills training system for five or more students or the check-in/check-out program for a specific number of students. An individualized behavior plan implemented for a student during the year would be considered documented on the School Profile as one “targeted” individual intervention at the secondary prevention level or one “intensive” individual intervention at the tertiary prevention level, depending on the amount of time and complexity of supports needed. For analytical purposes, however, both targeted and intensive individual interventions were combined because the only difference between the two strategies was the amount of time and complexity of supports needed.

School teams evaluated the perceived impact/effectiveness of each intervention on a scale of 0–4, with 0 = no impact/effectiveness and 4 = very high impact/effectiveness. These intervention impact/effectiveness scores were then aggregated across schools to measure the overall perceived impact/effectiveness of the interventions reported by the participating Illinois schools.

Results of SWPBS in Illinois From 2002 to 2005

Over the past 3 years, the number of Illinois schools reporting implementation of secondary and tertiary level problem behavior prevention supports has steadily increased (Eber et al., 2005). The evaluation data collected have been used to refine the School Profile and clarify the analysis strategies for reporting purposes. In this paper, we summarize major findings from the School Profile and SET for the school year 2004–2005 to demonstrate how information can be gathered on a large scale to evaluate a state’s progress, implementing SWPBS and monitoring the number and effectiveness of secondary and tertiary prevention programs.

In the school year 2004–2005, 187 Illinois schools submitted School Profiles with the majority of the 849 interventions reported to be primary prevention interventions (teaching all students the school-wide expectations and reinforcing students for specific social behaviors). All 187 schools have or are in the process of implementing at least one primary prevention intervention. A total of 652 of these primary prevention interventions were reported. Of the 187 schools completing the School Profile, 98 schools reported one or more interventions at the secondary and/or tertiary prevention level. The School Profile effectiveness rating scale was used to assess the school teams’ perceived success of secondary and tertiary prevention interventions, with 0 = no impact/effectiveness and 4 = very high impact/effectiveness.

The types of interventions for secondary prevention were separated into targeted group interventions (teaching social skills to a group of students, using the check-in/check-out program) and targeted individual behavior support plans. The tertiary prevention level included only comprehensive individualized student behavior support plans (see the Individualized “Targeted” Supports at the Secondary Prevention Level and the Individualized Supports at the Tertiary Prevention Level sections for the full description of the distinction). Because secondary individual and tertiary student behavior support plans are different only in terms of com-
plexity and time, for evaluation purposes, all individual student behavior support plan interventions were included in the same category “individual interventions.”

The school teams rated 86 out of 90 (medium to very highly effective) for the targeted small group interventions and 90 out of 99 (medium to very highly effective) for the individual interventions (including both targeted individual student plans and tertiary individual student plans; Eber et al., 2005). A total of 86 targeted individual student plans and 13 tertiary individual student plans were reported in the School Profile.

We illustrate below that when considered together, the Illinois School Profile and SET data show that schools fully implementing SWPBS as measured by meeting the SET criterion implement a greater rate of secondary and tertiary interventions than schools not meeting the SET criterion. As mentioned earlier, schools are considered to be implementing SWPBS when the score on the overall summary for a school is 80% or higher and the score on the individual SET subscale entitled “expectations taught” is over 80% (Horner, Sugai, Eber, & Lewandowski, 2004). This is referred to as the 80/80 criterion.

In the 2004–2005 profile data, schools that reached 80/80 criterion on the SET reported 108 secondary and tertiary interventions, schools below 80/80 reported 53 interventions, and schools with no SET data reported 36. These data show that schools with a higher level of SWPBS implementation were twice as likely to report secondary and tertiary prevention interventions rated from medium to very highly effective, compared to schools with lower rates of implementation (Eber et al., 2005). The increasing trend of perceived effective secondary/tertiary problem behavior prevention interventions is promising. One plausible interpretation is that as school staff members become more skilled and confident in implementing school-wide supports, they gain competence in supporting students with greater needs.

The Illinois evaluation process will, across time, provide more information about the effectiveness of tertiary problem behavior prevention supports as more individual intensive plans are reported in the School Profile. In addition, more comprehensive data collection systems are now being used at the tertiary problem behavior prevention level to assist teams in Illinois to facilitate wraparound for individual students.

Increasing numbers of schools in Illinois are identifying more students in need of wraparound, establishing wraparound teams, and developing data collection systems to evaluate progress of the goals identified for students. To assist in evaluating the intensive interventions that are included in wraparound, an evaluation system, the Full Evaluation of Wraparound (FEW), was developed. This system was piloted from 2002 to 2005 to (a) help team facilitators to integrate data-based decision making into the wraparound process and (b) provide consistent measurement of common benchmarks of progress for students needing individualized and intensive levels of support. Outcome measures include information about student strengths, lifestyle outcomes, and progress in social skills. Forty-seven students receiving comprehensive wraparound support were entered into the FEW system during the 3-year pilot. Sixty-six percent (31 students) were receiving special education services. Student ages ranged from 5 to 18 years, with 45% of the students 9–12 years, 23% of the students 5–8 years old, and the remainder of students 13–18 years old. Eighty-three percent of students receiving supports were male. Types of disabilities included the following: emotional and behavioral disorder (23%); autism (13%); multiple disabilities (11%); learning (4%); developmental disability (4%); and “other” (11%). Thirty-six percent of students receiving wraparound did not have disabilities. At the time of referral, 64% (30 students) were at risk of more restrictive school placement due to behavior problems. Thirty percent (14 students) and 21% (10 students) of this sample were at risk for more restrictive placements due to problem behavior in the home and community, respectively (a number of students where at risk in more than one setting).

Follow-up data were available for 29 of the 47 students receiving comprehensive wraparound support, with 15 of those students having three FEW data points (baseline, 3 months, and 7 months) and 14 students having two FEW data points (baseline and 3 months). It should be noted that 6 of the 29 students included in the analysis were not attending PBIS schools (Eber et al., 2005). Within a 3-month period, 12 of 19 students identified as at risk of more restrictive school placement due to behavior problems were no longer rated as having their educational placement at risk. Average ratings of emotional and behavioral functioning improved for this sample of students at 3 months and again at 7 months both at school and at home (Eber et al., 2005). As behavioral functioning improved, academic functioning improved as well.

**Discussion**

Improvement of educational and quality-of-life outcomes for students with significant disabilities can be optimized when supports for academic and social behavior development are as integrated as possible in all education settings to enhance successful learning for all students. The effectiveness of supports is enhanced when a shared vision within the school guides staff and student behavior. The success of full inclusion of all students within SWPBS requires establishing this collaborative vision through use of team-based processes by all school staff, parents, and other adults involved in school programs. Without this inclusive, collaborative vision, students with disabilities may remain at
the fringes of the school culture. “Any of us becomes a member of a group only when that group creates a shared definition that includes us” (Ferguson et al., 1996, p. 122). Action plans for fully inclusive SWPBS in a school need to directly address how students with significant disabilities are supported within the SWPBS systems in the school.

SWPBS provides an infrastructure that can support and maintain inclusive practices demonstrated to be effective for improving outcomes for all students. This infrastructure requires the following: (1) establishment of inclusive vision and leadership; (2) investment in adequate resources for individual support systems; (3) provision of well-trained behavioral, wraparound, and/or PCP facilitators to assist teams; and (4) systems to guide teams in problem solving and data-based decision making.

Although initial results are promising, more research is necessary to evaluate how SWPBS can continue to improve outcomes for students with significant disabilities. First, research is needed to evaluate whether SWPBS impacts the overall number of students requiring intensive, individualized supports. Schools implementing SWPBS evaluate data frequently and thus may identify students at risk for developing serious problem behavior before problems become more severe, and therefore less intensive interventions may then be successful. There is some descriptive support indicating that schools implementing SWPBS with fidelity have fewer students over time who need intensive support (Horner, Sugai, et al., 2004). Now more studies are needed to evaluate how and the extent to which this outcome can be replicated across schools, districts, and states.

A second area of research is needed to explore the effectiveness of SWPBS in supporting students with the most significant disabilities. There may be clear differences in how students with disabilities are included in general education settings in schools with SWPBS compared to those that are not. For the reasons we have discussed earlier in this paper, we would expect that schools implementing both inclusion and SWPBS would be more successful than those with either inclusion or SWPBS alone. However, we clearly need more research to help us understand whether, and to what extent, this is the case, and if so, which factors are most important.

A third area to investigate is whether teams guiding individual supports are able to conduct a better functional behavior assessment and develop more effective, functionally derived supports when primary prevention and the foundations of SWPBS are already in place. It is plausible to expect such an outcome because SWPBS (a) emphasizes functional assessment and environmental modification at the primary, secondary, and tertiary levels of prevention of problem behavior and (b) encourages schools to develop the self-sufficient capacity to provide ongoing training in functional assessment and functionally derived outcomes when the process begins and as it continues within the school. Related questions focus on the extent to which there are differences in the technical adequacy and contextual fit of behavior support plans developed in schools implementing SWPBS versus those that are not.

Finally, wraparound and PCP are powerful tools for guiding individual student supports. Evaluation data of wraparound-based projects around the country have indicated the potential for positive outcomes. However, no quality of measurement data using either quantitative or qualitative measurement standards has been reported for either PCP or the measures used within the FEW systems for evaluating implementation and outcomes of wraparound processes, and as noted by Eber and Keenan (2004), a research based on effectiveness is lacking. Also, research studies have not emphasized outcome measures for evaluating the social validity of interventions (Carr et al., 1999). Clearly, more research is needed to document the adequacy and quality of PCP and FEW measures and to evaluate how PCP and wraparound impact the development and quality of individual support plans, the goals of such plans, and the outcomes achieved.

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