

The Importance of Using Basic Cost-Benefit Analysis after Instituting a School-Wide Positive Behavior Support Program

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ABSTRACT

This research study investigated the importance of using basic cost-benefit analysis after instituting a school-wide positive behavior support program. A literature summary and analysis was used to examine existing studies related to the topic of school-wide positive behavior support programs. Findings related to outcomes showed that programs of this type result in positive outcomes. However, programs differed in their components and student populations also differed. Thus, support for a cost-benefit analysis was provided. This type of analysis is needed to determine actual benefits of each program as they relate to costs. These outcomes must be compared with cost-benefit analyses of other programs to determine optimal methods of dealing with disruptive behavior in students.

CHAPTER I: INTRODUCTION

Beginning with 1997 Individuals with Disabilities Act, states were mandated to meet the needs of students and school personnel relative to positive intervention strategies that manage student disruptive behavior to increase learning potential for all students (Gable, Butler, Walker-Bolton, Tonelson, et al., 2003). As a result of this mandate, states are implementing programs such as school-wide positive behavior programs and states are providing related training to educators (Gable et al., 2003). School-wide positive behavior programs have been implemented across the nation to deal with disruptive behaviors of students in the classroom and at school (Ausdemore, Martella, & Marchand-Martella, 2005).

The negative behaviors of some students disrupt the learning process for all students and have an even greater effect on those students struggling to learn. In the past, some educators have focused on reducing these behaviors with punishment-based methods, but these have been proven ineffective in the absence of positive techniques. According to Ausdemore, the School Wide Positive Behavior Supports (SW-PBS) model differs from the punitive model in that it includes proactive methods to manage disruptive behaviors while increasing student engagement in the learning process. This method utilizes individual as well as systematic techniques with positive behavior interventions. These strategies are designed to focus on social and learning outcomes and prevent or change problem behaviors. The program is used school-wide as well as in the classroom and with each individual student. Policies outline routines and structures to be used by all educators and administrators (Ausdemore et al., 2005).

While the School Wide Positive Behavior Supports (SW-PBS) model is designed to change disruptive behaviors in students, assessment and evaluation of the program with a cost-benefit analysis should be required to determine if program goals are met. Furthermore, the

Office of Special Education – Technical Assistance Center on Positive Behavior and Intervention recommends an evaluation of SW-PBS programs on a primary, secondary, and tertiary level (College of Behavioral & Community Sciences, 2009).

Purpose of the Study

The purpose of this study was to describe the research associated with using basic cost-benefit analyses after instituting a school-wide positive behavior support program. How, if at all, do schools use basic cost-benefit analyses after instituting positive behavior programs?

Definition of Terms

School-wide Positive Behavior Support - A broad range of systematic and individualized strategies for achieving important social and learning outcomes while preventing problem behavior with all students. <http://ceo.utk.edu>

Cost-benefit analysis - The use of economic analysis to quantify the gains and losses from a policy or programs well as their distribution across different groups in society. www.personal.umich.edu/~alandear/glossary/c.html

Functional behavior assessment - A comprehensive and individualized strategy to identify the purpose or function of a student's problem behavior(s); develop and implement a plan to modify variables that maintain the problem behavior; and teach appropriate replacement behaviors using... www.usu.edu/teachall/text/behavior/BEHAVglos.htm

Behavior intervention plan – A plan that includes positive strategies, program modifications, and supplementary aides and supports that address a student's disruptive behaviors and allows the child to be educated in the least restricted environment (LRE). www.ldonline.org/glossary

CHAPTER II: LITERATURE REVIEW

This literature review examines school-wide positive behavior support programs and addresses the following: positive behavior support programs; implementation of positive behavior support programs; effects of positive behavior support programs; evaluation of positive behavior support programs; cost-benefit analysis of positive behavior support programs; limitations of positive behavior support programs; and summary and conclusion.

Positive Behavior Support Programs

The School Wide Positive Behavior Supports (SW-PBS) model uses a three-tier approach with primary, secondary, and tertiary prevention levels. The primary level is school-wide, the secondary level includes the classroom, and the tertiary level includes individual prevention strategies. Each of the levels is distinguished by the number of students and the needs for support. The intensity of the intervention must be matched to the severity of the problem being demonstrated. The primary level is less intense than the other two levels which are determined by needs demonstrated (Ausdemore et al., 2005).

The primary prevention level includes district, school, and classroom systems to reduce the prevalence of new cases of disruptive behaviors while increasing the numbers of positive behaviors. These primary interventions help all students but are most effective for the 80% to 90% of students who do not demonstrate serious problem behaviors. These primary strategies are implemented the same for every student and take place daily or weekly. These types of methods include district-wide bully prevention programs, school-wide discipline programs, classroom rules, social skills training curricula, and other effective curricular materials (Ausdemore et al., 2005).

The secondary level is focused on at-risk for problem behavior students or student with academic skill deficits who do not respond to the primary level efforts. This includes from 5% to 15% of the students. Specialized interventions are used for this group and these students require more support. Examples of strategies used for this level include behavioral contracts, pre-correction strategies, self-management methods, conflict resolution training, and remedial academic programs. These methods help resolve most of the needs of this population but up to 75 % of this group require an even more intense type of intervention as is found in the tertiary level (Ausdemore et al., 2005).

The tertiary level of prevention is very intense and individualized. This level is focused on problem students who have chronic behavioral and academic difficulties which includes up to 7% of the students. While this group is fewer in number, they account for up to 50% of the behavioral disruptions in the school. The tertiary level prevention methods seek to identify and reduce the intensity and frequency of negative behaviors in these students and help them to increase adaptive skills. A functional behavioral assessment is required for these students and a behavior support plan is created for each student. A trained behaviorist or experienced teacher is required to complete and interpret the assessment. The assessment includes interviews or questions for the teachers, staff, parents, child, and anyone who interacts with the child on a regular basis. In addition to the questions, many observations are conducted at various intervals over a period of time to determine what interventions are appropriate. Each of the methods used in every level of the program are designed to be proactive instead of reactive. Methods are designed to prevent negative behavior and increase positive behaviors instead of punishing disruptive behaviors (Ausdemore et al., 2005). For the classroom management of student behaviors, action planning is needed to determine the extent that effective management practices

are in place and how to ensure that effective methods are maintained (Simonsen, Faribanks, Briesch, & Sugai, 2006).

Walker, Cheney, and Stage (2009) reported on the importance of school-wide positive behavior support programs having specific characteristics with key strategies for each level of prevention. Walker et al. noted that schools must ask themselves the following questions:

1. Does the organization have a clear and honest understanding of its current reality?
2. Is the understanding of current reality shared throughout the organization, and from there, do you create new knowledge?
3. Is this knowledge translated into effective action toward the desired future (p. 95)?

Walker et al. (2009) also presented the following goals for training for this type of program:

Training Goal 1. Foundation and school-wide positive behavior supports (PBS):

- Identify district coordinator and building coordinator
- Begin using School-wide Information System (SWIS)
- Conduct School-wide Evaluation Tool (SET)
- Develop building-based PBS leadership team
- Identify and teach school-wide expectations
- Conduct school-wide screening
- Enhance school and family communication

Training Goal 2. Supports for at-risk students:

- Identify at-risk students based on screening and/or office discipline referrals
- Student support teams receive training on evidence-based practices
- Teams use evidence-based practices with at-risk students
- Teams systematically support teachers and monitor students' outcomes

Training Goal 3. Support students with intensive behaviors:

- Student support teams meet to develop and implement Functional Behavior Assessments and Behavior Intervention Plans
- Teams systematically support and monitor students' social and academic outcomes
- Families are involved and supported
- Comprehensive plans are developed for students with intensive needs (p. 96)

Walker et al. (2009) noted further that it is important to evaluate the program. The Self-Assessment and Program Review (SAPR) is a tool designed for this review. The school-wide positive behavior support practices are assessed with the following 10 subscales of the SAPR:

1. Policy & Procedure
2. Prevention & Screening
3. Staff Development
4. Behavioral Expectations
5. Response to Discipline Referrals
6. Academic and Social Supports Provided
7. Functional Behavior Assessments as Needed
8. Data Collected & Analyzed
9. Families as Partners

10. Comprehensive Plans for Intensive Needs (p. 97)

Walker et al. (2009) concluded that each of these aspects of the program must be reliably assessed and it is equally important to assess any other aspects of the program. This supports the need for a cost-benefit analysis of school-wide positive behavior support programs.

Marchant, Anderson, Caldarella, and Fisher et al. (2009) also concluded that it is important to use multiple assessments of school-wide programs. Multiple data sources are needed to ensure the development of optimal strategies for all students. School-wide assessments need to include observations, interviews, focus groups, systematic screening for behavior problems, archival data, and office disciplinary referrals. These authors stated that this data must be integrated before selecting universal interventions.

Implementation of Positive Behavior Support Programs

McCurdy, Kunsch, and Reibstein (2007) reported on the implementation of a behavior education program using the school-wide positive behavior support (PBS) model. A case study was used to demonstrate this program in an elementary school. This school serves approximately 380 students in grades K through five. The school included a diverse population made up of Asian/Pacific islanders (47.3%), African Americans (29.4%), European Americans (15.1%), and Latino Americans (8%). Of the student body, eight students participated completely in the program; students ranged from age 6 years to age 12 years. The study took place during the 2003-2004 school year. Each of the students demonstrated behavioral difficulties requiring the new program. A specific behavioral education program was required for this group of students since they needed a more intense intervention to deal with antisocial behaviors. Findings showed that most of the students made positive behavioral gains; 50% had successful outcomes and 25% had moderately successful outcomes. The remaining 25% had

unsuccessful outcomes. Both students and teachers reported a high degree of satisfaction with the program.

Effects of Positive Behavior Support Programs

Taylor-Green and Kartub (2000) presented effects of a school-wide behavior support called the high five program. This program was developed to deal with findings that there were more than 5,000 discipline referrals during the 1993-1994 school year. This school has 500 students in grades six through eight and of these there are 35 to 50 students with more severe behavioral problems that require an additional Behavioral Education Plan. The high five program includes the following High Fives:

1. Be Respectful
2. Be Responsible
3. Follow Directions
4. Keep Hands and Feet to Self
5. Be There-Be Ready (p. 233)

Today the first two days of the school year are focused on training for this program and during this training both the students and teachers are taught behavioral expectations. The staff, administrators, teachers, and parent volunteers participate in the training. All students, to include the at-risk for negative behaviors students, benefited from the program. After one year of the program, there was a 47% reduction in office discipline referrals. Five years later there was a 68% decrease in these referrals. In addition, teachers have learned the value of positive reinforcement of appropriate behavior and the school climate is now proactive and positive. A team effort was required to meet the program goals. Students are consistently rewarded with token economy coupons for following the program. A formative evaluation is used to help the

program operate optimally; the entire staff and the School climate Committee members review outcome data and survey data and make program decisions.

Fogt and Piripavel (2002) presented the effects of a positive school-wide intervention designed to eliminate exclusion and physical restraint. A private school in Bethlehem, Pennsylvania, provides special education to students' ages six to 21 years. These students meet the classification of Emotional and Behavior Disorder or Pervasive Developmental Disorder/Autism. These student present with difficult problems and needs for physical restraints. During the 1997-1998 school years, 1,064 physical restraints were conducted with 76 students. Seclusionary time-out was common place. Sixteen assaults against the teachers were recorded; 82% of these injuries took place during attempts for physical restraint. The school sought to communicate a shared vision with all teachers to provide a school that is safe for all, with a "warm and welcoming environment free of intimidation and fear" (Fogt & Piripavel, 2002, p. 227).

This vision also included an environment that has a climate conducive to acceptance and care for each student, clear communication of expectations, and consistent and fair enforcement of consequences (Fogt & Piripavel, 2002). Curriculum was developed to teach social skills to students which were positively reinforced. Procedures to teach positive behaviors were developed and techniques such as: earning points, taking time instead of time out, problem solving, responding to low-level problems, and development of individual behavior plans were implemented. Results of this program included an increase in student enrollment of 8% with 83% retainment of students; 69% fewer physical restraints; significant decreases in seclusionary time-out; and 38% fewer teacher assaults (Fogt & Piripavel, 2002).

These programs are also being used to deal with behavioral problems of teenagers in educational correctional facilities. Feinstein (2003) reported on the effects of a positive behavior support plan implemented at this type of facility. As mandated by IDEA, 1997, the school conducts a functional behavior assessment for each of the students. A study of these male students, ages 14 to 18 years, took place over four months. The behavior of each student was tracked over this period. They were taught to substitute inappropriate behaviors for different and appropriate behaviors. Findings showed an immediate increase in appropriate behavior and this change was maintained for the rest of the study period. Each student was able to demonstrate successful behavior for most of their day. Problem behavior for consecutive days was limited due to program participation.

Muscott, Mann, and LeBrun (2008) presented findings of evaluations of 28 programs and K-12 schools participating in school-wide positive behavior support programs which were part of a 2002 statewide system initiative in New Hampshire. Muscott et al. stated that schools in New Hampshire were faced with ongoing problems of disruptive behaviors in schools with reactive and punitive methods to deal with these issues. The New Hampshire Department of Education and the New Hampshire Department of Health and Human Services Division of Behavioral Health proposed a statewide initiative that focused on positive behavior support to begin in 2002. This new program has been introduced systematically across schools and supported in public and private schools across the state. A statewide training and technical assistance network was developed to support these schools develop a positive and preventative environment. Training and support for the implementation and use of new behavioral practices were provided.

The programs were designed to decrease punitive responses to disruptive behaviors such as office discipline referrals, suspensions, dropping out of school, or expulsions (Muscott et al.,

2008). The program was also designed to increase academic engagement and improve academic achievement while improving partnerships between schools and families. A multisystem approach to school discipline was based on the model presented by OSEP Center on Positive Behavioral Interventions and Supports, with primary, secondary, and tertiary level strategies. The program methods taught appropriate behaviors, matched intervention resources to behavioral challenges, and integrated multiple systems across the school, home, and the community (Muscott et al., 2008).

Muscott et al. (2008) found that most of the schools were able to implement the school-wide positive behavioral interventions and supports within two years. These schools were also able to sustain this implementation over the following year. This use of the new program resulted in a decrease of 6,010 office discipline referrals and a decrease of 1,032 suspensions; middle and high schools demonstrated the most benefits. These changes were instrumental in recovering 864 teaching days, 1,701 learning days, and 571 leadership days. Academic gains in math were found in most schools and fewer improvements in reading and language arts were found but were still present.

Evaluation of Positive Behavior Support Programs

Edmondson and Hoover (2008) reported that process evaluations of a school-based intervention program are needed to understand program outcomes. These authors used the example of a violence intervention program modeled after a bullying prevention program. The outcome goals were student safety. An evaluation of this program showed that it resulted in positive changes in the school atmosphere during the first year and an inclusion of schools in the program by the second and third year. By the third year, 65% of the teachers and social workers reported that students showed positive changes in their behavior.

Cohen, Kincaid, and Childs (2007) reported on the measurement of a school-wide positive behavior support (SWPBS) implementation. These authors reported that SWPBS has been implemented in over 4,000 schools and outcome measures for evaluations include numbers of office discipline referrals and suspensions. Cohen et al. stated that most program evaluations show significant positive findings but there are inconsistencies in the measurement of treatment with a lack of effective assessment tools.

Cohen et al. (2007) reported on the use of the School-wide Benchmarks of Quality (BoQ) tool, designed to measure SWPBS implementation. Data regarding the reliability and validity of this tool were collected. The BoQ includes 53 items that measure degree of fidelity found in the SWPBS implementation at a school. This is a self-report measure. Issues of PBS team, faculty commitment, data entry, effective discipline procedures, expectations and rules, reward system, lesson plans, implementation plans, crisis plans, and evaluation are assessed. The instrument was piloted with 10 coaches and teams involved in SWPBS. Findings showed that the tool was efficient, reliable, valid, and useful for the measurement of the fidelity of SWPBS implementation.

Cost Benefit Analysis of Positive Behavior Support Programs

Blonigen, Harbaugh, Singell, Horner, Irvin, and Smolkowski (2008) reported on the need to use economic methods to evaluate positive behavior support programs with a cost analysis. These authors presented a description of cost analysis concepts to be used for an economic evaluation of this program. Specific data and measurement with analytic procedures needed in a cost analysis evaluation were provided. A case study demonstrating a cost analysis of this program was also presented with implications for the future.

Blonigen et al. (2008) noted that education is a large part of public spending and there are many programs to choose from. A benefit-cost analysis is needed to evaluate any school program in order to determine which are best to meet the needs of students as well as those related to fiscal resource constraints. Despite this need, use of cost-benefit analysis is not always used. School-wide positive behavior support programs seek to establish supports for social, cultural, and individual behavior to promote pro-social behavior and academic success. A school-wide emphasis is on prevention of problem behaviors and there are five core imperatives for these programs which include (Blonigen et al., 2008):

1. Invest in preventing the development of problem behavior.
2. Teach appropriate social behavior and skills.
3. Acknowledge appropriate behavior.
4. Gather and use data about student behavior to guide behavior support decisions.
5. Invest in systems that support effective practices (p. 9).

Blonigen et al. (2008) stated that a cost analysis must evaluate the costs of this program and a benefits analysis attempts to assess values as they attach to benefits. To reach these goals, data must reflect accurate costs and this data must include information regarding personnel time, equipment and materials, facility use, and client inputs related to students, teachers, and administrative time. All of these factors are essential in the implementation and maintenance of a program. Costs of personnel and student inputs require information about the costs of time inputs which are direct as they relate to salary and benefits and are indirect as they relate to opportunity costs related to the use of resources for the new program, compared to costs of using an existing program. Fixed and marginal costs must be determined along with present and future costs. Total and net costs of the program must be calculated.

Blonigen et al. (2008) stated specifically that costs associated with the initial development of a leadership team to coordinate the program and communicate with others must be identified. Costs of training of all involved must be calculated and implementation and ongoing training costs must be understood. Data collection costs and costs of student incentives must be calculated. Thus, costs of materials and costs of time must be understood along with the costs for the school and the district in total. Many of the costs are monetary, costs involve more than one aspect of schooling, and costs must be compared to alternate programs.

A full cost-benefit analysis then analyzes information regarding benefits and the timing of benefits. Some benefits are in the future which makes the calculations complex and the analysis must be sensitive to assumptions. Benefits include lower discipline problems, increased graduation rates, and higher standardized test scores. Measures of changes in outcomes must be identified and a control-treatment procedure is optimal. Costs related to data on outcomes before and after program implementation must be compared. Problems associated with this analysis are overcome with ongoing year-by-year analyses of each program component and strategy (Blonigen et al., 2008).

Limitations of Positive Behavior Support

While the school-wide positive behavior support programs show promising results, it remains unclear whether these outcomes are found across student populations (OSEP Center on Positive Behavioral Interventions and Supports, 2004). Today's student population is very diverse and this results in a need for multicultural education and considerations (Swetnam, 2003).

Fusco (2008) reported on the problem of equity in supporting student development. This author stated that there are inequitable patterns across gender, age, ethnicity, and socioeconomic status regarding opportunities presented by the school. According to Fusco there is an abundance of research that documents the failure of school to reform practices in low-income areas and this results in inequities in teaching instruction quality, resources, and opportunities to learn. When a student in a low-income area speaks up against an injustice, this is perceived as disruptive behavior.

Whether these programs are helpful to students with limited backgrounds or those with limited ability to speak English remains to be determined (Kamps & Greenwood, 2005; OSEP Center on Positive Behavioral Interventions and Supports, 2004). Lane, Wehby, Robertson, and Rogers (2007) reported further that there are different types of high school students and they may respond differently to school-wide positive behavior support programs. This program was designed to help different types of students with multiple levels of prevention strategies, but it remains unclear which types of students actually benefit.

Wehby et al. (2007) reported findings of a review of the literature related to evaluations of this program from 1997 to 2005; findings showed that there were 14 studies of 63 schools, of which one was a study of a high school, and the remaining studies focused on middle or junior high schools. Of the 14 studies, six reported outcomes for the entire school or a specific setting in the school. Other studies focused on instructional models of discipline such as bullying programs, and violence prevention. Most studies used rigorous evaluations although not true experimental designs, most were descriptive and non-experimental with pre- and post-comparisons for an individual school. Some studies of elementary schools yield information about typical of students (at-risk for behavioral problems) respond to techniques.

Thus, more evaluations are needed to understand how different types of students respond to SWPBS efforts. However, programs such as this have brought new hope to the troubled youths (Gill & Raphel, 2009). The lack of information regarding program outcomes for multiple student populations supports the need for a cost-benefit analysis of school-wide positive behavior support programs.

Summary and Conclusion

In summary, a review of the literature revealed that the school-wide positive support program includes a three-tiered approach with primary, secondary, and tertiary strategies. The program is a proactive rather than a reactive method of dealing with disruptive behavior in students. This is a change from old punishment-based models of managing student behaviors. Each technique in this program is designed to provide students with consistent positive reinforcement for appropriate behaviors. While program components vary, each remains focused on using a school-wide approach to providing students with positive care. All types of programs yield improvements in student behaviors and these outcomes are found across student populations. However, findings are unclear since there are so many different programs and student populations and outcomes are not compared with different programs.

Despite these difficulties, findings support the conclusion that this type of program is successful and worthy of more comprehensive evaluation. A cost-benefit analysis of any school-wide behavior support program is needed to fully understand outcomes. Findings related to both costs and benefits must be compared with relative findings of other programs. This complete analysis is needed to determine optimal program components needed to deal with negative and disruptive student behaviors.

CHAPTER III: RESULTS

A review of the literature revealed that there is more than one type of school-wide positive support program implemented at different schools. However, all types of programs yield improvements in student behaviors across some student populations. For example, Edmondson and Hoover (2008) presented findings from an evaluation of a bully and violence prevention program. These authors found that the program resulted in reduced negative student behaviors; positive changes in student behaviors. Feinstein (2003) reported on the effects of a positive behavior support plan in an educational correctional facility. This author found that the program resulted in an immediate increase in appropriate behavior maintained for the rest of the study period; each student was able to demonstrate successful behavior for most of their day; and problem behavior for consecutive days was limited due to the program. These studies provided support for the conclusion that positive behavior support programs are helpful to student populations suffering from antisocial tendencies.

McCurdy, Kunsch, and Reibstein (2007) presented findings from an evaluation of a positive school-wide intervention designed to eliminate exclusion and physical restraint. These authors found that the program resulted in: an increase in student enrollment of 8% with 83% retainment of students; 69% fewer physical restraints; significant decreases in seclusionary time-out; and 38% fewer teacher assaults. This study provided support for the conclusion that positive behavior support programs are helpful to student populations suffering from autistic and developmental delay tendencies.

McCurdy, Kunsch, and Reibstein (2007) presented findings from an evaluation of a behavior education program using the school-wide positive behavior support (PBS) model. These authors found that the program resulted in: 50% of students were successful in changing

negative behaviors; 25% were moderately successful, and 25% were unsuccessful. Muscott, Mann, and LeBrun (2008) presented findings from an evaluation of a schoolwide positive behavior support program. These authors found that the program resulted in: decrease of 6,010 office discipline referrals; decrease of 1,032 suspensions; middle and high schools demonstrated most benefits; recovery of 864 teaching days, 1,701 learning days, and 571 leadership days; academic gains in math for most schools; and improvements in reading and language arts but fewer than in math. These studies provided support for the conclusion that positive behavior support programs are helpful to general student populations with some acting out students.

Taylor-Green and Kartub (2000) presented findings from an evaluation of a school-wide behavior support, the high five program. These authors found that the program resulted in: 47% reduction in office discipline referrals at one year; 68% decrease in these referrals at five years; teachers learned the value of positive reinforcement of appropriate behavior; and school climate is proactive and positive. This study provided support for the conclusion that positive behavior support programs include different strategies but are helpful to general student populations. The following presents a table demonstrating results of school-wide positive behavior support programs.

Table 1

Literature Findings: Program and Outcomes

Source	Program Evaluated	Outcomes
Edmondson and Hoover	Bully and violence	Reduced negative student behaviors; positive changes in student behaviors

(2008)	prevention	
Feinstein (2003)	positive behavior support plan	Immediate increase in appropriate behavior maintained for the rest of the study period; each student was able to demonstrate successful behavior for most of their day; and problem behavior for consecutive days was limited due to the program.
Fogt and Piripavel (2002)	positive school-wide intervention designed to eliminate exclusion and physical restraint	Increase in student enrollment of 8% with 83% retainment of students; 69% fewer physical restraints; significant decreases in seclusionary time-out; and 38% fewer teacher assaults.
McCurdy, Kunsch, and Reibstein (2007)	behavior education program using the school- wide positive behavior support (PBS) model	50% of students were successful in changing negative behaviors; 25% were moderately successful, and 25% were unsuccessful
Muscott,	schoolwide	decrease of 6,010 office discipline referrals; decrease of

Mann, and LeBrun (2008)	positive behavior support programs	1,032 suspensions; middle and high schools demonstrated most benefits; recovery of 864 teaching days, 1,701 learning days, and 571 leadership days; academic gains in math for most schools; improvements in reading and language arts but fewer than in math
Taylor-Green and Kartub (2000)	school-wide behavior support: the high five program	After one year of the program, there was a 47% reduction in office discipline referrals; five years later there was a 68% decrease in these referrals; teachers have learned the value of positive reinforcement of appropriate behavior; school climate is proactive and positive

While the findings from the literature support the conclusion that many programs help students, findings are filled with gaps since programs vary along with student populations. This lack of information supports the need for a cost-benefit analysis of any school-wide behavior support program. Findings related to both costs and benefits must be compared with relative findings of other, possibly existing programs, to determine optimal means of dealing with negative and disruptive student behaviors.

CHAPTER IV: SUMMARY AND CONCLUSIONS

In summary, a review of the literature revealed that there is more than one type of school-wide positive support program implemented at different schools. In addition there is more than one type of student population using these programs. However, all types of programs yield improvements in student behaviors.

Conclusions are as follows:

- Bully and violence prevention programs lead to reduced negative student behaviors and positive changes in student behaviors.
- Positive behavior support plans in an educational correctional facility result in immediate increases and maintenance of appropriate behavior, successful behavior for most of the day, and limited problem behavior for consecutive days.
- Positive school-wide interventions result in an increase in student enrollment of 8% with 83% retainment of students, 69% fewer physical restraints, significant decreases in seclusionary time-out, and 38% fewer teacher assaults.
- Behavior education programs using the school-wide positive behavior support (PBS) models result in 50% of students were successful in changing negative behaviors (25% moderately successful and 25% unsuccessful).
- A school-wide positive behavior support program results in: a decrease of 6,010 office discipline referrals; decrease of 1,032 suspensions; middle and high schools demonstrated most benefits; recovery of 864 teaching days, 1,701 learning days, and 571 leadership days; academic gains in math for most schools; and improvements in reading and language arts but fewer than in math. These studies provided support for the

conclusion that positive behavior support programs are helpful to general student populations with some acting out students.

- A school-wide behavior support program called the high five program results in 47% reduction in office discipline referrals at one year; 68% decrease in these referrals at five years; teachers learned the value of positive reinforcement of appropriate behavior; and school climate is proactive and positive.

While these findings support the conclusion that school-wide behavior support programs are successful in changing student behaviors and increasing positive behaviors, more information is needed to fully comprehend effects of each different types of behavior support program. This implies the need for a cost-benefit analysis of any school-wide behavior support program. Findings related to both costs and benefits must be compared with relative findings of other, possibly existing programs, to determine which programs yield the best results based on cost analysis. This comprehensive evaluation is needed to determine optimal means of dealing with negative and disruptive student behaviors.

This study was limited by its design and content, however findings support conclusions related to the need for cost-benefit analyses. It is therefore recommended that a cost-benefit analysis be conducted for each school-wide positive behavior support program. It is also recommended that future studies examine the outcomes of these analyses to compare school-wide positive behavior support programs with outcomes of other programs designed to deal with problem behavior in students.

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