

FOCUS ON EXCEPTIONAL CHILDREN

Making Behavior Intervention Planning Decisions in a Schoolwide System of Positive Behavior Support

Terrance M. Scott

Although rates of crime and serious or violent behaviors are decreasing in schools, more common behaviors such as disrespect, simple noncompliance, tardiness, and truancy have remained a major concern for teachers (Furlong, Morrison, & Dear, 1994; Zabel & Zabel, 2002). Administrators, too, see these behaviors as requiring constant attention (Heaviside, Rowland, Williams, & Farris, 1998). As early as kindergarten, some students exhibit challenging behaviors that require increased teacher attention (Sawka, McCurdy, & Mannella, 2002; Sprague & Walker, 2000) and set the occasion for more chronic and pervasive problems in school and life (Fox, Dunlap, & Powell, 2002; Loeber & Farrington, 2000; Snyder, 2001; Walker, Colvin, & Ramsey, 1995). To be effective, intervention with these students must occur as early as possible in a pattern of failure—using practices that represent an individual student's best chance for success (Scott & Eber, 2003).

A POSITIVE BEHAVIOR SUPPORT SYSTEM

Early identification and intervention have been implemented effectively at the schoolwide level through systems of positive behavior support (PBS). PBS is a proactive, systemic, and data-based application of science with a value-based focus on behavior change and quality of life (see Carr et al., 2002; Sugai et al., 2000). Defined by multilevel systems of prevention and support, each level of PBS is more focused and intensive than the previous level. At the schoolwide level, *primary prevention* focuses on monitoring and preventing problem behaviors across all students in the school. At the next level, *secondary prevention* utilizes strategies aimed at preventing larger failure among students for whom primary prevention efforts have been insufficient to facilitate success. Finally, *tertiary prevention* is directed at preventing crisis and failure across larger life domains and is implemented with the students for whom both primary and secondary prevention strategies have been unsuccessful.

Terrance M. Scott is an associate professor in the Department of Special Education at the University of Florida in Gainesville, FL. His interests include schoolwide systems of behavior support, functional behavior assessment, effective behavior change strategies, and training methods related to each.

© Love Publishing Company, 2003

ERSCO PUBLISHING
PO BOX 590
IPSWICH MA 01938-0590
*****3-DIGIT 019

As prevention is implemented at each level of PBS, the number of students requiring further, more intense intervention decreases while the range of adults involved increases to better meet the unique individual needs of students with chronic failures. This process is cost-effective in that prevention minimizes the expensive and time-consuming interventions required for students with the most intense needs. That is, as fewer students experience initial failures, more resources are available for students who really need them. Similarly, as more students are successful, more student time is spent in classroom settings and less adult time is spent dealing with behavior (Scott & Barrett, in press), leaving more time for academic involvement.

Across levels, effective implementation of PBS requires the development of explicit instructional sequences for critical academic and social skills (Colvin, Sugai, & Patching, 1993; Nelson, Johnson, & Marchand-Martella, 1996; Sterling, Barbetta, Heward, & Heron, 1997), consistent and encouraging environments that provide opportunities for successful practice (Nelson, Martella, & Marchand-Martella, 2002; Walker & Shinn, 2002), positive reinforcement for appropriate behavior (Embry, 1997; Mayer, 1995), and consistent corrective consequences when inappropriate

behaviors do occur (Taylor-Greene et al., 1997; Walker, Colvin, & Ramsey, 1995).

Although schoolwide application of PBS has demonstrated success with approximately 85%–90% of a school's student population (Sugai, Sprague, Horner, & Walker, 2000), some students have continued failures and therefore are identified as needing more individualized attention. Because PBS is concerned with measurable outcomes that both inform and evaluate effective practice (Carr et al., 2002; Sugai et al., 2000; Scott & Eber, 2003), it provides a context and structure for:

1. Identifying predictable problems for the system and individual students
2. Creating contexts and conditions that predict schoolwide success
3. Organizing and creating simple individualized interventions
4. Implementing student-centered planning teams for individualized behavior intervention planning
5. Evaluating the success of intervention.

These five activities create natural decision points at which critical behavior-intervention planning decisions are made. That is, the key decisions upon which effective intervention plans are built exist in the answers to the questions:

- | | |
|-----------|---------------------------------------------------------------|
| Level I | What problems are predictable? |
| Level II | How might problem behavior be prevented schoolwide? |
| Level III | Which students are exhibiting individual failure? |
| Level IV | Is individualized intervention warranted? |
| Level V | Is development of a student-centered planning team warranted? |
| Level VI | Is intervention effective? |

The remainder of this article presents an analysis of these decision levels with a discussion of the key data, decision-making criteria, and actions associated with each.

DECISION POINTS IN THE BEHAVIOR INTERVENTION PLANNING PROCESS

Each of the five planning questions is presented as a level of decision-making that is informed by data at both the schoolwide and the individual levels. The relationship between these decisions within a system of PBS is presented as a summary of decision questions in Table 1.

Level I Decisions: What Problems Are Predictable?

What Is a Problem?

At what point should behavior be considered problematic? This question cannot be answered with any concrete

FOCUS ON EXCEPTIONAL CHILDREN

ISSN 0015-511X

FOCUS ON EXCEPTIONAL CHILDREN (USPS 203-360) is published monthly except June, July, and August as a service to teachers, special educators, curriculum specialists, administrators, and those concerned with the special education of exceptional children. This publication is annotated and indexed by the ERIC Clearinghouse on Handicapped and Gifted children for publication in the monthly *Current Index to Journals in Education* (CIJE) and the quarterly index, *Exceptional Children Education Resources* (ECER). The full text of *Focus on Exceptional Children* is also available in the electronic versions of the *Education Index*. It is also available in microfilm from Xerox University Microfilms, Ann Arbor, MI. Subscription rates: Individual, \$36 per year; institutions, \$48 per year. Copyright © 2003, Love Publishing Company. All rights reserved. Reproduction in whole or part without written permission is prohibited. Printed in the United States of America. Periodical postage is paid at Denver, Colorado. **POSTMASTER:** Send address changes to:

Love Publishing Company
Executive and Editorial Office
P.O. Box 22353
Denver, Colorado 80222
Telephone (303) 221-7333

Edwin Ellis
University of Alabama

Tim Lewis
University of Missouri

Chriss-Walther Thomas
University of Kansas

Erica J. Lawrence
Editor

Stanley F. Love
Publisher

TABLE 1
Critical Data-Based Decision Points in Student-Centered Behavior Intervention Planning

General Questions	Key Decision Questions	Source(s)	Outcomes
Level I: What problems are predictable?	<ol style="list-style-type: none"> 1. What is a problem? —operational definition, effect on environment 2. What environmental conditions predict behavior? 	Schoolwide discipline data and staff experiences	Determination as to whether any action at all is necessary
Level II: How might problem behavior be prevented schoolwide?	<ol style="list-style-type: none"> 1. What teachable expectations are necessary? 2. What routines can be arranged to predict success? 3. What physical arrangements might predict success? 	Schoolwide discipline data analysis, staff discussion and consensus of logical and realistic strategies	Plan for schoolwide prevention of predictable problems and student failure
Level III: Is individualized intervention warranted?	<ol style="list-style-type: none"> 1. What is the extent of the problem? 2. Is the behavior dangerous? 3. What is the simplest course of action? 	Schoolwide discipline data for individual student, perceptions of staff, parents, and others	Determination as to whether individualized assessment is necessary
Level IV: Is development of a student-centered planning team warranted?	<ol style="list-style-type: none"> 1. Have simple interventions proven unsuccessful or is the behavior considered dangerous? 2. Who should sit on the team? 3. How does assessment data inform intervention? —predictors, function, replacement behavior 4. How will intervention be implemented? 	Teacher data from classroom, schoolwide discipline data, data collected by specialists (e.g., FBA), discussion among all involved	Behavior referred to appropriate course of actions: more complex teams and interventions for more complex problems
Level V: Is intervention effective?	<ol style="list-style-type: none"> 1. What is the criterion for success? 2. Is the student making sufficient progress? 3. How can the data inform intervention changes? 	Data representing current level of functioning, individual monitoring data, discussion among all involved	Evaluation of the success of intervention and plan for changes as necessary

universal topographical definition. Because communities, schools, classrooms, and teachers have varying expectations, norms, and tolerances, appropriate behavior must be defined in accordance with the context in which it occurs. Thus, what is deemed appropriate in one context may be inappropriate in another context (e.g., different setting, people, circumstances). Asking individual adults to define behaviors in such a provincial and relativistic manner, however, may set the occasion for unrealistic or inconsistent expectations, especially among those whose perceptions of appropriate differ from the norm.

The risk is that inconsistencies across adults will create unpredictable environments, setting the occasion for failure

as students continually test the limits. Consistency is a major consideration for the effective implementation of schoolwide expectations. Schools balance consistency with the need for social validity by working as a system, collaboratively determining expectations based on the age and background of the students through discussion and then voting to achieve consensus on each issue.

Identifying Problems at the Schoolwide Level

Under a system of PBS, schoolwide discipline data (e.g., office referral information) is used to identify problem behaviors and their predictable contexts. Schoolwide problems are those that are most often observed or deemed to be

most predictive of student failure. When monitored and reported, information regarding problem behaviors can be collated to develop a database. Common problems then may be identified and analyzed by context (time, location, etc.) to predict the conditions under which problem behavior and student failure are most likely to occur. This analysis then becomes the basis for considering prevention at the school-wide level. Simply put, to predict that students often fight behind the gymnasium after school suggests some specific actions in that location and at that time.

Creating a discipline database. The creation of a discipline database requires reliable collection and summarization of available information. The possible formats for creating a schoolwide database are limited only by what is logical and realistic for the school. In general, decisions about data collection can be made in accordance with the following five steps.

1. Determine what questions you want to answer by asking what information is logically important in our efforts to create students' success.
2. Determine what data are necessary (i.e., what has to be collected) to answer questions.
3. Determine the simplest way to get data by considering what is realistic in terms of time and effort for the persons being asked to implement data collection.
4. Put the system in place so that all use it in a consistent manner to collect information.
5. Analyze the information gathered to answer questions, evaluate strategies, and drive policy and practice.

Typically, students, locations, and times are the most useful variables in predicting problem behaviors schoolwide. Nevertheless, schools may wish to collect additional information including student grade-level, general versus special education, or other descriptors that may be used to make more specific predictions. Three keys to effective schoolwide monitoring are (a) accurate definition of behavior, (b) reliable reporting, and (c) regular analysis of outcomes for responsive decision-making (Colvin, Kameenui, & Sugai, 1993; Sugai, Sprague, Horner, & Walker, 2000). Information gathered from accumulated behavior referrals may be transferred into a simple spreadsheet format from which complex analyses may be made. A working database will allow the school to identify the problems and contexts that are most in need of attention to facilitate success across all students.

Using schoolwide data to identify predictable problems. Figure 1 presents a database of behavior referrals for the month of October in Hope Elementary School. The staff at Hope Elementary determined that, in addition to the student's

name and a description of the problem, information on the date, grade level, referring person, location, and time also were necessary to make accurate predictions. The school office discipline referral form adopted by Hope Elementary provided a checklist of items under each of these categories, and staff members were asked to complete the entire form for each referral.

Once a month the PBS team in Hope Elementary meets to analyze their data and answer three questions:

1. What new predictions are apparent?
2. What progress is being made on any previously established schoolwide behavior goals (see Level V decisions)?
3. Are there students who can be identified as having predictable problems (see Level II decisions)?

Figure 2 presents a graphic depiction of the data for Hope Elementary. A simple count of incidents indicates that "tardy" is the most frequently referred problem behavior, followed by verbal aggression, inappropriate language, and disrespectful comments. In addition, problems are most often seen among fourth- and fifth-grade students who are likely to be referred from the classroom at the beginning of school or just after lunch.

Further consideration and discussion among the staff led to the conclusions that tardy behavior is predictable at the beginning of school and just after lunch because of some confusing and inconsistent transition routines, especially for the older grades. They also noticed from the original database (Figure 1) that the 10:00 a.m. recess time tended to predict more of the peer-conflict type of problem such as verbal aggression and fighting across grade levels. Using schoolwide data to identify predictable relationships between the environment and problem behavior provides Hope Elementary with a clear focus for considering prevention strategies (see Level II decisions).

For example schools may choose to make specific decision-rules to drive their focus such that more than 35% of students receiving one or more referrals directs a focus on schoolwide systems, more than 35% of referrals coming from non-classroom settings directs a focus on non-classroom settings, or more than 50% of referrals coming from the classroom setting directs a focus on classroom settings (see Lewis-Palmer, Sugai, & Larson, 1999). The specific criteria used by any school is dependent upon their unique individual context.

Defining Predictable Problem Behaviors in Individual Students

To define whether a student's behavior should be considered problematic, the behavior must first be operationally

Student	Date	Grade	Referred By	Problem	Place	Time
Arnold, Kitty	10/1	5	Cherry	tardy	classroom	8:00
Johnson, John	10/1	4	Foote	verbal aggress - peer	playground	10:00
Jones, Betty	10/3	3	Ripley	inapprop. language	classroom	2:30
Miller, Mike	10/5	4	Penny	inapprop. language	hallway	1:00
Johnson, John	10/6	4	Marshall	tobacco	bus	3:00
Johnson, John	10/8	4	Irons	verbal aggress - peer	classroom	8:30
Smith, Ray	10/10	2	Irons	tardy	classroom	1:30
Young, Todd	10/10	2	Marshall	disrespect comment	hallway	1:00
Roberts, Emily	10/11	4	Marshall	inaprop. language	hallway	11:15
Arnold, Kitty	10/13	5	Foote	tardy	classroom	1:00
Edwards, Bo	10/13	3	Walters	tardy	classroom	8:00
Johnson, John	10/13	4	Cherry	tardy	classroom	8:00
Tipton, Tammy	10/13	5	Ripley	disrespect comment	hallway	9:00
Arnold, Kitty	10/13	5	Foote	tardy	classroom	1:00
Franklin, Frank	10/15	4	Ripley	fight	playground	10:00
Raines, Sally	10/15	1	Bird	tardy	classroom	8:00
Smith, Ray	10/15	2	Jacks	fight	playground	10:00
Johnson, John	10/17	4	Ripley	verbal aggress - peer	playground	12:00
Dunn, Kimber	10/20	5	Cherry	weapon	bus	7:30
Jones, Betty	10/23	3	Marshall	verbal aggress - peer	playground	10:00
Smith, Ray	10/23	2	Jacks	tardy	classroom	9:30
Smith, Ray	10/23	2	Jacks	refused direction	classroom	2:00
Arnold, Kitty	10/24	5	Foote	tardy	classroom	8:00
Harper, Ben	10/25	5	Jacks	disrespect comment	hallway	11:15
Arnold, Kitty	10/27	5	Foote	tardy	classroom	8:00
Kell, Sophie	10/29	1	Marshall	tardy	classroom	11:00

FIGURE 1
Hope Elementary Behavior Referral Database for October

defined so it may be considered in relation to agreed upon expectations (e.g., remain seated, hands and feet to self) and unacceptable behaviors (e.g., fighting, smoking). When schoolwide definitions do not provide sufficient clarity to determine whether student behavior should be considered problematic, a second criterion is explored by determining the effect of the behavior on the likelihood of success for both the student and others in the environment (Walker, Colvin, & Ramsey, 1995; Yell, 1995).

Operational definition of behavior. An operational definition of behavior begins with a description of its topography—what exactly does the behavior look like? This description then can be shared with others to determine its relative appropriateness. Still, simple topography, by itself, likely will be insufficient to provide a complete definition of

behavior and additional dimensions such as frequency, duration, and intensity will be necessary. For example, the behavior “talks out” may not, by itself, be seen as a major issue for many teachers. But if it were known that the behavior occurs 40–50 times per hour, for durations of more than 3 hours per episode, or loud enough to be clearly heard from a distance of 200 feet, it is much more likely that the behavior would be treated as a priority issue.

Behavior's effect on the environment. Once the behavior in question is defined, it must be considered in terms of its effect on both the student and his or her peers in the environment. For the student, the question is whether the behavior is either interfering with current academic or social development, or is predictive of future failure. With respect to other students, the question is whether the behavior in

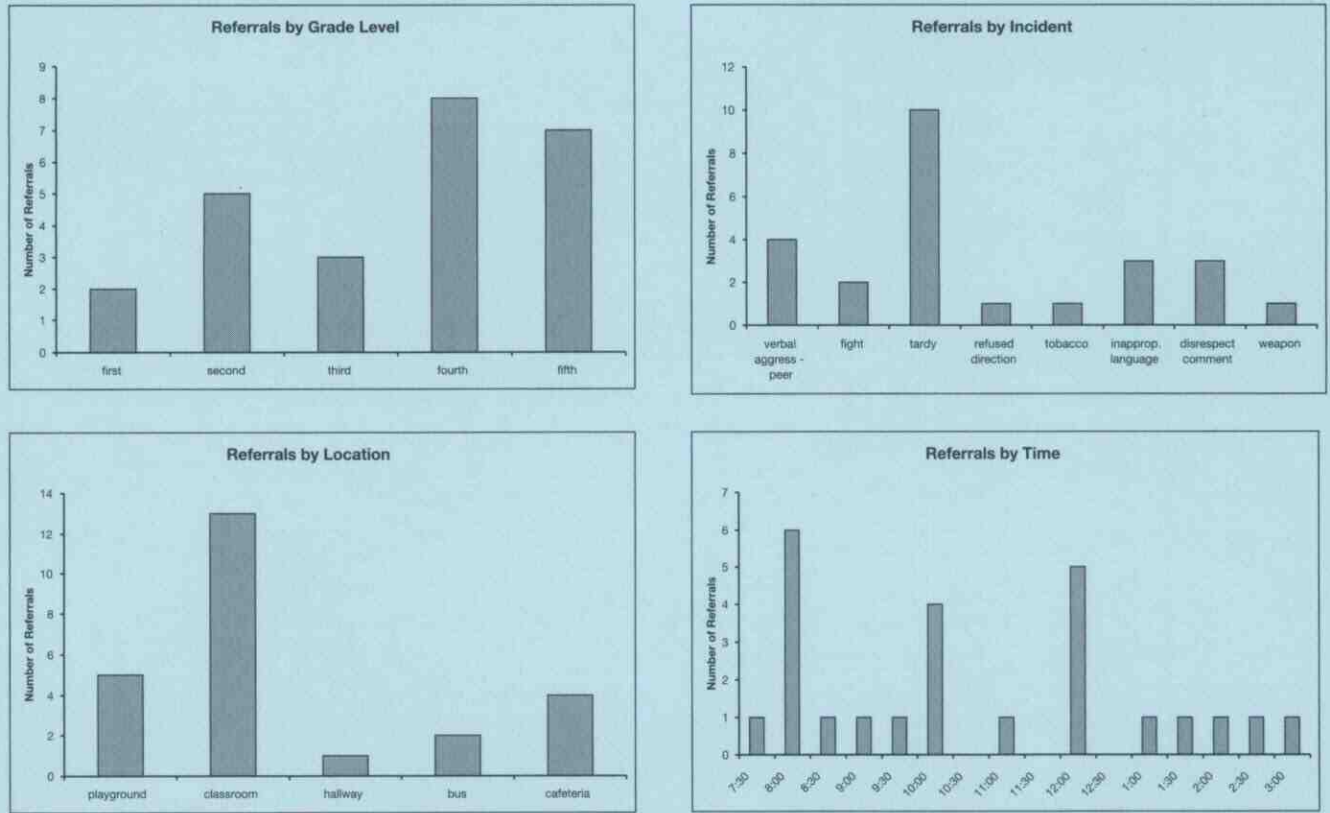


FIGURE 2
Graphic Depiction of Predictable Problems for Hope Elementary

question is interfering with current learning or represents a realistic threat to overall classroom disposition or safety. Behaviors that do not affect the individual student but have an adverse impact on others in the environment typically are thought of as warranting intervention.

In the case of a behavior that is not as easily definable, we may consider a student who is occasionally disrespectful (i.e., tells the teacher to "bug off") but does not disrupt the class and continues to excel both academically and in peer relationships. It could be argued quite logically that the nature of this behavior represents a probability for individual failure in the future in that, although a student may perform at grade level across the curriculum, rude or insulting behaviors tend to have consequences in the natural environment that often are unpleasant and at times dangerous.

School personnel have an obligation to teach behaviors that are predictive of success in the world outside of school and to address behaviors that predict failure (Scott, 2003). In terms of the larger environment, school personnel have a compelling interest in remaining consistent in how they encourage and consequence behavior (see Northwest Regional Educational Laboratory, 2003), as it has been determined that

success requires consistent examples of positive behavior as well as consistent encouragement and enforcement.

It is still possible that individual school personnel may create unpredictable or idiosyncratic expectations that are both inconsistent with schoolwide agreements and predictive of failure for some students. Nevertheless, because identification of individual students involves a more detailed analysis of school discipline data, those making multiple referrals for a given student will be involved in discussing solutions—creating an opportunity to identify and correct inconsistencies. In general, although some contradiction between environmental norms and an individual's expectations is inevitable, collaborative data-based decision-making helps to discriminate behaviors that are predictive of failure from those that are simply bothersome to any one adult's individual sensibility. These issues will be addressed again at the next level as schoolwide intervention strategies are developed.

Level II Decisions: How Might Problem Behavior be Prevented Schoolwide?

School personnel typically are well aware of the students who exhibit the most frequent problem behaviors and

become so without need for special consideration, analysis, or use of a schoolwide database. In many schools, this creates a tendency to simply go after these students in a reactionary manner, with punishment and exclusion as the most common responses (US Department of Education, 2002; Walker, Horner, et al., 1996). This is especially true for students from disadvantaged backgrounds, minorities, and students with disabilities (McFadden, March II, Price, & Hwang, 1992; Skiba, Peterson, and Williams 1997). Research is quite clear, however, that such practices are at best ineffective (e.g., Shores, Gunter, & Jack, 1993) and at worst counterproductive (Hyman & Perone, 1998; Sulzer-Azaroff & Mayer, 1991).

A more effective approach to dealing with misbehavior is to create proactive systems to prevent problems (Lewis & Sugai, 1999; Sugai, Horner, et al., 2000; Tolan & Guerra, 1994). Using schoolwide data to predict problems, schools can make informed decisions in regard to creating rules, routines, and physical environments to increase the likelihood of success. Schools that are effectively proactive create environments that include explicit instruction of expected behaviors (Mayer, 1995; Taylor-Green et al., 1997), development of structures and routines to prevent failure (Nelson, 1996; Scott, 2001), consistent positive feedback for appropriate behavior (Nelson, Martella, & Galand, 1998; Taylor-Greene & Kartub, 2000), consistent correction for misbehavior (Taylor-Greene et al., 1997; Walker, Colvin, & Ramsey, 1995), and monitoring of outcomes to direct intervention decision-making (Metzler, Biglan, Rusby, & Sprague, 2001; Nakasato, 2000).

Rules, Routines, and Physical Arrangements

For any school, the nature or predictability of identified problems dictates the content and nature of the rules, routines, and physical arrangements that logically fit the problem and are realistic to those charged with implementation. In Hope Elementary School, prevention efforts will focus on the areas and times that have been identified as being especially predictive of problems. First, because transitions into the classroom at the beginning of the day and just after lunch were identified as problem contexts, the staff has agreed on a clearly stated expectation that all students must be inside the classroom doorway once the bell rings. This rule will be taught to all students and will be consistently encouraged and reinforced by all staff members.

To make it more likely that students will be successful with this expectation, a strict time schedule was developed and agreed upon by all staff members—ensuring that students leave the bus stop in the morning and the cafeteria after lunch with plenty of time to return to the classroom prior to the tardy bell. Further, arrangements were made to have the fourth- and fifth-grade students take different

pathways while returning to the classroom and to have an adult supervisor assigned to monitor the transition. Another strategy for setting students up to be successful is to keeping the number of students to a minimum in any given transition area and provide supervision to encourage on-time arrival.

Because the playground during morning recess was identified as a problem context, the staff agreed that attention should be directed to that time and place as a second level of intervention. Specifically, the data indicated that peer conflict was especially predictable, and analysis of this issue revealed a great deal of confusion over the accepted rules for playing the various playground games.

After discussing these issues with students, the staff came together and drafted a set of schoolwide playground game rules, which then were taught on the playground to all students during a round-robin style assembly. Conflict managers and adult mediators were added to the playground as a new routine for solving problems, and playground supervisors developed specific patterns of movement to provide greater supervision of the entire area. As these strategies are put into place, playground behavior is continually monitored as an evaluation of the effect of these strategies.

Level III Decisions: Is Individualized Intervention Warranted?

Once problem behaviors have been identified on a schoolwide basis, schoolwide prevention efforts have been put into place, and continuing problems are used to identify individual students, the question shifts to asking whether individual interventions are warranted. To some extent, these issues were considered as part of the Level I decision. That is, if a behavior is determined not to be a problem, there is no need for intervention.

Just because a behavior is considered to be a problem, however, does not necessarily mean that intervention is warranted beyond implementation of primary systems that are in place for all (i.e., classroom or schoolwide management systems and strategies). For example, a student's behavior in the classroom may be widely considered to be inappropriate—yet may be so minor that any intervention beyond simple classroom discipline systems is considered unnecessary.

Intervention decisions are best made by a behavior support team composed of people who are familiar with basic behavior assessment and intervention processes and who can recommend the most expeditiously effective course of action (Conroy, Clark, Gable, & Fox, 1999; Lewis & Sugai, 1999). Maintaining the collaborative systems approach, the function of this team may be thought of as a type of triage wherein behaviors that are deemed to be simple in nature are referred for relatively simple intervention and more complex or challenging behaviors are considered for a range of more complex assessment and intervention strategies. The initial

task of the behavior support team is to determine the extent and nature of the problem and then to make decisions regarding future programming in the most effective and efficient manner possible.

Extent of the Problem

To determine whether a behavior warrants attention beyond primary systems, existing data should be used to determine the extent of the problem. Some mild behaviors may warrant intervention simply because they have continued despite intervention. In contrast, more dangerous behaviors may warrant immediate intervention after even a single occurrence.

Existing data on student behavior may be collected either from the schoolwide database or from verbal reports of those having had experience with the student. Typically, students may be referred either by an individual teacher or by a collection of recorded incidents that are identified through regular PBS evaluation. Figure 3 presents a flowchart of the process for identifying problems and implementing various levels of intervention.

Teacher referral. When a student is referred for assistance, the referring teacher should be expected to present evidence of the types of past primary and small-group intervention strategies, how those strategies were applied, and the outcomes of those strategies. This information helps to clarify the context of behavior and provides clues as to why primary strategies have been ineffective. Upon hearing this evidence, behavior support team members may suggest different or more rigorous primary system strategies or may determine that individualized interventions are necessary.

Schoolwide discipline data. As has been discussed, the collection and analysis of discipline reports is used to identify specific problems and their predictable contexts (locations, times, etc.). These data also can be used to identify individual students whose frequency of behavior problems set them apart from the norm (Skiba, Peterson, & Williams, 1997; Tobin & Sugai, 1999; Wright & Dusek, 1998). If a student were to receive one discipline referral from each of several adults, that student would be unlikely to be referred for intervention by any of these persons—who each have observed only one problem behavior. An analysis of the schoolwide data, however, would reveal the total number of transgressions long before problems become obvious enough to warrant a teacher referral.

Once again, intervention has a better chance of success at this point than after each of these individuals has observed several instances of the problem behavior. As part of the PBS data-evaluation process, schoolwide data are analyzed regularly and students with chronic problems are identified and referred to the behavior support team for consideration.

Each school must set a criterion for the number of office referrals that warrant individualized student consideration. If primary prevention systems are well implemented and sustaining, a good rule is to look for the top 15–20% of students in terms of number of referrals. For example, 20% of the students in School A receive five referrals. Thus, five referrals may serve as an accurate and realistic criterion for that school. In School B, however, 3% of the students receive five referrals and 20% receive one referral. For them, five referrals is probably too stringent a criterion and one referral likely would be a more effective criterion.

In schools in which primary prevention is not in place and larger numbers of referrals are typically seen, using 15–20% of the student population as a criterion may result in too few students receiving attention (Lewis-Palmer, Sugai, & Larsen, 1999; Sugai, Sprague, Horner, & Walker, 2000). Each school must determine a criterion that will logically identify students in need of individual assessment while maintaining a number that is realistic for the staff.

Obviously this criterion will be dependent upon the school itself and the number of referrals that it processes. As a general rule, however, five or six referrals as an initial criterion might be a reasonable decision when getting started, as national data indicate this as a typical point at which more chronic students are differentiated from students whose problems will be prevented with the advent of sound primary prevention systems (Sugai, Sprague, Horner, & Walker, 2000).

Figure 4 presents data from an actual middle school in which no primary prevention systems are in place. Because this school has many referrals, using 20% of the population as a guideline provides a criterion of 10 referrals. At this criterion, unless they are identified and referred for assessment by individual staff members, 120 students who received between six and nine referrals each will be ignored by the system. Without prevention systems in place, there is no reliable way of determining which of these students truly is in need of more individualized assessment and which are simply failing because of a lack of clarity and consistency across the school.

As presented in Figure 5, the simple step of alphabetizing their database makes it quite simple for Hope Elementary to identify students whose behaviors have been repetitive and predictable. Although both Kitty Arnold and Ray Smith received four referrals each, most of these referrals came from the homeroom teachers (Mr. Foote and Ms. Jacks, respectively) and, thus, they already are on the radar of at least one staff member who may choose to write a teacher-referral if simpler primary systems continue to be unsuccessful. But John Johnson has had five referrals, none of which came from the same person. John is a student who, although at-risk for greater problems, is unlikely to be on

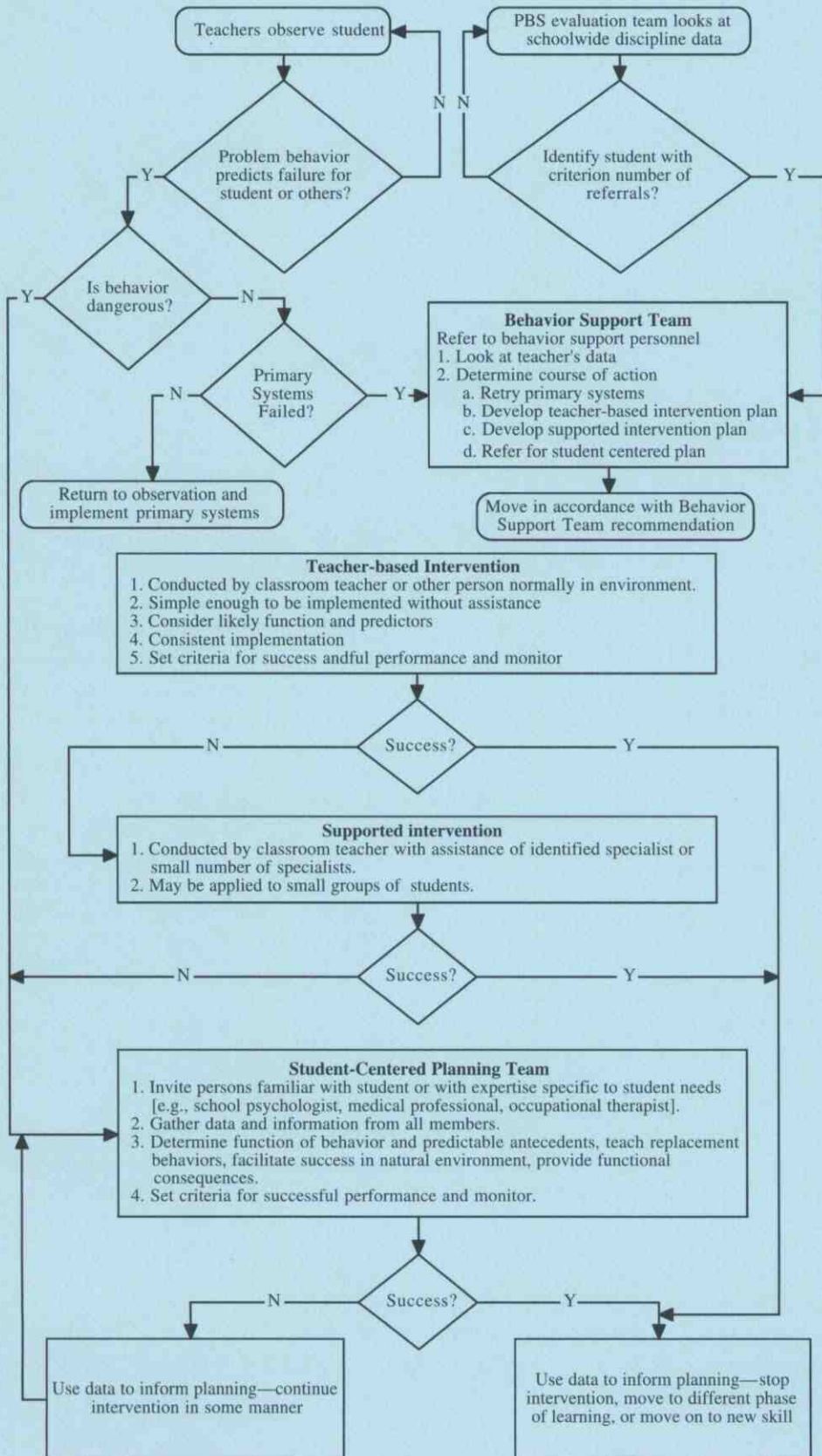


FIGURE 3
Flowchart for Individual Student Plan
Decision-making in a System of PBS

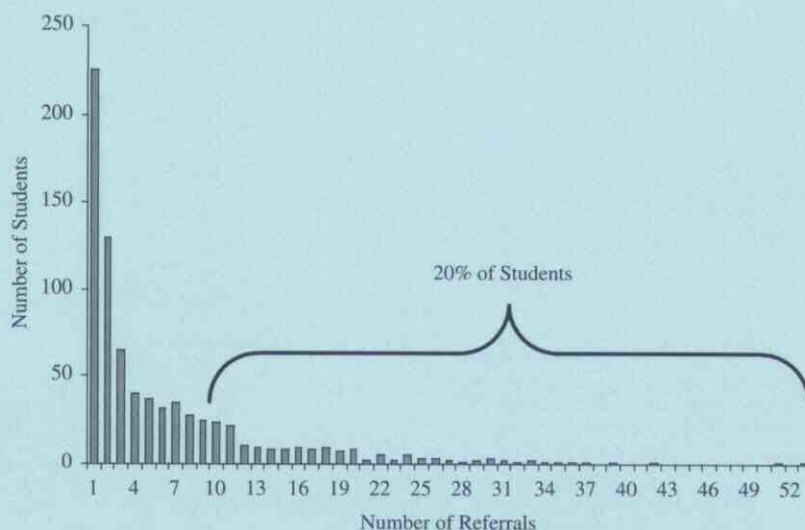


FIGURE 4
Frequency of office discipline referrals by number of students receiving in a school without primary intervention systems

anyone's radar and, thus, unlikely to be receiving any specific attention to prevent failure. As discussed previously, using school data to identify individuals whose behaviors are already obvious isn't necessary. For students like John Johnson, however, schoolwide data set the occasion for early intervention, perhaps breaking a pattern of problems before they become obvious to all.

Behavior Support Team Meeting

When a student is referred to the behavior support team for initial consideration, others are invited to attend based on their experiences with and knowledge of the student. The general rule is to keep it as simple as possible. Upon referral to the behavior support team, those invited to comprise the team include the student's teacher or teachers, those that have completed referral forms, and the parent(s). Although parents aren't always available, their participation certainly is considered preferable and they should, at the very least, be notified.

The task of the team is to consider the student's behaviors and to determine what, if any, strategies should be put into place as part of a behavior intervention plan. It is possible that the team will determine that the student's problems are related to an issue that has been resolved and, thus, recommend no intervention. The team also may recommend intervention—with the form depending upon the information with which it has to work.

Simple Intervention Strategies

Beyond primary system strategies, the simplest and most efficient interventions are teacher-based interventions that

are planned and implemented by those who typically deal with the behavior (i.e., classroom teacher, instructional assistant) and supported interventions that are assisted by those whose job it is to provide support for such plans (e.g., behavior specialist, counselor, reading specialist).

Teacher-based interventions. Teacher-based interventions, the simplest available interventions, are planned and implemented by the teacher or other adults with whom the student is having problems. These interventions include a range of simple interventions including contingency contracts, individualized instruction, and other changes in routines or arrangements. They differ from group strategies in that they are not necessarily applied across all students—only to those whose behaviors warrant more specialized strategies. Still, they are simple enough for classroom personnel to apply in the scope of their normal daily routine.

Supported interventions. When simple teacher-based interventions are deemed insufficient, an identified specialist or a small number of specialists are recruited to assist in creating an effective individualized behavior plan that may be easily applied in the context of the student's normal daily academic and social routines. These interventions might include more complex individualized instruction, counseling sessions, or strategies requiring more individual attention than is realistic in the scope of the teacher's typical classroom tasks.

Often, these strategies may be applied to small groups of students who are identified as having similar needs. For

Student	Date	Grade	Referred By	Problem	Place	Time
Arnold, Kitty	10/13	5	Foote	tardy	classroom	1:00
Arnold, Kitty	10/1	5	Cherry	tardy	classroom	8:00
Arnold, Kitty	10/27	5	Foote	tardy	classroom	8:00
Arnold, Kitty	10/24	5	Foote	tardy	classroom	8:00
Dunn, Kimber	10/20	5	Cherry	weapon	bus	7:30
Edwards, Bo	10/13	3	Walters	tardy	classroom	8:00
Franklin, Frank	10/15	4	Ripley	fight	playground	10:00
Harper, Ben	10/25	5	Jacks	disrespect comment	hallway	11:15
Johnson, John	10/17	4	Ripley	verbal aggress - peer	playground	12:00
Johnson, John	10/13	4	Cherry	tardy	classroom	8:00
Johnson, John	10/6	4	Marshall	tobacco	bus	3:00
Johnson, John	10/1	4	Foote	verbal aggress - peer	playground	10:00
Johnson, John	10/8	4	Irons	verbal aggress - peer	classroom	8:30
Jones, Betty	10/23	3	Marshall	verbal aggress - peer	playground	10:00
Jones, Betty	10/3	3	Ripley	inapprop. language	classroom	2:30
Kell, Sophie	10/29	1	Marshall	tardy	classroom	11:00
Miller, Mike	10/5	4	Penny	inapprop. language	hallway	1:00
Raines, Sally	10/15	1	Bird	tardy	classroom	8:00
Roberts, Emily	10/11	4	Marshall	inapprop. language	hallway	11:15
Smith, Ray	10/23	2	Jacks	tardy	classroom	9:30
Smith, Ray	10/23	2	Jacks	refused direction	classroom	2:00
Smith, Ray	10/15	2	Jacks	fight	playground	10:00
Smith, Ray	10/10	2	Irons	tardy	classroom	1:30
Tipton, Tammy	10/13	5	Ripley	disrespect comment	hallway	9:00
Young, Todd	10/10	2	Marshall	disrespect comment	hallway	1:00

FIGURE 5

Alphabetized Database for Hope Elementary Identifying Students At-risk of Larger Failures

example, trained school personnel may facilitate social skills, math tutoring, or anger-control groups. Both teacher-based and supported interventions are monitored and student data are used to evaluate success.

Level IV Decisions: Is Development of a Student-Centered Planning Team Warranted?

Beyond primary systems and strategies, all interventions are team-based to some extent in that the development of an individualized behavior intervention plan requires input from a range of persons. If intervention plans are to be consistently implemented, all persons responsible for implementation must be involved in planning.

The more complex the behavior and required intervention, the more people will likely be involved. For the typical student with behaviors that are not responsive to primary strategies, teacher-based and supported interventions involve

relatively small numbers of adults. When these simple strategies prove unsuccessful, intervention teams become larger and more formalized in their approach to individualized assessment and behavior intervention planning (Positive Behavior Support Project, 1999). Teams at this level are often referred to as student-centered planning teams (SSP teams) and may also function as multi-disciplinary IEP teams.

Student-Centered Planning Teams

The first decisions to be made at this level involve membership of the SCP team. The first criterion for membership is familiarity with the student. Because students at this level have already failed with primary strategies as well as simple individualized and small-group interventions, SCP teams have more need to involve persons who either know the student or who can share a perspective based on regular experiences with and observations of the student. This typically

includes parents, all teachers of the student, and any other school or community-based persons having experience or familiarity with the student.

The second criterion for membership is based on existing information and data regarding the student's identified behavior problems. If existing data suggest difficulty with fighting and anger, mental health or psychological services personnel may be appropriate to invite. Similarly, if impulsiveness and attention are key concerns, a medical professional may be appropriate to provide assessment and suggestions with regard to the possibility of an ADHD diagnosis. Thus, physical therapists, occupational therapists, speech/language specialists, mental health professionals, and other relevant personnel may be involved as indicated by existing information.

The task of the SCP team is to share perspectives and implement further assessment as necessary to develop a collaborative behavior intervention plan (Scott & Eber, 2003). To complete this task, the team must use existing data and collect additional data to make several key decisions. First, the team must use functional behavior assessment (FBA) to identify predictable relationships between the behavior and environment. From this, teams determine the function of behavior—which is key to determining the topography of the behavior that the team will teach as a replacement.

For example, if a student engages in yelling to access attention, the team must determine a strategy for teaching the student to get attention in a more appropriate manner. Similarly, if the student engages in yelling to escape difficult tasks, the team must determine a strategy for teaching the student to escape difficult tasks in a more appropriate manner. Determining the function of behavior is the first step in developing an effective behavior intervention plan. A complete discussion of FBA is beyond the scope of this article and may be referenced through numerous information and training materials (see O'Neill, et al., 1997; Scott, Liaupsin, & Nelson, 2001).

Once FBA leads to a valid decision regarding the function of behavior, teams must design instruction to teach the appropriate replacement behavior. To determine where to begin instruction, teams first have to determine whether the student's misbehaviors are the result of skill or performance deficits. Some desired behaviors are complex and unfamiliar to students. These skill deficits require explicit instruction with multiple opportunities for guided practice until the student has sufficient fluency to use the skill in the natural environment.

Other desired behaviors are simple, familiar, and already within their behavioral repertoire—but not being used. These performance deficits require that instruction focus more on consequences. That is, students must understand why they should engage in the desired behavior and what will happen when they do and do not perform.

Skill and performance deficits can be differentiated by manipulating consequences and situations while asking the student to engage in the behavior. With all instructional decisions, student performance data are critical in determining the focus of instruction (see Level V decisions).

Perhaps the most obvious decisions during intervention involve the changes that are to be made to the existing environment—changes in routines, physical arrangements, and consequences. In general, teams must determine the simplest set of procedures necessary to facilitate successful student performance. These decisions are made most effectively in accordance with data generated during the FBA process. For example, knowing the types of antecedent conditions that historically have predicted problem behaviors suggests examples for instruction and also has implications for how routines and physical space may be arranged to avoid predictable failure and facilitate student success.

Similarly, if FBA determines that misbehavior functions to access peer attention, intervention must involve peer attention as a consequence for engaging in the replacement behavior. In sum, all instructional, environmental, and consequence decisions are data-based in nature. The more accurate and exhaustive the assessment data are, the clearer the decision-making process will be. Again, a complete discussion of behavior intervention strategies and techniques is beyond the scope of this article and may be referenced through numerous sources (e.g., Alberto & Troutman, 2003; Kerr & Nelson, 2001).

Level V Decisions: Is Intervention Effective?

Regardless of whether problem behavior is addressed by group systems, teacher-based intervention, supported/small-group interventions, or full SCP teams, the merit of intervention can be judged only by measurable changes in student behavior. That is, regardless of how well the intervention was received or implemented, if student behavior does not improve to the extent that failure for the student or disruption to the environment is less likely, the intervention cannot be considered a success. These judgments must be made by comparing student performance to clear data-based criteria for success and making intervention decisions accordingly.

Determining Effectiveness of Plan

Criteria for success. Part of the team's role is to determine the goal of intervention in terms of student behavior. To do this, the team first determines the level of success necessary to alleviate the problem, then measures the current level of performance to determine a reasonable timeline for success. Because success or failure is determined by the student's performance, success should represent the minimal level of performance necessary to maintain sufficient progress toward the ultimate behavior goal.

For example, after observing performance across a range of successful students, the team determined that an appropriate goal would be for Jimmy to respond to teacher questions with a raised hand during 90% of opportunities. Whether the team sets this as a goal to be achieved by tomorrow, as opposed to a month or year from now, depends upon Jimmy's current level of performance and what the team considers a realistic goal for Jimmy.

Using data to inform planning. Data collected during the FBA indicate that Jimmy currently raises his hand in response to teacher questions during an average of 40% of opportunities presented. The team believes that the jump from 40%–90% is too large to achieve in the span of only one month. But, because he already possesses the requisite skill (knows how to raise his hand and regularly demonstrates it), the team determines that it would be reasonable to expect that the goal will be met by the end of the quarter—which is 8 weeks away.

On the graph in Figure 6, Jimmy's current level of functioning is plotted to the left and his goal date and criterion are plotted 8 weeks out. The straight line drawn from his current performance to the date and rate of desired performance represents the minimum level of performance necessary to meet

his goal and allows the team to formatively track his progress. On any given day, Jimmy's success can be judged by his daily performance in relation to the line on the graph (Lewis, DiGangi, & Sugai, 1990).

Courses of Action. As performance is continually monitored, decision-making criteria for success and failure are continually monitored. First, the criterion for success is simply that the student met the behavior goal for intervention. Under these circumstances, several courses of action are to be considered—depending on the data. The second criterion is in regard to failure and generally is considered to be 3 consecutive days of performance below the line of minimal performance (Lewis, DiGangi, & Sugai, 1990). Under these circumstances, several courses of action again are to be considered—depending upon the data. A graphic representation of individual data outcomes and their bearing on behavior intervention planning decisions is presented in Figure 7 and discussed below.

Decisions: Successful Performance

When performance is determined to be successful, the team may determine that intervention is complete and may disband at that point. In other cases, the team might decide

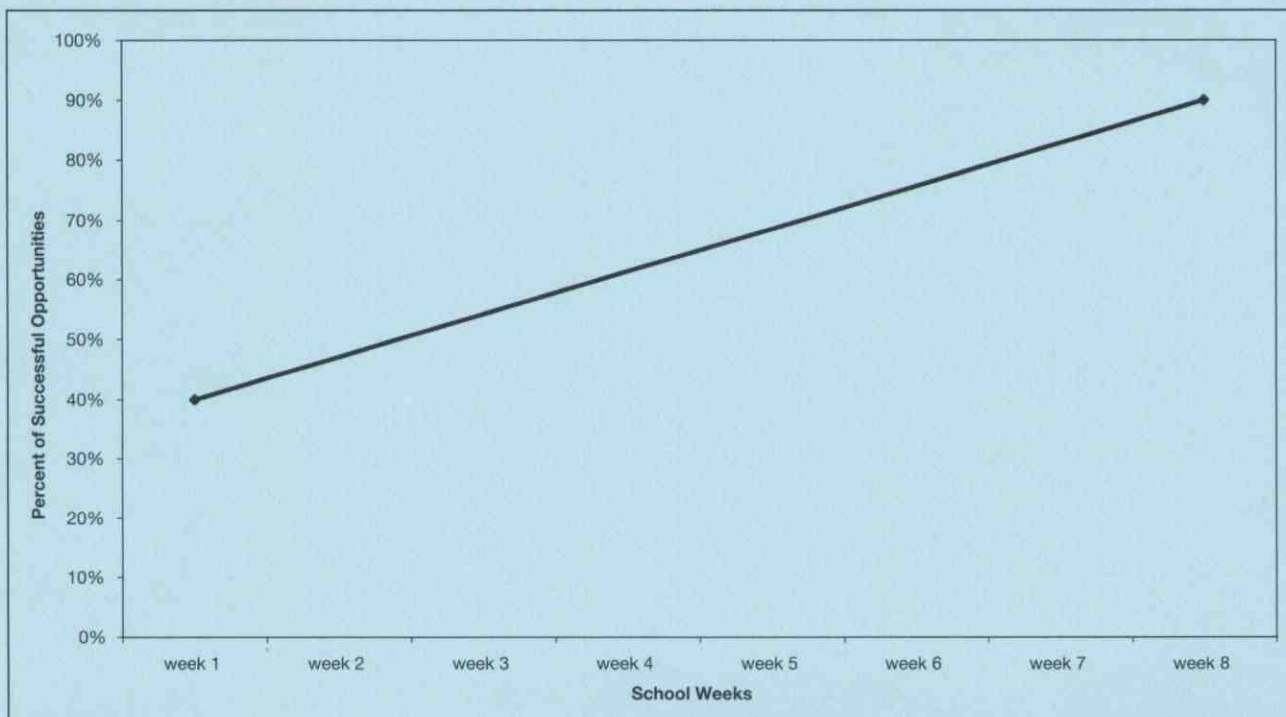


FIGURE 6
Minimal Line of Progress for Jimmy, Connecting His Current Level of Performance with the Criteria and Date of his Behavior Goal

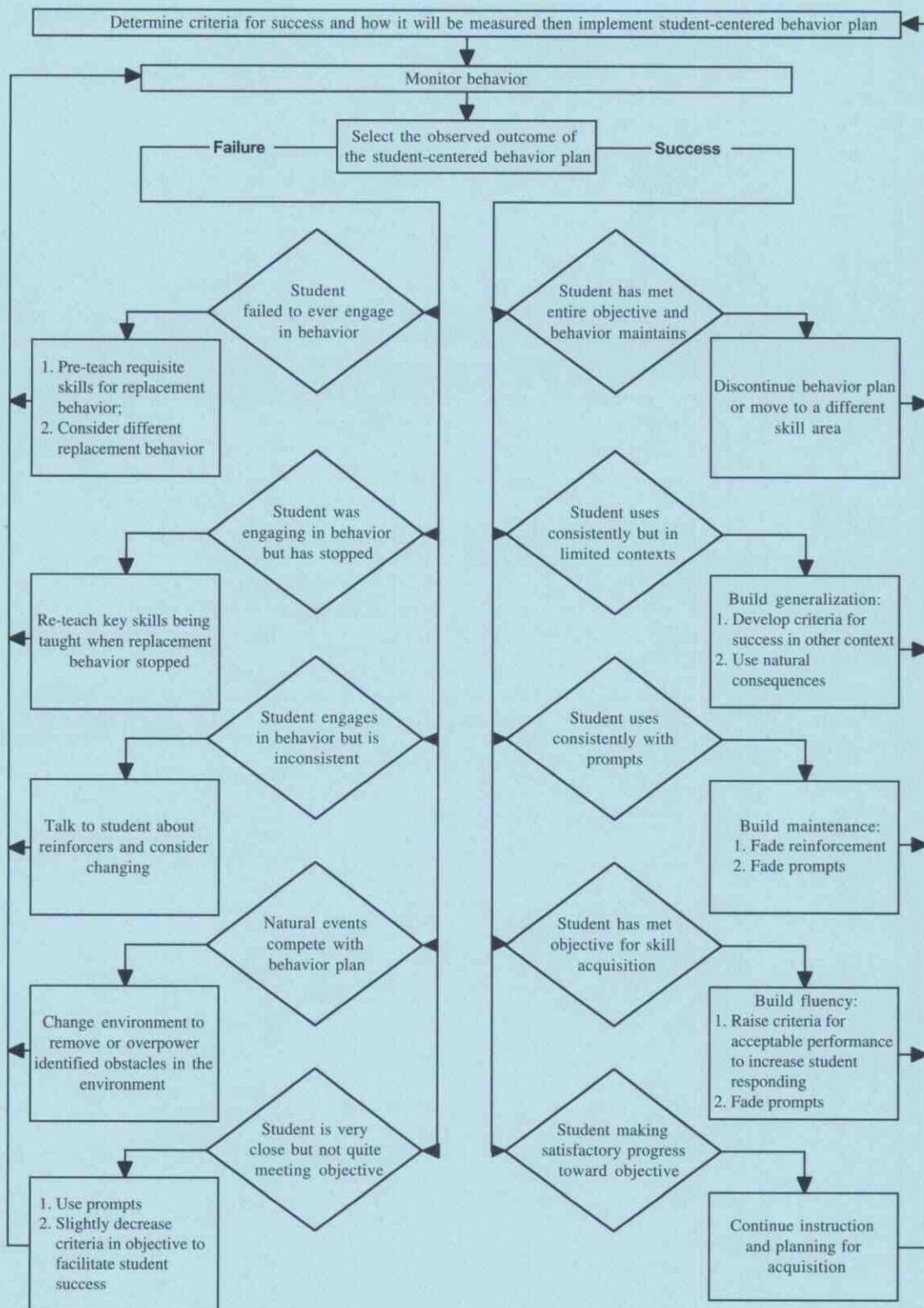


FIGURE 7
Behavior intervention planning decisions based on student performance data

to continue with other skills or with the same skill but in a different context or at a different phase of learning. Each of these decisions is dependent upon the circumstances represented by the data (see Wolery, Bailey & Sugai, 1988).

Student has fully met criteria for success. Once the student has met the criteria for successful performance, there is no reason to continue the intervention. Nevertheless, teams may determine a need to move to a different skill area, working from a prioritized list of identified student problems. For example, once Jimmy's behavior meets the criterion set by the team, the team may increase the criterion nearer to 100% or move on and work on completing homework or some other skill area.

Student uses skill fluently and consistently in limited contexts. In some cases, the student may meet the behavior goal for performance but is still seen to have some difficulties under specific circumstances, such as when asked to perform in other settings or with other adults. These conditions suggest the need to create intervention plans to facilitate generalization. The team then may develop criteria for success across a range of natural circumstances and alter intervention to provide natural consequences for appropriate behavior under these generalized conditions. When Jimmy meets the conditions for success in his homeroom, the team may implement intervention in the library or other settings where the problem continues to exist.

Student consistently uses skill with prompts and reinforcement. When the student has demonstrated successful performance but with reliance on instructional prompts and artificial reinforcers, the team may decide to continue intervention but with changes. To build maintenance, the team may gradually fade artificial components of intervention (i.e., prompts and consequences) while continuing to monitor performance and expect behavior to occur at the original goal level.

For instance, if Jimmy were to meet his goal but with a lot of prompting from the classroom teacher each day, the team might set a new criterion for successful performance under conditions in which smaller or more natural prompts are used. This could continue until Jimmy's performance is at the desired criterion with only naturally occurring prompts.

Student has met acquisition objective for skill. In cases in which the student has met a behavior goal that simply reflects acquisition of a new skill, the team may elect to continue intervention with a new goal that facilitates increased responding. Fading of artificial prompts may be appropriate under these conditions, too. The intent is to

facilitate more fluency with the skill so it will occur more readily and automatically.

If Jimmy were a low-functioning student, the team might have begun intervention by teaching him how to physically raise his hand. Once he has acquired this skill at criterion levels, the team might set a goal for more frequent and unprompted hand-raising by providing reinforcement based on the number or fluency of responses.

Student is making satisfactory progress toward criterion. When the goal has not been met but the student is making satisfactory progress toward the goal (i.e., has not met the decision rule for failure), the team should ensure that the intervention plan continues without alteration. Until the student either meets the goal or the criteria for failure, there is no need to change the intervention. Referring back to Figure 6, at week 5, Jimmy's performance is measured at 70% of opportunities—well below the criteria set as his goal. However, in looking at the line of minimal progress, Jimmy is on track to meet his goal if he continues at this rate of progress. Under these conditions, the team should continue intervention for Jimmy until he either meets his goal or fails to continue progressing.

Decisions: Failed Performance

When performance is determined to be unsuccessful, the team must make decisions as to how or if intervention should continue. In some cases, performance may be close enough to success that the team decides to do nothing. In other cases, the team may decide either to change the behavior being taught or to alter the intervention itself. Each of these decisions is dependent upon the circumstances represented in the data (see Wolery, Bailey & Sugai, 1988).

Student has failed to ever engage in behavior. When a student has never demonstrated the behavior it should be a sign to the group that basic prerequisite skills or understanding are not present. Under these conditions, intervention should be adapted to pre-teach identified requisite skills. If this proves too difficult or complicated, the team also may consider alternative behaviors that will serve as an appropriate replacement for the student. A simpler version of the original replacement behavior might provide the student with the same function while being much more easily acquired. If, upon intervention, Jimmy still had never demonstrated hand raising, the team would have to determine whether he possessed the requisite skills and knowledge (e.g., what is a hand, what does hand raising look like) to perform the skill in the first place. If he did not, those skills would have to be taught. If the requisite skills and knowledge were in place, the team might have to consider other behaviors that might be simpler and more effective for Jimmy.

Student was progressing well but has stopped. Under conditions in which a student was progressing consistently and successfully and then suddenly stopped, teams should consider both the events in the environment that immediately preceded the drop in performance and the nature of the task or criteria at that point of instruction. Instruction then should continue with re-teaching of critical skills required at that level or with instruction to assist in getting past any issues that have arisen in the environment.

Consider again if Jimmy were a low-functioning student who was being taught how to physically raise his hand. The team was quite successful at teaching him to identify a hand, pull it up in the air, and stretch it over his head. But when it came time to hold his hand over his head, the progress of instruction fell off. The team might want to consider whether Jimmy possesses the motor coordination and musculature to carry out this step of the skill. If not, intervention might either focus on building these skills or on teaching alternative strategies to complete the step.

Student engages in behavior but is inconsistent. When the student engages in the behavior at some times and does not at others—whether it be by minute, day, or week, it may be a condition in which the student is bored or is not sufficiently reinforced for behavior. Under these conditions, the team might wish to manipulate reinforcement amounts or to change reinforcers by offering a menu of items/activities. Assessment also should be aware of any possible environmental conditions that tend to predict changes in performance.

For example, one day Jimmy comes to class and appropriately raises his hand during 90% of opportunities, but on the next day he performs appropriately during only 20% of opportunities—and this inconsistent trend continues. The team first must determine whether any environmental actions or events tend to predict this behavior. If none are obvious, the team might decide to introduce novel reinforcers or to create a menu of possibilities from which Jimmy can select when he meets his daily criterion for success.

Student can demonstrate behavior, but natural events compete. Under conditions in which a student tends to have problems with performance under certain environmental conditions (e. g., the presence/absence of peers, time of day, specific subjects), the team might consider changing the environment to remove or overpower the identified obstacles. In addition, instruction for ignoring irrelevant stimuli and consequences to differentiate appropriate and inappropriate behavior might be necessary.

Jimmy tends to be less likely to raise his hand when he sits next to Hank. Having noticed this, the team first separates Jimmy and Hank, and both students are given instruction in how to ignore students who do not raise their hands.

In addition, both are again reminded of the positive consequences associated with successful performance. Gradually, the two students can be reintroduced into the same area during instructional times, with clearly communicated expectations for success.

Student is just short of satisfactory performance but is making progress. Sometimes the student may be very close to success but meets the criteria for failure, falling just below the line of minimal progress for 3 consecutive days. Although the failure rule has been met, progress is being made and no substantive alterations in the intervention seem warranted. Under these conditions, the team may wish to simply institute some instructional prompts or to slightly decrease the criteria in the objective so as to change the perception of success. At week 5, Jimmy's performance level is at 68%, just below the minimal criterion of 70% for the third consecutive day. Rather than make major changes to the intervention that all agree has been largely successful, the team decides to push back the completion date a week and redraw the line of minimal progress. The new line of minimal progress falls just below Jimmy's most recent performance, meaning that he is on track for meeting his goal—but just a week later than originally anticipated.

SUMMARY

Decision-making as part of the school's overall behavior planning process is informed and aided by the implementation of clear systems of positive behavior support across the school. PBS data and procedures are helpful in developing definitions of expected behaviors, identifying students at risk for failure, implementing primary prevention procedures, and developing both schoolwide and individual intervention strategies. Key among all PBS interventions—whether at the schoolwide, small-group, or individual level—is goal-setting and the formative collection of data as a means of evaluating the effect of intervention. The use of reliable data greatly enhances the ability to make timely, accurate, and effective decisions at each level of planning.

REFERENCES

- Alberto, P. A., & Troutman, A. C. (2003). *Applied behavior analysis for teachers* (6th ed.). Columbus, OH: Merrill.
- Carr, E. G., Dunlap, G., Horner, R. H., Koegel, R. L., Turnbull, A. P., Sailor, W., Anderson, J. L., Albin, R. W., Koegel, L. K., & Fox, L. (2002). Positive behavior support: Evolution of an applied science. *Journal of Positive Behavior Interventions, 4*, 4–16.
- Colvin, G., Kameenui, E. J., & Sugai, G. (1993). School-wide and classroom management: Reconceptualizing the integration and management of students with behavior problems in general education. *Education and Treatment of Children, 16*, 361–381.

- Colvin, G., Sugai, G., & Patching, W. (1993). Precorrection: An instructional approach for managing predictable problem behaviors. *Intervention in School and Clinic*, 28, 143-150.
- Conroy, M. A., Clark, D., Gable, R. A., & Fox, J. J. (1999). Building competence in use of functional behavioral assessment. *Preventing School Failure*, 43(4), 140-144.
- Fox, L., Dunlap, G., & Powell, D. (2002). Young children with challenging behavior: Issues and considerations for behavior support. *Journal of Positive Behavior Interventions*, 4(4), 208-217.
- Furlong, M. J., Morrison, G. M., & Dear, J. D. (1994). Addressing school violence as part of schools' educational mission. *Preventing School Failure*, 38(3), 10-17.
- Heavyside, S., Rowand, C., Williams, C., & Farris, E. (1998). Violence and discipline problems in U.S. Public Schools: 1996-97 (NCES 98-030). Washington, DC: U.S. Department of Education, National Center for Education Statistics. Retrieved June 6, 1999 from <http://nces.ed.gov/pub98/98030.pdf>
- Hyman, I. A., & Perone, D. C. (1998). The other side of school violence: Educator policies and practices that may contribute to student misbehavior. *Journal of School Psychology*, 36, 7-27.
- Kerr, M. M., & Nelson, C. M. (Eds.) (2001). *Strategies for managing behavior problems in the classroom* (4th ed.). Upper Saddle River, NJ: Prentice Hall.
- Lewis, T., DiGangi, S., & Sugai, G. (1990). Techniques to facilitate behavioral programming decisions. In *The Oregon conference monograph* (pp. 103-109), University of Oregon, College of Education.
- Lewis, T. J., & Sugai, G. (1999). Effective behavior support: A systems approach to proactive school-wide management. *Focus on Exceptional Children*, 31, 1-24.
- Lewis-Palmer, T., Sugai, G., & Larson, S. (1999). Using data to guide decisions about program implementation and effectiveness. *Effective School Practices*, 17(4), 47-53.
- Loeber, R., & Farrington, D. P. (2000). Young children who commit crime: Epidemiology, developmental origins, risk factors, early interventions, and policy implications. *Developmental Psychopathology*, 12(4), 737-762.
- McFadden, A. C., March, G. E., Price, B. J., & Hwang, Y. (1992). A study of race and gender bias in the punishment of school children. *Education and Treatment of Children*, 15, 140-146.
- Metzler, C. W., Biglan, A., Rusby, J. C., Sprague, J. R. (2001). Evaluation of a comprehensive behavior management program to improve school-wide positive behavior support. *Education and Treatment of Children*, 24, 448-479.
- Nakasato, J. (2000). Data-based decision making in Hawaii's behavior support effort. *Journal of Positive Behavior Interventions*, 2(4), 247-251.
- Nelson, J. R. (1996). Designing schools to meet the needs of students who exhibit disruptive behavior. *Journal of Emotional and Behavioral Disorders*, 4, 147-161.
- Nelson, J. R., Johnson, A., & Marchand-Martella, N. (1996). A comparative analysis of the effects of direct instruction, cooperative learning, and independent learning practices on the disruptive behaviors of students with behavior disorders. *Journal of Emotional and Behavioral Disorders*, 4(1), 53-63.
- Nelson, J. R., Martella R., & Galand, B. (1998). The effects of teaching school expectations and establishing a consistent consequence on formal office disciplinary actions. *Journal of Emotional and Behavioral Disorders*, 6, 153-161.
- Nelson, J. R., Martella, R. M., & Marchand-Martella, N. (2002). Maximizing student learning: The effects of a comprehensive school-based program for preventing problem behaviors. *Journal of Emotional and Behavioral Disorders*, 10(3), 136-148.
- Northwest Regional Educational Laboratory (2001, January). *Research you can use to improve results*. Retrieved July 2, 2003, from <http://www.nwrel.org/scpd/sirs/rycu/index.html>
- O'Neill, R. E., Horner, R. H., Albin, R. W., Sprague, J. R., Storey, D., & Newton, J. S. (1997). *Functional assessment and program development for problem behavior: A practical handbook* (2d ed.). Pacific Grove, CA: Brooks/Cole.
- Positive Behavior Support Project (1999). *Positive behavior support facilitator's guide*. Tallahassee: Florida State Department of Education.
- Sawka, K. D., McCurdy, B. L., & Mannella, M. C. (2002). Strengthening emotional support services: An empirically based model for training teachers of students with behavior disorders. *Journal of Emotional and Behavioral Disorders*, 10(4), 223-232.
- Scott, T. M. (2001). Positive behavioral support: A school-wide example. *Journal of Positive Behavior Interventions*, 3(2), 88-94.
- Scott, T. M. (2003). Removing roadblocks to effective behavior intervention in inclusive settings: Responding to typical objections by school personnel. *Beyond Behavior*, 12(1), 21-28.
- Scott, T. M., & Barrett, S. (in press). Using cost/benefit analysis with school-wide positive behavior support: A sample evaluation of lifestyle change at the systems level. *Journal of Positive Behavior Interventions*.
- Scott, T. M., & Eber, L. (2003). Functional assessment and wraparound as systemic school processes: School-wide, specialized, and intensive examples. *Journal of Positive Behavior Interventions*, 5(3), 131-143.
- Scott, T. M., Liaupsin, C., & Nelson, C. M. (2001). *Behavior intervention planning: Using the outcomes of functional behavioral assessment*. Longmont, CO: Sopris West.
- Scott, T. M., & Shearer-Lingo, A. (2002). The effects of reading fluency instruction on the academic and behavioral success of middle school students in a self-contained EBD classroom. *Preventing School Failure*, 46(4), 167-173.
- Shores, R. E., Gunter, P. L., & Jack, S. L. (1993). Classroom management strategies: Are they setting events for coercion? *Behavioral Disorders*, 18(2), 92-102.
- Skiba, R. J., Peterson, R. L., & Williams, T. (1997). Office referrals and suspensions: Disciplinary intervention in middle schools. *Education and Treatment of Children*, 20, 295-315.
- Snyder, H. (2001). Child delinquents. In L. Loeber & D. P. Farrington (Eds.), *Risk factors and successful interventions*. Thousand Oaks, CA: Sage.
- Sprague, J., & Walker, H. (2000). Early identification and intervention for youth with antisocial and violent behavior. *Exceptional Children*, 66, 367-379.
- Sugai, G., Horner, R.H., Dunlap, G., Hieneman, Lewis, T.J., Nelson, C.M., Scott, T.M., Liaupsin, C. J., Sailor, W., Turnbull, A.P., Turnbull, H.R. III, Wickham, D., Ruef, M., & Wilcox, B. (2000). Applying positive behavioral support and functional assessment in schools. *Journal of Positive Behavioral Interventions*, 2, 131-143.
- Sugai, G., Sprague, J. R., Horner, R., & Walker, H. M. (2000). Preventing school violence: The use of office discipline referrals to assess and monitor school-wide discipline interventions. *Journal of Emotional and Behavioral Disorders*, 8, 94-101.
- Sterling, R., Barbeta, P. M., Heward, W. L., & Heron, T. E. (1997). A comparison of active student response and on-task instruction on the acquisition and maintenance of health facts by fourth grade special education students. *Journal of Behavioral Education*, 7, 151-165.
- Sulzer-Azaroff, B., & Mayer, G. R. (1991). *Behavior analysis for lasting change*. Fort Worth, TX: Holt, Rinehart and Winston.
- Taylor-Greene, S., Brown, D., Nelson, L., Longton, J., Gassman, T., Cohen, J., Swartz, J., Horner, R. H., Sugai, G., & Hall, S. (1997). School-wide behavioral support: Starting the year off right. *Journal of Behavioral Education*, 7, 99-112.

- Taylor-Greene, S., & Kartub, D. T. (2000). Durable implementation of school-wide behavior support: The high five program. *Journal of Positive Behavior Interventions, 2*(4) 46-52.
- Tobin, T., & Sugai, G. (1999). Predicting violence at school, chronic discipline problems, and high school outcomes from sixth graders' school records. *Journal of Emotional and Behavioral Disorders, 7*, 40-53.
- Tolan, P., & Guerra, N. (1994). *What works in reducing adolescent violence: An empirical review of the field*. Boulder, CO: Center for the Study and Prevention of Violence.
- U.S. Department of Education (2002). Outcomes for students with challenging behaviors in the school: Issues, predictors, and practices. *23rd Annual Report to Congress on the Implementation of IDEA*. Washington, DC: U.S. Department of Education.
- Walker, H. M., Colvin, G., & Ramsey, E. (1995). *Antisocial behavior in schools. Strategies and best practices*. Pacific Grove, CA: Brooks/Cole.
- Walker, H. M., Horner, R. H., Sugai, G., Bullis, M., Sprague, J. R., Bricker, D., & Kauffman, M. J. (1996). Integrated approaches to preventing antisocial behavior patterns among school-age children and youth. *Journal of Emotional and Behavioral Disorders, 4*(4), 194-209.
- Walker H. M., & Shinn, M. R. (2002). Structuring school-based interventions to achieve integrated primary, secondary, and tertiary prevention goals for safe and effective schools. In M. R. Shinn, G. Stoner, & H. M. Walker (Eds.), *Interventions for academic and behavior problems: Preventive and remedial approaches* (pp. 1-26). Silver Spring, MD: National Association of School Psychologists.
- Wolery, M., Bailey, D. B., & Sugai, G. M. (1988). *Effective teaching: Principles and procedures of applied behavior analysis with exceptional students*. Boston: Allyn and Bacon.
- Wright, J. A., & Dusek, J. B. (1998). Research into practice: Compiling school base rates for disruptive behaviors from student disciplinary referral data. *School Psychology Review, 27*, 138-147.
- Yell, M. (1995). *Clyde K. and Sheila K. v. Puyallup School District: The courts, inclusion, and students with behavioral disorders*. *Behavioral Disorders, 20*(3), 179-189.
- Zabel, R. H., & Zabel, M. K. (2002). Burnout among special education teachers and perceptions of support. *Journal of Special Education Leadership, 15*(2), 67-73.

Copyright of Focus on Exceptional Children is the property of Love Publishing Co. and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.