

The Effects of  
Positive Behavioral Interventions and Supports (PBIS) Initiative  
In Elementary Schools

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## **Abstract**

This study was to examine the impact of the Positive Behavior in Schools (PBIS) model on the number of referrals and placements of behaviorally challenged students within their own school, after teachers were trained in specific management skills and interventions to increase positive student behavior and success in school. The study used data gathered from the School-Wide Information System (SWIS), a reliable, confidential, web-based information system to collect, summarize, and use student behavior data for decision making. The faculty and staff used the current SWIS data after the PBIS initiative had been implemented to compare the trends over seven academic years (school year 2005-2006 to school year 2011-2012). The study did not show any significant improvement in the performance of the students; thus, it does not support the hypothesis that implementing School Wide PBIS Initiative would improve the behavioral performance of elementary students.

Three parts of the implementation of PBIS in the elementary school are discussed:

- 1) The rationale of behavior, including consequences of negative behavior on teaching and learning, noting teacher perceptions of student needs and implications for supports.
- 2) Other interventions to reduce negative behavior.
- 3) The goals and expectations of PBIS Initiative and how positive behavior is developed, as well as the trends in behavior within the elementary school's office discipline referrals.

# **CHAPTER I**

## **INTRODUCTION**

This study exams the impact of an intervention used with behaviorally challenged students on the number of referrals and placements out of his/her own school. Teachers were trained in specific management skills and interventions to increase positive student behavior and success in school. The expected outcomes are related to the PBIS Model currently implemented in Maryland schools: After implementation of the program, student referrals for behavioral discipline should decrease and replaced with positive behaviors affording students to gain success in school.

### **Overview**

Within this study, a determination of the causes or reasons for the differences in behaviors of elementary school students, what affects negative behaviors and what affects the change to positive behaviors will be identified. Data from the SWIS web-based tracking program was used to review the number of referrals during the year the PBIS model was not in effect. The faculty and staff used the current SWIS data after the PBIS program had been implemented to compare the trends over seven academic years (school year 2005-2006 to school year 2011-2012).

The design was directly acquired from the SWIS Suite and presented in a bar graph which demonstrates the number of referrals during the school year 2005-2006, when the PBIS Model was not implemented, and the number of referrals once the model had been implemented in the elementary school.

### **Statement of the Problem**

The purpose of the study was to determine the impact of the PBIS Model (Positive Behavior in Schools) implemented on office referrals for elementary school students.

### **Hypothesis**

There will be no impact of PBIS on student referrals.

### **Operational Definitions**

The *independent variable* for this study was the PBIS Initiative.

The *dependent variables* for this study were the number of office referrals.

## **CHAPTER II**

### **REVIEW OF THE LITERATURE**

This literature review explores the basis for implementation of the PBIS initiative in elementary schools. The first section of the review addresses the rationale of behavior in elementary school. This section also discusses the consequences of negative behavior on teaching and learning noting teacher perceptions of student needs and implications for supports. Section two focuses on other interventions to reduce negative behavior. Section three will describe the PBIS Initiative, the goals and expectations of PBIS Initiative and how positive behavior is developed.

#### **Introduction**

Educators are responsible for developing and sustaining both academic and behavioral growth in students from elementary to high school. Disruptive behavior in schools has been detrimental to students' growth, schools and the communities. Schools are in need of efficient and effective strategies to address the increasing and intensifying discipline needs of their students. (Barrett, Bradshaw & Lewis-Palmer, 2008). There is an increased interest in whole-school prevention models over the past years. Schools are looking for a continuum of behavior supports that provide an effective, efficient and relevant structure for organizing resources, interventions and systems within and across school districts. Most schools use a monitoring process to identify student behavior problems and track indicators for negative behavior in schools. Office discipline school referrals are the most commonly used forms to detect and monitor disruptive behavior in all grade levels. Close monitoring of the patterns of negative behaviors can be a helpful indicator of the need for prevention efforts in schools as early as the first grade. When used systematically and effectively, first grade discipline referrals can be used

to measure problem behavior for the purpose of planning and evaluating interventions. (Rusby & Taylor, 2007). The number of office discipline referrals usually are indicators of an individual student's behavior in school as well as how the school as a whole is managing the behavior. Referrals may be utilized to help identify when and how school personnel would intervene, to examine behavioral trends in the occurrences of discipline problems and to set a plan to reduce the negative behavior. How and when the discipline referrals are delivered seems to vary from school to school, as well as with the school personnel in one setting. The large variation regarding the extent to which schools and teachers deliver discipline referrals complicate the interpretation and utility of school-wide discipline referral information.

First grade is a critical time for having efficient yet adequate ways for measuring disruptive behavior problems in the school setting (Rusby et al., 2007). Early detection of negative behavioral problems can lead to early intervention and prevent escalation of problems. When detected and remediated early, the students are less likely to be at-risk for social and academic difficulties throughout elementary school. Early behavior problems, in addition to failure to develop positive peer relations, are associated with development of later social adjustment problems, which include, but are not limited to: dropout, delinquency, teenage pregnancy, substance abuse, violence and criminal activities in adulthood. The early identification of challenging behavior in schools is clearly an important step in preventing the persistence and intensification of these disruptive behaviors.

Teachers have different perceptions of referable student behavior. Feuerborn & Chinn (2012) studied teacher perceptions of behavior, finding a considerable difference in pre-service and less experienced teachers as compared to veteran teachers. Pre-service and less experienced teachers tended to express more emotionally-laden statements with regard to externalizing



behaviors, such as, “It could be difficult to continue to love her if she is repeatedly disrespectful” (p. 222). Specifically relating to defiant behaviors, they attributed such statements to the teacher’s limited knowledge of behavior. The less experienced teachers were more affected by behaviors such as eye rolling or questioning the teacher, thinking these caused disruption to their classroom instruction and considering these as blatant defiance, and therefore referable offenses. An experienced teacher may view eye rolling as a manageable “garbage behavior intended to hide insecurities” (p. 224) or questioning the teacher as a sign of potential leadership and nurture the student’s skill. When such stark differences in understanding and managing behaviors exist within a single school’s staff the consequences could be detrimental not only to the students, but to the climate of the school, staff morale and camaraderie.

Some teachers who participated in studies did not consider behavior as functional (i.e. avoidance or escape of the work or situation manifests in acting out behavior) and unintentionally reinforce the negative behavior by sending the student to the office, thereby maintaining the avoidance/escape function. (Feuerborn et al., 2012). Still some professionals attribute student behavior as something they have a limited effect on because they feel the primary responsibility lies within the student’s internal characteristics and/or family dynamics and therefore cannot be altered. Attributing behavior to these dynamics adversely affect the teacher’s decision-making process and daily practice. The teacher is less likely to intervene or give positive support or be proactive when he/she believes the behavior is innate and change is not possible for the student.

Another consequence of negative behavior on teaching and learning is the disproportionality patterns (overrepresentation or underrepresentation along a particular data point) of school office referrals for disruptive behavior. Disproportionality may begin early in the

child's educational experience and follow him/her from grade to grade, therefore placing the child in a position where teacher expectations may affect how they respond to the student's (mis)behavior and lead to reinforcement of misbehavior in class, and subsequently to office discipline referrals (Bryan, Day-Vines, Griffin & Moore-Thomas, 2012). In 2005, Yale University Child Study Center documented that the expulsion rates for prekindergarten (5-6 year old African American males) participating in state-funded programs were more than 3 times higher than the expulsion rates for K-12 in total. This data may have significant implications for the child's overall educational success. More referrals, suspensions and expulsions result in lost instructional time, disengagement and alienation from school and peers, a decline in the school climate, academic failure, repeated grades, dropout and possible incarceration as the cycle is repeated throughout the student's academic experience. As in the comparison of novice and veteran teachers discussed earlier, disproportionality has an impact on teachers' expectations of student ability and behavior. It can adversely affect the teaching and learning cycle and may influence their reactions to students' behaviors and referrals of students, particularly poor students and students of color. When the teachers have low behavioral and/or achievement expectations they may be more likely to engage in an agreement with the students; allowing students to deviate from the planned curriculum by assigning more desirable activities and avoiding tasks they dislike in exchange for cooperation and decreased classroom disruptions from the students, which avoids discipline office referrals.

## **Interventions**

“To give every student a fair chance to succeed, and give principals and teachers the resources to support student success, we will call on school districts and states to take steps to ensure equity, by such means as moving toward comparability in resources between high- and low-poverty schools”. (President Barack Obama, American Recovery and Reinvestment Act of 2009).

One documented teaching practice that consistently results in improved student academic and social behavior (Thompson, Marchant, Anderson, Prater & Gibb, 2012) is the use of behavior-specific, contingent praise. The reported research findings of Thompson, et al. (2012) demonstrated a relationship between teacher praise and student behavior. When the elementary teachers increased their rate of praise, student on-task behavior increased. Likewise, when teacher praise was consistent and increased, student on-task behavior increased at a steady and high level.

A second intervention focuses on reducing risk factors and promoting protective factors in a child’s life. This study, completed by Reinke, Splett, Robeson & Offut (2009), combines school and family interventions for preventing antisocial behavior in youth from a public health perspective. The Family Check-Up (FCU; Dishon & Kavanaugh, 2003) is an assessment-based, family-centered three-session intervention. FCU provides support along the continuum at a universal level where all families are offered services and provided access to parenting strategies through a Family Resource Center within the school. The Family Resource Center works with families and school staff to develop a support system for the parents and distribute information that encourages family management practices that will in turn promote school success and positive mental health, thereby decreasing problem behaviors. FCU is implemented in

conjunction with the PBIS Initiative to yield a higher success rate with the students and families referred. It is a continuum of support services offered based on the needs of the family. Services can be provided at school by the school psychologist, school counselors, or other mental health school professionals, or referrals can be provided to outside community mental health agencies appropriate for the family. Combining the two interventions affords those families and children who are most in need of mental health services receive the proper and effective support and overcome the barriers parents and schools may often face within the system. According to the study, families who are referred for an FCU within PBIS schools may more likely continue with treatment services, have access to evaluations for more intensive services early through the review of collected data, which includes school office discipline referrals, maintain the student's attendance at school, thereby decreasing loss of instructional time, less growth in alcohol, tobacco, marijuana, problem behavior from ages 11 to 17 years (Connell, Dishion, Yasui, & Kavanagh, 2007) and peer alienation while developing an improved, trusting, and engaging relationship with the families.

## **The PBIS Model**

### **Description of the PBIS Initiative**

The Positive Behavioral Interventions and Supports Initiative (PBIS) is a continuum of behavior supports providing an effective, efficient and relevant structure within and across schools in a district. It is a system of change with the underlying theme in teaching behavioral expectations in the same manner as any core curriculum subject. This continuum is comprised of three prevention levels:

- A. ***Primary prevention***: a school-wide discipline and behavior management system that moves the school from a reactive state to a proactive state when dealing with problem behaviors. At this stage the development of a cohesively united management system in language practices and application of positive and negative reinforcement. School office discipline referrals are re-visited and fine-tuned to targeted behaviors, thereby decreasing the number of “minor offenses” that can be managed in the classroom. The primary prevention level provides a way to determine which students need more intensive intervention based on the number of office discipline referrals and infractions per month
- B. ***Secondary Prevention***: designed to provide intensive/targeted interventions to support some students who do not respond to the primary interventions. These students are targeted based on the data reviewed at the primary level and address the educational needs of those who are at risk of academic and/or social behavior (Barrett et al., 2008).
- C. ***Tertiary Prevention***: focus on the needs of the few students who demonstrate patterns of negative behaviors that are dangerous, highly disruptive, and/or impede learning resulting in suspensions or expulsions. This level of intervention provides specific behavioral supports to those students and their families. Working with a trusted adult, the supports for the students on this level of intervention are tailored to the child’s specific needs. It involves a comprehensive approach to understanding and intervening with the behavior, and uses multi-element interventions. The goal of Tertiary Prevention is to diminish problem behavior and, also, to increase the student's adaptive skills and opportunities for an enhanced quality of life (Sugai & Simonsen, 2012).

PBIS is an adopted model in the state of Maryland for proactive school wide discipline and follows the public health approach where PBIS components are put in place to stabilize the school and reduce overall levels of problem behavior. Of the most intense levels of PBIS, the tertiary prevention involves processes to include a functional behavioral assessment (FBA) and an individualized support plan to include, but not limited to, guidance and/or instruction of replacement behaviors, rearrangement of the antecedent environment to prevent problems and encourage desirable behaviors and monitoring, evaluation and reassessment of the plan in place as needed to ensure student growth and success. In some cases, the plan may also include emergency procedures to ensure safety and rapid de-escalation of severe episodes (this is required when the target behavior is dangerous to the student or others), or major ecological changes, such as changes in school placements, in cases where more substantive environmental changes are needed.

### ***Goals and expectations of PBIS Initiative***

PBIS is an implementation framework that is designed to enhance academic and social behavior outcomes for all students by (a) emphasizing the use of data for informing decisions about the selection, implementation, and progress monitoring of evidence-based behavioral practices; and (b) organizing resources and systems to improve durable implementation fidelity. The PBIS Initiative is built on 7 Core Principles:

1. **We can effectively teach appropriate behavior to all children.** All PBIS practices are founded on the assumption and belief that all children can exhibit appropriate behavior.
2. **Intervene early.** Intervene before targeted behaviors occur. When schools intervene before problematic behaviors escalate, the interventions are much more manageable.

3. **Use of a multi-tier model of service delivery.** To achieve high rates of student success for all students, instruction in the schools must be differentiated in both nature and intensity and to efficiently differentiate behavioral instruction for all students.
4. **Use [of] research-based, scientifically validated interventions to the extent available.** No Child Left Behind (2001) requires the use of scientifically based curricula and interventions. Research-based, scientifically validated interventions provide our best opportunity at implementing strategies that will be effective for a large majority of students.
5. **Monitor student progress to inform interventions.** Determining the effectiveness (or lack of) an intervention early is important to maximize the impact of that intervention for the student.
6. **Use data to make decisions.** This principle requires that ongoing data collection systems are in place and that resulting data are used to make informed behavioral intervention planning decisions.
7. **Use assessment for three different purposes.** 1) Screening of data comparison per day per month for total office discipline referrals, 2) diagnostic determination of data by time of day, problem behavior, and location and 3) progress monitoring to determine if the behavioral interventions are producing the desired effects.

### **How positive behavior is developed**

Within the state of Maryland's PBIS model, positive behavior is dependent on an infrastructure that relies on the collaboration and support of state, district and school-level coordination. The most direct effect on student behavior is the school-level coordination and a minimum of 80% staff buy-in to the initiative. Without the coordination at the state-level

coordinating leadership team to coordinate and support the implementation, training, evaluations and event planning or the provision of finances the district and school-level coordination cannot exist.

The district-level teams provide local support and leadership employing a PBIS coordinator to provide support and technical assistance to individual schools, which is a key benefit. The district level teams work collaboratively with the state level teams to plan and coordinate training and supports for the schools.

The school-level coordination team is made up of four to five teachers, an administrator, a team leader (usually school psychologist, counselor or social worker) and an outside behavior support coach. This team provides the entire school faculty and staff leadership, training and support for the implementation of the PBIS Initiative. School teams regularly review school office discipline referrals and identify patterns or trends of negative behavior. This data is used to develop school wide and individual intervention plans.

To develop positive behavior the school focuses on three to five behavioral expectations that are positively stated and easy to remember. The expectations are written and reinforced to the students in child-friendly language phrased positively. For example: *“I will Respect Myself, Others, and Property”*. These statements should be consistent from class to class and adult to adult for successful implementation the initiative and reinforced daily.

The team creates a matrix of what the behavioral expectations look like, sound like, and feel like in all the non-classroom areas. This matrix will have approximately three positively stated examples for each area.

For example; respecting property on the bus would look like a student keeping my hands and feet to myself; in the cafeteria I will remain seated at my table; in the hallways I will quietly



walk on the right side of the hallway; in the lavatory, I will throw paper towels in the trashcan after washing my hands.

Other activities to develop positive behavior include identifying appropriate behaviors in other settings around the school through school-wide lessons; teaching respect, reducing bullying and ways to self-manage in a classroom that is undesirable to be in. All the activities are taught in a cooperative manner so the children are fully engaged in the lesson. Faculty and staff model the expected and acceptable behaviors, since research has shown the way children learn most behavior is through modeling. The student also teaches, models and practices what those behaviors look like, sound like, and feel like in all settings, thereby internalizing positive behaviors. Students are praised privately and/or publicly by faculty and staff when appropriate behavior is observed. Most schools use tickets to tangibly praise the student for demonstrating appropriate behavior, which can be exchanged for a desired reward or activity. To determine successes and barriers of reaching desired goals, outcome data is measured regularly by the school-level team.

The school team is also responsible for measuring the level of success within their school. This measurement can be through the use of data to implement and plan additional supports. Most Maryland PBIS schools collect and summarize office discipline referrals using the Internet-based school wide system (SWIS; [www.swis.org](http://www.swis.org); May et al., 2003). SWIS helps schools track behavior problems and creates data summaries and graphs that can be used to make programming decisions for implementation and reorganization of a student's plan if necessary. The success in Maryland is likely due to the commitment to establishing a sound universal system of support and to the state's success in its coaching capacity (Sugai et al., 2012).

## **CHAPTER III**

### **METHODS**

This study examined the impact of PBIS (Positive Behavioral Interventions and Supports) on discipline referrals.

#### **Design**

The study utilized a quasi-experimental longitudinal design, attempting to determine reasons, or causes for the existing condition (high referral rate) and whether the implementation of the PBIS initiative affected the outcome of behavior and decreased the number of referrals. There was no control group. The group was not randomized. The tenets of PBIS emphasize the organizational supports and systems that give school personnel effective interventions to positively support and monitor student behavior. PBIS focuses on the behavior of the students who are receiving frequent referrals, the reasons or causes of their behavior, and the positive behavior of the students who do not receive referrals and the reasons or causes of their behaviors. Data was measured by the total number of students referred in the school during that year.

#### **Participants**

This study was conducted in a school located in a large suburban public school system located in the southern portion of Anne Arundel County. The elementary school has a total enrollment of 471 students from Pre-Kindergarten through Fifth Grade; with 312 White students, 66 Africa-American, 40 Hispanic/Latino, 50 of two or more races. Of the students enrolled in the school, 253 students enrolled are male and 218 are female. Less than 5% of the students have a 504 Plan, 14% receive Free/Reduced Meals (FARMS) and less than 5% are students who receive the Limited English Proficient Program (LEP). LEP is also referred to as English as a Second Language (ESL) and 20.1% are receiving Special Education services. The school has an

attendance rate of greater than 95%. Reading performance ratings show 49.8% of the students are at the proficient level and 42.9% at the advanced level. Math performance ratings show 49.3% proficient and 42.9% of the student body are advanced. Fifth grade performance levels in Science show 66.7% of the students are performing at the proficient level and 18.7% are advanced. All sub-groups within the school have met the Annual Measurable Objectives (AMOs) as put forth by the states accountability program, Elementary and Secondary Education Act (ESEA)

### **Instrument**

The data consisted of the number of behavioral referrals submitted for various offenses throughout the academic year by teachers. PBIS team leaders use the web-based School-Wide Information System (SWIS) to support the data-based decision making of PBIS teams. SWIS is used to collect and aggregate data for PBIS teams. Access to this data was granted by the school's PBIS Team Leader. Using the aggregated number of referrals from the year before, PBIS was implemented and the years PBIS was implemented, data was compiled into a bar graph to compare the referral rates for the school year 2005-2006 to school year 2011-2012.

### **Procedure**

The referral rate for the school in 2005 was more than half the student body (251/471). The School Improvement Team (SIT) was not certain what or who was causing the number of referrals to increase. The opportunity to learn about PBIS in 2005 was offered in the school district and the SIT unanimously agreed with the school principal to implement the initiative with the support and financial backing of the school system for the necessary materials and training for success.

The first step was to evaluate the critical features of school-wide behavior support across each academic year. The SIT assessed programs already in place and evaluated their effectiveness, determined the goals for behavior support as part of its School Improvement Plan, designed and revised procedures within the school and trained the staff to implement the program with fidelity.

Once trained, the staff devised an on-going system for rewarding behavioral expectations, determined the manner in which to present it to the student body as a whole-school initiative, and gained student buy-in by involving them in the decision-making for rewards (other than verbal praise). The predominant manipulation of the group was the identification of the students who would need more intensive support (those who had received the most referrals over the past year) with adult mentors who would supply the students with instant feedback regarding attendance, time on task, behavior and academic progress and more social support and encouragement. The program was ready for its initial year of implementation once school-wide behavioral expectations were in place, and there was evidence of support from the staff student body

Over the years the students and staff were fully engaged in the initiative, and the climate of the school changed to where the students began taking ownership of their school, their behavior and their academic success. They began trusting the adults in the school and developed relationships with them that were supportive, nurturing and mutually beneficial.

The referral rate decreased more than half in the first year of implementation from 297 in the 2005-2006 school year, to 143 in the 2006-2007 school year. In the subsequent years (2008-2009 and 2009-2010 school years) the referral rate continued to decrease by a total of 105. However, in school year 2010-2011, there was a 58% increase in discipline referrals from 38 to 65. The cause for this increase was a single student who entered into the elementary school with

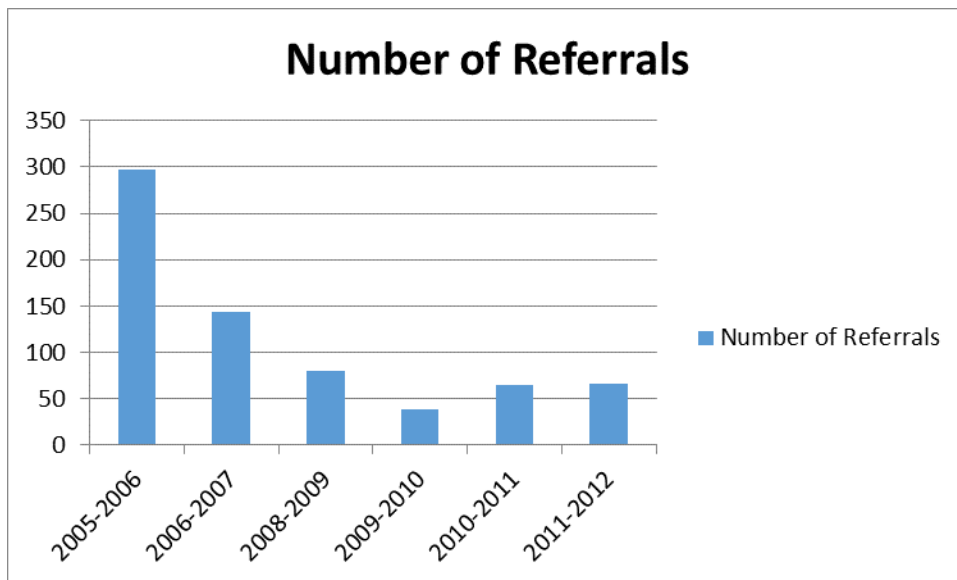
extreme behavioral problems and lack of control. With the number of referrals increasing over the year, as well the student's disruptive behavior, the IEP (Individualized Education Program) process for an appropriate placement was initiated. This required school administration to record the student's behavior, implement strategies to manage and monitor his behavior over the academic year, and follow his response to interventions, including the PBIS initiative. The IEP process was completed and by the school year 2011-2012, the student was placed in the Least Restrictive Environment (LRE) appropriate for his behavioral and academic needs. This student's behaviors and the required procedures for acquiring the LRE for students in need/crisis negatively affected the data and the PBIS program at the school.

## CHAPTER IV

### RESULTS

The purpose of the study was to examine a behavioral support program, Positive Behavioral Interventions and Supports (PBIS) Initiative, to determine if the initiative positively affected student behavior, as defined by the number of referrals in elementary school. The number of office referrals were compiled for a specific elementary school for the 2005-2006 school year to the 2011-2012. The results of the analysis are presented in Table 1 below.

**TABLE 1**  
**NUMBER OF REFERRALS FOR 2005-2006 SCHOOL YEAR TO 2011-2012 SCHOOL YEAR**



There will be no impact of PBIS on student referrals.

## **CHAPTER V**

### **DISCUSSION**

The purpose of the study was to determine the impact of the PBIS Model (Positive Behavior in Schools) on office referrals for elementary students. The hypothesis that there would be no impact of PBIS on student referrals was rejected.

#### **Implications of the Results**

Data from the 2005-2006 school year showed the number of referrals was 297 for an elementary school with a population of 457. At this time, PBIS was not implemented in the school. After PBIS was implemented, the number of referrals decreased drastically over the next three academic calendar years. Conversely, office referrals, suspensions and days spent on suspension rose during the study. Explanations for this rise may be attributed to the additional attention each student enjoyed given entrance into the program. The additional adult support, aimed at fostering appropriate behaviors through coach based modeling, led to increased supervision of the students' daily school dealings, which concurrently increased their chances of getting caught acting inappropriately in school. Therefore, the situation could be described as a "catch 22", where at-risk students who desperately needed positive supplementary adult support received it, only to experience that that very support occasionally led to a need for school based discipline.

#### **Threats to Validity**

The study group consisted of referral records for the school years 2005-2006 to 2011-2012. All students in the school were participants of the PBIS initiative. In true experiments, researchers manipulate an independent variable with treatment and comparison condition(s), and exercise a high degree of control (especially through random assignment to conditions). In this

study, the degree of control was out of this researcher's hands. There was no random group and no control group. This study is a quasi-experimental longitudinal study.

The results of this study were completed over a 7- year period of school years from 2005-2006 to school year 2011-2012. One external threat to validity related to the study group's maturity. The students in this elementary school range from Pre-Kindergarten (4 years old) to Fifth Grade (10 years old). Over a period of time, the behavior and character of the group changed each year. Other factors that present threats to validity include the maturity of individuals. The students naturally change over time; these maturational changes, not treatment, may explain any changes during the school year. Challenges presented to students outside of school affect the validity of this study. Some students live in constantly changing and challenging home situations, such as single-parent families, foster families, living with extended family or being raised by a grandparent compound, and possibly explain, the problems with behavior and academics in school. With no control group, it is difficult to determine if, over the span of the children's academic year(s) in the elementary school, a school-wide initiative would alter the behavior of children who may be academically and/or behaviorally challenged.

### **Connections to the Literature**

This study was designed to find the implementation effects of the PBIS Initiative on student behavior in elementary schools. (Does PBIS impact student behavior and office discipline referrals in elementary school?) One school's data from the web-based SWIS Suite (School-Wide Implementation System) was used to compare student referrals from the school year 2005-2006 through to school year 2011-2012. The SWIS Suite analyzes and helps detect those students who show a pattern of disruptive behavior and the need for prevention efforts in schools as early as the first grade. Research has shown early intervention can be a deterrent to



negative behavior in later years. The early identification of challenging behavior in schools is clearly an important step in preventing the persistence and intensification of these disruptive behaviors (Rusby et al., 2007).

The elementary school in this study had a total of 297 referrals for grades Pre-Kindergarten to Fifth Grade during the school year 2005-2006, before instituting the PBIS model in school. The following three years negative behaviors and referrals consistently decreased when the model was instituted. The school relied on SWIS Suite data to develop and modify their behavior plan. Using data helps schools stay abreast of trends or patterns in disciplinary incidents. (Cregor, 2008). Using the data from SWIS, the PBIS school team meets regularly to review the trends and needs of the students whose referral rate begin to rise. These students are targeted for additional supports, such as increased praise, mentors, regular monitoring of attendance, extra academic and family support. There is an increased interest in whole-school prevention models over the past years. Schools are looking for a continuum of behavior supports that provide an effective, efficient and relevant structure for organizing resources, interventions and systems within and across school districts. Schools are in need of efficient and effective strategies to address the increasing and intensifying discipline needs of their students. (Barrett et al., 2008). PBIS affords teachers and school teams to identify the level of behavior and the subsequent consequence appropriate for redirection and behavioral change over a course of the year. The model provides pre-service teachers and veteran teachers the guidance to eliminate disproportionality patterns (overrepresentation or underrepresentation along a particular data point) of school office referrals for disruptive behavior. In 2005, Yale University Child Study Center documented that the expulsion rates for prekindergarten (5-6 year old African American males) participating in state-funded programs were more than 3 times higher than the expulsion

rates for K-12 in total (Bryan et al., 2012). This data may have significant implications to the child's overall educational success. The more referrals, suspensions and expulsions result in lost instructional time, disengagement and alienation from school and peers, a decline in the school climate, academic failure, repeated grades, dropout and possible incarceration as the cycle is repeated throughout the student's academic experience.

Research also shows teachers with low behavioral and/or achievement expectations may be more likely to engage in an agreement with the students; allowing them to deviate from the planned curriculum by assigning more desirable activities and avoiding tasks they dislike in exchange for cooperation and decreased classroom disruptions from the students, therefore, avoiding discipline office referrals. This avoids the ODR's (office discipline referrals), but does not change the students' behavior. School Wide interventions have shown to be a positive change in student behaviors and a decrease in ODR's.

Even with the decrease of the number of referrals for the first three years of implementation of PBIS, during the school year 2010-2011, the referral rate increased by less than half (from 38 ODR's to 65 ODR's). This increase reflected one student who, although given the maximum support in school and through the PBIS model was not responding to the building blocks. His behavior placed himself, students and staff in physical danger. In order to give him the supports he needed to be successful and address his behavioral and emotional needs, school administrators were obligated to follow board policy showing a pattern of negative/harmful behavior (via ODR's) and evidence of need (via the Special Education Referral process) outside the public school system. The following year, the student was placed in the proper LRE (Least Restrictive Environment) and the school's referral rate began its decline. When implemented with fidelity the findings are commensurate with research; there is a significant reduction in

ODR's (office discipline referrals) and suspensions (Bradshaw, Mitchell & Leaf, 2010). The findings in the literature and this study again confirm the efficacy of PBIS.

### **Implications for Future Research**

Results from this study suggest future research should include true experiments where researchers are able to manipulate an independent variable with treatment and comparison condition(s), and exercise a high degree of control (especially through random assignment to conditions). The adult leadership and management should receive increased, regular training to effectively maintain knowledge and understanding of current population and needs of the students. Research should also include increased partnerships within the community and school system on an elementary level to support students who are in greater need and expand the role of family relations in the implementation of PBIS.

As schools increase implementation of PBIS, the need for statewide support and commitment to establishing a sound universal system of support is imperative. Pre-service training programs for prospective teachers and school personnel can aid in recognizing approaches that broaden student's repertoire and promote pro-social behavior and identity systemic strategies and interventions to address disproportionate referrals in school.

An examination of within-group differences among students can reduce the disproportionate referral rate. The disparity of referrals submitted by teachers of students of color was found to be greater for non-referral incidents than their Caucasian counterparts. Matching the severity of the disciplinary incident to the consequence has been consistent in most PBIS schools. Experts have found the need to advocate for diversity on PBIS teams to insure there are multiple views to aid in the development of the school's expectations, interventions and reinforcements.

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