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A program evaluation of school-wide positive behavior support in an alternative education setting

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A PROGRAM EVALUATION OF SCHOOL-WIDE POSITIVE BEHAVIOR

SUPPORT IN AN ALTERNATIVE EDUCATION SETTING

A Dissertation Presented

by

ELANA RACHEL WEINBERGER

Submitted to the Graduate School of the
University of Massachusetts Amherst in partial fulfillment
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ABSTRACT

A PROGRAM EVALUATION OF SCHOOL-WIDE POSITIVE BEHAVIOR

SUPPORT IN AN ALTERNATIVE EDUCATION SETTING

MAY 2009

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The current program evaluation of school-wide positive behavior support (PBS) in an alternative education setting was conducted in three phases (Phase 1: initial evaluation; Phase 2: intervention; Phase 3: follow up evaluation). The purpose of the evaluation was to identify strengths and weaknesses of the PBS program and to implement changes to improve program effectiveness and positive outcomes for students. An exploratory case study design was used to achieve an in-depth understanding of the program through the use of quantitative and qualitative data collection. The evaluation was completed within one school year, between November 2007 and May 2008. The participants in this evaluation were the students and staff of the alternative school. Quantitative data included behavioral data on the students, inter-observer agreement data, and survey data; qualitative data included survey data and data from student and staff focus groups. Overall, the evaluation was successful in that the evaluators were able to identify strengths and weaknesses, and areas of concern to be addressed through interventions. The evaluators were able to implement a variety of interventions, and received feedback that the interventions were successful. Although student behaviors

were not effectively changed as a result of this evaluation, the evaluators did develop a plan for ongoing evaluation, future trainings and program modifications, to be implemented over the course of the 2008-2009 school year.

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CHAPTER 1

INTRODUCTION

The inclusion of Response to Intervention (RTI) as an acceptable method of classifying students for special education services, as well as the focus on Functional Assessment (FA) as a discipline practice in the 1997 and 2004 reauthorizations of Individuals with Disabilities Education Act laid the foundation for American schools to employ research-based universal interventions on a whole-school basis. Since the 1997 reauthorization of IDEA, the use of positive behavioral interventions and supports has been cited as the required response to problem behavior in the schools (IDEA, 1997). As the field of school psychology continues to strive toward promoting preventative, whole-school approaches to minimizing student problems, the need for effective, universal, academic and behavioral interventions intensifies. IDEA 2004 mandates that all students, with and without disabilities, have the right to education in safe, well-disciplined schools and positive learning environments. School personnel are expected to use effective techniques to prevent behavior problems and to deal positively with them if they occur. A balanced approach to discipline is one in which safety is maintained and students' rights to a free and appropriate public education is maintained as well (IDEA, 2004).

Purpose of Positive Behavior Support (PBS)

We live in a time in which the current school-age generation has been victimized by violent acts such as the school shootings at Columbine High School and Virginia Tech, and the very recent episode in Winnenden, Germany. It is, therefore, no surprise that, in recent years, the focus has increasingly been on preventing school violence, rather

than merely reacting to problems. Increasing levels of antisocial behaviors on the part of

children and adolescents accounts for a large majority of violent acts in our society, and

these acts are typically carried out through the use of handguns and other weapons. In

fact, gunshot wounds are now ranked higher than automobile accidents as a cause of

death in young people (Walker, Horner, Sugai, Bullis, Sprague, Bricker et al., 1996). The

National Center for Education Statistics (NCES, 2006) released a preliminary report on

findings from school surveys on crime and safety that further illustrates that school

violence is a rising problem. During the 2004-2005 school year, there were 21 homicides

of school-age children at school (NCES, 2006). Additionally, the percentage of public

schools that reported one or more violent incidents increased from 71% during the 1999-

2000 school year to 81% during the 2003-2004 school year (NCES, 2006). Gangs and

bullying also continue to haunt America's schools. In 2005, 28% percent of students

between the ages of 12 and 18 reported being bullied at school, and 24% of those

students reported having been injured in a bullying incident (NCES, 2006).

Historically, reactive approaches to students who display unsafe behaviors have

included a variety of punishment techniques, such as detention, suspension or expulsion;

hiring security personnel to enforce school rules; banning items thought to increase

school violence; adding surveillance cameras and metal detectors; and establishing

separate programs for students with severe behavior problems. In fact, in 2005, almost

all students between the ages of 12 and 18 encountered at least one security measure at

school. During the same year, 58% reported the use of security cameras at their schools,

and 68% reported the presence of security guards or police officers at their

schools (NCES, 2006). Zero-tolerance policies have been adopted by many school

districts in which strict responses (e.g. suspension, expulsion) are applied to an array of behavioral infractions and rule violations (Bear, Cavalier & Manning, 2002). Similar to other reactive responses discussed here, zero-tolerance policies are ineffective in promoting positive behaviors and preventing long-term behavior problems (Evenson, Justinger, Pelischek & Schulz, 2009).

In-School Suspension (ISS) is another reactive approach to discipline used in secondary schools in which students are suspended from participating in their typical school activities, and, instead, spend the time in a dedicated location and program within the school building. Morris and Howard (2003) summarized the punitive, academic and therapeutic models of ISS, each of which views suspension uniquely and uses different means to address the problem behavior that resulted in the suspension. The punitive model assumes that students misbehave in order to cause trouble. The proponents of this model believe, therefore, that punishment will stop misbehavior from occurring in the future. The academic model is predicated upon the belief that behavior problems originate from learning difficulties, i.e., that students experiencing learning difficulties misbehave in the classroom. In this model, the focus of the suspension activity is on the assessment and remediation of skill deficits or learning difficulties. The therapeutic model views discipline problems as an outgrowth of underlying issues experienced by the student. The purpose of suspension in this model is to provide support to assist the student in solving the problem. Although these approaches are not as effective as preventative approaches to discipline, they can be effective, as they attempt to teach pro-social behaviors and increase the focus on education.

Overall, reactive responses to problem behaviors have been shown to decrease the occurrence of those behaviors in the short term, but not in the long run, and have been insufficient on their own to promote safe and positive school environments (Sugai & Horner, 2002). Educators and researchers have strongly recommended a shift in the types of discipline strategies used in America's schools from punitive and aversive to preventative and positive (Carr, Dunlap, Horner, Koegel, Turnbull, Sailor, et al., 2002).

Preventing problem behaviors has implications that extend beyond the school environment as well. Child psychopathology has long-term implications for the individual child as well as for society. Many adult mental disorders are rooted in child disorders (Barkley, 1998), and it is, therefore, important to promote positive behaviors at a young age, or at the very least, detect problem behaviors and intervene as early as possible. Children with pervasive behavior problems have been shown to have poor prognoses into adult life, including higher rates of antisocial behavior (Xue, Hodges & Wotring, 2004). Behavior management has implications for academic performance as well. Studies have shown that by controlling behavior problems, instruction can become more effective for all students (e.g. Sugai & Horner, 1999). Through a combination of motivating students to be "caught being good," and decreasing distractions and lost instruction time, PBS is an excellent method of increasing the effectiveness of instruction. In fact, Luiselli, Putnam, Handler and Feinberg (2005) found improved academic performance in reading and mathematics following implementation of a school-wide PBS program.

History of PBS

PBS is rooted in the field of behaviorism, a term coined by John Watson (Kendler, 1987). Research on the manipulation on behavior, however, began much earlier, with Ivan Pavlov's seminal work in the area of classical conditioning. In Pavlov's salivating dog experiment, perhaps one of the best known in psychology today, he recognized that a dog expecting food would begin to salivate at around the time that the food was to be delivered. After numerous observations of this phenomenon, Pavlov became interested in manipulating the dog's response. In the original experiment, the food is the unconditioned stimulus (UCS), that is, a stimulus that has inherently reinforcing properties. The dog's salivation response is the unconditioned response (UCR), the naturally occurring response to a reinforcing stimulus (Slavin, 2003).

As Pavlov was interested in manipulating or conditioning respondent behaviors, he devised an experiment in which he paired the sound of a bell, a neutral stimulus, with the delivery of food. After repeatedly exposing the dog to the sound of the bell preceding the delivery of its food, the dog's respondent behavior of salivation began to occur at the sound of the bell. The neutral stimulus is called the conditioned stimulus (CS), and the dog's salivation response to the neutral stimulus (i.e. the bell) is the conditioned response (CR) (Slavin, 2003). Pavlov's original work contributed to the development of the field of behaviorism by its demonstration of the manipulability of respondent behaviors.

Pavlov's work also demonstrated the principle of extinction. After the sound of the bell had been established as a CR, he proceeded to introduce the sound of the bell without the delivery of food. After repeated exposure to this new situation, the dog's salivation at the sound of the bell eventually stopped, which demonstrated that in the

absence of reinforcement, conditioned responses will die out, or become extinct (Slavin, 2003).

E.L. Thorndike viewed behavior as a response to certain stimuli in the environment. The stimulus-response (S-R) theory, which posits that stimuli can prompt changes in behavior, was an outgrowth of Thorndike's view (Slavin, 2003). He experimented with the presentation of stimuli after certain behaviors and theorized that "an act that is followed by a favorable effect is more likely to be repeated in similar situations; an act that is followed by an unfavorable effect is less likely to be repeated (p.141)," known as Thorndike's Law of Effect.

B.F. Skinner's work gave rise to the field of neobehaviorism, or radical behaviorism (Kendler, 1987). Skinner's research on reinforcement is crucial to behavior management today, most notably his definition of the various schedules of reinforcement. Interval reinforcement is delivered after the passage of a specific amount of time (fixed interval), or after the passage of varying amounts of time (variable ratio). Ratio reinforcement is dependent upon the number of responses, and can be delivered after a specified number of responses (fixed ratio), or after varying numbers of reinforcement actions (variable ratio; Slavin, 2003). Skinner's work concerning reinforcement and its related factors is extremely important to the issue of behavior management. According to Skinner, the most critical factor in controlling behavior is arranging appropriate reinforcement contingencies in the environment (Slavin, 2003).

The early work of Pavlov, Thorndike and Skinner in behaviorism was critical to the development of the field of Applied Behavior Analysis (ABA), upon which PBS is based (Sugai & Horner, 2002). ABA is dedicated to the understanding and improvement

of socially significant human behavior, and uses direct intervention practices that are mirrored in PBS: positive reinforcement, stimulus control, antecedent manipulations and contingency management (Dunlap, 2006). Additionally, ABA relies on the use of data in the form of direct intervention and time series designs to evaluate the success of interventions, which are also used in PBS to measure the effectiveness of interventions (Dunlap, 2006).

ABA utilizes four primary principles of reinforcement: positive reinforcement (the introduction of a positive stimulus following a behavior in an effort to increase the occurrence of that behavior); negative reinforcement (the removal of a negative stimulus following a behavior in an effort to increase the occurrence of that behavior); positive punishment (the introduction of a negative stimulus following a behavior in an effort to decrease the occurrence of that behavior); and negative punishment (the removal of a positive stimulus following a behavior in an effort to decrease the occurrence of that behavior; Alberto & Troutman, 2002). ABA and PBS utilize positive reinforcement strategies as the primary method of behavior management; however, depending on the severity of the behavior, other reinforcement contingencies may be used. ABA encourages the appropriate use of reinforcement, including appropriate reinforcement selection, consistent delivery of reinforcement, target behaviors that are attainable and clearly defined, and opportunities to practice appropriate behaviors and obtain reinforcement (Alberto & Troutman, 2002). All of these are critical factors in an effective PBS program as well.

Teachers and staff participating in PBS must understand the importance of reinforcement and use it effectively. Just as in academics, in which active instruction

time, engagement and opportunities to respond are of critical importance to skill development, so too behavior support would be useless if students were not given an opportunity to show success and receive reinforcement (Alberto & Troutman, 2002). Schools employing school-wide PBS sometimes call this "getting caught being good."

PBS: Definition and Implementation

PBS has been defined as "a general term that refers to the application of positive behavioral interventions and systems to achieve socially important behavior change" (Sugai, Horner, Dunlap, Hieneman, Lewis, Nelson, et al., 2000). Positive behaviors are skills that increase one's changes of being successful across a variety of contexts and settings, including school, work, social settings, community and the family (Carr et al., 2002). The term "support" in PBS refers to the variety of educational, therapeutic and system-wide strategies that can be used to help students build their repertoire of positive behaviors (Carr et al., 2002). PBS is focused on the positive; its first goal is to promote positive behaviors and improve quality of life not just of the individual student, but of all those involved in the program. A secondary goal is to minimize or eliminate problem behaviors (Carr et al., 2002).

Sugai and Horner (2002) describe four critical elements to a school-wide PBS program: outcomes, practices, data and systems. Selecting and defining desired outcomes that are valued at their institution is a critical first step, which school administrators should consider in implementing an effective school-wide PBS program. A second critical element is the use of research-validated interventions and practices. School leaders need to be willing to abandon old practices and adopt newer ones that have been proven effective. Perhaps most importantly, school-wide PBS relies on the use

of data-based decision making to drive program effectiveness. Data are collected at the

individual, class-wide and school-wide level, and requires the collaborative effort of

teachers, administrators and other student support staff. Depending on the design of the

program, data may also be collected across different contexts within and outside of the

school (e.g. general vs. special education; classroom vs. playground).

Data-based decision making serves the important purpose of monitoring the

progress of the entire program as well as that of individual students. Additionally, data

can guide modifications in program delivery (Sugai & Horner, 2002). The final critical

factor, as outlined by Sugai and Horner (2002) is a consideration of the systems needed to

support the program and the other three critical factors. A multi-systems perspective of

PBS is one that incorporates school-wide, classroom, non-classroom and individual

student systems into the PBS program. In their review of the research on school-wide

discipline practices, Sugai & Horner (2002) identified six common features of effective

PBS programs:

> "….1. Statement of purpose that expresses the explicit objective of and rationale
> for a school-wide discipline structure. This statement should a. be positively
> phrased; b. focus on all staff, all students, and all school settings; c. link academic
> and behavioral outcomes…2. Clearly Defined Expectations and Behavioral
> Examples that permit consistent communications and establish an effective verbal
> community for all staff and students and across all settings…3. Procedures for
> Teaching Expectations and Expected Behaviors that staff can use to ensure
> students know and understand school-wide rules, expectations, routines, and
> positive and negative consequences…4. Procedures for Encouraging Expected
> Behaviors that are organized and provided along a continuum of: a. tangible to
> social forms of feedback, b. staff to student administered, c. high to low
> frequency, d. predictable to unpredictable presentations…5. Procedures for
> Preventing Problem Behavior that are organized and provided along a continuum
> of: a. minor to major rule violations, b. increasing intensity and aversiveness of
> responses…6. Procedures for Record Keeping and Decision Making that allow
> for regular (weekly and monthly) feedback to staff about the status of school-wide
> discipline implementation efforts" (Sugai & Horner, 2002, p. 33).

School-wide PBS

School-wide PBS can be implemented within a three-tiered model of service delivery (see Figure 1), in which the intensity of the intervention increases as the need of the student or system increases. In a typical public school setting, Tier 1 includes all students in the school: a universal PBS intervention is delivered to all students. Students in Tier 2 are those who are deemed to be at risk for developing more severe behavior problems, or those who are likely to need interventional support beyond that available as part of the universal intervention. Finally, Tier 3 includes those students who display the most difficult to manage behavior problems that warrant intense, individualized support through a more intensified version of PBS. These students may or may not be receiving special education services for their behavioral issues.

In the case of special education settings, school-wide PBS may be implemented as a universal tertiary intervention. Because of the intensity of support students in a special education program may need in order to maintain safe and appropriate behaviors, all of the students in the school are in the "top tier," or tertiary prevention, and are given a more intensive version of PBS than would typically be delivered as a universal intervention in a regular educational setting.

Cultural factors of relevance to PBS

According to the 2000 United States Census, one-third of all people living in the United States had African-American, Native American or Hispanic backgrounds; one in ten people living in the U.S. were born in another country; and one in seven people living in the U.S. spoke a language other than English (Chen, Downing, & Peckham-Hardin, 2002). This is stunning evidence that school-based interventionists must incorporate

cultural, linguistic and ethnic differences in their intervention planning, and must also acquire the necessary competence for working with a diverse population.

Linguistic, ethnic and cultural differences have strong implications for designing and implementing an appropriate school-wide behavior support program, and present challenges that need to be overcome. Differences in their view of appropriate versus inappropriate behavior between the mainstream culture and the students' culture will prove challenging to a behavior support program. For example, Iranian culture does not allow children to speak or even ask for food in the presence of adults without first obtaining permission (Chen et al., 2002). Thus, a child's quiet nature or seeming inability to fend for herself may be viewed as a verbal or developmental delay, when, in fact, it is merely an expression of her culture. African-American culture accepts a level of assertiveness that is often viewed as overly aggressive and inappropriate in the mainstream culture (Chen et al., 2002). Hispanic and Latino cultures do not value independence to the extent of the mainstream culture, and therefore children are not pushed to become independent until they are ready (Chen et al., 2002). A child who is overly needy or reliant on a teacher's attention may be viewed as developmentally delayed or displaying inappropriate behavior, when, in fact, he is expressing values that his culture has passed on to him.

Cultures may also have differing beliefs regarding disciplinary practices. For example, certain Asian cultures believe in harsh discipline, which can include hitting or slapping (Chen et al., 2002). Parents from these cultures may not agree with the "softer" form of discipline being used by the school, or students might not respond to such discipline. Additionally, cultures differ in the value that they place on disciplinary

activities, and therefore students may not be invested in participating in a behavior support program. Although basic principles of human learning (e.g. behaviorism) are thought to be universal across all cultures (Carr, 1978), cultural values may have an effect on the selection of reinforcers (Chen et al., 2002).

Linguistic differences are of particular concern for behavior support programs, as behaviors and reinforcement contingencies need to be clearly understood by all students; being able to understand behavioral expectations is as important for English language learners as it is for native English-speakers. Additionally, working with interpreters can be difficult, as the job of interpreting often falls on the shoulders of anyone in the building who happens to speak a particular language, however inadequately, rather than clinically trained professionals. This may give rise to problems in communication and confidentiality (Mash & Dozois, 1998). In addition to linguistic differences, communication style differences may exist among individuals from different cultures or religious backgrounds, which are also of concern when collaborating with parents of students exhibiting behavior problems.

Program Evaluation

Fitzpatrick, Sanders, and Worthen (2004) define evaluation as "the identification, clarification, and application of defensible criteria to determine an evaluation object's value (worth or merit) in relation to those criteria (p. 7)". Evaluators work with stakeholders, i.e., those who have some investment in the object being evaluated, to determine the criteria against which to judge the object's value. In program evaluation, the "object" being evaluated is the program itself. Evaluation is different from research in important ways. Whereas the purpose of research is to contribute knowledge to a field

of study or support developing theories, the main purpose of evaluation is to make a judgment or decision about the object being evaluated. While research may focus on determining causality or identifying a relationship among variables, the purpose of evaluation is to describe an object in terms that are relevant or have value to the stakeholders. The quality of research is typically judged by the extent to which the results are causal in nature and may be generalized to the population at large. These criteria are not used in evaluation because they do not address the main purpose of evaluation (Fitzpatrick et al., 2004). To judge the quality of an evaluation, it is important to investigate its "accuracy (the extent to which the information obtained is an accurate reflection…with reality), utility (the extent to which the results serve practical information needs of intended users), feasibility (the extent to which the evaluation is realistic, prudent, diplomatic, and frugal), and propriety (the extent to which the evaluation is done legally and ethically)" (Fitzpatrick et al., 2004, p. 7).

Evaluations may be classified as formative or summative. The primary purpose of formative evaluations is to provide stakeholders with information to be used for program improvement. Summative evaluations, on the other hand, provide information to assist stakeholders in making a judgment about how to proceed with a program, such as whether to adopt, continue, discontinue, or expand the program (Fitzpatrik et al., 2004). It is important to have a balance between summative and formative evaluations across the life of a program; however, formative evaluation tends to be popular in new programs, while summative is more common with established programs (Fitzpatrik et al., 2004). The decision about whether to perform a summative or formative evaluation, or

one that combines both approaches, should be based on the needs of stakeholders of the program being evaluated.

The importance of program evaluation in education is undeniable. Examples of such evaluations in education include: judging the quality of a particular curriculum, making decisions about the usefulness of an after-school program, and monitoring a school's progress toward a benchmark or goal. Although many available research methods may be used to measure PBS programs, program evaluation provides stakeholders with a method of acquiring information that is tailored to their specific needs and goals.

Evaluations of PBS

Several evaluations of school-wide PBS programs have been documented in the research literature; those with particular relevance to the proposed study will be discussed here. McCurdy, Kunsch, and Reibstein (2007) implemented a secondary prevention model of PBS in an urban school for a group of students whose behavior problems were severe enough to warrant additional support beyond the universal intervention. A total of eight students in grades 1-5 participated in the secondary prevention program, and case studies were evaluated for three of the students. The intervention included daily progress reports documenting which students received points for positive behaviors throughout the school day, daily check-ins and check-outs with a program facilitator, and rewards. Results suggested that the implementation of the program was effective both for students at-risk for developing behavior problems as well as for those already demonstrating anti-social behaviors. The authors did suggest, however, that a full functional behavior

assessment would be necessary and informative for students who did not respond to the behavior intervention program.

In their review of cultural factors that mediate behavior management, Utley, Kozleski, Smith, and Draper (2002) provided a guide to understanding how culture can influence social behaviors. Their study focused on the specific support needs of multicultural youths by providing useful guidelines to designing a culturally-savvy PBS program, and stressed the importance of recognizing differences in communication styles, language and values between the people designing a program and those who will be participating in it.

Warren, Edmonson, Griggs, Lassen, McCart, Turnbull, et al. (2003) conducted an evaluation of a school-wide PBS program in an urban school setting, and described certain considerations that needed to be taken into account when working in a diverse, urban setting. First, they noted that establishing buy-in from administration, faculty and students was crucial to the success of the program. Second, based on the particular behavior challenges they encountered, they utilized a four-tier-model of PBS, in which approximately two thirds of the students in the school received intervention beyond the first tier. Finally, they offered the observation that utilizing examples from multiple cultures in their explanations of pro-social behavior would lead to a positive school culture and improved social and learning outcomes for all students.

In a study by Lowe, Jones, Allen, Davies, James, Doyle, et al. (2007), staff training positively impacted knowledge and perceived confidence among staff, whereas the training had a minimal effect on staff's attributions or emotional responses. Training was emphasized as one of the key components to conducting effective evaluations. The

study concluded, however, that for long-lasting success to be achieved, systematic organizational changes are also needed.

Implementation of PBS programs typically presents many challenges. However, recent evidence suggests that positive results are possible. In one district, the majority of schools were able to implement with fidelity a school-wide PBS program over the course of two years. The program resulted in several positive outcomes, including fewer discipline-based office referrals and suspensions, with the greatest gains seen in middle school and high school students (Muscott, Mann, & LeBrun, 2008). In another study, Curry (2008) found that all schools in Talledega county, Alabama were able to implement with fidelity a PBS program aimed at reducing student violent incidents. Seven of the 17 schools had reductions in their discipline-based referrals (Curry, 2008).

In their recent meta-analysis of single subject research on school-wide PBS, Solomon, Klein, Hintze, Cressey, and Peller (2009) found that school-wide PBS programs demonstrated overall positive effects within the entity being studied. Particularly, school-wide PBS was associated with an increase in teachers' use of praise and a decrease in problem behaviors of students.

Previous evaluations have focused on cultural factors, staff training, praise and positive language, secondary intervention programs, student outcomes, and program implementation, and have provided valuable insight into the effective aspects of PBS. However, in the PBS evaluation literature there appears to be a lack of follow-up and program improvement, which are critical aspects of program evaluation. Therefore, the current evaluation will comprehensively expand upon those previously discussed by including initial evaluation, intervention and follow up phases.

The Current Evaluation

This formative evaluation assessed the strengths and weaknesses of a school-wide PBS program as implemented in an alternative education setting, the purpose of which was to implement changes to the program in an effort to improve program effectiveness and positive outcomes for students. The current evaluation used an exploratory case study design as discussed by Fitzpatrick at al. (2004). This design was selected due to its focus on achieving an in-depth understanding of a single case or unit through many different forms of data collection, both quantitative and qualitative. Proposed research questions were chosen by the principal evaluator and program leaders (stakeholders), in an effort to obtain information about the most important aspects of the program, including participant perceptions and experience, program integrity and outcomes.

Evaluation Questions

The specific evaluation questions are as follows:

1. Are desired behaviors defined in observable terms?
2. Do students understand behavioral expectations?
3. Does staff understand behavioral expectations?
4. Is there inter-observer agreement among staff in terms of point allocations for behaviors?
5. Is the school-wide PBS system implemented consistently?
6. Does staff buy in to the importance of the PBS program?
7. Does staff find the PBS program effective?
8. Does the school-wide PBS system lead to positive student behaviors?
9. Does the school-wide PBS system foster a safe school environment?

CHAPTER 2

METHODS

Setting and Participants

The study took place at a day treatment facility that accommodates 25-30

children, in a unique collaboration between a private hospital and the local public school

system. The program is in session twelve months per year, five days per week, and

integrates long-term therapeutic services with the educational program. Children between

the ages of 5 and 12 (grades K-7) are typically referred by the child's home school

district, either because they exhibit emotional or behavioral problems that are too

disruptive to be managed in a district-level special education class, or because they

require intensive psychiatric services that cannot be provided in a traditional outpatient

setting. The program is comprised of four classrooms, referred to as teams, into which

the students are grouped based on grade level as well as cognitive, academic and social

abilities. The program is staffed by special education teachers and teaching assistants,

employed by the local public school system, and a psychiatrist, psychologist, nurses,

social workers, mental health workers, trainees and other clinical staff, employed by the

hospital. Staff members and students from whom informed consent was obtained

participated in this evaluation.

The two evaluators were a school psychology trainee and the attending

psychologist of the program. Because both evaluators were staff members of the

program, this constituted an internal evaluation with inherent potential biases. However,

care was taken to ensure that staff members were not coerced to participate, and there

were no consequences for non-compliance. The evaluation was approved by the

Institutional Review Boards (IRBs) of both the New York Presbyterian Hospital and the University of Massachusetts Amherst, as of November 2007. Methods for obtaining informed consent were as follows.

Adult Participants. One of the evaluators presented a consent form to each staff member, explained it, and read it with him or her. The staff member was then given ample time to read and review it and think about participating. The staff member also had the opportunity to ask the evaluators questions before making a decision. Once the staff member made a decision, he or she signed on the appropriate line of the consent form. Staff members were told that participation was completely voluntarily, and their decision was not intended to have any negative effect on their employment.

Child Participants. Due to the fact that the evaluation presented no more than minimal risk to participants, a waiver of signed consent was granted from the IRB. Parents were provided with a written statement of evaluation, and a follow up phone call was made a week later by one of the evaluators to answer any questions the parent might have, and to obtain verbal consent. When a parent or guardian provided verbal consent for their child to participate, the evaluator documented it by signing the verbal consent statement. For children whose parent provided verbal consent to participate, verbal assent was also obtained from the child prior to including that child in the evaluation. When a child provided verbal assent to participate, the evaluator documented it by signing the verbal assent statement.

Design

The current formative evaluation was conducted utilizing an exploratory case study design due to its focus on achieving an in-depth understanding of a single case or

unit through qualitative and quantitative forms of data collection (Fitzpatrick et al., 2004). The evaluation had three phases: Phase 1 was the evaluation phase, in which quantitative and qualitative data were collected in order to answer each of the evaluation questions based on the baseline program implementation. Findings from Phase 1 led to suggestions and changes for program improvement. These suggestions were made to program leaders, and the evaluators oversaw Phase 2, an implementation phase, in which suggested changes and improvements were implemented. Finally, Phase 3 served as a follow-up phase, in order to explore whether or not the changes in program delivery were associated with positive outcomes. Phase 1 lasted approximately two months. Phase 2 begin immediately following the reporting of Phase 1 findings, and lasted for three months, followed by the start of Phase 3.

School-wide PBS Program

The PBS program in place at the alternative school utilized a point system, through which students earn points for half-hour blocks throughout the school day in each of four behavioral areas: Respect, Responsibility, Safety and Citizenship. Students may earn 0, 1 or 2 points in each area for each half-hour time period. Points are allocated and recorded by a member of the educational or clinical staff based in the student's classroom (see Appendix). Levels are awarded to students based on the total points they earn each day. Students who achieve Levels 4 and 5 get a special reward at the end of the day. In addition to rewarding students for positive behaviors, students suffer consequences for aggressive or unsafe behaviors in the form of a Level 2 drop, in which a student is put on Level 2 (the lowest level that they can earn) for the remainder of that day and the following day, until a higher level is earned. Students exhibiting behaviors

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that are too disruptive to be managed in the classroom, or which seem to be a precipitant to an aggressive or unsafe episode, are asked to take a cool-down or a time-out, depending on the severity of the behavior. Time-outs are instances of time spent outside of the classroom following inappropriate behavior, and cool-downs are instances of time spent outside of the classroom in an effort to regain control over one's behavior. Students complete time-outs for the number of minutes that is equal to their age (e.g. a nine year old must complete a nine minute time-out), and students cannot earn positive points during time-outs. Additionally, since the PBS program is based on earning point for positive behaviors, students cannot earn points when they are absent or uninvolved in program or educational activities (e.g. sleeping).

Data Collection Procedures

All data collection procedures were completed in Phase 1 and Phase 3 of the evaluation. Quantitative methods used data from point sheets, which are collected daily as part of the existing PBS program. Frequencies of: 1) levels earned by students; and 2) Level 2 drops were recorded. In order to assess inter-observer agreement on behavior rating, 25% of the point sheets collected over two-week periods in Phases 1 and 3 were completed by two staff members independently, and their results were compared.

Qualitative data collected were: 1) a staff survey that assessed knowledge and perceptions of the PBS program; 2) staff focus groups, which focused on assessing the effectiveness of the current program and brainstorming to come up with improvements to the program; and 3) student focus groups, which assessed students' understanding of the PBS program.

Survey. Rather than using an existing staff survey, a new survey was developed by the evaluators in order to address some of the specific evaluation questions, due to the unique nature of the setting and program being evaluated. Existing PBS surveys are typically written to accommodate an evaluation of PBS in a typical public school, and therefore were not appropriate for the alternative education setting being evaluated here; however, the survey used was modeled after the New York Positive Behavioral Interventions and Supports (PBIS) implementation survey which has been used across the State. There were three parts to the survey: Part I consisted of 20 Likert-type items assessing staff buy-in to the PBS program and implementation of the PBS program. Items regarding buy-in required a response of: 1 (not important), 2 (important), or 3 (very important). Items regarding implementation required a response of: 1 (strongly disagree), 2 (disagree), 3 (agree), or 4 (strongly agree). Part II consisted of short answers to items assessing knowledge of the PBS program, such as, "In your own words, please briefly define each the following, as they pertain to the PBS program: 1) Safety, 2) Responsibility, 3) Respect, and 4) Citizenship." In Part III, participants were asked to provide specific ideas or recommendations for program improvement (see Appendix).

Staff Focus Groups. Educational and clinical staff members were asked to participate in focus groups to explore the effectiveness of the current PBS program and to brainstorm potential modifications that might lead to improved integrity and effectiveness of the program. Two staff focus groups (one each for education staff and hospital staff) were held in Phases 1 and 3 of the evaluation. Staff focus groups were completed separately for educational and hospital staffs due to scheduling constraints, as well as to better focus the conversation, given the short amount of time allotted for each focus

group. Each group included 6-8 staff members and was facilitated by one of the evaluators. Two note-takers independently recorded the themes discussed in the focus group on a laptop, as close to verbatim as possible. After a brief orientation to the purpose of the focus group, four questions were posed to the group: 1) In your opinion, what is the purpose of the PBS program? 2) Does the current implementation of the PBS program lead to positive student behaviors, and a safe school environment? Please explain. 3) Do you feel that you have received adequate training and support to reliably score point sheets and deliver time-outs and Level 2 drops? 4) What elements of the PBS program would you change in order to make it more effective and supportive of staff and students?

Student Focus Groups. Student focus groups were conducted in Phase 1 only, due to scheduling constraints. To assess students' understanding of the PBS program, they were asked the following questions: 1) What do Respect, Responsibility, Safety and Citizenship mean? 2) What behaviors do you have to do to earn Level 4 or 5? 3) What behaviors would cause you to get a Level 2 drop?

Data Analysis Procedures

Frequencies of students' achieving Levels 4 or 5, time-outs and Level 2 drops were obtained from data from Phase 1 and Phase 3. Wilcoxon Signed Ranks Tests were used to assess whether differences between Phase 1 and Phase 3 frequencies were significant. This test was chosen because a non-parametric test on repeated measures was needed (Corder & Foreman, 2009). Inter-observer agreement among staff members regarding point allocation for appropriate behaviors was assessed using point-by-point agreement on point sheets in order to assess inter-observer agreement. The result was

calculated by dividing the total number of agreements by the number of agreements plus disagreements and multiplying by 100 (Kazdin, 1982). Point-by-point agreement was calculated for each team during Phases 1 and 3 of the evaluation.

Data from Part I of the staff survey were entered into an SPSS database, and negatively worded items were reverse-coded so that data could be analyzed as one unit. Data were analyzed using descriptive statistics, and differences between Phases 1 and 3 were noted. Themes were extracted from Part II of the survey, and were reported with themes from the focus groups. Focus group responses were analyzed and thematic units were identified. Thematic units are defined as "recurring systems of beliefs or explanations" by Stewart, Shamdasani, and Rook (2006, p. 122; see Table 1).

CHAPTER 3

RESULTS

Phase 1

Phase 1 of the evaluation was conducted in November and December 2007. Data

collected in Phase 1 were: data from point sheets as well as inter-observer agreement

data, staff survey, staff focus groups, student focus groups, and data on behavioral levels.

Due to student absences, staff absences and a snow day, data could not be collected on all

of the students on all of the days identified for data collection. A total of 100 point sheets

were collected, for a total of 1790 data points. There were 410 missing data points that

were not included in the analyses.

Inter-observer Agreement. As described above, 25% of the point sheets were

completed independently by two staff members in each team, for a two week period.

Data were collected and entered into two separate SPSS files by the principal evaluator.

Once all data was entered, the files were merged and difference scores were calculated

for each data point. Point-by-point correlations were then calculated for the overall inter-

observer agreement (.86) and inter-observer agreement for each behavioral category

(Responsibility = .82; Safety = .92; Respect = .81; Citizenship = .86).

Behavioral Levels. In order to obtain data from behavioral levels, all levels earned

by students during this phase of the evaluation were entered into an SPSS database. Data

counts and frequencies were run in order to determine how many students earned high

behavioral levels (i.e. Level 4 or Level 5), illustrating positive behavior, and how many

students were dropped to Level 2, illustrating negative or unsafe behavior. Levels were

entered for all students in the program and descriptive statistics were run. The results

showed that 70% of the total number of levels earned by students were Levels 4 or 5,
indicating that 70% of the time, students are able to earn a level that is illustrative of
positive behaviors. Level 2 drops accounted for 14% of the total number of levels
earned, indicating negative or unsafe behaviors. The remaining 16% of levels earned
were Levels 2 or 3, indicating neutral behaviors.

Survey. Surveys were distributed to all staff participants; however, only 12
surveys were returned. Responses to Part I of survey (Likert scale items) were entered
into an SPSS database by the principal evaluators. Averages were calculated for each
question (see Table 2), as was an overall average, which was thought to be the most
meaningful for the purposes of this evaluation. The overall average on questions
addressing staff investment in the PBS program was 2.6/3.0, indicating that staff found
crucial elements of the program to be in between "important" and "very important,"
suggesting that the staff is invested in the program. Results from items addressing staff's
understanding and implementation of the program indicated that both areas were in need
of improvement. The overall average on items looking for agreement on understanding
of the program and implementation of the program were 2.5/4.0 and 2.6/4.0, respectively,
indicating average responses were neutral (i.e. in between the response categories of
"agree" and "disagree").

Staff Focus Groups. Among the themes identified from notes from the staff focus
groups was general agreement among staff regarding the purpose of the PBS program,
namely to model and teach positive behavior while increasing the focus on education.
Two competing themes arose regarding the success of the program's implementation of
PBS. Some staff members felt that the program works, but that it was not being fully

implemented at the time of the focus group; others felt that it is not an effective program, regardless of implementation. Another important theme that emerged was that the program was not as effective as it had been in the past, and some staff speculated that this was due to inconsistencies in implementation. The major theme that arose with regard to training was that staff felt they had not received sufficient training, but rather had learned the program on the job from different staff members, leading to discrepancies and inconsistencies in implementation. Most staff members felt that they would personally benefit from ongoing training. During the focus group, staff members were asked to brainstorm ideas for positive changes to the program. Some ideas that emerged included: provide training on the PBS program, hire additional staff, modify the reward system, and use more visual reminders of rules in the classroom and milieu.

Student Focus Groups. Feedback from student focus groups indicated that children were aware that there were certain general rules of conduct at school; however, most of the children were unclear as to the distinctions between the four categories of behavior. For example, during focus groups, children were able to list several appropriate (e.g. keep your hands and feet to yourself, respect your teachers) and inappropriate (don't run in the hallway, don't hit) behaviors; however, they were unable to determine which of the four categories each behavior demonstrated. Of the four categories, Safety was the most clearly understood by all of the children. The focus groups were completed separately for younger (ages 7-9) and older (ages 10-12) children. Responses to questions indicated that the younger children were unclear about certain aspects of the behavior program, such as distinctions between cool-down, time-out and

Level 2 drop, which were better understood by the older children. Younger children also did not seem to understand the link between behavior and its consequences.

Overall, results of Phase 1 identified a strong need for staff training in order to increase understanding and implementation of the program. Additionally, a need to teach and review the program with the students was evident. Although overall inter-observer agreement on point sheets was good, better agreement on behaviors in the Responsibility and Respect categories was needed.

Phase 2

After completion of Phase 1, the evaluators met with the program's PBS committee to prioritize areas needing intervention based on the results of Phase 1. The team decided on the following six interventions: conduct staff trainings, update matrix of behaviors, provide refresher lessons for students around behavioral expectations, create posters of behavioral expectations, update staff manual, create new staff training protocol.

Staff Trainings. Four staff training sessions were conducted between January and March 2008. These trainings were mandatory for all staff members and were led by the evaluators and PBS program leaders. Trainings were held during designated training slots on site. During the introductory training, the evaluators shared the results of Phase 1 of the evaluation with the staff, in order for them to see the direct connection between the data collected and results that may lead to positive changes. After the results were presented, the evaluators described the interventions that would take place during Phase 2 of the evaluation. Finally, an updated matrix of behaviors (see Appendix) was presented, which provided clear examples of behavior in each of the four categories across six

settings: bus, hallway/stairway, classroom, playground/recess, travel, and bathroom. For example, in the hallway, "safe" behaviors are: walk properly and do not run; stay in line; always follow staff directions; show consideration for personal space; follow time-out rules; ask permission to be in hallway; and keep hands and feet to yourself. In the classroom, examples of Responsibility include: stay on task; respect books and other school property; and bring in your supplies and homework every day.

The focus of the second training session was on improving the consistency of point sheets completed by staff. The goals were to improve staff's understanding of the behavioral system, improve staff confidence in using point sheets, and to improve consistency among staff's use of point sheets. A general background course in behavior management was given, which included a brief background in early behaviorism, and training on the basic principles of reinforcement, punishment and shaping, with specific attention to their application to the PBS program. This was followed by specific instruction on how to complete point sheets, including a review of which behaviors deserve 0, 1 and 2 points. During the training, it became evident that staff were much clearer on the distinctions between 0 and 2 points, than they were on what types or degrees of behavior would warrant delivery of 1 but not 2 points. The appropriate use of 1 point was clarified to be when a student exhibits an appropriate behavior for part of, but not the entire time block, or when a student exhibits approximations of the desired behavior. The discussion of the use of 1's continued into the second training and was followed by a discussion of cool-down, time-out and Level 2 drop. Each of these consequences was defined and specific examples were given and discussed to ensure that staff understood each one. Cool-down was defined as instances of time spent outside of

the classroom in an effort to regain control over one's behavior before it becomes inappropriate or unmanageable. Time-out was defined as instances of time spent outside of the classroom following an inappropriate behavior or episode. A Level 2 drop was defined as a consequence of extremely unsafe or provocative behavior (e.g. physical aggression, violence, hateful language). The final training consisted of a review of the previous trainings, as well as a tutorial on the use of positive language.

Student Lessons. For four weeks during February and March 2008, teachers worked with students each week on reviewing behavioral expectations. Each of the four categories of behavior became the "topic of the week" for one of the four weeks. The topic was introduced during breakfast on Monday morning, and was incorporated into lessons in the classroom as well as into therapeutic activities in the milieu for the entire week. At the end of each week, the topic was reviewed and examples of that behavior category seen during the week were highlighted. The student lessons were conducted after the first two staff trainings had been completed in order to ensure that the staff had already had a chance to relearn aspects of the PBS program before presenting it to the students.

Posters. With the assistance of the art teacher, posters were created that described classroom and hallway behaviors. The purpose of these posters was to provide visual reminders to the students and staff of behavioral expectations in the classroom and in the hallway. The poster included illustrations of appropriate behaviors for the benefit of students who are non-readers, or early readers. These posters also provided staff with a reminder of appropriate behaviors to assist them in completing point sheets.

Staff Manual and Training Protocol. Although the program had a staff manual, it did not accurately reflect the current policies and practices of the PBS program. The manual was updated to include the most accurate and relevant information on the behavior program, as it was presented to staff during trainings. The staff manual was updated to include the matrix of behaviors, instructions on completing point sheets, and definitions of cool-down, time-out, and Level 2 drop. A staff training protocol was compiled to further reinforce the ideas presented in the handbook. This protocol was a compilation of the most critical aspects of the staff trainings used in Phase 2, and the main ideas present in the staff handbook.

Phase 3

Phase 3 of the evaluation was conducted in April and May 2007. Data collected in Phase 3 were: inter-observer agreement data, staff survey, staff focus groups, and data on behavioral levels.

Inter-observer Agreement. As in Phase 1, 25% of point sheets were completed independently by two staff members in each team, for a two week period. Data were entered into SPSS files as in Phase 1. Once all data were entered, the files were merged and difference scores were calculated for each data point. Point-by-point correlations were then calculated for the overall inter-observer agreement (.87), and inter-observer agreement for each behavioral category (Responsibility = .85; Safety = .92; Respect = .83; Citizenship = .87). All of these correlations reflected improvements from Phase 1, with the exception of Safety, which remained the same.

Behavioral Levels. As was done in Phase 1, all levels earned by students during this phase of the evaluation were entered into an SPSS database. Data counts and

frequencies were run in order to determine how many students earned high behavioral levels (i.e. Level 4 or Level 5), illustrating positive behavior, and how many students were dropped to Level 2, illustrating negative or unsafe behavior. Levels were entered for all students in the program and descriptive statistics were run. Results indicated that 66% of the total levels earned by students were Levels 4 or 5, indicating that 66% of the time, students were able to earn a level that is illustrative of positive behaviors. Level 2 drops accounted for 17% of the total number of levels earned, indicating negative or unsafe behaviors. The remaining 17% of levels earned were Levels 2 or 3, indicating neutral behaviors.

Survey. Surveys were distributed to all staff participants; however, only eight surveys were returned. As in Phase 1, responses to Part I of the survey (Likert scale items) were entered into an SPSS database by the principal evaluators. Averages were calculated for each question (See Table 3), as was an overall average. The overall average on questions addressing staff investment in the PBS program was 2.4/3.0, indicating that staff found crucial elements of the program to be in between "important" and "very important," suggesting that the staff is invested in the program. Results from items addressing staff understanding of the program and implementation of the program indicated good understanding and implementation. The overall average of items addressing understanding and implementation were 3.0/4.0 and 3.1/4.0, respectively, corresponding to "agree."

Staff Focus Groups. Themes identified from notes from staff focus group meetings indicated that staff was in agreement that the purpose of the PBS program is to model and teach positive behaviors, promote a safe environment for all staff and students

and increase the focus on learning. Staff also tended to agree that the PBS program might not be an adequate approach to managing the behaviors of some students, although it works well for others. Some staff members suggested that the PBS program would be more effective if it were reinforced in the students' homes as well. When asked about safety, some staff felt that PBS promotes a safe environment, while others did not feel that the program was safe, despite PBS. When asked about training, staff was in agreement that the trainings provided helped to improve their confidence, understanding, and implementation of the program. However, some staff felt that there were still inconsistencies among staff, particularly, regarding which behaviors do and do not result in a Level 2 drop. Some staff felt that active supervision and ongoing training on PBS was needed. Staff identified certain non-PBS issues that they believed had a direct effect on the effectiveness of the PBS program: need for additional staff, staff burnout, poor communication between hospital and educational staff, and low staff morale. When asked what they would change about the program, some themes that arose were: need for additional staff, more effective and consistent rewards for students, better communication among staff, and positive reinforcement for students at home.

Comparison of Phase 1 and Phase 3 Results. There was no change in overall inter-observer agreement on point sheets; however, inter-observer agreement improved on Responsibility and Respect, indicating better understanding of those categories during Phase 3. Data from the survey revealed a slight decrease in staff investment in program, but both understanding and implementation of the program improved during Phase 3. Level 2 drops increased slightly, and Levels 4 and 5 decreased slightly from Phase 1 to Phase 3; however Wilcoxon Signed Ranks Tests revealed that these differences were not

statistically significant. Information obtained from Part II of survey and staff focus groups indicated that staff felt that trainings were helpful and improved accuracy of implementation; however there were still issues regarding inconsistencies in implementation and safety of the program.

CHAPTER 4

DISCUSSION

The purpose of this evaluation was to assess the strengths and weaknesses of a

school-wide PBS program in an alternative education setting, and to implement changes

to the program in an effort to improve program effectiveness and positive outcomes for

students. The evaluation was completed in three phases. Phase 1 examined the strengths

and weaknesses of the program through qualitative and quantitative data collection

methods. In Phase 2, several interventions were introduced to address some of the

weaknesses found in Phase 1. Finally, Phase 3 focused on follow-up, in which all data

that were collected in Phase 1 were collected again in order to re-assess the program post-

intervention. Measures of data collection were chosen to address these specific

evaluation questions:

1. Are desired behaviors defined in observable terms?
2. Do students understand behavioral expectations?
3. Does staff understand behavioral expectations?
4. Is there inter-observer agreement among staff in terms of point allocations for
    behaviors?
5. Is the school-wide PBS system implemented consistently?
6. Does staff buy in to the importance of the PBS program?
7. Does staff find the PBS program effective?
8. Does the school-wide PBS system lead to positive student behaviors?
9. Does the school-wide PBS system foster a safe school environment?

The first three evaluation questions address the extent to which the PBS program

is understood by students and staff as well as the measurability of the expected behaviors.

Phase 1 results indicated that although categories of behavior were determined and

understood by staff, there was much left up to individual interpretation. Behaviors were

not defined in measurable terms, and staff was not provided with examples of target

behaviors. Likewise, although staff was aware of general behavioral guidelines and

rules, they did not clearly understand behavioral expectations in a manner that allowed for accurate delivery of the PBS program. Additionally, focus group data suggested that although students were aware of the behavioral program and certain rules, they did not clearly understand behavioral expectations and could not distinguish between related behaviors and rules.

Based on these findings, interventions were selected to address weaknesses in these areas. Specifically, the staff and student trainings were aimed at breaking down the PBS program into clearer, more specific parts. Behavioral categories were described and explained, and an updated matrix of behaviors was presented, which provided specific examples of expected behaviors in different settings.   Finally, posters served as constant visual reminders of target behaviors of students for both students and staff. After theses interventions, data collected in Phase 3 revealed that staff felt that they better understood the PBS program, and felt more confident implementing it. Unfortunately scheduling constraints did not permit the evaluators to repeat the student focus group in Phase 3, so qualitative data on student understanding of the program could not be re-collected. However, themes from staff focus groups indicated that the student lessons were helpful and that many students demonstrated understanding of the target behaviors during these lessons.

The fourth and fifth evaluation questions addressed inter-observer agreement and consistency of implementation. These questions were crucial to the evaluation, because in order to truly evaluate the effectiveness of a program, one must determine if the program is being delivered as intended. Therefore, the evaluators set out to evaluate inter-observer agreement with regard to point sheets, as well as to the consistency of

implementation of the project as a whole. Phase 1 results indicated that overall inter-observer agreement was good; however, when results were analyzed by category of behavior, it was found that there was room for improvement within the categories of Responsibility and Respect. Qualitative results indicated that staff felt that there were inconsistencies in implementation among staff members. These inconsistencies were noted in assigning points, Level 2 drops, time-outs and cool-downs. Staff also noted that these inconsistencies had evolved over time due to a lack of training for new staff and a lack of ongoing training for all staff. These findings resulted in two training sessions that provided specific instructions on assigning points, on the differences between a time-out, cool-down and Level 2 drop, and on definitions of which behaviors or situations result in each consequence. Follow-up results obtained during Phase 3 indicated that the trainings were helpful in increasing inter-observer agreement across the behavior categories of Responsibility and Respect. Additionally, results from the follow-up focus groups indicated that staff felt more confident in completing point sheets and delivering all aspects of the PBS program. This is consistent with the results found by Lowe et al., (2007) that staff training was a key component that improved knowledge and perceived confidence.

The sixth and seventh evaluation questions address staff buy-in and staff perceptions of the PBS program. It was important to include these questions in the evaluation, as buy-in has been found to be a crucial aspect of program delivery (e.g. Lowe et al., 2007; Warren et al., 2003). Results indicated that although there were problems and difficulties, the staff was generally invested in the program and believed in its ability to shape students' behavior. This investment diminished slightly by the end of

the evaluation, perhaps due to burn-out or other factors discussed above that affected staff morale. Staff was more split on the issue of effectiveness of the program, which remained an issue throughout the evaluation. Some staff members consistently believed that the PBS program was not an effective method of behavior management for the students of the program. It was important to hear the opinions and beliefs of staff members in order to consider that information in determining the appropriate focus of interventions.

The last two evaluation questions addressed outcomes of the PBS program. Due to the limited time frame of the evaluation and the type of data collected, these questions could not be fully answered. After Phase 1 results were analyzed, it became clear to the evaluators that the program was in need of much help regarding the prior three areas targeted in the evaluation questions. Therefore, the focus of the interventions was placed on those areas in order to strengthen the implementation of the PBS program. Less focus was put on improving general student outcomes through interventions, as this did not seem like a reachable goal before a general improvement in the program could be accomplished. Results of data evaluating student behavioral outcomes and safety, as well as data on staff perceptions of safety were relatively consistent across Phases 1 and 3. Unsafe behaviors actually increased slightly and positive behaviors decreased slightly, although these differences were not statistically significant. Program leaders noted that these results were not surprising, as behavior tends to break down slightly toward the end of the year, as the students anticipate the changes in staffing and structure that occurs during the summer months. As the program leaders did not have a plan to correct this

increase in problem behaviors, the evaluators suggested that this concern be addressed as the program leaders plan for the next year.

Overall, the evaluation was successful, in that the evaluators were able to identify strengths and weaknesses, and identify areas of concern to be addressed through interventions. The most important goal that was accomplished by this evaluation was the implementation of appropriate interventions to specifically target problem areas. As discussed by Fitzpatrick et al. (2004), the primary purpose of formative evaluation is to describe an object in terms that are relevant or have value to the stakeholders and to provide stakeholders with information to be used for program improvement. The evaluators received feedback from the staff that the interventions were helpful and improved their confidence in implementing all aspects of the PBS program. The evaluators were also able to increase the accuracy with which staff completed point sheets and assigned behavioral consequences to students. The evaluators implemented a variety of interventions, and received feedback that the interventions were successful. For example, interventions increased staff confidence, understanding, and implementation of the program. The evaluators were also able to develop of plan for future trainings and program modifications that could not be implemented during the limited time frame of the evaluation.

Limitations

Due to the evaluation methods used, it is impossible to draw causal inferences between the interventions and the quantitative differences among variables observed in Phase 1 and Phase 3; however, qualitative evidence suggests that the interventions were the source of the differences described by staff. The main purpose of evaluation is to

make a judgment or decision about the object being evaluated (Fitzpatrick et al., 2004), and as such findings from this evaluation cannot be generalized to similar programs without a replication of the evaluation methods used.

Because this was an internal evaluation, the evaluators were staff members of the program. The evaluators explained to staff members that their participation in the evaluation was completely separate from their jobs within the program, and that their job would in no way be affected by their performance, or decision to participate in the evaluation. Although every caution was taken to avoid coercion both in verbal interactions as well as in the consent form signed by all participating staff members, it is still possible that staff members felt the need to participate against their will. Additionally, their performance in the focus groups and on the staff survey may have been affected by perceptions of coercion or concern for their job future. Due to the nature of the research, staff members participated in the evaluation. They were therefore aware that they were being evaluated and inter-observer agreement may have been affected as a result. Because this was a case study analysis, observations were done in a naturalistic manner and the evaluators did not have control over any variables that may have affected the results.

Some variables that were unrelated to the PBS program but occurred during the evaluation may have affected the results. For example, after a few staff members left the program to pursue other job opportunities, a hiring freeze at the hospital prevented the program manager from hiring replacement staff members. Per-diem employees were loaned to the program on a daily basis, and these employees were not invested in the program and never had the chance to become part of the program, as they were not meant

to be permanent replacements. On days that per diem staff were not available, the

program remained short staffed. This had a negative impact on the permanent staff

members, as their work became more difficult, and eventually staff burn-out ensued.

Communication and scheduling difficulties were always present as artifacts of the

program being run by two independent entities, the private hospital and the public school

system. Scheduling difficulties did not allow for the student focus group to be completed

in Phase 3. Additionally, we were not able to change the reward system, even though it

was noted by several staff members as an area in need of improvement. This is

consistent with a study that concluded that for long lasting success to be achieved,

systematic organizational changes are needed (Lowe et al., 2007).

This evaluation did not address cultural factors of relevance to PBS. Although the

evaluators were aware of the importance of incorporating ethnic, linguistic and cultural

differences in order for a PBS program to be most effective across cultures (Chen et al.,

2002), the time frame of this evaluation and available resources did not allow for a

restructuring of the PBS program in such a way. This will be particularly important for

the program leaders to bear in mind as they continue to make modifications and

improvements to the PBS program in the future.

Recommendations

The overall results of the evaluations and the known limitations of the project led

to several recommendations that the evaluators made to program leaders. Ongoing

evaluation of the program was recommended, in order to make further improvements and

decisions about the program. Ongoing staff trainings were recommended. The

evaluators developed a training protocol, which was recommended for new staff, in

addition to ongoing training for all staff in order to continue to increase consistency and

confidence with the point sheets and other aspects of the PBS program. The evaluators

noted that stability of staff would likely increase accuracy and consistency of

implementation of PBS. Other recommendations were to continue to modify and tailor

PBS to meet the changing needs of the program and its students, and to increase

communication among staff. Finally, the evaluators recommended increased

involvement of parents and caregivers with the PBS program. Highlighting these

recommendations, the evaluators helped the program develop a plan to continue to

implement interventions over the summer and the next academic year.

Table 1. Detailed Management Plan

Evaluation Question	Information Required	Information Sources	Method for Collecting Information	Information Collection Arrangements			Analysis Procedures
				By Whom	Conditions	When	
1. Are desired behaviors defined in observable terms?	Operational definitions of behavior	PBS training materials	Review of materials	Evaluators	N/A	During Phases 1 and 3 of the evaluation	N/A
2. Do students understand behavioral expectations?	Information from student focus groups, Behavioral data	Program students and staff	Focus groups and point sheets	Students and staff, lead by evaluators	Focus groups completed in group activity rooms within the school building	During Phases 1 and 3 of the evaluation	Descriptive statistics for level data and themes identified through focus groups
3. Do staff understand behavioral expectations?	Information from staff focus groups and survey	Staff	Focus group, survey	Staff and evaluators	Surveys completed during the school day and focus groups completed after school	During Phases 1 and 3 of the evaluation	Themes identified from focus groups, descriptive statistics from survey data
4. Is there inter-observer agreement among	Data from point sheets	Point sheets completed by Educational and	Inter-observer agreement checks on point sheets	Educational and Clinical staff	25% of point sheets will be completed by an additiona	Daily during Phases 1 and 3 of the evaluation	Point by point agreement to assess for inter-observer

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staff in terms of point allocations for behaviors?		Clinical staff			l staff member		agreement
5. Is the school-wide PBS system implemented consistently?	Information from staff survey and focus groups	Point sheets and logs, focus groups, survey	Number of students who earn each level entered into a database daily / focus groups	Staff	Collected daily as part of the PBS program	During Phase 1 and 3 of the evaluation	Descriptive statistics on frequencies, thematic analysis
6. Do staff buy in to the importance of the PBS program?	Answers to survey questions regarding buy-in	Staff survey	Staff complete survey during the school day	Staff	Surveys completed during the school day	During Phases 1 and 3 of the evaluation	Descriptive statistics on survey questions
7. Do staff find the PBS program effective?	Information from staff regarding their perceptions of the program	Educational and clinical staff	Focus groups and surveys	Staff, led by evaluators	Staff focus groups and surveys completed in group activity rooms within the school building	During Phase 1 and 3 of the eval-uation	Descripti-ve statistics for surveys and themes identified through focus groups
8. Does	Percenta	Level	Number	Evaluator	Data	Daily	Descripti

the school-wide PBS system lead to positive student behaviors?	ge of students who earn Level 4 or 5 each day,	sheets and logs	of students who earn each level entered into a database daily	s	entered using a data management computer software program (SPSS)	during Phase 1 and 3 of the evaluation	-ve statistics
6. Does the school-wide PBS system foster a safe school environment?	Percentage of students who are dropped to Level 2 each day	Level sheets and logs	Number of students who earn each level entered into a database daily	Evaluators	Data entered using a data management computer software program (SPSS)	Daily during Phase 1 and 3 of the evaluation	Descriptive statistics

Table 2. Phase 1 Survey Results (N=12)

	IMPORTANCE				AGREEMENT			
	Mean	**Range**	**Min**	**Max**	**Mean**	**Range**	**Min**	**Max**
1. Behavioral expectations of students are clearly defined	3	0	3	3	2.58	3	1	4
2. Behavioral expectations of students are understood by students	2.83	1	2	3	2.67	1	2	3
3. Behavioral expectations of students are understood by staff	2.75	1	2	3	2.67	1	2	3
4. Behavioral expectations of students are not measurable	2.36	1	2	3	2.27	1	2	3
5. There is inter-observer	2.55	1	2	3	2.40	2	1	3

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agreement among staff in terms of point allotment for student behaviors (0, 1 or 2 points)								
6. I do not understand the differences between the behavioral categories: respect, responsibility, citizenship and safety	2.45	2	1	3	2.09	2	1	3
7. The staff in general understands the differences between the	2.55	2	1	3	2.82	1	2	3

Continued on the next page

behavioral categories: respect, responsibility, citizenship and safety								
8. The school-wide PBS program is effective at promoting positive behaviors of students	2.73	1	2	3	2.82	3	1	4
9. The school-wide PBS program is effective at reducing negative behaviors of students	2.64	1	2	3	2.91	3	1	4
10. The	2.55	1	2	3	2.91	2	2	4

Continued on the next page

school-wide PBS program is effective at maintaining a safe program environment								
11. The school-wide PBS program is not effective at increasing instruction time	2.36	2	1	3	2.45	2	1	3
12. I am provided with training and ongoing support to ensure my understanding and compliance with the	2.27	2	1	3	2.18	2	1	3

school-wide PBS program							
13. There are reminders of program rules posted in the building	2.27	2	1	3	2.45	2	1	3
14. Rewards given to students for positive behaviors are inappropriate	2.44	2	1	3	2.0	2	1	3
15. Rewards are delivered with consistency	2.82	1	2	3	2.36	2	1	3
16. Rewards are effective at promoting student compliance with positive	2.40	2	1	3	2.45	2	1	3

behavior rules							
17. Staff is not in agreement regarding expected student behaviors	2.60	1	2	3	2.82	1	2	3
18. Staff are inconsistent in point allotment for behaviors (0, 1 or 2 points)	2.60	1	2	3	2.60	1	2	3
19. The PBS program helps staff to be objective in their measurement of student behavior	2.50	2	1	3	2.80	2	2	4
20. The training I	2.73	1	2	3	2.91	2	2	4

received on PBS at Bard House was not sufficient								

Table 3. Phase 3 Survey Results (N=8)

	IMPORTANCE				AGREEMENT			
	Mean	**Range**	**Min**	**Max**	**Mean**	**Range**	**Min**	**Max**
1. Behavioral expectations of students are clearly defined	2.86	1	2	3	3.38	1	3	4
2. Behavioral expectations of students are understood by students	2.71	1	2	3	3.25	2	2	4
3. Behavioral expectations of students are understood by staff	2.57	1	2	3	3.25	1	3	4
4. Behavioral expectations of students	2.29	1	2	3	2.25	1	2	3

are not measurable							
5. There is inter-observer agreement among staff in terms of point allotment for student behaviors (0, 1 or 2 points)	2.00	2	1	3	3.13	1	3	4
6. I do not understand the differences between the behavioral categories: respect, responsibilit	2.14	2	1	3	1.88	3	1	4

Continued on the next page

y, citizenship and safety							
7. The staff in general understands the differences between the behavioral categories: respect, responsibilit y, citizenship and safety	2.57	1	2	3	3.13	1	3	4
8. The school-wide PBS program is effective at promoting positive behaviors of students	2.57	1	2	3	3.38	2	2	4

9. The school-wide PBS program is effective at reducing negative behaviors of students	2.43	1	2	3	2.88	2	2	4
10. The school-wide PBS program is effective at maintaining a safe program environment	2.43	1	2	3	2.88	2	2	4
11. The school-wide PBS program is not effective	2.00	2	1	3	2.25	2	1	3

Continued on the next page

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at increasing instruction time							
12. I am provided with training and ongoing support to ensure my understanding and compliance with the school-wide PBS program	2.71	1	2	3	3.13	2	2	4
13. There are reminders of program rules posted in the building	2.43	1	2	3	3.38	2	2	4
14. Rewards	2.29	1	2	3	2.38	3	1	4

Continued on the next page

given to students for positive behaviors are inappropriate							
15. Rewards are delivered with consistency	2.43	1	2	3	3.25	2	2	4
16. Rewards are effective at promoting student compliance with positive behavior rules	2.67	1	2	3	2.86	2	2	4
17. Staff is not in agreement regarding expected	2.29	2	1	3	2.25	2	1	3

Continued on the next page

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student behaviors								
18. Staff are inconsistent in point allotment for behaviors (0, 1 or 2 points)	2.14	2	1	3	2.25	2	1	3
19. The PBS program helps staff to be objective in their measurement of student behavior	2.29	1	2	3	2.63	1	2	3
20. The training I received on PBS at Bard House was not sufficient	2.14	2	1	3	2.00	2	1	3

Figure 1. School-wide PBS (www.pbis.org)

CONTINUUM OF SCHOOL-WIDE INSTRUCTIONAL & POSITIVE BEHAVIOR SUPPORT

Tertiary Prevention: Specialized Individualized Systems for Students with High-Risk Behavior

Secondary Prevention: Specialized Group Systems for Students with At-Risk Behavior

Primary Prevention: School-/Classroom-Wide Systems for All Students, Staff, & Settings

~5%

~15%

~80% of Students

APPENDIX: FORMS AND MEASURES

Name: _____Date: _____ Level : _____

My goal for today is: _____

Time: Children earn 0,1,2 for each category every half hour	I was safe	I was responsible	I was Respectful	I was a good citizen	Staff initials: 1:1 feedback GW= Good work ☺ ; CO=Cool down; TO =Time out; NFD= Not following directions; Ag= Aggression (staff or peers); D= Disrespectful (staff or peers);↓2 = Level 2 drop
8:30-9					
9-9:30					
9:30-10:00					
10-10:30					
10:30-11					
11-11:30					

Bonus points for good behavior? _____

Morning behavior: _____

Total number of morning points I earned: _____

11:30-12					
12-12:30					
12:30-1					
1-1:30					
1:30-2					

Number of afternoon points: _____
Total points I earned today:_____
Today I earned level _____
Level appropriate reward given? Yes /no explain_____

2-2:30 Extra points earned can earn 2 points in each area				

End of day level: _____
Level 2: below 50 points
Level 3: 50-63 points
Level 4: 64-74 points
Level 5: 75 points and above

School-wide Positive Behavior Support (PBS)
Staff Survey

Part I. Please answer the following questions based on the following scale:
1 = strongly disagree; 2 = disagree; 3 = agree; 4 = strongly agree

	1	2	3	4
1. Behavioral expectations of students are clearly defined				
2. Behavioral expectations of students are understood by students				
3. Behavioral expectations of students are understood by staff				
4. Behavioral expectations of students are not measurable				
5. There is reliability among staff in terms of point allotment for student behaviors (0, 1 or 2 points)				
6. I do not understand the differences between the behavioral categories: respect, responsibility, citizenship and safety				
7. The staff in general understands the differences between the behavioral categories: respect, responsibility, citizenship and safety				
8. The school-wide PBS program is effective at promoting positive behaviors of students				
9. The school-wide PBS program is effective at reducing negative behaviors of students				
10. The school-wide PBS program is effective at maintaining a safe program environment				
11. The school-wide PBS program is not effective at increasing instruction time				
12. I am provided with training and ongoing support to ensure my understanding and compliance with the school-wide PBS program				
13. There are reminders of program rules posted in the building				
14. Rewards given to students for positive behavior are inappropriate				
15. Rewards are delivered with consistency				

16. Rewards are effective at promoting student compliance with positive behavior rules				
17. Staff is not in agreement regarding expected student behaviors				
18. Staff are inconsistent in point allotment for behaviors (0, 1 or 2 points)				
19. The PBS program helps staff to be objective in their measurement of student behavior				
20. The training I received on PBS at Bard House was not sufficient				

Part II.

1. In your own words, please briefly define the following, as it pertains to the PBS Program:

    1. Respect

         _____

         _____

         _____

    2. Responsibility

         _____

         _____

         _____

    3. Citizenship

         _____

         _____

         _____

    4. Safety

         _____

         _____

         _____

2. What criteria do you use for determining whether to allot 0, 1 or 2 points for behaviors on level sheets?

_____

_____

_____

_____

_____

3. What criteria do you use for determining when to assign a level 2 drop?

_____

_____

_____

_____

_____

4. What criteria do you use for determining when to assign a time out?

_____

_____

_____

_____

_____

Part III.

In your opinion, what are some things that might help to improve the school-wide PBS program?

_____

_____

_____

_____

_____

_____

_____

Thank you so much for completing this survey.

Your input is greatly appreciated!

PBS MATRIX OF BEHAVIORS

	RESPONSIBILITY	SAFETY
Bus	1. Keep bus clean 2. Keep aisle clear 3. Show consideration for personal space 4. Tell the monitor or driver if there is a problem	1. Stay in your seat 2. Wear your seatbelt at all times 3. Follow bus monitor and driver's directions 4. Keep your hands and feet to yourself 5. Stay away from dangerous behavior 6. Speak to others using an indoor voice
Hallway/ Stairway	1. Stay on task 2. Talk to an adult when angry or upset 3. Own up to your own behaviors	1. Walk properly and do not run 2. Stay in line 3. Always follow staff directions 4. Show consideration for personal space 5. Follow "time out" rules 6. Ask permission to be in hallway 7. Ask permission before entering nursing station or classrooms
Classroom	1. Stay on task 2. Respect books and other school or hospital property 3. Bring in your supplies and homework every day 4. Come to Bard House prepared to learn	1. Use cool downs when angry or upset 2. Keep your hands and feet to yourself 3. Always follow staff directions 4. use the equipment properly 5. Keep all furniture on the floor 6. Ask permission before leaving the classroom
Playground /Recess	1. Be a good sport 2. Play by the rules 3. Take care of/put away the equipment 4. Be aware of others around you when playing 5. Ask for a cool down if you become upset or angry	1. Wait for an adult before you go outside 2. Walk to and from the playground 3. Stay where staff can see you 4. Be aware of activities/games around you 5. Tell staff if there is a problem 6. Always follow staff directions 7. Use your words when you get angry 8. Use equipment appropriately
Travel	1. Be a good representative of Bard House 2. Wait your turn 3. Always follow staff directions	1. Stay with staff at all times 2. Wait for permission to cross the street 3. Use your indoor voice
Bathroom	1. Wash your hands with soap 2. Clean up after yourself 3. Tell staff if there is a problem	1. Ask permission to use the bathroom 2. Keep feet on the floor 3. Keep water off the floor 4. Wash your hands with soap 5. Put towels in the garbage 6. Return to classroom after you leave the bathroom

	RESPECT	**CITIZENSHIP**
Bus	1. Speak to others using a respectful tone of voice, without profanity or insults 2. Show consideration for the possessions of others 3. Show consideration for personal space 4. Keep the bus clean	1. Be a good role model for your peers 2. Ignore teasing 3. Show consideration for personal space 4. Keep harmful remarks to yourself 5. On the way to school think about how to have a good day 6. On the way home from school, reflect on your day
Hallway /Stairway	1. Speak to others using a respectful tone of voice, without profanity or insults 2. Show consideration for personal space 3. Show consideration for other children who are still learning in class	1. Stay on task 2. Keep Bard House neat and clean 3. Welcome visitors
Classroom	1. Raise your hand and wait patiently to be called on 2. Practice good listening skills 3. Treat others like you want to be treated 4. Show consideration for the possessions of others 5. Show consideration for personal space 6. Use your manners 7. Speak to others using a respectful tone of voice, without profanity or insults	1. Stay on task 2. Respect other students' rights to learn and be safe 3. Help peers 4. Take turns 5. Share 6. Keep all hurtful remarks to yourself
Playground /Recess	1. Play fairly 2. Be a good sport 3. Include everyone 4. Accept the call	1. Be a good sport 2. Shake hands after a game 3. Keep all hurtful remarks to yourself 4. Tell staff if there is a problem
Travel	1. Be kind to others encountered during travel	1. Be a good representative of Bard House
Bathroom	1. Knock on door before you enter 2. Close the door when you use the bathroom 3. Give others privacy 4. Use indoor voice	1. Tell staff if there is a problem 2. Leave the bathroom clean for the next person

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