

School-wide Positive Behavior Intervention Programs
and Aggressive Behavior in Elementary Students

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Abstract

The purpose of this study is to review a school-wide Positive Behavior Intervention and Supports program (PBIS) and to discuss its effectiveness in decreasing physically aggressive behavior in elementary students over time as school personnel and students become more familiar with the program and its components get fine-tuned. This study used a retrospective pre-experimental design with a variant of a one-group pretest-post-test design. Subjects (n=9) served as their own controls. Subjects (n=9) were selected based on a “high” score on the dependent variable under the first condition if they had two or more referrals for physically aggressive behavior in the first school year of implementation and were considered frequent offenders. Dependent variable data was collected over the first school, 2011-2012 and the second year, 2012-2013 in a diverse public elementary school. During the 2012-2013 school year, revisions were made to the program and more individualized interventions were put in place for the frequent offenders.

There was no significant difference in the mean number of office referrals in the first year 2011-2012 (Mean = 6.00, SD = 4.42) and the second year of 2012-2013 (Mean = 4.89, SD = 4.14) [$t(8) = .52, p > .05$] among frequent offenders. Implications are discussed including the need for PBIS team needs to provide additional training to the staff regarding how to manage individual students with more aggressive and challenging behaviors. Targeted, data-driven interventions must be put in place for the frequent offenders.

CHAPTER I

INTRODUCTION

OVERVIEW

For many students in public schools, violence, bullying, and other aggressive/disruptive behaviors are a regular part of the school day. Very often these types of behavior are chronic obstacles to increasing student achievement. Teachers frequently report that student misbehavior substantially interferes with their teaching on a daily basis. The Phi Delta Kappa/Gallup polls on education have cited school violence as the worst problem confronting public schools over the last decade (Gallup, 2009). Although the severity of these aggressive behaviors may vary from school to school, creating a safe and orderly school environment can be a challenge for many school administrators. Preparing students to compete in a twenty-first century world will be much more difficult to achieve if neighborhood schools are unsafe for our children. The increased academic focus of public education along with the influences of media, the pervasiveness of technology, weakening family structures, mobility, focus on the needs of the individual, and the glorification of violence have contributed to the incivility of our children (Peck, 2002).

Positive Behavior Intervention and Supports (PBIS) is a program that is used in many Maryland public schools to try to reduce the incidents of physically aggressive behaviors among students. PBIS interventions are designed to be proactive, to prevent problem behavior by changing a situation before issues escalate, and to concurrently teach students appropriate alternatives to such behaviors. This researcher's elementary school has just completed its second year of implementing the PBIS program using a color system for behavior, teacher-led lessons for teaching appropriate behaviors, and a token economy system of rewards/incentives. PBIS is a significant departure from this school's traditionally more reactive disciplinary practices. For the 2012-2103 school year, minor revisions have been made to the program and a new performance goal has been set to reduce referrals/suspensions by at least 50% for these types of behaviors.

Statement of the Problem

The purpose of this study is to review the school-wide behavior intervention program and to discuss its effectiveness in decreasing physically aggressive behavior in elementary students over time as school personnel and students become more familiar with the program and its components get fine-tuned.

Hypothesis

The null hypothesis is that there will be no significant difference in the mean number of office referrals for physically aggressive behaviors among frequent offenders for the 2011-2012 school year (first year of implementation of PBIS) when compared to 2012-2013 (the second year of implementation of PBIS) for elementary students attending a public elementary school.

Operational Definitions

The term *physically aggressive behavior* is used to define aggressive behavior such as fighting, physical assault, and bullying directed toward other students which usually results in a short-term (three to five days) or long-term (five to ten days) school suspension.

A public elementary school in the United States is any school that is maintained at public expense for the community or district and that constitutes a part of a system of free public education commonly including elementary and secondary schools.

The term *frequent offender* is used to describe students who receive two or more office referrals for the 2011-2012 school year for physically aggressive behaviors. Office referrals are discipline forms designed by the PBIS team used to write up a student that has demonstrated inappropriate behavior in any classroom setting that has violated the school code of conduct or the school system's behavior policies. The individual staff member making the referral must complete this form and it must accompany the student to the office when he or she is seen by an

administrator. Office referrals are tracked and student discipline history is organized in the county-wide Student Tracking and Registration System (STARS). The data in STARS is reviewed by the PBIS team to identify the students with frequent behavior problems and track the frequency and type of infractions they incur.

Positive behavior incentives are given out daily in the research school as frequently as possible, in all academic and non-academic settings.

CHAPTER II

REVIEW OF THE LITERATURE

The increase in aggressive and delinquent behaviors in schools throughout this country has reached epic proportions. Alarmed parents, students, and lawmakers expect public school educators to respond more effectively by incorporating more “get tough” and “zero tolerance policies.” Unfortunately, research has shown that policies such as this that are punitive and reactive only serve to increase the incidences and severity of the behaviors they are supposed to reduce (Lewis & Garrison-Harrell, 1999; Turnbull et al., 2002). This literature review examines school-wide behavior intervention programs and discusses their effectiveness in decreasing violent/aggressive behavior in elementary students. Section one describes the role of behavior in schools and why it has drawn so much attention. In section two, the researcher discusses what appropriate school behavior looks like. Section three identifies some of the contributing factors of aggressive behaviors. Then lastly, section four looks at positive behavior prevention and intervention programs and strategies.

The Role of Behavior in Schools and Why All the Attention

From the very beginning, public education had as its primary focus to develop and nurture a civil society. The main purpose was to prepare students to serve and improve society (Wilkins, Caldarella, Crook-Lyon, & Young, 2010). The use of the McGuffey Readers from the 1830’s to 1920’s illustrates this purpose. Used in both elementary and secondary schools, these

readers were not only designed to help children learn to read but to expose them to culture and civility. The McGuffey Readers placed an emphasis on character, moral integrity, individual responsibility, ethical conduct, and the standards of social life. These readers along with the Bible were the sole source for enlightenment on civic and moral responsibility for most American families (Peck, 2002). Because of the increase in school violence over the past few decades, schools must now begin to reintegrate what has been removed from public education.

The 1999 Columbine High shooting in Littleton, Colorado and the 2007 shootings at Virginia Tech have focused the nation on high-profile incidents of school violence. However, less media-worthy incidents of school violence occur in schools everyday (Fredland, 2008). Behaviors that involve physical or verbal aggression are the behaviors that are shaping our parents' and our children's perception of school safety. These behaviors also cause researchers and educators to ask whether schools are creating climates that are conducive to learning. Although some children are very resilient and develop in positive ways in spite of their learning environment, others may not adapt so easily (Fredland, 2008). The occurrence of violent aggressive acts in our schools has placed our nation at a level of heightened awareness and a plethora of school-wide behavior intervention programs are the result.

What Does Appropriate School Behavior Look Like?

Awareness, empathy, and respect are basic components of civility that are believed to have the potential reduce violent thoughts and behaviors in school aged children. There are 25 rules for considerate conduct which can be applied to students of any age group in any classroom (Forni, 2002). They are as follows:

1. Pay attention.
2. Acknowledge others.
3. Think the best.
4. Listen.
5. Be inclusive.

6. Speak kindly.
7. Don't speak ill.
8. Accept and give praise.
9. Respect even an s subtle "no."
10. Respect others' opinions.
11. Mind your body.
12. Be agreeable.
13. Keep it down (and rediscover silence).
14. Respect other people's time.
15. Respect other people's space.
16. Apologize earnestly and thoughtfully.
17. Assert yourself.
18. Avoid personal questions.
19. Care for your guests.
20. Be a considerate guest.
21. Think twice before asking favors.
22. Refrain from idle complaints.
23. Give constructive criticism.
24. Respect the environment and be gentle to animals.
25. Don't shift responsibility or blame.

Aggressive Behaviors and Contributing Factors

Aggressive behaviors are operationally defined for this literature review as fighting, acts of physical aggression, bullying/intimidation, or any other violent behaviors directed toward another student that would result in a short or long term suspension from school. Some studies indicate that pro-social behavior is learned in early childhood while aggression is learned during middle childhood and adolescence (Hopkins, 2005). In 1993, researchers from

the USA National Academy of Sciences Panel on the Understanding and Control of Violent Behavior's concluded that: "Modern psychological perspectives emphasize that aggressive and violent behaviors are learned responses to frustration, that they can also be learned instruments for achieving goals, and that the learning occurs by observing models of such behavior. Such models may be observed in the family, among peers, elsewhere in the neighborhood, through the mass media, or in violent pornography, for example." Dodge and colleagues (Dodge, 1991; Dodge & Coie, 1987, page 1148) have examined two dominant functions of aggression: reactive and proactive (or instrumental aggression). Reactive aggression is defined as aggression that occurs as an angry response to a provocation that is similar to the frustration model alluded to in the National Academy of Sciences Panel conclusions indicated above. Proactive (or instrumental) aggression is aggression that occurs in anticipation of self-serving outcomes (Hopkins, 2005). Reactive aggression is associated with peer rejection, low self-control, and the tendency to believe hostile intent in problem-solving situations. Proactive (or instrumental) aggression is associated with delinquency, criminality, social withdrawal, victimization, and internalizing problems. Many studies have not been designed to take into account other physiological (and possibly genetic) factors such as inattentiveness, hyperactivity, high levels of testosterone, low levels of serotonin, or low heart rates which could play a key role in the aggressive behavior of young children. Many times, children with these physiological issues have been affected in utero by cigarettes, alcohol, or drugs. Then there are environmental factors such as exposure to lead paint, the parents may have had a history of behavior problems in school or have low levels of education themselves, or just poor parenting skills. Consideration should also be given to factors such as poverty, exposure to violence (post-traumatic stress disorder), and being educated in poor performing urban schools (Ozkol, Zucker, & Spinazolla, 2011).

A careful study of the root causes of aggressive behavior in young children is essential in helping schools develop programs for prevention and intervention. For example, students

who are highly reactive would be good candidates for programs that focus on emotional regulation where proactive or instrumental aggressive students need programs that focus on sensitivity training. Students who have repeated exposure to violence and who are experiencing posttraumatic stress disorder symptoms should be involved in a program that has a more trauma-informed framework that involves stress reduction.

Prevention and Intervention Programs/Strategies

Addressing violent and aggressive behavior in schools requires a systematic planning process that minimizes expenditures of the school budget while maximizing levels of appropriate behavior in students. Therefore, school-wide intervention programs should include preventive strategies with multiple components that can address a wide range of behaviors with a wide variety of causal factors. These programs should also have a scientific, research based rationale that start with the goal or desired outcome in mind and work backwards to develop a strategy that will produce the desired outcome. Successful intervention programs should foster strong, stable, and positive relationships between students and adults, be developmentally appropriate for the age and social-emotional development of the targeted group, and be run by well-trained staff. Effective programs should also have a built in evaluation component, with ongoing feedback from all constituents so that there are opportunities for continuous quality improvement (Crusto, Wandersman, Kumpfer, Seybolt, Morrissey-Kane, & Davino, 2003).

The Check in/Check Out (CICO) program, also known as the Behavior Education Program, is a research-based intervention that addresses the secondary level of support for students who do not respond to primary prevention strategies. The CICO program is implemented daily. A student checks in with a designated adult in the morning to develop behavioral goals for the day. Then the student carries around a point sheet throughout the entire school day on which other adults/teachers provide feedback to the student relevant to the desired behaviors. The student reviews the point sheet with the designated adult at the

end of the day and the student then takes the sheet home for parent review and signature.

While further research is still needed, the CICO program has been validated in controlled experiments and under natural implementation conditions in schools. It should be considered an appropriate option for targeted behavioral intervention for students where primary-level interventions were unsuccessful in reducing the incidents of aggressive, problematic behaviors (Filter, McKenna, Benedict, Horner, Todd, & Watson, 2007).

The Second Step curriculum is a school-wide program containing 30 lessons (each about 30 minutes in duration) taught once or twice per week for 16 to 20 weeks. Teachers need to participate in a 2-day training before implementing the lessons in their classrooms. The lessons are arranged in three units. In the first unit, students are involved in empathy training. They learn to identify their own feelings, the feelings of others, and perspective taking. The second unit contains lessons on self-control, problem-solving, and other related behavioral skills. The third unit discusses anger management and students learn coping strategies and behavioral skills for dealing with “tense situations.” Role playing activities, observing appropriate role models (the teacher), and practicing the skills while receiving immediate feedback and positive reinforcement were all key components of the lessons. Research findings from Grossman, et al. (1997) indicate that the Second Step program does have measurable effects on student behavior. Students who participated in this violence prevention program showed evidence of more prosocial behaviors and fewer physically aggressive behaviors than similar students in the comparison group, especially in school settings such as the cafeteria or playground. In addition, there was a significant decrease in physically inappropriate behaviors across other school settings, as well. Such research builds a strong case for the use of the Second Step curriculum with school aged children to reduce the incidents of school suspensions for violent/aggressive behaviors.

For more than 10 years, the faculty of Johns Hopkins University’s Department of Special Education has been working with local schools to assist them in developing comprehensive,

proactive programs to assist students with significant behavior problems. The term PAR refers to preventing, acting upon, and resolving problematic student behaviors. It is a term used to describe a process-based model in which teams of teachers, school administrators, parents, and related service providers work collaboratively within a prescriptive workshop format to come to a consensus on a school-wide approach to discipline. More specifically, this collaborative group plans strategies to: prevent the occurrence of inappropriate behavior, act or respond to instances of rule compliance or noncompliance in a consistent manner, and resolve the underlying issues that may be causing the problematic behavior (Rosenberg & Jackman, 2003). In this model, there may be a small percentage of students who require more support than can be provided through school-based interventions. These students would need wrap-around or multi-agency care which involves partnerships and collaborations with human resource agencies outside of the school setting. This model also supports the school of thought that in order to change student behavior, you must first change the behavior of the teachers and administrators. In order for a model such as this to work, there must be site-based professional development and collaboration which is centered on common goals. Rosenberg and Jackman believe that the PAR process works in schools because the faculty, administrators, and parents are given the chance to design a behavior management system that is tailor made to meet the needs of their unique student population. Because of that kind of buy-in, there is strong governance of the plan by all stakeholders and students get to see first-hand that there are efforts being made to reward their compliance. Teachers are also given the support they need to sustain the implementation of the behavior system and are recognized by the administration for their level of commitment.

One of the more familiar school-wide behavior management programs is (PBIS) or Positive Behavioral Interventions and Supports. Many local school districts and educational researchers are turning to school-wide preventive interventions such as PBIS to promote a positive learning environment in schools and reduce incidents of problematic student

behaviors. PBIS is designed to reduce disruptive behaviors through the application of behavioral, social learning, and organizational behavioral principles (Bradshaw, Koth, Bevens, Ialongo, & Leaf, 2008). The PBIS model is comprised of seven critical features. A PBIS team is formed to provide leadership to the school in the implementation of the school-wide behavior program. The team, which consists of the school administration, six or eight teachers, and a behavioral support coach, attend regular training events and establishes the action plan for the school. This team also trains other staff members and meets monthly to discuss school-wide behavior management. The PBIS coach, who is typically the school counselor or psychologist, provides on-site technical assistance and has prior experience working with PBIS. The school team establishes the school-wide code of conduct which is usually five positively stated expectations for school behavior. This code of conduct is posted throughout the school and in every classroom and is well known by all students and staff members. A school-wide system is also developed to reward students for compliant behavior which usually includes a tangible reinforcer of some kind. In addition, the staff and administration create an agreed upon system for responding to noncompliance that includes what behaviors are classroom-managed and what behaviors constitute an office referral. Students in every classroom receive the same consequences which are formally recorded in a data collecting system so decisions can be made regarding any revisions to program implementation. Bradshaw et al. concluded that PBIS is associated with improving several aspects of organizational health in the school environment but was inconclusive regarding the impact of PBIS on decreasing incidents of aggressive behavior in students.

Summary

Despite the growing use of and acceptance of PBIS and other school-wide intervention programs, to date, no conclusive research has been found to determine their impact on reducing the incidents of aggressive and violent behaviors in elementary aged students. Frequently, the violence in the community spills over into the school environment and factors

come into play that is beyond the school's control. Creating a safe and disciplined learning environment is a challenge for all schools.

CHAPTER III

METHODS

Design

This study used a retrospective pre-experimental design with a variant of a one-group pre-test-post-test design. Subjects served as their own controls. Dependent variable data was collected over the course of two years of an intervention in which the overall theoretical underpinning (i.e., reinforcing positive behavior as a way of preventing negative behavior) remained the same but there were slight modifications in the second year of the program. Subjects were selected to be included in this study based on a "high" score on the dependent variable under the first condition. Within the researcher's school there are students who struggle with physically aggressive behavior in grades Pre-K through Grade 5. These behaviors range from pushing to physical assault and fist fighting. The administration was unable to assume the role of instructional leaders in the school because they were constantly being called to address behavioral issues. In an attempt to decrease the number of office referrals and suspensions, the school implemented the PBIS program at the beginning of the 2011-2012 school year. The PBIS team (which included the administration) developed class lessons for teachers to use to instruct students on respectful, safe, organized, and responsible behavior in all aspects of the school day. Positive reinforcement through direct instruction and a token economy system of tangible reward incentives would hopefully serve to decrease referrals for physically aggressive behaviors.

Subjects

Each classroom in the researcher's school is a heterogeneous mix of ability levels, race, behavior, and gender. Classroom size ranged from 15 to 28 in grades Pre-K through 5 with four teachers per grade level with the exception of kindergarten which had 5 classes.

In the 2011-2012 school year, there were 572 students. Of those 572 students, 166 were Caucasian, 259 were African American, 58 were Hispanic, 41 were Asian, 44 were Multi-Racial, three were Native Hawaiian/pacific Islander, and one was American Indian/Alaskan Native. Eleven point seven percent (11.7%) of the school population received special education services. During the 2012-2013 school year, enrollment increased to 604. Of these 604 students, 155 were Caucasian, 283 were African American, 73 were Hispanic, 35 were Asian, 54 were Multi-Racial, three were Native Hawaiian/Pacific Islander, and one was American Indian/Alaskan Native. Each grade level (Pre-K through Grade 5) had four teachers per grade level with the exception of kindergarten which had five. In addition, the school had a Primary and Intermediate Adaptive Learning Support (ALS) Classroom for special needs students with severe learning disabilities. Each of these classrooms had a special educator, instructional assistant, and additional adult assistant with their students the entire day. The class size for the ALS classes ranged from three to four students. The school also has a primary and intermediate special education resource teacher and one instructional assistant who services students with special needs within the general education setting in a pull-out/push-in model. There is only one Pre-K class in the researcher's school which is a half day program in the afternoon and contained 15 students. Both the Pre-K class and kindergarten classes have an assistant who is shared among the classes to provide students and teachers with additional support.

The subjects chosen for this study were students in grades pre-kindergarten through grade four with two or more office referrals for physically aggressive behaviors for the 2011-2012 school year. There were a total of nine frequent offenders. The rationale for selecting these students was that they represented the population that would benefit the most from PBIS strategies. Since there were 572 students within the overall school population within the designated grades, these 9 students represent the top 1.5 to 2 % of the students in the school for physically aggressive behavior referrals. Students with only one referral for physically aggressive behavior were not included in this study because the behavior most probably occurred

due to an isolated case of circumstances. It was assumed that if the student was a frequent offender, there was a consistent pattern of this type of aggressive behavior. The research school does not have a transient population so it was possible to track these students' behavior for the 2012-2013 school to determine if there were any significant changes. The participants in this study are comprised of two kindergarten students, four first grade students, two second grade students, and one fourth grade student. (This was their grade placement in the 2011-2012 school year). This group consisted of seven boys and two girls out of which six were African American, two were Caucasian and one was Multi-Racial. All of the students had been promoted from the 2011-2012 school year.

Instrument

The instrument used for this study was the data tracking/office referral form (Appendix A). The form was created by the PBIS team which consisted of the administration, school counselor, school psychologist, physical education teacher, and a teacher representative from each grade level. The data tracking form is filled out by the referring teacher when an infraction has occurred and accompanies the child to the office. The data tracking form includes two columns to differentiate which behaviors are teacher managed and which are office managed. These columns also correspond to a color-coded behavior chart which is kept in each classroom (Appendix B). The referring adult checks off the problematic behavior and a possible motivation for that behavior and includes a summary of the events that took place. The data tracking form is discussed with the student by an administrator and an appropriate consequence is provided. The data is then imputed into the STARS to create a disciplinary history for the student. The data tracking form remained the same for the 2011-2012 and 2012-2013 school years. There is no reliability or validity in the data for the data tracking/office referral form.

Procedure

The two years in this study are the first two years of the implementation of the PBIS program for the researcher's school. PBIS interventions are designed to be proactive, to prevent

problem behavior by changing a situation before issues escalate, and to concurrently teach students appropriate alternatives to such behaviors. It is assumed that the principles being taught will translate into durable change and a safer more positive school environment. The PBIS program uses a color system for behavior which is posted in every classroom, teacher-led lessons for teaching appropriate behaviors and a token economy system of tangible rewards/incentives. Teachers are given a binder of PBIS materials. PBIS is a significant departure from this school's traditionally more reactive disciplinary practices.

The school put additional supports in place for the frequent offenders such as a daily check-in/check-out system with an adult mentor within the school and the Young Men of Excellence program. Both of these programs were put in place during the 2012-2013 school year to help reduce the frequency of physically aggressive behaviors.

In 2011-2012, teachers were given a half day professional development on the new PBIS program by the PBIS team during the first week teachers were on duty in August. The details of how the program will be implemented, a chart of the Code of Conduct, and the rainbow color behavior incentive chart along with a binder of grade appropriate lessons, Tiger Tickets, and student data tracking forms were given to each teacher. Cafeteria workers and the custodial staff were also given a modified training. Tiger Tickets are given to students who demonstrate the behaviors of respect (R), organization (O), always being safe (A), responsibility, and readiness (R) for learning. These Tiger Tickets are paper tokens that can be redeemed for actual prizes at the weekly ROAR store. In addition, students can use their Tiger Tickets to purchase quarterly incentives such as a school-wide obstacle course, popcorn and movie party, pumpkin run, and carnival.

After reviewing the previous year's disciplinary data from STARS and the survey results from staff members, the PBIS program was modified slightly for the 2012-2013 school year. The classroom lessons were updated to include videos from the Maryland PBIS network website and teachers were directed to view the videos online, discuss, model, and role play the desired

behaviors delineated in the Code of Conduct with their students during the first week of school. In addition, one color level was removed from the behavior intervention chart to reduce the levels from seven to six to give students a better chance of attaining their behavioral goals for the day. Two features were added to increase supports for students with behavior problems. These consisted of a daily check-in/check-out system with an adult mentor within the school and the Young Men of Excellence program. Teachers were also encouraged to use any resources they may have found on their own to support the PBIS program but not to develop a separate set of behavioral expectations in their classrooms. Some of these resources include DOJO, a digitally interactive positive reinforcement program, nonverbal signals, and self-monitoring checklists. A performance goal was set for reducing our referrals/suspensions by at least 50% for physically aggressive behaviors.

For both school years, students who demonstrated physically aggressive behaviors (which were considered a major infraction) were immediately sent to the office with a data tracking form. Minor infractions for refusal to follow a reasonable request, leaving an assigned area, minor theft, occasional profanity, or interacting with another student in an inappropriate way continued to be teacher-managed behaviors and were tracked through the STAR (Student Tracking and Registration System) system as minor infractions.

This researcher identified the students who received two or more office referrals for physically aggressive behavior the 2011-2012 school year by using STARS (Student Tracking and Registration System). All of the nine identified students remained at the researcher's school for the majority of the 2012-2013. The mean number of office referrals for physically aggressive behaviors in the 2011-2012 school year among the frequent offenders was compared to the mean number of office referrals for physically aggressive behavior of the current school year using non-independent sample t-tests.

CHAPTER IV

RESULTS

The results of the data failed to reject the null hypothesis that there will be no significant difference in the mean number of office referrals for physically aggressive behaviors among frequent offenders for the 2011-2012 school year (first year of implementation of PBIS) when compared to 2012-2013 (the second year of implementation of PBIS) for elementary students attending a public elementary school. There was no significant difference in the mean number of office referrals in the first year 2011-2012 (Mean = 6.00, SD = 4.42) and the second year of 2012-2013 (Mean = 4.89, SD = 4.14) [$t(8) = .52, p > .05$] among frequent offenders.

See Table 1.

Table 1: Mean, Standard Deviation, and t-test Results for Aggressive Referrals in the School Years of 2011-2012 and 2012-2013

School Year	Mean	Std. Deviation	df	T	Sig. (2-tailed)
2011-2012	6.00	4.42	8	.52	.62*
2012-2013	4.89	4.14			

N = 9

*non-significant at $p \leq .05$

CHAPTER V

DISCUSSION

The researcher set out to determine whether Positive Behavior Interventions and Supports (PBIS) during the second year of implementation would significantly impact the behavior of physically aggressive students in a regular public elementary school relative to the first year of the intervention. Some changes had been made in the program from year one to year two, including changes to increase individuation and data driven intervention. The null hypothesis stated that there will be no significant in the mean number of office referrals for physically aggressive behaviors among frequent offenders for the 2011-2012 school year (first year of implementation of PBIS) when compared to 2012-2013 (the second year of implementation of PBIS) for elementary students attending a public elementary school. The results of the data collected failed to reject the null hypothesis. The mean number of office referrals for physically aggressive behaviors among frequent offenders did not change from year one to year two.

Comparison to Prior Research

Among the physically aggressive students in this study, there were children with diagnosed attention deficit disorders, serious emotional disturbances, oppositional defiant disorders, conduct disorders, and family stressors outside of the school setting. Generally, speaking the students demonstrating these behaviors make up the top 3-5% of the school population who need more significant interventions and supports. Previous research shows that positive behavior supports can be effective in dealing with physically aggressive and chronically disruptive behaviors however these supports must be coupled with interventions specifically designed for the individual student (Safran & Oswald, 2003). These interventions might include behavior intervention plans that utilize strategies for emotional regulation; data based behavioral instruction, on-site counseling services, mentoring programs, crisis intervention, and more immediate parent contact. The integration of student centered planning such as this and PBIS can help students remain in the general education classroom and reduce suspensions. Overall,

interventions geared toward individual students rather than school-wide supports were the most successful. Current results are not consistent with Safran and Oswald in that even though there was increased individuation and data driven intervention in the second year of the intervention, there were no significant differences in office referral frequency for physically aggressive behaviors among the frequent offenders.

Another important component of PBIS is organizational commitment which should involve clear descriptors of the behavioral expectations, opportunities for staff input, and regular feedback about the effectiveness of the activities from all stakeholders (Safran & Oswald, 2003). When the staff takes ownership of the PBIS process and the students observe the teacher and administrative buy-in, then they are more likely to be motivated to change their behaviors. What the researcher observed during the first year of implementation was that the staff was very enthusiastic about the program initially and strategies were utilized on a consistent basis. During the second year of implementation, the “novelty” began to wear off a bit and PBIS strategies were implemented with less fidelity. It is possible that the lack of significant differences in the current study is partly attributed to reduced teacher “buy in” in the second year of the intervention.

Implications of the Study

The results of this study did not provide compelling evidence that the PBIS program was more effective in its second year of implementation, despite increases in individuation and data driven intervention. However, research has shown strong support that the utilization of prevention initiatives such as PBIS is critical in elementary schools (Safran & Oswald, 2003). Structured positive behavior programs are key to preventing the spread of violence given the widespread exposure that children face on a daily basis. PBIS is structured on a three-tiered model of prevention and intervention related to the implementation and sustainability of systems, practices, and data-based decision making. The continuum of support in this model includes a school-wide behavior system to which 80% of the student population will adhere, then there are

secondary intervention strategies to address the 15% of students who are at risk, and tertiary intervention strategies for approximately 5% of the population of students who need more tailor-made strategies and supports. These students do not respond to the school-wide behavior plan due to a variety of issues such as poor peer relations, low academic achievement, or chaotic home environments. These students also require more practice in learning behavioral expectations and may need modifications to their learning environments as well. The students in the current study were among the top 1.5 to 2% of the students in the designated grade ranges in the school for the frequency of office referrals for aggressive behaviors. From a theoretical standpoint, results suggest for the students at the top 1 to 2%, extremely high levels of individuation may be necessary.

The study has practical applications. While there was not a statistically significant difference between the two years of implementation, the data was trending in the right direction. It was also noted that the physically aggressive behavior of the students in the second year were less violent in nature. There were fewer fist fights in year two but more incidents of bullying. The total number of suspension days for the researcher's school decreased significantly from 75 days of suspension in year one to 23 days of suspension in year two. With the encouraging trend in the data and the researcher's observations of less violent behavior, the present results suggest that it would be worthwhile to continue the PBIS program while additional information is collected to provide further validation.

Another implication of this study is that the PBIS team needs to provide additional training to the staff regarding how to manage individual students with more aggressive and challenging behaviors. Targeted, data-driven interventions must be put in place for the frequent offenders. Not only must the desired behaviors be directly taught and practiced but teachers need to engage in data-driven problem solving, determine a student's instructional match, triggers, and functions, then develop, implement, and monitor interventions that address those triggers and functions. Physically aggressive students need to be taught replacement behaviors that led them

to self-awareness and self-monitoring. Lastly, one of the most important factors in supporting students with aggressive behaviors is developing relationships with parents. Students may be better able to self-regulate if they hear the same language being used in the school setting and at home.

Limitations of the Study

There are some important threats to the validity of this study. One limitation in the study was a lack of control groups. Without control groups, it was not possible to differentiate the effects of it being the second year of a PBIS program (e.g., changes in teacher “buy in”) from the effects of changes in the program (e.g., increased individualization). In addition, without a control group under a traditional disciplinary program, it was not possible to determine if PBIS is more effective than typical strategies. By not having control groups in multiple schools, it was not possible to control the effects of specific school characteristics (e.g., demographics, school climate).

Another concern in the study is the potential impact of historical factors. This study took place over a two year period in which changes in a student’s life may have had an impact on his or her behavior. The researcher is aware that some of the students in the study experienced significant psychosocial stressors during the 2012-2013 school year. These students were also in different grades over the two year period and had different teachers who were not always as sensitive to these outside stressors. Teachers can vary in their tolerance level for any aggressive behaviors regardless of the circumstance.

There are also concerns about students who were selected for the study. Due to regression towards the mean, individuals who are high in a characteristic, such as physical aggression, are expected to become lower in the characteristic.

An additional limitation was the low number of subjects. This greatly limited the power of the study and made it very difficult to reject the null hypothesis.

An additional validity concern is that there may have been errors in recording the office referral data. During the 2011-2012 school year, the data was entered into the STARS system by three different individuals (school psychologist, administrative secretary, or school counselor) whenever they had an available moment. During the 2012-2103 school year, all data was entered by the administrative secretary. Since the data entry was done more consistently in 2012-2013 than the previous year, 2011-2102, it was more probable that a greater number of referrals should have been recorded in 2012-2013 which would reduce the likelihood of rejecting the null hypothesis.

Another concern is that not all of the teacher-created office referrals were given to the person(s) recording the data. There were many incidents where students were brought to the office and the administrator deemed the issue as an inappropriate referral and no data was ever entered into the STARS system. Since some office referrals were not entered, the accuracy of the student's behavioral history would be in question thus skewing the data. What also comes into play here is a variance in the classroom teacher's definition of physical aggression and that of the administration.

An additional concerning factor that influenced the validity of the results was the consistency of the implementation of the interventions. It is possible that the findings could have been more powerful if teachers had implemented the strategies with more fidelity.

An additional limitation is that the outcome variable may not have been sufficiently sensitive to the effects of the intervention. For example, the current dependent variable did not reflect the differences in the severity of physically aggressive behavior. The current dependent variable also did not assess the perception of students, school personnel, and families as to the value of the intervention.

Implications for Future Research

Since conducting this study, the researcher has read additional articles on managing aggressive behavior in elementary aged students. Although much of the research is inclusive, it is noted that physically aggressive children have many pathways to their behaviors which require a plethora of individualized intervention strategies. PBIS alone is not successful in reducing the frequency of these behaviors in the classroom setting and teachers do not want frequent offenders to continually disrupt their instruction. The data from this study did not yield statistically significant results, but the trends in the data imply that PBIS should be continued in the researcher's school. However, future studies should be conducted on whether including the frequent offenders in more individualized programs such as mentoring, peer mediation, conflict/resolution, in-school counseling, and behavior intervention/crisis plans brings about a decrease in their physically aggressive behaviors. Data will need to be gathered on the frequent offenders regarding the triggers and functions of their behaviors so that replacement behaviors can be identified and taught.

Future research will also need to include a larger sample size to increase the statistical power. With a larger sample size, the researcher would increase the probability of reducing the null hypothesis

Future research should also include control groups. There could be a control group in the second year of the intervention that participates in a PBIS program identical to that from the first year of the intervention. There could be a control group in the first year of the intervention that participates in the PBIS program as it had been implemented in the second year of the current study. There could also be a control group that is in a school with traditional, reactionary discipline. Since PBIS is a school wide program, this would require multiple schools. This would serve the additional purpose of having a broader set of subjects so that the results could be generalized to a larger population.

It is also important to ensure that data collection is reliable and valid. All student referrals should be entered into the database by one individual; preferably the administrative secretary since she has experience with this task.

Additionally, future research should include other dependent variables such as teacher and parent satisfaction with the PBIS program and its effectiveness in reducing physically aggressive behaviors. This data could be collected through the use of a parent and teacher survey.

Summary

This study did not yield statistically significant evidence that PBIS programs are an effective tool in reducing office referrals for physically aggressive behavior among frequent offenders in the elementary school setting. However, data trends and researcher observations suggest that the changes made to the intervention in the second year may have some value. The lack of significant findings may reflect limitations in the study. The lack of significant findings may also reflect that the level of individuation and data driven intervention needs to be greater among students with the most severe behavior problems. Hopefully, additional research will help teachers and administrators have a better idea of how to make a PBIS program most effective for all students, particularly those with the most physically aggressive behaviors.

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Data Tracking Form

Name: _____ **Location**
Date: _____ **Time:** _____ ☐ Playground
Teacher: _____ ☐ Cafeteria ☐ Bathroom
Grade: K 1 2 3 4 5 ☐ Hallway ☐ Arrival/Dismissal
Referring Staff: _____ ☐ Classroom ☐ Other _____
Others involved in incident: ☐ None ☐ Peers ☐ Staff ☐ Teacher ☐ Substitute
Names: _____

Minor Problem Behavior (Teacher Managed) BLUE	Major Problem Behavior (Office Managed) PURPLE	Possible Motivation
<input type="checkbox"/> Refusal to follow a reasonable request <input type="checkbox"/> Out of assigned area in classroom <input type="checkbox"/> Occasional profanity <input type="checkbox"/> Minor theft <input type="checkbox"/> Inappropriate physical contact <input type="checkbox"/> Interacting with other students in an inappropriate way	<input type="checkbox"/> Use of profanity directed towards staff <input type="checkbox"/> Fighting <input type="checkbox"/> Violent temper tantrum <input type="checkbox"/> Threatening behavior <input type="checkbox"/> Harassment/bullying (in school or on-line) <input type="checkbox"/> Sexual offenses <input type="checkbox"/> Use/ possession weapon/drugs <input type="checkbox"/> Urinating in improper places <input type="checkbox"/> Major theft	<input type="checkbox"/> Anger <input type="checkbox"/> Physical needs not met <input type="checkbox"/> Gain control <input type="checkbox"/> Obtain attention <input type="checkbox"/> Avoid attention <input type="checkbox"/> Obtain items/activities <input type="checkbox"/> Avoid peer or adult <input type="checkbox"/> Avoid task or activity <input type="checkbox"/> Sensory stimulation <input type="checkbox"/> Attempt to communicate needs <input type="checkbox"/> Retaliation/revenge
Consequences		
<input type="checkbox"/> Loss of privilege <input type="checkbox"/> Time in office _____ minutes/hour(s) <input type="checkbox"/> Conference with student <input type="checkbox"/> Parent Contact <input type="checkbox"/> Time Out in Alternate Setting (____ min.)	<input type="checkbox"/> Individualized instruction <input type="checkbox"/> In-school suspension (____ hours/ days) <input type="checkbox"/> Out of school suspension (____ days) <input type="checkbox"/> After School Detention	

What activity was child involved in when problem occurred?		Summary of Events
Whole group instruction		
Small group instruction		
Individual work		
Working with peers		
Alone		
1-on-1 instruction		
Interacting with peers		

Timber Grove's Behavior Interventions Chart

 	Red-I "R.O.A.R" for Timber Grove!!! 
	Orange-Warning
	Yellow-Time Out Desk + Sit and Think Sheet
	Green-Alternate Setting + Sit for 5 min of recess
	Blue-Phone Call or Letter Home
	Purple-Office

Own your actions-make good choices.
It's the Timber Grove Way!