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The Effectiveness of Positive Behavioral Interventions & Supports on Students with Emotional/Behavior Disorders

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The Effectiveness of Positive Behavioral Interventions & Supports on Students with Emotional/Behavior Disorders

by

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Table of Contents

List of Tables

Chapter I: Introduction

Behavior management has been an evolving topic of interest for educators around the world since the beginning of the 20th century. Behavioral theorists such as John Watson, B.F. Skinner and Ivan Pavlov have inspired many to look deeply into the methods and procedures regarding human conduct. Specialized approaches have been studied in a wide variety of settings and are gaining attention from instructors and institutions in hopes of improving conduct. Traditionally, these approaches involved physical restraint and confinement; however, present-day research has supported more human-centered interventions involving positive reinforcement (Austin et al., 2016). Furthermore, schools are seeing an increase in students identified with Emotional Behavior Disorders, which is directly related to the growth seen in data for disruptive behavior. According to the National Institute of Mental Health, emotional and behavioral disorders affect 10-15% of children worldwide (Lynch, 2019). This change has sparked interest in the research of academic and behavioral interventions across educational settings.

Dr. Heather Peshak George et al. states that, in 2014, the U.S. Department of Education's Office of Safe Schools allotted $53 million for School Climate Transformation (SCT) grants to state and local education agencies in hopes of increasing the capacity of effective implementation of behavioral support frameworks (George et al., 2018). Positive Behavioral Interventions and Supports (PBIS) is one of those evidence-based, tiered frameworks that support students in a variety of areas such as academics, behavioral, emotional, social, and mental health. Founded in the 1980s, PBIS initially focused on identifying and implementing interventions for students with behavior disorders; however, the program shifted focus to the school-wide behavior support of all students (California PBIS Coalition, 2016). PBIS application

is growing globally and the framework is currently being implemented in all 50 U.S. states and at least 29 countries (Freeman et al., 2019).

The focus of Positive Behavioral Interventions and Supports as a tiered system creates a positive, predictable, and equitable environment for all students. The first tier of PBIS is targeted toward all participants across all settings. In this beginning stage, students, families, and staff collaborate to define positive schoolwide expectations to be implemented in all classrooms and specific spaces within the building. Expectations and skills are to be taught routinely and should be recognized in a positive manner. PBIS is committed to preventing and responding to unwanted behavior in a respectful approach. Tier two intervention is an added layer of systems and data to provide additional instruction to clients. Additional supports can include increased adult supervision, increased prompts, providing additional opportunities for positive reinforcement, etc. If behaviors are continuing, one might need tier three intervention, which is considered to be individualized and intensive. This type of intervention is only used with roughly 1-5% of students and is often associated with the implementation of a functional behavior analysis (California PBIS Coalition, 2016).

This continuum of academic, social, emotional, and behavioral supports offers a variety of tools when used appropriately. Buildings, staff, and students will see an improvement in academic success, emotional competency, and school climate when the program is implemented with fidelity (Center on PBIS, 2022). As students with Emotional Behavior Disorders tend to have a higher rate of experiencing exclusionary discipline and/or office referrals, this intervention prides itself on reducing those numbers by switching society's historical approaches to behavior management.

Research Question

One research question guides the review of this literature:

1. Do negative behaviors, specifically seen from students with Emotional Behavior Disorders, reduce when the Positive Behavioral Intervention and Supports framework (PBIS) is implemented?

Focus of Paper

The review of literature in Chapter II defines Positive Behavioral Interventions and Supports as it relates to students with emotional behavior disorders. The ten studies incorporated students across all classroom settings and grade levels, with some taking place in a more restricted environment. Articles highlighted interventions incorporating the PBIS framework; some were altered to best meet the needs of their students. Teacher implementation and fidelity were also scrutinized as a means of data collection.

The databases that were most relevant to my research were Academic Search Premier, Eric, and EBSCOhost. My focal point of the research surrounded Positive Behavioral Interventions and Support (PBIS), and Emotional Behavior Disorders (EBD). The specific keywords used to search articles included but were not limited to: *learning disabilities, special education, Social Emotional Learning (SEL), classroom supports, behavioral disorders, classroom management, and interventions.*

Importance of the Topic

Educators across the world have been experiencing a higher rate of disruptive behaviors seen within the classroom. With the increase in behaviors, groups and individuals have been working together to find solutions for combating and managing such actions, specifically those

that are seen by students with disabilities. Studies have shown students with Emotional Behavior Disorders are at a higher risk of producing challenging behaviors that are disruptive in the educational setting. Consequently, many teachers have not been educated on appropriate measures to handle these difficult situations. Developing adequate classroom management strategies such as Positive Behavior Interventions/Supports (PBIS) can be crucial for all student growth and learning, especially those students with learning or behavioral disabilities.

As a member of our district's PBIS committee, as well as a special education teacher who works primarily with students who are classified as having an emotional behavior disorder, I take satisfaction in finding strategies that fulfill all students' needs. Our team has participated in a variety of conferences and learning opportunities to provide our schools with the initiative to prevent behaviors instead of punishing behaviors. Analyzing and examining scholarly articles will provide me and my team with quantitative and qualitative information regarding the impact PBIS has on its participants.

Furthermore, Positive Behavioral Interventions and Supports is an evidence-based practice that is considered a way of life for many. The framework is an ongoing commitment to supporting students, educators, and families through systems change (Center on PBIS, 2022). Providing a consistent, positive environment for students, especially those with emotional behavior disorders, will diminish unfavorable behaviors and enhance student success in all areas of life. The purpose of this paper is to examine the effectiveness of PBIS on students with emotional behavior disorders and to find strategies that support all students across all classroom settings.

Definition of Terms

Positive Behavioral Interventions and Supports: Positive Behavioral Interventions and Supports (PBIS) is an evidence-based three-tiered framework to improve and integrate all of the data, systems, and practices affecting student outcomes every day. PBIS creates schools where all students succeed.

TIER I: Universal- Support everyone – students, educators, and staff – across all school settings. Tier I support is robust, differentiated, and enables most (80% or more) students to experience success.

TIER II: Targeted- The support provided at Tier II is more focused than at Tier I and less intensive than at Tier III. On average, about 10-15% of students will need some type of Tier II support. It is an added layer of systems, data, and practices targeting their specific needs.

TIER III: Intensive and individualized- 1-5% of students for whom Tier I and Tier II supports have not been sufficient to experience success. At Tier III, students receive more intensive, individualized support to improve their outcomes. Tier III supports are available to any student with intensive needs, whether they receive special education services or not (Center on PBIS, 2022).

Emotional and Behavior Disorder: an emotional disability characterized by the following:

A. withdrawal or anxiety, depression, problems with mood, or feelings of self-worth;

B. disordered thought processes with unusual behavior patterns and atypical communication styles; or

C. aggression, hyperactivity, or impulsivity (Minnesota Department of Education, 2023)

Intervention: a set of steps a teacher takes to help a child improve in their area of need by removing educational barriers (Lynch, 2019).

Chapter II: Review of Literature

This literature review examines the effectiveness of the implementation of Positive Behavioral Interventions and Supports to reduce maladaptive behaviors in the specific context of students with emotional behavior disorders. A total of ten studies will be presented and analyzed in Chapter 2, introduced in chronological order beginning from the oldest from 2002 to the most recent in 2019. In Chapter 3, the findings from the analysis are summarized, and the implications of the research are discussed.

Sutherland, Wehby, and Yoder (2002) examined the relationship between teacher praise and the opportunity for students to respond to academic requests, specifically focusing on students with emotional behavior disorders. With the resurgence of researchers advocating for effective teaching strategies, this article focuses primarily on the benefits of effective instruction and the consistency of these practices to not only decrease disruptive behavior but also ameliorate the academic difficulties of students diagnosed with EBD. Sutherland et al. (2002) state that there are two critical components of effective instruction: the rate at which students are given the opportunity to respond (OTR) to academic requests and the number of praise students receive for appropriate social and academic behavior.

The setting for this study took place in 20 self-contained classrooms, grades K-8, for students with emotional behavior disorders. Students were referred to this placement based on general education classroom performance and behavior concerns. Each classroom averaged 10.8 students and all were staffed with a full-time paraprofessional who assisted the classroom teacher. The teacher gender makeup consisted of 17 females and 3 males, while the student makeup was 33 females and 183 males, 216 students in total. According to the 216

Individualized Education Plan records, 112 students were identified as having a diagnosis of

EBD, 48 as having a learning disability, 20 as having an Intellectual Disability, and 36 were

otherwise categorized.

The design used for the study was a correlation; this measured the relationship between

teacher praise and the opportunity to respond (OTR) using Pearson's *r*. The statistical technique

used to analyze the data was *time-window sequential analysis*. This determines if a target

behavior occurs within a specific time frame due to the antecedent or by chance. Procedures

followed direct observation across ten separate sessions, specifically 15 minutes of scheduled

academic instruction. All core subject areas, including whole-group and small-group instruction,

were observed. The individuals recording the observations were trained extensively in behavior

coding for both students and teachers. They focused on three categories of teacher praise

(academic behavior specific, social behavior specific, and non-behavior specific), total

reprimands (social and academic), and total opportunities to respond (group OTR and individual

OTR).

Data gathered in this study focused on teachers' direct behavior toward a group of

students. Suggesting a nonsequential and sequential relationship between teacher praise and OTR

for students diagnosed with emotional behavior disorders, Sutherland et al. (2002) propose a

direct correlation between the two. Teachers with higher rates of praise had higher rates of OTR

in classrooms for students with EBD. Furthermore, the study saw a negative correlation between

the variables of other talk and OTR; meaning, teachers who spent more time using off-topic

statements often time provided fewer explanatory statements and provided fewer opportunities to

respond. This research indicates that teachers who used lower rates of other talk and had higher

rates of academic talk, praise, and OTR encouraged higher rates of students' correct responses. This ultimately led to off-task management by the students as well (Sutherland, 2002).

Dr. Sutherland continued his research on the influence of teacher behavior and classroom context on the behavioral and academic outcomes of students with emotional or behavioral disorders in 2008. Sutherland et al. (2008) used a meta-analysis approach when examining the correlation between the two variables. The authors have recognized the importance of implementing interventions tailored to both academic and behavioral needs as students with EBD have a multitude of factors influencing their social and emotional development along with their academic development. The analysis is broken into four categories: the relationship between academic and behavioral problems, classroom contextual factors, assessment procedures, and research implications.

Over time, studies have refuted whether a student's behavior influences their learning problems or if a student's learning problems influence their academics. For instance, a study found that fourth-grade students who showed aggressive and disruptive behaviors displayed lower academic achievement compared to those without behaviors. On the contrary, another study found that children with reading difficulties were more likely to demonstrate antisocial behavior than students who excelled in reading. A variety of these studies have questioned the reasoning why researchers have been unable to establish the directionality of relationships. A pair have analysts have theorized that aggression results from the feeling of frustration when faced with academic failure. Oppositely, as students grow older, they become more aware of their abilities compared to their peers; thus, realizing this difference can cause negative emotions that may set the stage for increased problem behaviors. Regardless of which circumstance, some

time may pass before behavior problems begin to negatively affect a student's classroom performance and vice versa.

Assessing classroom context can pose significant challenges when developing valid measures to put forth as a criterion for research. Over the years, two primary categories have emerged when assessing classroom context: descriptive and experimental assessments, both of which hold four primary purposes. Descriptive assessments focused on capturing natural rates of contextual variables as they occur, relating to the conditions of responses and student engagement. To effectively inform practice, there needs to be clarification on the role between the context and the learner.

A strong focus of applied behavior analysis is that behavior and environment are directly related to one another. Researchers noticed that behaviors increase or decrease when environments are altered. Likewise, if behaviors are apparent, the predictability that others who are interacting in the environment will respond in specific ways increases. Experimental methods that are best designed for behavior assessment are functional and structural analyses. These eco-behavioral assessments center specifically on targeted instructional or setting variables on student achievement and response rates. However, challenges still remain regarding the efficacy of these behavioral assessments for students with emotional behavior disorders.

Overall, the literature suggests that the outcomes of students with emotional behavior disorders, behaviorally and academically, are heavily influenced by positive classroom-based interventions. Sutherland et al. reflect on the scarcity of teacher support regarding the implementation of effective methods and strategies when working with students with EBD. A complex system is intertwined when looking into the social transactions between students and

teachers, especially when behaviors are at the forefront; therefore, interventions targeting multiple levels are imperative in hopes of seeing any change in developmental outcomes (Sutherland, 2008).

Much like Sutherland's interest in the significance of effective assessment, Jeffrey et al. (2009) conducted an evaluation of an integrity tool regarding classwide PBIS for students with EBD. The purpose of the experiment was to develop a process and tool for providing performance feedback on evidence-based classroom management strategies. When looking at changing behaviors, treatment integrity has been a highly identified aspect when aiming to improve a new skill. Many studies have seen a correlation between increased treatment integrity and the incorporation of performance feedback into training.

The setting for this pilot project took place in a large suburban district in the United States where eleven percent of the student population received special education services. Nine teachers participated in the study and were spread out between both the elementary and middle school levels in self-contained classrooms. All teachers held a master's degree and certification in special education. The elementary classrooms were comprised of six to eight students with one teacher and two assistants. Middle school classrooms had one teacher and one assistant instructing seven to 12 students. The curriculum used in the special education classroom coincided with the general education setting.

The study started with observations and interviews with staff of assessments throughout the district's emotional support classrooms. Based on these evaluations, a set of classroom management strategies was defined which led to the need for monitoring the effectiveness of teacher implementation of the model. Four domains were identified: materials, classroom

ecology, instructional management, and teaching expectations. Teachers were then trained on these classroom management strategies and the team developed an integrity tool to assess. These consisted of observational checklists evaluating extensively the four core domains in areas such as teacher praise, defined schedule, rules, recognition system, opportunities to respond, etc.

The techniques used to collect data from the treatment integrity tool included direct observation of teacher and student behaviors, interviews with both teachers and students, and permanent product reviews. Each integrity tool took approximately 45 to 60 minutes to complete and was conducted three times throughout the school year in each classroom. At the elementary level, there was improvement across observations; however, the middle school teachers showed improvement only after the first integrity measure but not the second. The study noticed that student on-task behavior increased with improved teacher implementation. A Pearson correlation assessed the relationship between each domain score and student on-task behavior. It was found that these two were statistically significant, $r = .673$, $p < .05$. The correlation between the classroom ecology domain and student on-task behavior was also found to be statistically significant, $r = .784$, $p < .01$. Of the other three domains, there was said to be no significance with student on-task behavior. As researched, it is known that meaningful education for students with EBD must have evidence-based strategies and appropriate implementation training for their teachers (Jeffrey, 2009).

Furthermore, George et al. (2013) suggested a critical need for improving service delivery for children with emotional behavior disorders, specifically placed in an alternative setting. The main approach utilized throughout this study is the use of school-wide positive behavior interventions and supports (SWPBIS), as this has been used successfully in many

typical school settings. As alternative settings tend to represent the last chance for meaningful help, the goal aims to do a better job of assisting at-risk youth compared to traditional public schools; consequently, this is all too often not the case as students generally struggle to thrive academically and behaviorally in such confined placements.

The setting of this study took place in a private alternative setting school in Pennsylvania. Centennial School of Lehigh University serves students ages 6 through 21 at the elementary, middle, and high school levels, all classified with emotional disturbance or autism. The school serves roughly 100 students throughout a given school year and student ethnic profiles range in diversity. Students are taught at their instructional levels and teachers used a variety of strategies to increase student engagement, teamwork, and a sense of community. Centennial School implements the multi-tiered positive interventions and supports (PBIS) framework to support behaviors in a positive manner.

The leadership team is comprised of a wide variety of members and they developed the *"Take Five"* (Be There, Be Ready, Be Respectful, Be Responsible, and Personal Space and Follow Directions) slogan for their expectations. These expectations are taught across all settings within the building using an "I do, we do, you do" format, and are reviewed over 3,600 times per school year. School data was collected on the number of physical restraints per 20-day reporting period after PBIS was implemented. Data was collected using daily point sheets to track behavioral progress. Points were awarded at the end of class and students can earn up to two points for each of the five expectations.

Before the implementation of SWPBIS at Centennial School, 112 physical restraints were recorded during the first 20 days of the 1998-1999 school year. For the past 15 years, the school

has administered the multi-tiered system PBIS approach and has seen a drastic decline in behaviors and restraints conducted. The study saw a decline of 99% over the course of the study and 15 years of implementation and recorded only one physical restraint in the last school year. Police involvement decreased by 95% as well as truancy by 64% (George, 2013).

Similarly, Dr. Chu (2015) conducted an investigation of the effectiveness of family-centered positive behavior support for young children with disabilities, specifically of those involving Taiwanese families. Chu was interested in augmenting the support for behavioral training involving families to ensure the follow-through of effective strategies to promote the development of positive behaviors in children. With that, the study focused on the treatment of off-task and non-compliant behaviors of three young children.

Participants in this study were three kindergarten-aged children with disabilities and their families who met certain criteria in a variety of areas. One student was a six-year-old boy who was diagnosed with autism and often exhibited aggression and disruptive behaviors. The second child was a five-year-old boy diagnosed with a moderate intellectual disability and frequently demonstrated behavior problems such as physical aggression and lack of compliance. The third participant was a six-year-old boy diagnosed with cerebral palsy who showed a need for one-on-one support in a variety of areas such as academics and independent skills. There was six trained personnel assigned to work with each of the targeted children. All trainers received 20-36 hours of practical training related to behavioral techniques and family approaches.

This experiment was a single-subject design and used a variety of measurements to calculate the data collected. The two targeted behaviors were collected from multiple settings from baseline through follow-up phases as PBIS was implemented throughout. Before

intervention took place, functional assessments were conducted to better understand the behavior of the three students, leading to the creation of appropriate interventions. Intervention sessions were conducted two or three times per week, lasting approximately 60 minutes each, followed by a weekly parent-professional meeting to discuss accrued information. These strategies consisted of positive reinforcement, escape extinction, and differential attention. All sessions were videotaped to increase parental awareness and involvement during these discussions.

Data collection included a combination of behavioral observation forms, Parenting Stress Index, Treatment Evaluation Inventory, and interobserver reliability. Results of this experiment appeared to show significant gains in the children's behavior, once the interventions were implemented. The average rates of off-task behavior during the baseline phase were 98%, 92%, and 63%. During the follow-up stage, the behaviors maintained a decreasing trend with averages of 45%, 49%, and 25%. Rates of non-compliant behaviors also declined after the intervention was implemented. In the baseline phase, average rates for non-compliance were 93%, 71%, and 54%. In the follow-up phase, percentages were reduced to 49%, 40%, and 27%. Altogether, targeted behaviors decreased over time and parent ratings of acceptance of the PBIS approach increased (Chu, 2015).

In addition, Austin et al. (2016) conducted an experiment focusing on the shift of behavior management philosophies seen throughout history. Traditionally, behavioral approaches involved physical restraints and confinement; however, researchers have been replacing these strategies with more humanistic interventions involving positive reinforcement. The article uncovers the historical journey from punitive measures to prosocial techniques,

focusing on one specific school that embraced the positive behavior intervention and support system using "WISE."

The setting of this study took place at the Apex School which is a residential and day treatment facility located in the northeast region of the United States. The initial pilot involved four randomly selected teachers and 24 students during a ten-week period. After the successful completion of the pilot program, the school implemented the PBIS WISE program throughout the entire school. Apex School is a self-contained setting with students grades nine through 12 who are classified as ED. 85% of the students are residential and 15% are day students that attend academic classes and therapeutic services. Participants of this study included 99 students, 59 males and 40 females.

Historically, this school participated in a variety of behavioral interventions based on a point system to gather data. Decades later, the school took a "family-oriented" child-centered approach and focused primarily on students with a disability category of emotional disturbance. Upon the implementation of the PBIS WISE program, data was collected for 72 consecutive school days. Participants were provided with point sheets that allowed a total of four points per period; students had a possible 48 points per day to earn. Point ranges were created and privileges earned were based on those ranges.

Based on the information collected, the majority of students accepted the PBIS WISE program, while a smaller group continued to show the need for additional encouragement to participate fully. Data stated that 63% of students earned enough points to provide them with access to full privileges (extended curfew, off-grounds privileges), 36% earned limited privileges while provided with additional support, and 1% of the students were on limited privileges with

intensive support offered. Therefore, the results of this experiment supported the research on the success of PBIS being implemented in school settings, especially in self-contained programs. Additionally, it provided students with the confidence to seek support more often from their teachers or related service providers (Austin, 2016).

Comparatively to the study completed at the high school level by Austin and his team of researchers, Stanton-Chapman et al. (2016) evaluated the three-tier model of positive behavior interventions and supports for preschoolers in a Head Start program. Many preschool teachers have expressed concerns with externalizing behaviors in young students compared to those at an older age. Some studies have revealed that preschool teachers may lack the training or resources to appropriately manage problem behaviors, instead resorting to reactive interventions with a narrow focus. These strategies are generally ineffective as they do not teach the appropriate behavior or skill to replace the problem behavior and produce long-term effects.

Ten Head Start (HS) classrooms from five HS programs in a mid-Atlantic state participated in the study. Six of the ten classrooms were from public school systems, and four were operated by community organizations. Each classroom consisted of a lead teacher and teaching assistant. Both positions ranged in age, gender, and experience. Students ranged in age from 3-5 years old. The Tier I intervention targeted all participating children which were 179 students. There was an average of 18 students per class with 51% male enrollment and 49% female. 27 children had an Individualized Education Plan (IEP) ranging from speech and language delays, developmental delays, and autism. Based on rating scales, students were identified as needing Tier II or Tier III interventions.

Classroom pre- and post-measures were collected based on observations prior to the full implementation of the intervention. Teacher rating scales were used to examine children's problem behavior and social skills. These ratings were completed on the ten children who were identified as needing Tier II intervention and the three children needing Tier III intervention. The fidelity of implementation was documented via videotape data. Each classroom implemented all three tiers of interventions as part of the study. After the interventions were implemented, seven teachers completed a questionnaire to evaluate the tiered model of PBIS and training procedures.

Average scores were analyzed using t-test analysis and child outcomes were compared to classroom outcomes to determine whether there was a significant difference in scores. Effect sizes were calculated using Cohen's d. The study found that implementation fidelity varied across teachers and intervention tiers. Tier I averaged 85% and fidelity for structural components was higher than for interaction components. Tier II implementation also varied across classrooms and intervention components. Teachers' mean fidelity during Tier III intervention was 70.4% for one target child and 97.2% for the second target child. There was a significant difference between the pre-and post-observation scores for classroom organization at the $p < .5$ level but there was no significant difference for emotional support. Total scores increased in 9 out of the 10 classrooms from 5.16 to 5.38 in the ECERS-R rating. For child outcomes, all nine children showed significant increases in social skills and significant decreases in problem behaviors. Collectively, results indicated that the three-tier PBIS model was successful in improving classroom quality as well as positive outcomes for children (Stanton-Chapman, 2016).

Hunter et al. (2017) conducted a study highlighting the effectiveness of classroom-level PBIS strategies as a foundation for classroom management programs. The article discusses the

importance of this particular approach for both novice and experienced teachers to provide instruction to students with emotional and behavioral disorders within a variety of settings. The authors emphasize the importance of extending the use of preventative systemic measures as it can directly facilitate an environment that promotes academic achievement. As a focus, the PETT mnemonic was used to assess the physical classroom, procedures and rules, explicit timing, and transition during this qualitative study using a fictitious classroom.

The article looks further into classroom-level PBIS and the PPET mnemonic. The first part of PPET is to determine the physical arrangement of the classroom. As a Tier I support, the physical design of the classroom is a research-based strategy that has the potential to prevent disruptive behaviors. Maximizing accessibility and minimizing distractions is a number one priority in the arrangement of the classroom. Once the physical environment is determined, it is essential to develop classroom routines with procedures and rules. The first step is to identify behavioral expectations to help define specific rules. These procedures and rules must be identified, taught, posted, reviewed, monitored, and reinforced continuously. This allows for predictability and allows students to feel "safe", protected, and respected. Next, teachers should consider the explicit timing of the classroom. Explicit timing is a procedure that focuses on a time limit for students to complete an academic task. It is also a useful strategy to alert students for transitioning from one activity to another. Lastly, the PPET mnemonic discusses the importance of transitions in the classroom. When teachers struggle to get started on lessons, instructional time is lost and behaviors tend to appear. Clean and concise transitions can occur when classroom procedures are established and effective management strategies are implemented.

The data found that teachers who implemented the PPET program found it easier to remember some of the PBIS interventions needed to lessen certain behaviors seen with students with Emotional Behavior Disorders. This type of strategy allows for more consistency within the classroom and provides teachers with a viable classroom plan. This ultimately leads to successful outcomes for all students, specifically students with emotional behavior disorders in self-contained classrooms or day treatment settings (Hunter, 2017).

Similarly, George et al. (2018) noticed the lack of empirical support for district-level factors that affect school practices and outcomes. This led to their study of identifying characteristics connected with school districts that have a high percentage of schools implementing SWPBIS with fidelity while sustaining positive discipline outcomes. The researchers analyzed common features of six high-implementing districts they felt staff accredited to their district's positive outcomes. Their driving question stated: What features are evident in high-implementing districts that achieve SWPBIS success?

Initially, 50 school districts in Florida, representing 1,329 SWPBIS-trained schools submitted the required information to be eligible for the study. After further review, six districts met the criteria needed to be applicable for the experiment. During phase two, qualitative structured interviews were conducted to obtain the experiences and perceptions of the district coordinators. These district coordinators are part of the PBIS leadership team and develop annual strategic plans and are the main point of contact between schools. All participants were females and varied in years of experience.

The procedure for this study mainly focused on a variety of interviews searching for qualitative and quantitative data performed by primary investigators and project staff. *Blueprint*

domains (training, coaching, visibility, coordination, funding supports, etc.) were used as a means of investigation. The initial interviews were directed via telephone and subjective perspective-seeking prompts were given to each participant. Each interview lasted one to two hours with notes taken by at least one of the investigators. A constant comparative analysis was used to analyze the qualitative data. Open-ended coding was created based on participants' expressed perceptions and experiences. The final codes were reviewed to create conceptual relationships. Each participant reviewed the coding results to ensure credibility and accuracy.

Data collected during this study stated that many of the statements made by the district coordinators were consistent with the *Blueprint* domains. Participants from a minimum of two districts endorsed all of the 23 identified subthemes, with three or more districts (at least half of participating districts) endorsing 20 of the subthemes. Much of the experiment found the importance of relational trust and communication for improved school efforts and behaviors. Furthermore, the communication between site-based coaches and district teams is crucial when focusing on the fidelity and effectiveness of implementing the SWPBIS system (George, 2018).

Lastly, Freeman et al. (2019) noticed that PBIS implementation fidelity and reductions in student office discipline referrals (ODR) have been heavily researched; however, there is only a small amount of data related to other student outcomes such as attendance, suspension, and academic performance, especially at the high school level. The purpose of their study was to expand on the current research while also going more in-depth with the limited data on other student outcomes.

The location of this study took place in one midwestern U.S. state ranging from urban to rural communities. A total of 15 high schools that serve 9th-12th grade students participated in

this experiment. In total, 12,127 students were targeted throughout the study. Schools and students were recruited through interest flyers, followed up by emails and phone calls to determine if the school met the criteria needed. All of the schools were required to submit school-level and student-level data including enrollment, scores on one or more PBIS fidelity monitoring tools, office referrals, suspensions, attendance, GPA, etc.

All of the schools submitted the Benchmarks of Quality (BoQ) as their PBIS fidelity measure. This is a self-reported form completed by school leadership teams and district coaches. The BoQ assesses 53 areas ranging from lesson plans, data collection, faculty commitment, acknowledgment of positive behaviors, etc. Schools that meet 70% of the criteria on the BoQ are considered to be implementing with fidelity. The mean score of this sample was 78.2%, with 11 schools scoring above 70%. To assess the relationship between school-wide PBIS fidelity and student-level outcomes, the researchers used Stata 15 software to maximize their data. A total of 6 student-level outcomes were analyzed throughout the study.

Overall, the study found that school size did have a statistically significant relationship with any of the outcomes in the beginning models. The BoQ score did not correlate with school size but did correlate with students eligible for free and reduced lunch. The study examined the linear regression coefficient corresponding to the fidelity score for statistical significance. The literature found statistically significant relationships between both behavioral outcome variables ($p=0.022$) and suspensions ($p = 0.018$). The results predict that increasing 10 points in fidelity would result in a reduction of .6 office discipline referrals per student. This can be used to also predict the outcomes of suspensions, while positively impacting a student's academic career. However, the literature did not find notable connectedness between PBIS fidelity and grade point

average. There was also a minimal statistically significant relationship between student

attendance variables and PBIS fidelity such as tardies or absences (Freeman, 2019).

Table 1

Summary of Chapter 2 Research Studies Examined

Authors	Study Design	Participants	Procedure	Findings
Sutherland, K. S., Wehby, J. H., & Yoder, P. (2002)	Quantitative	20 self-contained classrooms, 216 participants K-8 33 females 183 males 112 ED, 48 LD, 20 with MR, 36 other 20 teachers	15- minute observation at the start of academic instruction Recording of teacher and student behavior was completed using the Multiple Option Observation System for Experimental Studies	Teachers with higher rates of praise had higher rates of OTR (opportunity to respond) in classrooms for students with EBD. However, the lack of empirical data on effective academic practices for students with EBD was discouraging
Sutherland, K. S., Lewis-Palmer, T., Stichter, J., & Morgan, P. L. (2008).	Meta-analysis	>29 studies between 1980-2007 K-12; all settings; teachers and students with Emotional Behavioral Disorders	Reviewed articles that (a) identified positive classroom-based interventions for students with EBD (b) reflected on the influence and efficacy of classroom-based interventions regarding factors such as teachers, placement settings, etc. (c) targeted the importance of applying	Classroom-based interventions have positive effects on the learning and behavioral outcomes of students with EBD. There is an association between teacher and student behavior that results in changes in behavior for both (complex/multiple-level

			interventions for both academic and behavioral outcomes	interventions are crucial for change).
Jeffrey, J. L., McCurdy, B. L., Ewing, S., & Polis, D. (2009).	Quantitative	9 teachers in self-contained classrooms	Classroom management behaviors were measured using the integrity tool through direct observations, permanent product review, and interviews Integrity checks were conducted throughout the school year Student on-task behavior served as a preliminary validation procedure for the tool. On-task behavior was defined as attending to the teacher or assigned work, and included both active and passive forms of behaviors	Evidence supported the use of performance feedback with teachers and the associated improved outcomes in student behavior.
George, M. P., George, N. L., Kern, L., & Fogt, J. B. (2013)	Quantitative	100 students Ages 6-21, classified with emotional disturbance and	School data was collected on the number of physical restraints per 20-day reporting	Prior to the implementation of PBIS, 120 physical restraints occurred during

		autism in an alternative setting	periods after PBSI was implemented	the 20-day period. The second 20 days had 48 physical restraints–Eighth 20 days had only 1 restraint. The number of restraints declined by 69% compared to the previous school year.
Chu, S.-Y. (2015)	Quantitative Single-subject	3 male children (diagnosed with a disability) and their families from Taiwan	Baseline-Intervention-Follow-Up Intervention sessions occurred 2-3 times per week, 60 minutes Observations and functional assessments were collected for baseline information PBIS strategies were implemented in the intervention phase and reinforcers were given when expectations were followed Family	When the PBIS was implemented, the percent of off-task behavior immediately decreased All participants demonstrated decreases in non-compliance following implementation of the interventions.

			involvement was encouraged	
Austin, V. L., Malow, M. S., Josephs, N. L., & Ecker, A. J. (2016)	Quantitative	59 males, 40 females Self-contained 9th-12th grade EBD	PBIS WISE (**W**here you should be; **I**nvolved; **S**afe; **E**ver Respectful) implementation; point sheet daily over 72 days; 48 possible points per day	Majority of students responded appropriately to the program, while a small group lacked compliance and cooperation with the program. The program saw more success with desired incentives and consistent application. Students were able to seek more support from service providers and created a pro-social climate; 62% earned incentives (43-48 point range)
Stanton-Chapman, T. L., Walker, V. L., Voorhees, M. D., & Snell, M. E. (2016)	Quantitative	10 Head Start classrooms with 179 students with ranging disabilities 3 target children in Tier II and Tier III	Pre and post measurements were collected on the three-tiered PBIS system using a variety of rating scales. Ratings focused on the fidelity of classroom and student outcomes	Total scores increased in 9 out of the 10 classrooms from 5.16 to 5.38 in the ECERS-R rating. For child outcomes, all nine children showed significant increases in social skills and

				significant decreases in problem behaviors. Overall, results indicated that the three-tier PBIS model was successful in improving classroom quality as well as positive outcomes for children.
Hunter, W. C., Barton-Arwood, S., Jasper, A., Murley, R., & Clements, T. (2017)	Qualitative	Fictasious first-year teacher with 14 students with EBD Self-contained	The targets physical classroom, procedures and rules, explicit timing, and transition can be remembered using the PPET mnemonic. These 4 areas were targeted for classroom instruction.	The study found that teachers who implemented the PPET program found it easier to remember some of the PBIS interventions needed to lessen certain behaviors seen with students with Emotional Behavior Disorders. This type of strategy allows for more consistency within the classroom and provides teachers with a viable classroom plan

| George, H. P., Cox, K. E., Minch, D., & Sandomierski, T. (2018) | Qualitative | 6 "High-performing" districts in Florida chosen from a total of 50 districts.

District Coordinators and other qualified staff (deemed qualified by DC). | "High-performing" districts were identified using a quantitative criterion. Qualitative interviews regarding practices that support SWPBIS implementation were given to the 6 high achieving districts.

2 interviews were given to each participant via telephone. Data was collected and compared and saved for coding. | The interviews coded participants expressed perceptions and experiences with SWPBIS

Participants from a minimum of two districts endorsed all of the 23 identified subthemes, with three or more districts (at least half of participating districts) endorsing 20 of the subthemes. |
| Freeman, J. Kern, L., Gambino, A. J., Lombardi, A., & Kowitt, J. (2019) | Quantitative | 12,127 students from 15 high schools serving grades 9-12 in one midwestern state | Schools were required to send in school-level and student-level data. The BoQ and Stata 15 were used to perform the relationships of PBIS fidelity and a variety of outcomes seen within the school. | Data showed statistically significant correlations between PBIS fidelity and ODR and suspensions. However, there was minimal correlation between PBIS fidelity and GPA and tardies. |

Chapter III: Conclusions and Recommendations

The purpose of this research paper was to evaluate the effectiveness of positive behavioral interventions and supports for students with emotional and behavioral disorders. Specifically, the research was intended to see if the implementation of the PBIS framework was an effective tool for behavior management in decreasing maladaptive behaviors. Chapter I provided background information on the topic, and Chapter II presented a review of the research literature. Chapter III discusses the findings, recommendations, and implications of the research findings.

Conclusions

I reviewed a total of ten studies that examined the efficacy of the implementation of the Positive Behavior Interventions and Supports (PBIS) framework in regard to reducing negative behaviors seen by students diagnosed with emotional behavior disorders. The studies were a wide variety of qualitative quantitative, and meta-analysis research, ranging from 2002 to 2019. Throughout Chapter 2, two themes emerged when analyzing the findings: lack of adequate training and teacher support, and inconsistent implementation.

Numerous research has indicated that results from implementing PBIS in schools vary depending on fidelity, buy-in, grade level, and support. High-need schools such as alternative settings or self-contained settings find it critical to obtain support from the district and school leaders as many of these placements perceive resource allocation and training as less adequate compared to other educational settings. Similarly, the studies highlighted the limited amount of training prior to implementation, leading to the unsuccessful application of the framework and the negative mindset of staff and student buy-in. With that, teachers are unable to appropriately

manage problem behaviors and often resort to reactive interventions. Comparatively, the placements that provided their staff with sufficient support and training noticed substantial improvement in behavior management as negative student behaviors such as office referrals, lack of attendance, fighting, and poor academics improved drastically. Again, research has shown that meaningful education for students with emotional behavior disorders must be provided with evidence-based strategies, along with appropriate training on implementation for their teachers and staff (Jeffrey, 2009).

Alongside proper training and support, the studies suggested inconsistent implementation to be ineffective when trying to reduce negative behaviors in the classroom. Many of the studies focused on the importance of routines, procedures, and policies as this can create a welcoming and structured environment. The PBIS framework prides itself on the stability and predictability of its implementation within every building as this is a research-based strategy for improving behaviors. Most articles provided their readers with their successful mnemonic device that was unique to their building to encourage positive behaviors across multiple settings. As stated by Hunter et al. (2017), each strategy within a specific PBIS mnemonic device can be useful in assisting all staff members in providing students with uniformity with respect to the expectations set in place.

To conclude, the use of the evidence-based, tiered framework supports a wide variety of areas when implemented appropriately and consistently, along with providing teachers the adequate training and resources. All of these lead to a reduction in negative behaviors seen within the schools while creating a positive and consistent environment for all. These studies have proven the effectiveness of the Positive Behavioral Interventions and Support framework

and continue to pave the way for evolving obsolete practices to better improve our schools'

systems and interactions with students.

Recommendations for Future Research

Several limitations were stated throughout the course of this investigation. The most

common limitation was the inconsistent nature of participants and observations. The low number

of participants limited the ability to necessarily evaluate the correlations provided. It also limited

the ability to make strong conclusions about the strategies that were taught and for the

performance feedback of the staff members. There were also suggestions that many of the

participants were volunteers, restricting the generalizability of the results. The participating

teachers most likely felt more confident in their abilities compared to their colleagues, thus

volunteering for a position in the study and narrowing the scope of context. Future research

should broaden their participant selection while providing multiple opportunities to record data

over a longer period of time.

In addition, many of the studies illustrated the finite baseline data. Many of the

educational settings highlighted throughout the research confirmed their lack of information

pertaining to specific behaviors that were targeted for intervention. Lacking baseline data can

propose difficulties when trying to evaluate the efficacy of the implementation of any

intervention or strategy. Further research should suggest the importance of establishing baseline

data prior to the implementation of positive behavioral interventions and supports.

Lastly, the majority of the studies provided feedback on the effectiveness of PBIS within

restrictive environments. This led to a focus on primarily Tier III interventions, narrowing the

scope across all education settings. Positive Behavioral Interventions and Supports provide a

continuum of strategies within its tiered framework to support academic, behavioral, emotional, and social areas to match all students' needs; thus, the importance of continuing to research across a variety of settings to increase the inclusion of students with emotional behavior disorders.

Implications for Practice

As a special education teacher working specifically with students with Emotional Behavior Disorders, I am more knowledgeable about the evidence-based support system and the positive impact it can have on students and staff. With this information, I have the potential to make an impact in a variety of areas. First, I can provide context and details to my own PBIS team and district to give our schools the best possible opportunity to create a safe and positive environment where students feel valued, connected, and supported. As a system that takes time, effort, and patience, I can continue to urge my colleagues on the importance of fidelity within the system in order to have success and positive outcomes after implementation. The findings will also allow me to reflect on the current strategies of our PBIS system in hopes of identifying areas of weakness and strengths to promote the perpetuity of investigation.

Furthermore, I will be able to reflect on my personal strategies for managing behaviors within my classroom as I am a lifelong learner. As behaviors and personalities change, PBIS offers the importance of consistency for expectations and student engagement, allowing me to build positive relationships with my students and staff, as well as, and build confidence in myself as an educator. My continuum of learning will help me provide other staff members with strategies and tools to overcome disruptive behaviors and to ultimately provide students with disabilities the opportunity to succeed in a more inclusive environment.

Summary

Positive Behavioral Interventions and Supports show beyond doubt to be an effective strategy in providing support to all students and staff. When implemented with fidelity, the tiered framework allows for improved social, emotional, mental, behavioral, and academic outcomes, while reducing maladaptive behaviors. Leadership teams work cooperatively to prioritize valued outcomes and promote high expectations for all students. The data collected can be used to identify strengths, develop needs, and monitor student progress. This type of framework provides educators with the opportunity to redirect and teach expected behaviors instead of punishing students for unwanted behaviors. This system change takes time and hard work, but can positively impact students tenfold when implemented effectively.

References

Austin, V. L., Malow, M. S., Josephs, N. L., & Ecker, A. J. (2016). The Implications of a
System-Wide Positive Behavioral Intervention Initiative: From Design to Successful
Implementation. *Journal of the American Academy of Special Education Professionals*,
6–16.

California PBIS Coalition. (2016). *History of PBIS*. California PBIS Coalition. Retrieved
October 22, 2022, from https://pbisca.org/history-of-pbis

Center on PBIS (2022). *Positive Behavioral Interventions & Supports* [Website]. Retrieved
October 16, 2022. www.pbis.org.

Chu, S.-Y. (2015). An investigation of the Effectiveness of Family-Centred Positive Behaviour
Support of Young Children with Disabilities. *International Journal of Early Years
Education*, *23*(2), 172–191. https://doi-
org.scsuproxy.mnpals.net/10.1080/09669760.2014.992868

Freeman, J., Kern, L., Gambino, A. J., Lombardi, A., & Kowitt, J. (2019). Assessing the
Relationship between the Positive Behavior Interventions and Supports Framework and
Student Outcomes in High Schools. *Journal of At-Risk Issues*, *22*(2), 1–11.

George, H. P., Cox, K. E., Minch, D., & Sandomierski, T. (2018). District Practices Associated
with Successful SWPBIS Implementation. *Behavioral Disorders*, *43*(3), 393–406.

George, M. P., George, N. L., Kern, L., & Fogt, J. B. (2013). Three-Tiered Support for Students
with E/BD: Highlights of the Universal Tier. *Education and Treatment of Children*,
36(3), 47–62.

Hunter, W. C., Barton-Arwood, S., Jasper, A., Murley, R., & Clements, T. (2017). Utilizing the

    PPET Mnemonic to Guide Classroom-Level PBIS for Students With or at Risk for EBD

    Across Classroom Settings. *Beyond Behavior*, *26*(2), 81–88. https://doi-

    org.scsuproxy.mnpals.net/10.1177/107429561771139

Lynch, M. (2019, October 15). *Types of Classroom Interventions*. The Edvocate. Retrieved

    October 20, 2022, from https://www.theedadvocate.org/types-of-classroom-

    interventions/#:~:text=What%20Is%20Intervention%20in%20Education,need%20by%20

    removing%20educational%20barriers

    Minnesota Department of Education. Emotional or Behavioral Disorders. (2023).

    Retrieved 2 April 2023, from

    https://education.mn.gov/MDE/dse/sped/cat/ebd/#:~:text=withdrawal%20or%20anxiety

    %2C%20depression%2C%20problems,aggression%2C%20hyperactivity%2C%20or%20

    impulsivity.

Stanton-Chapman, T. L., Walker, V. L., Voorhees, M. D., & Snell, M. E. (2016). The Evaluation

    of a Three-Tier Model of Positive Behavior Interventions and Supports for Preschoolers

    in Head Start. *Remedial and Special Education*, *37*(6), 333–344.

    https://doi.org/10.1177/0741932516629650

Sutherland, K. S., Lewis-Palmer, T., Stichter, J., & Morgan, P. L. (2008). Examining the

    Influence of Teacher Behavior and Classroom Context on the Behavioral and Academic

    Outcomes for Students with Emotional or Behavioral Disorders. *Journal of Special*

    Education, *41*(4), 223–233.

Sutherland, K. S., Wehby, J. H., & Yoder, P. J. (2002). Examination of the Relationship between

    Teacher Praise and Opportunities for Students with EBD To Respond to Academic

    Requests. *Journal of Emotional and Behavioral Disorders*, *10*(1), 5–13.