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Secondary-Tier Interventions and Supports

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Implementing a continuum of schoolwide positive behavior support (SW-PBS) from least to most intensive is recommended to prevent and respond to problem behavior in school settings (Walker et al., 1996). This continuum of support includes three main prevention tiers: (a) primary, which involves schoolwide interventions for all students and staff across all school settings; (b) secondary, which targets the 10–15% of students at risk of social behavior failure; and (c) tertiary, which focuses on approximately 5% of the student population who need significant intervention strategies and supports (Sugai & Horner, 2002). For additional information on SW-PBS, see chapter 14.

Students who do not respond to primary-tier prevention programs may benefit from efficient secondary-tier (ST) interventions, also referred to as "selected" or "targeted" interventions. The group of students who benefit from ST interventions includes approximately 10–15% of the student population who are at risk for developing severe problem behavior due to their (a) poor peer relations, (b) low academic achievement, or (c) chaotic home environments (Lewis & Sugai, 1999). The behaviors of these students are unresponsive to interventions provided at the primary tier (Fairbanks, Sugai, Guardino, & Lathrop, 2007; Kincaid 2007), and these students typically require more practice in learning behavioral expectations and may need academic modifications to ensure learning success (Lee, Sugai, & Horner, 1999).

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In recent years, many schools have been implementing extensive prevention activities, especially related to problems such as substance abuse and violence prevention. Gottfredson and Gottfredson (2002) conducted a national survey among a sample of public, private, and Catholic schools stratified by location (i.e., urban, suburban, and rural), representing all grades (kindergarten to 12th grade) and all states. These researchers found that schools responding to the survey had a median number of 14 prevention programs operating at one time. Most schools would not be able to effectively support this many programs simultaneously. Schools need effective and efficient mechanisms for selecting the most appropriate ST prevention and intervention programs to meet their needs. The purposes of this chapter are to provide an overview of (a) the critical features of ST interventions, (b) issues related to implementation and evaluation of ST interventions, (c) examples of evidenced-based ST interventions, and (d) suggestions for research and practice.

KEY FEATURES OF SECONDARY-TIER INTERVENTIONS

Secondary-tier interventions play a key role in supporting students at risk of academic and social problems and may prevent the need for more intensive interventions (Hawken, O'Neill, & MacLeod, 2008; Hawken, MacLeod, & Rawlings, 2007; OSEP, 2005; Sinclair, Christenson, Evelo, & Hurley, 1998). ST interventions contain features that differentiate them from primary and tertiary tiers of behavior support, including (a) similar implementation across students (i.e., low effort by teachers); (b) continuous availability and quick access to the intervention; (c) training of all staff on how to make a referral and, if appropriate, how to implement the intervention; (d) consistency with schoolwide expectations; (e) continuous data-based progress monitoring; and (f) flexible intervention based on functional assessment (Hawken & Horner, 2003; MacLeod, Hawken, & O'Neill, 2008; March & Horner, 2002; OSEP, 2005). Each of these features is discussed in further detail here.

The goal of ST interventions is to support the 10–15% of the student population at risk of but not currently engaging in severe problem behavior (Walker et al., 1996). In a school of 1,000 students, for example, 100–150 students would need support beyond the schoolwide discipline plan and proactive classroom management strategies. For this reason, ST interventions need to be efficient in terms of time and resources. ST interventions involve using a similar set of procedures across a group of students. For example, if social skills training is required for students who have problems with anger management, a similar curriculum is used across a group of students. If several students are having difficulty with tardiness and attendance, ST procedures are designed to target those problem behaviors.

To be effective in preventing problem behavior, students must be able to access ST interventions quickly. Unlike more intensive and individualized interventions, which may take weeks of assessment, ST interventions should be accessed relatively quickly—usually within a week (Crone, Horner,

& Hawken, 2004; OSEP, 2005). Students are identified quickly and proactively, either by frequently assessing risk factors such as the number of office discipline referrals (ODRs), absences, and tardies or by teacher nomination or referral (Cheney, Blum, & Walker, 2004; Crone et al., 2004; Walker, Stiller, Severson, Golly, & Feil, 1998). Although not all school staff are directly involved in the implementation of ST interventions, each staff member should be trained on who the intervention is appropriate for, how and when to make a referral, and how to support the intervention once a student is referred. More information on how and when ST interventions are implemented is presented in the next section.

The ST interventions should be consistent with schoolwide expectations (OSEP, 2005). For example if a middle school has these schoolwide rules: Be safe, be respectful, be responsible, and hands and feet to self the ST intervention should provide more practice and feedback on how to meet the following expectations. Often, ST interventions are implemented with the support of a school psychologist, counselor, or paraprofessionals so that the burden of the intervention is not solely on the student's teacher (Crone et al., 2004; Hawken, 2006; Lane et al., 2003). Usually, consultation from experts outside the school is not necessary or is minimized because the intervention procedures are systematic and follow standardized treatment protocols (OSEP, 2005).

The ST interventions should have systems in place to monitor student progress, make modifications, and gradually decrease support as student behavior improves. One component of this system is a team, which may already exist, such as a student study team or a more individualized team consisting of teachers, counselors, parents, and students (Christenson, Sinclair, Lehr, & Hurley, 2000). Teams should meet regularly and have systematic procedures for monitoring, troubleshooting, and adding or removing students to or from the intervention (Crone et al., 2004). Team decisions and monitoring of student progress are based on data from a number of different sources depending on the type of program. More detailed information on monitoring student progress is presented in this chapter.

Interventions should be flexible so that they can be modified or intensified based on the function of student problem behavior. For example, after implementing the Behavior Education Program/Check-In, Check-Out (BEP/CICO) for 12 weeks, a school behavior team noticed that Jalen, a middle school student, was not making progress. Based on teacher observations and an interview with Jalen, it became apparent that most of his problem behavior (e.g., talking with peers, making clicking noises with his tongue, throwing paper airplanes across the room) was related to trying to gain attention from his peers. Based on this information, the team modified Jalen's reinforcers so that when he met his daily point goal he could earn time with peers in a preferred activity (i.e., extra gym time with three friends).

Teams should also consider the function of the student's problem behavior prior to selecting the most appropriate ST intervention (Newcomer, 2004). For example, if the student is acting out to gain adult attention, ST interventions that increase adult attention, such as mentoring, may be good

starting points. In contrast, if the student is acting out to escape difficult work, afterschool tutoring or other academic interventions may be more appropriate. ST interventions such as First Steps to Success (FSS) have been more effective for some students if the function of student problem behavior is identified (Carter & Horner, 2007). However, it should be noted that some ST interventions have also been effective across functions of student behavior (Hawken et al., 2008; MacLeod, O'Neill, & Hawken, 2008; March & Horner, 2002).

Although many of the ST interventions described in this chapter include some of the features outlines, none of the interventions meet all of the recommended features as implementation will vary depending on individual school and student needs. (OSEP) Office Of Special Education-Procedures for identifying students requiring ST interventions and selecting evidence-based interventions are provided in the following sections.

TARGET POPULATIONS AND IDENTIFICATION METHODS FOR ST INTERVENTIONS

Students who fail to respond to primary-tier interventions are self-selected candidates for more systematic and intensive support. These students are identified for ST interventions in a number of ways, including (a) as a response to screening, (b) as a preventive intervention, and (c) as a response to intervention (White, 2007).

Secondary-Tier Interventions as a Response to Screening

Frequently, students are selected for ST interventions based on universal screening procedures to detect students at risk. Regularly, screening all students (two or three times per academic year) is important to ensure that this population of students is not overlooked. When primary tier interventions are carried out with fidelity, schools can then target students who are in need of more frequent monitoring and more intensive levels of support. In some cases, ODR data provide sufficient information to identify students who are unresponsive to primary-tier interventions. Sugai, Sprague, Horner, and Walker (2000) have recommended a guideline for using ODRs to make data-based decisions regarding necessary levels of support, including (a) students who receive zero to one ODRs per year are likely adequately supported by primary-tier interventions, (b) students receiving two to five ODRs potentially require ST interventions, and (c) students who receive six or more ODRs may require tertiary-tier interventions.

Although not a perfect metric, ODRs are easily collected and summarized by schools—particularly with Web-based systems such as the School-wide Information System (SWIS; May et al., 2000). Because the use of ODRs as a screening tool for identifying students who are at risk has been debated (Nelson, Benner, Reid, Epstein, & Currin, 2002), additional research is needed to provide more reliable and valid screening tools for students non-responsive to primary-level supports, which are also gathered & summarized

as efficiently as ODR data. Examples of reliable and valid screening tools follow; however, these screening mechanisms may extend beyond what schools typically employ to assess for problem behavior.

While some students are easily identified as at risk by teachers and other school personnel based on their engagement in acting out or externalizing behaviors, other students engage in internalizing behaviors (i.e., depression, anxiety, withdrawal), requiring more comprehensive assessment for identification. For students who engage in internalizing behaviors or present less-intensive externalizing behaviors, ODRs may not provide adequate information, and other effective screening tools are necessary to proactively identify at-risk students.

The Systematic Screening for Behavior Disorders (SSBD; Walker & Severson, 1992) is one such screening measure used during the elementary grades to assist school personnel to identify students likely to be negatively impacted by externalizing or internalizing behaviors (Walker, Cheney, Stage, & Blum, 2005). The SSBD utilizes a three-stage process to identify students potentially at risk. The first stage involves teacher nomination of students with behavioral characteristics predictive of school failure. Students identified in the first stage are then further screened using a series of rating items to determine behavioral severity and the content of the problem behavior. In the final stage, students are systematically observed in the classroom and on the playground to determine their performance in social and classroom situations.

A second screening measure that can be used to identify a student for ST interventions is the Social Skills Rating System (SSRS; Gresham & Elliot, 1990). The SSRS is a set of three norm-referenced rating scales that allow educators to combine teacher, parent, and student reports to gain a more complete understanding of a student's social behavior. The SSRS, in combination with the *Social Skills Intervention Guide: Practical Strategies for Social Skills Training* (Elliot & Gresham, 1991) can be useful in helping educators identify specific social skill deficits in students and coordinate appropriate interventions that are founded on the principles of applied behavior analysis.

All of the mentioned screening measures provide valuable guidelines for teachers in making objective decisions about students who may require support beyond the primary tier level. However, if systematic screening procedures are not in place, teacher nomination is the main way students are identified for ST behavioral interventions (Hawken & Horner, 2003; Hawken et al., 2007). Recent research indicates that screening tools such as the SSBD and other teacher nomination strategies are more accurate mechanisms in identifying students who are at risk, particularly students who display internalizing (i.e., anxiety, depression) behaviors (Blum, 2006; Kincaid, 2007).

Secondary-Tier Support as a Preventive Intervention

Prior to entering school, many children are exposed to various family and community-based risk factors in their formative years, which increase the likelihood of behavioral problems. These risk factors include, but are not limited to, large families headed by a single parent, poverty, abusive condi-

tions, exposure to drug and alcohol abuse, crime, violence, gang activity, and poor academic preparation (McCrudy, Mannella, & Eldridge, 2003; Warren et al., 2003). Risk factors for school failure are multifaceted and involve both academic and social or emotional factors. Students who enter school with social risk factors typically display poor problem-solving skills, may engage in attention-seeking behaviors that cause classroom disruptions, and may attempt to escape social interactions (McIntosh, Horner, Chard, Boland, & Good, 2006). Other students may enter school with academic deficits but do not engage in routine problem behavior. If these students do not respond to academic interventions, the academic deficits are likely to become contributing factors to problem behavior. Failure to recognize and respond to these risk factors early on increases the challenges that these students will present to teachers and administrators.

Research emphasizes the need to implement preventive interventions early on in the educational process (Fox, Dunlap, & Powell, 2002; Lane & Menzies, 2003). The forms of problem behavior more common to elementary school settings (e.g., bullying, classroom disruptions, failure to complete assignments) are triggers of more severe forms of misconduct (e.g., aggression toward others, school dropout, substance abuse, criminal activity) occurring as students reach adolescence (Fox et al., 2002; McCurdy, Kunsch, & Reibstein, 2007; H. M. Walker et al., 1998). While some environmental factors in family and community environments occur outside of the school context, when schools are aware of these risk factors, ST interventions can be implemented proactively, prior to the student engaging in problem behavior. It should be noted that although ST interventions are designed to address many of the risk factors mentioned, they are not comprehensive interventions and therefore do not address all of the factors that influence problem behavior.

Secondary-Tier Interventions as a Response to Intervention

Primary-tier intervention involves implementing a schoolwide behavior support plan along with a proactive classroom management plan (Sugai, Horner, & Gresham, 2002). Once these are implemented with fidelity and students are not responding to these interventions, teachers may choose to provide additional interventions in the classroom setting, such as behavioral contracting or a home note system to further meet the needs of a student (or students). If the student fails to respond to these interventions, this lack of response to intervention may signal the need for an ST intervention.

Schools use different systems to track problem behavior and, as mentioned, increasing numbers of ODRs may be a sign that a student needs additional behavior support. Schools may use other data such as lack of work completion, grades, frequency of tardiness, or attendance to provide evidence that the primary-tier intervention procedures have been ineffective. Often, younger students (i.e., kindergarten or first grade) will not engage in problem behavior that is considered extreme enough to warrant an ODR, but data should be gathered on the low-level, chronic problem behavior via a mechanism such as behavior logs (i.e., student must sign a behavior log

for not following behavioral expectations). Many schools implement procedures like interclass time-outs, also called "think time," in which a student who has engaged in problem behavior spends time in a cooperating teacher's classroom, completes a debriefing form, and reenters the classroom once the form has been completed (Nelson, 1997). In schools that use these procedures, data should be gathered on when (i.e., which times of the day) and for how long students are in think time. If students are repeatedly sent to a cooperating teacher's classroom, this may signal the need for more intensive support that can be provided by an ST intervention.

EXAMPLES OF SECONDARY-TIER INTERVENTIONS

Much research has been conducted examining the effects of implementing primary-tier intervention strategies (e.g., Colvin, Kameenui, & Sugai, 1993; Lewis & Sugai, 1999; Lewis, Sugai, & Colvin, 1998; Taylor-Greene et al., 1997). Further, since the reauthorization of the Individuals With Disabilities Education Act (IDEA), there is increased evidence of the effectiveness of using functional assessment strategies and behavior support interventions for students needing tertiary-tier support (for a review, see Heckaman, Conroy, Fox, & Chait, 2000). In contrast, little research has been reported on ST interventions implemented as part of a continuum of behavior support; the purpose of this section is to provide some examples of promising, evidenced-based ST interventions. As Osher, Dwyer, and Jackson (2004) suggested, schools need to first identify effective interventions, then select an intervention that meets the specific needs of the school community. For this reason, a quick reference summary of empirical support has been provided for each of the following ST interventions. These tables provide summaries of the participants involved, key features of the study, and the primary outcomes of the intervention. Finally, this discussion concludes with a summary table of critical features across ST programs and interventions.

Check and Connect

The Check and Connect intervention involves connecting a student with a school-based monitor to improve student engagement, decrease absences, and ultimately prevent school dropout (Sinclair et al., 1998). Students are identified as candidates for Check and Connect by assessing risk factors such as attendance, presence of learning disabilities, tardiness, skipping class, suspensions, and academic performance. A full-time monitor acts as a liaison between the student, the school, the student's parents, and the community. This person works individually with each student ensuring that he or she is attending school, participating in school activities, and maintaining academic progress. Student progress is tracked using information such as attendance, end-of-year enrollment, academic performance, number of credits, number of ODRs, and whether the student is expected to graduate (Christenson et al., 2000).

Table 17.1. Summary of Empirical Support: Check and Connect

Reference	Participants	Key Features of Investigation	Intervention Outcomes
Lehr, Sinclair, & Christenson, 2004	Elementary	• Prevented later truancy behavior in elementary students • Evaluated teacher perceptions of program effectiveness	• Results suggest Check and Connect worked to improve student engagement while reducing high-risk behaviors • Teacher perceptions indicated program effectiveness
Sinclair, Christenson, & Thurlow, 2005	70 urban high school students with emotional and behavioral disorders	• Compared a group of students participating in Check and Connect program to a similar group of students who served as the control group to observe effects over a 4- to 5-year period	• When compared to control group, students participating in Check and Connect were significantly less likely to drop out of school • Participating students were more likely to be enrolled in an educational program
Sinclair et al., 1998	Seventh- and eighth-grade students	• Three-year study • Sought to evaluate overall program effectiveness as an ongoing dropout prevention program	• Check and Connect participants were more likely to stay enrolled in school, had more graduation credits, and had a higher completion of class assignments versus control • Participants also had a reduction in severity of behavior problems

Check and Connect has two levels of program delivery: basic and intensive. At the basic level, the monitor meets with students at least monthly to discuss school-related problems, apply problem-solving techniques, and emphasize the importance of staying in school. The monitor uses strategies such as behavioral contracting, tutoring, or community and school-based recreation activities (Sinclair et al., 1998). The second level is a more intensive intervention for students who are considered to be high risk for dropping out of school. This level provides more frequent contact and individualized interventions by the monitor as well as additional skill development and practice opportunities Table 17.1 provides a summary of the studies evaluating checked connect.

Behavior Education Program

Another example of an ST intervention is the Behavior Education Program (BEP), also known as Check-In, Check-Out (CICO; Crone et al., 2004; Fairbanks et al., 2007; Hawken, 2006; Hawken & Horner, 2003; Hawken et al., in press; March & Horner, 2002) (Table 17.2). The BEP is a highly efficient

Table 17.2. Summary of Empirical Support: Behavior Education Program

Reference	Participants	Key Features of Investigation	Intervention Outcomes
Fairbanks, Sugai, Guardino, & Lathrop, 2007	10 elementary schools	• Examined BEP/CICO application to students who displayed problem behavior after general classroom management procedures were implemented; provided more individualized intervention to students unresponsive to BEP/CICO	• BEP/CICO was an effective targeted intervention for four students who did not respond to general classroom management procedures • Four students who were unresponsive to CICO responded to individualized function-based interventions
Filter et al., 2007	Elementary school	• Examined effects of the BEP on ODRs	• 67% of students on BEP had reductions in ODRs • Statistically significant difference in pre- and post-measures of ODRs • District personnel found the program to be highly effective and efficient
Hawken, 2006	Middle school	• Examined effects of the BEP on ODRs	• 70% of students on BEP had reductions in ODRs
Hawken & Horner, 2003	Middle school	• Examined effects of BEP on direct observation of problem behavior and academic engagement	• Significant reduction in problem behavior • Increase of academic engagement • BEP implemented with high fidelity • High social validity ratings from parents, teachers, and students
Hawken, MacLeod, & O'Neill, 2007	Elementary school	• Examined the effects of BEP on ODRs • Examined role of function of problem behavior on BEP effectiveness	• 71% and 80% of students on BEP had reductions in ODRs across School 1 and School 2, respectively • Statistically significant difference in pre- and post-measures of ODRs • BEP was effective across behavioral functions
Hawken, o'neill, & macles, 2008	Elementary school	• Examined effects of the BEP on ODRs using multiple-baseline design across groups of students	• 75% of students on BEP had reductions in ODRs • Statistically significant difference in pre- and post-measures of ODRs
March & Horner, 2002	Middle school	• Examined effects of the BEP on ODRs	• 50% of students on BEP had reductions in ODRs
McCurdy, Kunsch, & Reibstein, 2007	Elementary school	• Examined effects of BEP in urban school setting using a case study format	• Results indicated increases in appropriate behavior in majority of students • Students and teachers rated BEP as highly acceptable
Todd, Kaufman, Meyer, & Horner (in press)	Elementary school	• Examined effects of BEP/CICO on direct observation of problem behavior	• Reductions in problem behavior • High social validity ratings

BEP/CICO, Behavior Education Program/Check-In Check-Out; ODR, office discipline referral.

program that, depending on school size and resources, may support 15–30 students at one time in an elementary or middle school setting. The BEP builds on schoolwide expectations by providing students with frequent feedback and reinforcement for demonstrating appropriate behavior.

Similar to the Check and Connect program, the BEP is structured around a regular checking-in system; however, unlike Check and Connect, the BEP is designed to have students check in a daily basis. Students check in with the BEP coordinator once in the morning and again at the end of the school day. The BEP coordinator is usually a paraprofessional who spends 10–15 hrs a week implementing the BEP. During check in, the BEP coordinator asks whether students have their materials (e.g., pencils, paper, and homework) and provides them with a daily progress report (DPR). The DPR lists the schoolwide behavioral expectations for students to follow and provides a place for teachers to rank how well the students followed the expectations for a specified period of time. Following check in, the students take the DPR to their teachers and receive feedback and evaluation on their social behavior at the end of each class period in middle or high school or during natural transitions in elementary school. At the end of the school day, the students check out with the BEP coordinator, who totals the daily points and provides praise, encouragement, and a tangible reward to the student based on his or her performance. Again, the BEP is similar to the Check and Connect program in that students are receiving positive feedback, praise, and encouragement on a regular basis for their improvements in both academic and social behavior.

Functioning as a home component of the BEP, the student takes a copy of the DPR home for parent signature. In addition, parents are provided with monthly updates on student progress. Behavior support team meetings (weekly or biweekly) include a discussion of the BEP to determine whether students are making progress, if the program needs to be modified, or if the students are ready to transition off the BEP (Crone et al., 2004).

First Steps to Success

First Steps to Success (FSS) is a ST intervention intended for kindergarten students who show indications of developing antisocial behaviors (Walker, 1998; Walker, Stiller, et al., 1998) (Table 17.3). The program consists of three components: (a) a universal, schoolwide screening to identify students who may be at risk for developing more severe problem behavior; (b) instructional intervention of prosocial behaviors for students who are identified through the screening process; and (c) a parent training referred to as Home-Base, which supports parents of students who qualify for this ST intervention (Golly, Stiller, & Walker, 1998).

FSS is implemented in the school by a consultant (e.g., counselor, behavior specialist, or school psychologist), who develops and coordinates the home and school program components (Golly et al., 1998). Once a student is identified for the program, the school component involves providing additional feedback to the target student using a red card/green card system. In this system, the student is able to earn

Table 17.3. Summary of Empirical Support: First Steps to Success (FSS)

Reference	Participants	Key Features of Investigation	Intervention Outcomes
H. M. Walker, 1998; Epstein & Walker, 2002; Golly, Stiller, & Walker, 1998	46 kindergarten students and families	• Participants randomly assigned to treatment and wait list cohorts	• Increased appropriate and adaptive behavior • Decreased aggressive behavior • Positive outcomes maintained for 2 years after intervention • High acceptability ratings by students, parents, and teachers
Golly et al., 1998	20 kindergarten students across 10 different schools	• Study sought to replicate previous findings with the exception of random assignment	• Increased academic engaged time • Decreased problem behavior
Golly et al., 1998	141 general educators (Grades K–1), teacher assistants, school counselors, parent volunteers	• Trained on intervention components through a series of 1-day workshops • Follow-up survey sent	• 58% of returned surveys indicated current use of First Steps program • Most reported training was worthwhile use of time
Golly, Sprague, Walker, Beard, & Gorham, 2000	2 sets of 5-year-old twins who met screening criteria	• Multiple-baseline design • Brief daily sessions with consultant for a minimum of 5 days • Follow-up implementation by classroom teacher • Parent training conducted by consultant	• Significant improvement in academic engagement • Significant reduction in problem behaviors • Improved teacher-child interaction in the classroom
Diken & Rutherford, 2005	4 Native American students, their teachers, and families	• Implemented classwide and individual interventions using FSS in early intervention setting	• Immediately following FSS implementation, student prosocial behavior increased while problem behavior decreased

rewards for his or her class on meeting daily predetermined point goals. Initially, the consultant is in the classroom providing direct feedback to the student consistently (consultant phase). As the intervention progresses, the feedback card is transitioned to the teacher (teacher phase), and the length of time between point earning opportunities is expanded (Golly et al., 1998).

Once the school program is established, the consultant meets once a week with the parents for 6 weeks in the home for approximately 45–60 min. During these six sessions, the following topics are addressed: (a) communication and sharing, (b) cooperation, (c) limit setting, (d) problem solving, (e) making friends, and (f) developing confidence.

Walker and colleagues (1998) estimated that the consultant invests 50–60 hr of time in the program over a 3-month period. The consultant has four primary responsibilities throughout the duration of the program: (a)

coordinating child screening procedures in cooperation with the classroom teachers, (b) contacting and encouraging parent participation, (c) modeling FSS at the school so classroom teachers may continue with the intervention, and (d) providing parent training in the home environment on how to effectively intervene with problem behavior (Golly et al., 1998).

Social Skills Club/Social Skill Training

Social skills training (SST) interventions involve directly teaching prosocial skills to enhance a student's ability to interact with peers and adults (Table 17.4). While some schools implement SST as part of their primary-tier efforts, SST has also been found to be effective as an ST intervention (Lane et al., 2003; Powers, 2003). When used as an ST intervention, SST efforts are applied to a subgroup of students who require additional practice and feedback on their behavior. This type of targeted instruction

Table 17.4. Summary of Empirical Support: Social Skills Training (SST)

Reference	Participants	Key Features of Investigation	Intervention Outcomes
Lane et al., 2003	17 first- through sixth-grade students identified as nonresponsive to the school's primary-tier intervention	• Sought to evaluate effectiveness of SST as secondary tier intervention • Provided additional practice to subgroup of students with problem behavior	• Reductions in disruptive classroom behavior • Reductions in inappropriate social interactions on playground • Increase in academic engaged time in classroom
Powers, 2003	19 elementary students at risk for school failure	• Compared intervention across two different settings • Taught seven social skills through daily scripted instruction for 16 weeks	• Improved classroom behavior • Reduction of problem behavior on playground • Year follow-up study showed positive results maintained • Students who attended school using school-wide discipline plan showed greater reductions in problem behavior as well as higher levels of long-term maintained behavior
Gresham, Sugai, & Horner, 2001		• Meta-analysis of social skills studies	• SST may be effective in teaching new social skills • SST appears to be more effective when skill deficits are targeted for instruction versus a set curriculum

occurs most frequently in a small-group versus in a whole-class setting (i.e., Powers, 2003). Some key features of SST interventions include (a) targeting specific social skill deficits, (b) providing modeling and feedback, and (c) providing additional opportunities to practice the newly learned skills (Gresham, Sugai, & Horner, 2001).

Mentoring

As an ST intervention, mentoring interventions involve pairing the target student with another successful student or community mentor, who serves as a "coach" or "mentor" by establishing a supportive relationship with the student at-risk while modeling appropriate social and academic behaviors. Mentoring programs have been used for many years, both formally and informally, to assist in reducing antisocial behaviors in children and youth (DuBois & Karcher, 2005; Roberts, Liabo, Lucas, DuBois, & Sheldon, 2004). Formalized mentoring programs are designed to fill in the roles previously carried out by relatives, teachers, and community members (Rhodes, Bogat, Roffman, Edelman, & Galasso, 2002). These programs typically address the needs of students who are considered to be at risk due to their home environments, academic challenges, or low socioeconomic status. Moreover, mentoring-based interventions have been cited by positive behavior support researchers as efficient interventions that can be included as part of a school's ST behavior support system (Hawken, 2006; Newcomer, 2004) (Table 17.5).

The largest formal youth mentoring program is Big Brothers Big Sisters (BBBS), which is found in more than 5,000 communities. Furthermore,

Table 17.5. Summary of Empirical Support: Mentoring Programs

Reference	Participants	Key Features of Investigation	Intervention Outcomes
Big Brothers Big Sisters (BBBS), 2006	500 children; ages 10–16	• Evaluate the effectiveness of BBBS mentoring programs through self-report • Control group consisted of children who did not have a BBBS mentor	• Children who had a BBBS mentor had fewer incidents of hitting others, felt more competent about schoolwork, and had better attendance than control group
Rollin, Kaiser-Ulrey, & Potts, 2003	At-risk eighth-grade students in three different schools	• Matched intervention students to community-based mentors in a career setting for 1:1 mentoring • Compared to control group of students who did not have mentors	• Students who received mentoring program showed significant reductions in number of days suspended and number of infractions of school property compared to control
DuBois, Holloway, Valentine, & Cooper, 2002		• Meta-analysis of 55 mentoring studies	• Factors that seemed to improve mentoring effectiveness included mentor training as well as parent involvement components

Table 17.6. Summary of Critical Features Across Secondary-Tier Programs/Interventions

	Similar Implementation Across Students	Quick Access to the Intervention	Implemented by All School Staff/Faculty	Consistent With Schoolwide Expectations	Flexible Intervention Based on FBA	Data Are Used Continuously to Monitor Progress
Check and Connect	Yes	Unclear	No	Unclear	Intervention intensified not based on FBA	Yes
Behavior Education Program/Check-In Check-Out (BEP/CICO)	Yes	Yes	All staff trained, implemented only by teachers with students at risk	Yes	FBA-based data can be used to modify intervention	Yes
First Steps to Success	Yes	Somewhat lengthy screening and assessment	No	Individualized goals vs. schoolwide goals	No	Yes
Social Skills Training	Yes	Possibly: depends on screening criteria and availability of intervention groups	No: usually pull out or small group for ST intervention	Depends on focus of training	Some programs focus skills based on FBA	In some cases
Mentoring	Yes	Usually requires screening and perhaps waiting period	No	Depends on if school or agency is implementing the intervention	Intervention can be tailored to student; usually not FBA based	Unclear

FBA, functional behavioral assessment.
ST, Secondary tier.

over 4,000 additional mentoring organizations operate throughout the United States (DuBois & Karcher, 2005). These youth mentoring programs are sponsored by corporations, nonprofits, and foundations as well as government programs, such as the National Mentoring Center funding the Juvenile Mentoring Program (JUMP) through the Office of Juvenile Justice and Delinquency Prevention Center (DuBois & Karcher, 2005; National Mentoring Center, 2003).

The primary objective of youth mentoring programs is to connect a child with a more experienced adult who can serve as a role model and provide guidance to a student or child at risk (DuBois & Karcher, 2005). Key features of mentoring programs vary depending on which agency or school offers the program but should include elements such as (a) screening and matching of mentors to students, (b) training on the purpose and goals of mentoring, and (c) an expectation of long-term student involvement (Roberts et al., 2004). In addition, a recent meta-analytic research review of youth mentoring programs identified several key features linked to improved outcomes for students receiving mentoring. These critical features include (a) ongoing mentor training, (b) structured training activities, (c) mentor expectations of how often they will meet with the child, and (d) some mechanism of including parents in the mentoring process such as communication of mentor/student goals (DuBois, Holloway, Valentine, & Cooper, 2002). Mentoring programs frequently incorporate standardized procedures (i.e., similar implementation across students), involve low effort by teacher/staff, and monitor student progress throughout the program, which are some of the essential features of ST interventions (DuBois et al., 2002; National Mentoring Center, 2003).

Table 17.6 provides a list of all of the aforementioned ST interventions and the extent to which each intervention includes the critical features of ST supports.

MEASURING RESPONSE TO SECONDARY-TIER INTERVENTIONS

Determining how to measure response to ST interventions is not an easy task. Unlike academic performance, social behavior performance is locally and contextually defined by the values of the school's stakeholders, tolerance levels of school personnel, and overall school culture (Gresham, 2004; Jones, Caravaca, Cizek, Horner, & Vincent, 2006). For example, in relation to reading, the standard to be met can be stated as "student reads 100 words correct per minute during oral reading," and students who obtain the target score on an oral reading fluency measure will be successful readers. In addition, the metric for which reading progress is measured formatively (i.e., along the way vs. at the end of the school year) tends to be the same or similar across primary, secondary, and tertiary intervention levels, and data are gathered relatively quickly (i.e., 1–3 min). For example, schools interested in screening all students for reading difficulties typically use Dynamic Indicators of Basic Early Literacy Skills (DIBELS; Good & Kaminski, 2001) or some other type of

Curriculum-Based Measurement system (Batsche et al., 2005; Vaughn, Linan-Thompson, & Hickman-Davis, 2003). DIBELS are 1-min, fluency-based measures that are not designed to be comprehensive measures of reading but rather provide an indicator of a student's overall early literacy health (Good & Kaminski, 2001). Once students have been identified as at risk, an ST intervention can be implemented, and progress is monitored formatively using the same measure. If the student is not making progress, a tertiary-level intervention may be warranted, and progress is monitored once again using the academic indicator of reading success (Batsche et al., 2005; Vaughn et al., 2003).

In relation to social behavior, there is not an established reliable and valid "indicator" of a student's overall behavioral health that can be used across primary-, secondary-, and tertiary-tier interventions. In addition, response to behavioral interventions is measured differently across interventions. For example, percentage of points on a daily progress report is one way progress is monitored for the BEP/CICO intervention (Crone et al., 2004), whereas absences, tardies, and drop-out rates are used to monitor progress for Check and Connect (Sinclair et al., 1998). For some ST interventions, unless researchers are involved in the implementation and evaluation, data are not systematically gathered to determine the success of the intervention; this is particularly true for interventions such as SST and mentoring. The final issue/question when measuring social behavior is the extent to which we allow for cultural differences when we compare a student to his or her peers (Kincaid, 2007) as cultural norms can have a significant impact on which behaviors are considered acceptable or problematic (Crijnen, Achenbach, & Verhuist, 1999).

Although direct observation of problem behavior would be a preferred metric to evaluate response to intervention (Gresham 2005), it is not efficient or cost-effective to conduct direct observations on the estimated 20% of the student population who are at risk for poor behavioral outcomes. Direct observation is more likely to be used with tertiary-tier interventions or when researchers are trying to establish a functional relation between the implementation of an intervention and the reduction in problem behavior (e.g., Fairbanks et al., 2007).

Kincaid (2007) argued for an integrated data system that can be used across ST interventions and stated that the data system should include the following features: (a) assesses specific, targeted behavioral skills, (b) is sensitive to small changes in behavior over time, (c) can be administered quickly and easily, (d) can be administered repeatedly, (e) can be easily summarized, and (f) can be used to make comparisons across students. He proposed that a DPR could be modified to be used across ST interventions; an example of a generic DPR can be seen in Fig. 17.1.

In the DPR included in Fig. 17.1, the schoolwide behavioral expectations are listed along the left column, and each student problem behavior could be further defined under the "List Behavior" section. In addition, in its current form the periods of the day are listed across the top, but this can be changed depending on the needs of the specific interventions. A pull-out social skills intervention may need the time periods broken down

Adapted from Crone, Horner & Hawken (2004)

Daily Progress Report

| Points Possible: _____ |
| Points Received: _____ |
| % of Points: _____ |

Name: _____   Date: _____

Rating Scale: 3=Good day 2= Mixed day 1=Will try harder tomorrow

GOALS:

	HR	1st	2nd	3rd	4th	L	5th	6th
BE RESPECTFUL List Behavior:	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3
BE RESPONSIBLE List Behavior:	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3
BE PREPARED List Behavior:	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3

Teacher Comments: I really like how…

_____
_____

Parent Signature(s) and Comments: _____

Fig. 17.1. Generic daily progress report. Adapted from *Responding to Problem Behavior in Schools,* by D. A. Crone, R.H. Horner, & L. S. Hawken, 2004. New York: Guilford Press.

into 5-min increments. If a student is participating in a 1-hr afterschool mentoring program, the time periods could broken down into 10- or 15-min increments. The key benefit to using the DPR across ST interventions is that percentage of points could be used as a common metric and allow for comparison of effectiveness across interventions. In fact, preliminary research indicated that points earned on DPRS can serve as indicators of the effectiveness of behavior interventions (Chafouleas, Christ, Riley-Tillman, Briesch, & Chanese, 2007; Chafouleas, Riley-Tillman, Sassu, LaFrance, & Patwa, 2007; Cheney, Flower, & Templeton, 2007; Stage, Cheney, Flower, Templeton, Waugh, 2008). It should be noted that no research-based guideline or cutoff score (e.g., 80% of points) has been established regarding what constitutes adequate response to intervention.

Data from DPRs can be easily summarized using SWIS (May et al., 2000) or graphed using Excel (e.g., see http://www.ed.utah.edu/~ hawken_l/ BEPresources.htm for a graphing template program). Other indicators besides DPRs and direct observation that can be used to assess response to intervention include (a) teacher rating on norm-referenced behavior ratings scales, (b) number of ODRs, (c) number of absences or tardies, (d) reduction in students needing tertiary-tier support, (e) academic performance data, and (f) reduction in referrals to special education for behavior problems. A list of these measures and the extent to which these measures have the key elements described by Kinkaid (2007) is provided in Table 17.7.

Table 17.7. Measuring Response to Secondary-Tier Interventions

Methods	Assesses Specific Behavioral Targets	Sensitive to Small Changes	Administered Quickly and Easily	Can Be Administered Repeatedly	Easily Summarized	Used to Make Comparison Across Students
Teacher rating and percentage of points on daily or weekly reports	X	X	X	X	X	X
Direct observation	X	X		X	X	X
Teacher rating on norm-referenced behavior rating scales			X	X	X	X
Office discipline referrals (ODRs)			X	X	X	X
Absences and/or tardies			X	X	X	X
Grades, assignment completion, performance on standardized tests			X	X	X	X
Reduced need for tertiary level of support			X	X	X	X
Referrals to special education for behavior problems (suspected ED)			X	X	X	X

ED: Emotional Disturbance

SYSTEMS AND SUPPORT FOR SECONDARY-TIER INTERVENTIONS

Schoolwide Discipline Plan in Place

Before considering the use of ST interventions, a primary-tier, school-wide discipline system must be well established. The School-wide Evaluation Tool (SET; Horner et al., 2004) is used to determine the extent to which a school has reliably implemented a behavior support plan (see chapter 14 for a more detailed explanation of the SET). By clearly outlining behavioral expectations that foster a respectful school climate, primary-tier interventions effectively prevent the majority of disciplinary problems. Without these systems in place, ST interventions would be unmanageable due to the numbers of students who would require support. In addition, research indicates that schools that have an established schoolwide discipline plan are better equipped to implement ST interventions (Hawken et al., 2007; Powers, 2003).

Leadership Team

Schools need to determine which team is going to be in charge of processing referrals along with examining data on effectiveness of ST interventions. Some schools have established a schoolwide behavior support leadership team that meets bimonthly to evaluate schoolwide discipline

plan implementation; this team also oversees ST intervention implementation. In other schools, an interdisciplinary team meets to discuss students with academic and behavioral difficulties, and this team is in charge of evaluating the effectiveness of ST interventions. No matter which team is involved in overseeing implementation, the team should meet at least every other week to make sure progress is monitored formatively and so that intervention modifications can be made proactively (Crone et al., 2004; Hawken, 2006). The team for ST interventions is responsible for making programmatic decisions and should include members from general and special education, the principal or vice principal, school psychologists and counselors, as well as parents and, when appropriate, students (Sugai & Horner, 2006; Todd, Horner, Sugai, & Colvin, 1999). At least one member should have expertise in the area of functional behavioral assessment so that the procedures can be included in ST support when necessary.

Resources

For ST interventions to succeed, administrators and staff must agree that the benefits of creating a positive school climate will merit the resources required for implementation. While ST interventions are designed to support a broader group of students while minimizing resources required, schools must commit a portion of total resources for planning and implementation. ST support requires initial training for all members of the behavior support team, monies allocated for staff training, paid time for regular team meetings (2–4 hr per month), materials for interventions and student rewards, and sometimes an outside expert who serves as a coach for the behavior support team such as a district PBS coach (Nersesian, Todd, Lehmann, & Watson, 2000; Scott & Martinek, 2006). Many schools use educational assistants (i.e., paraprofessionals), who are typically supervised by school psychologists or school counselors to help support implementation of ST interventions.

Staff training for implementing ST interventions can vary depending on the intervention but typically involves an initial 2- to 3-day professional development training provided by a coach, an individual with experience developing, implementing, and overseeing interventions (Scott & Martinek, 2006). The coach will play a more integral role in sustaining a ST intervention during the initial years of implementation. The role of the coach is to help the team problem solve and troubleshoot, building confidence and capacity within the members of the team.

Specific costs for implementing ST supports are not consistent from school to school. To assist administrators in creating an accurate budget, Crone et al. (2004) categorized financial needs into three areas: (a) personnel, including the coach, a team coordinator, training, and paid meeting time for all members of the team; (b) materials, including software, written materials of secondary support policies, and all required forms for students receiving support; and (c) rewards for students receiving ST support. Annual costs of sustaining ST supports vary based on school size, the number of students receiving intervention, and the amount of required support from the PBS coach.

FUTURE DIRECTIONS FOR RESEARCH AND PRACTICE

Empirical Data Supporting Critical Features

As detailed in this chapter, ST interventions have been shown to be effective in reducing problem behavior, increasing academic engagement, and decreasing the need for more intensive levels of behavior support. Certain future research should provide empirical data on the critical features of ST interventions as detailed in Table 17.6. For example, although parental participation is a component of several ST interventions (i.e., FSS, BEP/CICO, Check and Connect), the extent to which this component is a necessary element has not been empirically validated. In fact, multiple studies on BEP/CICO indicated that students demonstrate reductions in problem behavior following implementation even if parents are unable to participate (Hawken, 2006; Hawken & Horner, 2003, Hawken et al., 2007).

Additional key elements of ST interventions that appear to cut across those described in this chapter but were not included in the OSEP (2005) website are teacher/adult feedback and reinforcement along with building a connection with a key adult in the school. The prevention literature is clear; students who are connected to at least one adult are less likely to engage in criminal activity or severe problem behavior, drop out of school, or use drugs or alcohol (Bernard, 1995; Biglan, 1995; Cheney et al., 2007; Furlong & Morrison, 2000; Masten, Best, & Garmezy, 1990; Metzler et al., 1998). In addition, contingent praise and feedback have been shown to be important components across prevention programs (Wilson, Gottfredson, & Najaka, 2001). Future research should examine the extent to which each of these critical features contributes to the effectiveness of ST interventions.

Issues Related to Implementation

As mentioned, schools reported implementing a median of 14 prevention programs (Gottfredson & Gottfredson, 2002). This number of interventions is not easily sustainable, and fidelity of implementation is likely compromised given the distribution of time and resources across interventions. Future research should document the time, resources, and training needed to implement each ST intervention.

In addition to evaluating the costs associated with implementing ST interventions, future research should compare which interventions are more readily implemented by school staff with fidelity and have good social validity. For example, although FSS (Walker, 1998) has been shown to be successful in reducing antisocial behavior, the intervention is implemented with one student at a time and requires a consultant to implement the intervention. In addition, SST should be provided by someone skilled in behavioral principles and in managing the behavior of small groups, such as a school psychologist or prevention specialist. In contrast, programs like Check and Connect (Sinclair & Christianson, 1998) and BEP/CICO (Crone et al., 2004) support many students (for BEP/CICO, up to 30 depending on school size and resources) with the support of one paraprofessional or mentor to implement the intervention. Research should be

conducted to develop guidelines for helping schools choose the most effective prevention programs to fit the needs and culture of their school.

Combining Academic and Behavioral Supports

Although there is not exact agreement in the field about when to increase academic support, there are research-based guidelines that allow schools to determine students' level of risk for reading failure depending on goals at different times of the year (Good & Kaminski, 2001). In contrast, as mentioned, there are no standardized progress-monitoring tools for social behavior, and research-based goals have not been established. For schools to successfully implement the ST interventions, future research should help define the decision rules for increasing or decreasing behavioral support.

Although some evidence exists that schools can successfully implement both academic and behavioral support following a three-tier model (e.g., Lewis-Palmer, Bounds, & Sugai, 2004; McIntosh et al., 2006; Sadler & Sugai, in press), developing a comprehensive service delivery model is challenging. Future research should address the extent to which school teams have the capacity and knowledge to respond to academic and social behavior data to design interventions and efficiently evaluate progress of those interventions. For example, although formative assessment of academic performance has been well established in the research literature as an effective way to prevent reading failure (e.g., Deno, 1985; Shinn, 1989), it is only recently with the passing of No Child Left Behind and the push for schools to make adequate yearly progress that many schools have started to monitor the progress of all students at least three times a year. Many schools are just becoming fluent with collecting these types of data and still struggle with how to use the data for decision making (Chard & Harn, in press; Simmons et al., 2002). In addition, schools often use different systems for managing behavior and academic data. For example, over 12,000 schools across the country use the DIBELS data system (http://dibels.uoregon.edu/) or some other Web-based system to summarize reading performance data. In terms of social behavior, over 4,000 schools across the country use SWIS (May et al., 2000; http://www.swis.org/) to organize and summarize ODR data. In terms of teams managing data, future research should address whether a single data system can be used to monitor both academic and social behavior data or the most efficient way to combine data from multiple systems for use by team members. In addition, the DIBELS data system and SWIS primarily summarize screening and progress-monitoring types of data, and teams will also need efficient ways to organize both academic and behavioral diagnostic data.

CONCLUSION

To meet the challenge of providing safe and effective schools, educators must use resources that are efficient in meeting the behavioral and academic needs of all students. ST interventions are essential in schools

because they have features that permit early identification of the problematic behaviors and, when implemented with fidelity, prevent more serious problem behaviors from occurring. Without intervention, students with challenging behaviors risk continued school failure and discipline problems. ST interventions interrupt this progression and have a strong influence on students staying in school and being connected with peers and adults and in the academic environment. Such prevention efforts are implemented at relatively little cost and use of school resources but have a considerable impact on the outcomes of each of these students.

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