PREVENTATIVE BEHAVIOR INTERVENTIONS AND ELEMENTARY SCHOOL READING FLUENCY: A REVIEW
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Abstract

School districts are expected to have their students perform at higher academic levels than ever before, but student negative behavior is still a challenge for many school districts and can greatly impact the students’ ability perform to these higher academic levels. The purpose of this literature review is to examine preventative behavior interventions that can be utilized by school districts to improve student behavior as well as student academic skills of students identified with low reading fluency. These approaches are multi-tiered and provide numerous levels of support for students to be successful. The research used in this study examines the use of these preventative behavior interventions at the elementary levels in school districts across the United States.
Chapter 1: Introduction

According to Sadler & Sugai (2009), “Schools across the country are accountable for improved students outcomes related to a growing number of local and national initiatives (e.g., literacy, numeracy, special education, safe schools, character education, and vocational and postsecondary transitions)” (p. 35). With these local and national initiatives, schools went from adopting punitive approaches to handling behavior with preventative, evidenced-based approaches that emphasize teaching of appropriate behaviors, preventing behavior and the use of reinforcements for behavior (Sadler & Sugai, 2009).

One preventative-evidenced based approach is Response to Intervention (RTI). RTI was developed to identify students who are at risk for Learning Disabilities early and offers interventions to support students with their academics needs (Hawken, Vincent, & Schumann, 2008). Response to Intervention is a three tiered model to support students with their academics and/or behavior through the use of primary, secondary and tertiary interventions (Hawken, Vincent, & Schumann).

Another preventative, evidenced based approach is School-wide Positive Behavior Supports (PBS). Positive behavior supports models contain individual behavior plans as well as a school-wide preventative, systematic and positive approach to managing student behavior (Luiselli, Putnam, Handler, & Feinberg, 2005). PBS contains behavior expectations while teaching students routines and procedures through the teaching of the expected behavior, reviewing those expectations throughout the school year and positive reinforcements for demonstration of those behaviors (Luiselli, Putnam, Handler, & Feinberg, 2005).

In 2004, President George Bush reauthorized the Individuals with Disability Education Improvement Act. This aligned the Individuals with Disability Education Improvement Act with
the No Child Left Behind Act of 2001 (U.S. Department of Education, 2007). Some alignments similar -in both of the Laws-, were allowing funds to be used for state-level activities and school-wide programs, requirements for qualifications of special education teachers, performance goal indicators, reporting requirements, and development of alternative assessments (Sugai & Horner, 2009).

Response to Intervention is often linked to the No Child Left Behind and Individuals with Disabilities Education Improvement Act (Sugai & Homer, 2009). However, according to Sugai and Homer (2009), when studying the alignment of both acts the words Response to Intervention will not be found directly in No Child Left Behind Act or Individuals with Disabilities Act. Response to Intervention is a process that adheres to the definition of scientifically based research. Scientifically based research is a requirement in both No Child Left Behind and Individuals with Disabilities Act (Sugai & Horner, 2009). RTI uses a multi-tiered approach that not only aims at the 80% of the population for universal supports such as differentiated instruction or school-wide positive behavior support plans, but also uses two other tiers to help support the other 20% (Hawken, et. al., 2008). Tier two delivers interventions for the 15% of the population who falls in the at-risk categories. These interventions are received on top of the universal supports. Finally, tier three delivers individualized instruction to the bottom 5% of students who need universal supports, tier two interventions and an individualized instruction approach. Students are assessed and progress monitored on their success (Hawken, et. al., 2008).

With the development of Response to Intervention, other multi-tiered approaches have been developed that not only focus on academics, but also focus on preventing behavior. “Prevention of problem behaviors in schools involves the implementation of proactive strategies across multiple levels of support” (Partin, Robertson, Maggin, Oliver, & Wehby, 2010, 172).
School-wide positive behavior supports is a three tiered model to support students’ positive behavior by preventing negative behaviors (Hawken, et. al., 2008). Hawken, Vincent, and Schumann (2008) explain school-wide positive behavior supports further; the schools adopt a school-wide discipline plan that focuses on teaching children positive behaviors through the use of positive rewards and acknowledgements. Next, structured standardized behavior interventions are used for the 15% of students in the population who are identified as at-risk and need more support than just the universal school-wide discipline plan. Individualized behavior plans are then developed for the 5% of the school population who needs individualized supports (Hawken, et. al., 2008).

According to Luiselli, Putnam, Handler, and Fiendberg (2005), teachers and schools who establish effective practices are able to ensure academic success and provide a safe learning environment for their students. The relationship between academics and behavior has been shown in research to appear as early as kindergarten. The amount of kindergarten academics is able to predict problem behavior by the end of the child’s elementary career (McIntosh, Horner, Chard, Dickey, & Braun, 2008).

**Statement of the Problem**

According to Braun, Chard, Dickey, Horner and McIntosh (2008), problem behaviors can affect student learning in the classrooms. Further, a positive correlation between problem behaviors and a decrease in students’ reading fluency exists. Reading fluency is the speed in which a child reads as well as how accurate they read (Braun, Chard, Dickey, Horner, & McIntosh, 2008). Reading fluency is one the major components of being a strong reader. There has been many studies done that have shown a positive correlation between a reader’s fluency and their ability to comprehend what they read (Lane, Oakes, & Mathur, 2010).
According to Feinberg, Luiselli, Handler & Putnam (2005), in order to support students’ reading fluency, teachers and schools as a whole need to find ways to support students and their behavior and limit the amount of problem behaviors that affect students learning. Behavior can be supported positively by implementing different evidenced based interventions as well as being proactive (McIntosh, Goodman, & Bohanon, n.d.). One example of an evidenced-based approach to supporting students’ behaviors that is also known as a preventative measure is school-wide positive behavior supports (Feinberg, Luiselli, Handler, & Putnam, 2005).

**Research Question(s)**

What are the characteristics of effective behavior intervention programs for k-2 students identified with low reading fluency?

**Definition of Terms**

*Positive Behavior Supports (PBS).* Positive behavior supports are interventions designed to achieve positive behavior through expectations and behavior instruction. “PBS models include the design of individualize student behavior support plans but have, as a primary goal, the implementation prevention practices that target the entire school population” (Luiselli, Putnam, Handler, & Feinberg, 2010, p. 183).

*School-wide Positive Behavior Supports (SWPBS).* “School-wide positive behavioral supports, which are schoolwide system to communicate and teach rules (and reward students for following them) and function-based behavioral interventions” (Bear, Doyle, Osher, & Sprague, 2010, p.50).

*Response to Intervention (RTI).* “Response to Intervention (RTI) is a systematic decision-making process that has gained widespread popularity as a problem-solving framework for
organizing hierarchies of evidence-based interventions in the context of ongoing progress monitoring” (Carta, Dunlap, Fox, Hemmeter, & Strain, 2010, p. 3).

*Tier 1- Primary Interventions- Universal supports.* Tier 1 supports are behavior and academic interventions that allow most of the population (80%) to be successful. For example, general education curriculum using differentiated instruction or a school-wide discipline plan (Hawken, et. al., 2008).

*Tier 2- Secondary Interventions- Targeted Group Interventions.* Academic and behavior interventions that are aimed at the 15% of at-risk populations who need a little extra support along with the universal supports to be successful (Hawken, et. al., 2008).

*Tier 3- Tertiary Interventions- Intensive Interventions.* Individualized interventions aimed at supporting the final 5% of the population who need a more individualized academic or behavior intervention to be successful at school (Hawken, et. al., 2008).

*Reading Fluency.* “Fluency is the ability to read with speed, prosody, and accuracy” (Lane, Mathur, & Oakes, 2010, p. 35).
Chapter II: Review of the Literature
The purpose of this review of literature is to determine the characteristics of effective behavior interventions for K-2 students identified with low reading fluency. In what follows, I will critique research on three-tiered models and behavior, schoolwide positive behavior supports, and characteristics of effective behavior interventions.

Three-Tiered Models and Behavior
“The overall goal of the three-tiered response-to-intervention (RTI) model is to catch students who are at risk for learning disabilities early and provide an appropriate level preventative intervention” (Hawken, et. al, 2008, p. 213). Response to intervention began in the schools as an academic initiative to provide instruction in the areas of reading at three different tiers. Tier one provides universal academic supports for all the students. About 80% of the students will benefit from tier one academic support. Tier one academic support uses evidence-based reading curriculums. Tier two interventions are standardized interventions given to about 15% of the school population that do not make adequate gains in the area of reading with just support from tier one. Tier three, the last tier in the response to intervention approach, focuses on intensive individualized interventions for about 5% of the school population who do not make adequate gains in the area of reading with tier one or tier two supports. Tier three interventions maybe aligned Title 1 or special education services (Hawken, et. al., 2008).

There are a few mandatory components of response to intervention. These components are “(a) use of multi-tier model of service delivery; (b) use of problem-solving method to make decisions about appropriate levels of intervention; (c) use of evidence-based interventions; (d) student progress monitoring to inform instruction and intervention; (e) use of data to make decisions regarding student response to intervention; and (f) use of assessment for three different reasons- screening, diagnostic, and progress monitoring” (Hawken, et al., 2008, p. 214). Since
the development of response to intervention for the use of academics and identifying students’
for special education, many districts and researchers are looking at using these main components
of response to intervention to support students with their behavior as well (Hawken, et. al.,
2008).

Carney and Stiefel (2008) completed a qualitative research study on the long term results
of problem solving approach to Response to Intervention. Although Carney and Stiefel (2008)
studied problem solving approach to RTI, their study also used a behavior intervention program.
Participants were elementary students who referred by their classroom teachers for instructional
support team (IST) intervention. These students needed either academic or behavioral support.
Forty-three students were participating in the instructional support team intervention. After the
participants were identified, background information, reports, instructional support files,
discipline reports, and special education reports were gathered to collect data using a review of
records. The study took place over a four year period, but the participants received the IST
interventions until the problem was resolved, school year ended, or a referral for special
education took place. If the participant was in need of an IST intervention the following, they
were referred again by the next year teacher and the IST intervention was implemented once
again. IST interventions take place on a year to year basis. Data was collected and placed into a
SPSS for descriptive and cross-tab analysis after each year. Data was also entered into a
SYSTAT for Predictive Configurable Frequency Analysis or CFA each year. The final data
collected was reviewed at the end of the fourth year and participants’ data was coded by their
report card grades and office discipline referrals. The participants were either coded as Low
Risk, Moderate Risk or High Risk. The Predictive CFA revealed that the Tier Level was
independent of gender or initial reason referral. Out of the original twenty-three students who
referred to the process for academic concerns, eleven of those students were back in general education by the completion of the study. Eight of those twenty-three students were still receiving a secondary intervention or tier II support. Four of the original twenty-three students qualified for special education and began to receive tier III or tertiary supports. Ten students were initially referred for behavioral concerns. Two of the ten students were back in general education with no additional supports. Four of the ten students continued to receive tier II or secondary interventions. Only one of the ten students qualified for special education for support at the tertiary level. Finally, students who are identified with either an academic need or behavioral need can be successful in both areas if given the right intervention. Over half of the students in this study were identified Low Risk and showing success at school with the appropriate level academic and behavior intervention they needed (Carney & Stiefel, 2008).

Further, Fairbanks, Sugai, Guardino, and Lathrop (2007) completed a study on the use of RTI and behavior on second graders. The study took place at a suburban elementary school. The school contacted the researchers because they were experiencing an increase in office referrals despite their Schoolwide Positive Behavior Supports system that was fully implemented with fidelity. Ten second grade students were chosen to be participants in the study. The researchers chose to use a descriptive quasi-experimental design. The dependent variable during the study was percentage of intervals the participants displayed behaviors including inappropriate physical contact, talking out, inappropriate placement, noncompliance, off task behavior, and academic engagement. The participants were placed on Check-in/Checkout Tier 2 intervention. The data was measured using the 10-s partial interval recordings for 40 minute observations after the implementation of this intervention. The participants and two other students who were not participants were observed for 1 minute. Each of the two second grade classrooms were observed
two to four times per week during the times the teachers noted the problem behavior to be at the worst. The teachers also completed a 5 point scale on their perceptions of the participants’ behavior to provide another source of data. The researchers completed six observations prior to the implementation of the interventions to collect baseline data. The school had a Schoolwide Behavior Support System in place for Tier 1 and this maintained implementation during baseline as well as during the addition of a Tier two intervention. A visual analysis was completed of graphed data by the researchers at the end of the study (Fairbanks, Sugai, Guardino, & Lathrop, 2010).

After reviewing the data, this Tier two intervention was found to not to be successful for some of the participants. An individual or Tier three intervention needed to be added to help the participants to be successful. Four of the participants were identified as needing a more individualized behavior intervention because the implementation of the Check-in/Checkout Tier two interventions was not successful at decreasing the students’ problem behavior. The teachers and school counselors completed a Functional Assessment Checklist for Teachers and Staff to identify the participants’ strengths, behavior concerns and routines and conditions when the problem behaviors are expected to occur. The researchers continued the Tier two intervention until their Functional Behavioral Assessment Plan was implemented. The researchers once again used a 10-s partial interval recording system for 30 minute observations that were completed 3 to 4 times per week. Once again, a visual analysis of the data was completed and reviewed. Four out of the ten participants were successful with their Tier two intervention and did not need an individualized intervention. Out of the final 6 participants, four students received an individualized behavior plan. The last two participants continued to receive their Tier 2 intervention and were used as peer controls. The mean intervals with problem behavior
decreased after the implementation of the Tier three individualized interventions for all four students receiving the Tier three interventions. The results of this study proved that a Three-Tiered Behavior RTI model can be successful for students at different levels (Fairbanks, Sugai, Guardiano, & Lathrop, 2010).

Another qualitative research study completed by Pearce (2009) looked at the effects of RTI model and its treatment and identification of elementary students of emotional and behavioral disorders. The RTI model was implemented in two elementary schools for two consecutive years. During the two years of the research study, nine students took place in the study. These students were chosen for the study because of their amount of office discipline referrals. The RTI team was responsible deciding which students were in need of a secondary intervention, for providing possible secondary tier interventions, decide which students need to be evaluated for further levels of support, evaluate the use of the program and decide when students need to be referred for special education. The schools implemented three levels of support for all students. Tier one had universal or schoolwide and classroom supports that promote positive behavior. This included teachers teaching classroom and school rules, a system of rewards to promote positive behavior, and the school implemented a Character Counts system. Tier two interventions consisted of applied behavioral analysis, cognitive behavioral interventions, social skills training, counseling, differentiated instruction practices and parent involvement. Once an intervention was introduced, data was collected to track the effectiveness of the intervention. Tier three consisted of support from special education along with Tier two supports, outside agencies assistance including mental health systems, and/or alternative educational placements. Data was collected using curriculum based measure to check student progress within the core curriculum. Behavioral data including office referrals, attendance,
behavior rating forms were used to collect behavior data. Students whose behavioral data showed they were not being successful with just Tier one supports were identified for Tier two supports. Fidelity of Tier 1 interventions were discussed with the administrators and classroom teachers. Fidelity of Tier 2 and 3 were assessed and discussed weekly by the team. Seven of the nine students’ behavior improved after the implementation of the RTI supports. The two students’ whose behavior did not improve with Tier two supports were identified for special education under Emotional/Behavioral Disorder eligibility. Interviews were also conducted with the teaching staff, principals, students and parents for a quantitative portion of the study. Seven of the nine general education teachers interviewed found the RTI process beneficial. The special education staff and principals as well as parents also found the RTI process to be beneficial. The use of RTI in this study was successful for improving student behavior and was accepted by the teaching staff, principals and parents (Pearce, 2009).

**School-wide Behavior Support**

According to Luiselli, Putnam, Handler & Feinberg (2005), public school districts are facing more and more demands to get their students to make academic progress. However, those same school districts have students who exhibit negative behaviors that greatly impact their education. Some of the negative behaviors that are exhibited by those students are bullying, disruptive classroom behavior, vandalism, and violence. School districts cannot expect academic progress until they provide students with a consistent behavior plan that provides effective discipline to help provide a safe, positive climate for all students (Luiselli, Putnam, Handler, & Feinberg, 2005).

Luiselli, Putnam, Handler, & Feinberg (2005) completed a qualitative study on school-wide positive behavior supports and its effects on student discipline problems and
academic performance. The study took place at an urban elementary school. Office discipline referrals and the amount of suspensions given to the students for problem behaviors were used for data collection on behavior. Student scores on the Metropolitan Achievement Test-Seventh Edition were collected for academic data. The study took place over three years with the first semester of the first year being the pre-intervention phase. The pre-intervention phase included the distribution of a school policy handbook, but no schoolwide positive behavior support intervention. During the intervention, the school staff developed and implemented a schoolwide positive behavior support system. After each school year, the staff completed a questionnaire about their opinions on the implementation of the schoolwide positive behavior support intervention and this data was collected for two years to check the social validity of the intervention. At the end of the three years, the data was reviewed. The researchers found that the amount of office referrals increased for the first three months, but then decreased following the third month and thereafter. The amount of suspensions did not change after the implementation of the intervention compared to the pre-intervention phase. The academic results increased after the implementation of intervention compared to the pre-intervention phase academic results. The students increased their reading comprehension and math percentile ranks improved on the Metropolitan Achievement Test-Seventh Edition. The implementation of the schoolwide positive behavior support intervention decreased discipline referrals and student academic performance increased (Luiselli, Putnam, Handler, & Feinberg, 2005).

Tillery, Varjas, Meyers, and Collins (2010) completed a qualitative study on the use of schoolwide positive behavior supports. During this study, they looked at general education teachers’ perceptions of behavior management and intervention studies. Six of the nine elementary schools in the district were chosen for the study. Out of the 50 elementary school
teachers, twenty elementary teachers were chosen by snowball sampling methodology. Seven of interviews were conducted with kindergarten teachers and thirteen interviews were completed with 1st grade teachers. Data was collected by completing in-depth, individual interviews that were semi-structured. Teachers were asked about behavior management and interventions including factors they believe cause negative behavior, how they promote positive behavior in their classrooms and interventions or strategies they use for students’ who are displaying negative behavior. A deductive reasoning approach was used by the researchers to analyze the data. In order to analyze the data, the information gathered from the interviews were collected and compared. The teachers believed that behavior is influenced by environmental factors at school and at home as well. The teachers also saw positive behavior as following the rules and getting along with others as well as other prosocial behaviors. On other hand, negative behavior was seen by teachers as antisocial behavior including disruptive behavior, aggression and not following rules. The teachers behavior interventions used were positive individual strategies which focused on responding to socially appropriate behavior, negative individual strategies which focuses on responding to inappropriate behavior, positive group strategies, negative group strategies, preventative strategies and schoolwide strategies. According to the results found by the researchers, the teachers’ interviews gave more consideration to individual student strategies rather than group strategies. The teacher consideration of individual behavior interventions over group interventions can impact a schoolwide positive behavior support strategy negatively because schoolwide positive behavior supports require a group perspective and group interventions at tier one and tier two levels. The teachers interviewed were also not familiar with schoolwide positive behavior supports or Response to Intervention. More district training is needed for the teaching staff in the areas of Positive Behavior Supports and Response to
Intervention. However, the teachers identified with many of the schoolwide positive behavior support elements including seeing teachers as a strong influence on a child’s behavior (Tillery, Varjas, Meyers, & Collins, 2010).

Childs, Kincaid, and George (2010) completed a qualitative study on the use of Positive Behavior Supports in Florida. Participants in the study were school districts across Florida who had supportive administrators and school teams that wanted to receive further training in Positive Behavior Supports at the primary level. Schools completed the New School Profile to collect data about their demographics of the students before receiving the training including their baseline behavior data and academic data. The New School Profile was the collection of their baseline data. After the implementation of the training, the schools then completed a school profile on their student demographics except behavior or academic data. The behavior and academic data is gathered during the Outcome Data Summary. A team process evaluation was also completed by the school team to determine the effectiveness of their team. Benchmarks of Quality were completed to determine the fidelity of the Positive Behavior Supports at the primary level. The Outcome Data Summary was used to gather data on the students’ attendance, behavior and academic achievement. After the implementation of the Positive Behavior Supports at the primary level, schools across Florida demonstrated a decrease in problem behavior. The amount of Office Discipline Referrals dropped by 33% after the implementation compared to their baseline data as well as fewer In School Suspensions and Out of school Suspensions at the elementary levels. “Florida schools trained in the Tier 1/Universal level of PBS had a higher percentage of students reaching Level 3 (performance of grade level) on the FCAT reading segment (62.67%) when compared to the statewide average (55.67%)” (Childs, Kincaid, & George, 2010, p. 204). After proper training in the Positive Behavior Supports at the
primary level and implementation of those supports, Florida elementary schools saw a decline in problem behavior and an increase in their students’ academic progress (Childs, Kincaid, & George, 2010).

**Characteristics of an Effective Behavior Intervention**

With the use of three-tiered model approaches, schools are developing tier 2 and tier 3 behavior plans to support students who need more direct or intensive behavior supports than the schoolwide behavior plans offer (Campbell and Anderson, 2008). Fifteen percent of the school population falls in the at-risk for school failure category and need additional behaviors supports than the schoolwide behavior supports and five percent of the school population needs intensive behavior supports (Hawkens, Vincent, & Schumann, 2008). Research completed by Campbell and Anderson (2008) looks at a behavior intervention to provide additional supports to students at the secondary level.

One behavior intervention being used by schools is Check-in/Checkout. Researchers, Campbell and Anderson (2008), completed a quantitative study on how effective Check-in/Checkout can be for two elementary students. The participants were chosen on data gathered on the students with the most office referrals for negative behavior. The dependent variable in the study was the student problem behavior. These problem behaviors included non-compliance, disruption, and negative verbal or physical interaction as well as the students being out of their seats. Data was collected by observations at 20 minutes intervals completed by the researchers using a 10-s partial-interval recording system as well as on contextual variables including large group instruction, small group instruction, independent work, group work, and transitions and environmental responses including teacher attention, peer attention, and escape from the activity. A Functional Behavior Assessment was also completed in order to better determine the
participants’ functions of their behavior. The Functional Behavioral Assessments included teacher interviews and direct observations of both students. Baseline data was collected during the Functional Behavior Assessment as well as prior to the implementation of the Check-in/Checkout system. The Check-in/Checkout system was implemented during math and reading by the school staff. At the beginning of the day, the participants checked-in with the school counselor and this is where they received their daily point card. A verbal prompt was also given to the participants about appropriate behavior as well the counselor collected the previous days home report. Each day the participants set a goal at the first check-in and if they met that goal 80% of their daily point goal, they could earn a tangible or intangible reward. Throughout the day, the participants can earn up to three points for their three behavior goals for a total of nine points. The participants checked in three different times with their teacher and would be rewarded for their points earned. Finally at the end of the day, the participants would check-in with the counselor for their final check-in of the day. If their goal was met for their behavior goals, then they would earn their reward at this time. Data was analyzed by finding the proportions of problem behavior occurrences and environmental factors. The results of the both participants included teacher interviews which revealed the problem behaviors occurred for both participants when they were together and during academic tasks. Their problem behaviors were maintained by peer attention. At first the data showed that there was no change in problem behavior once the use of the Check-in/Checkout intervention was implemented, so a Function-based Adaption was implemented as well. The Function-based Adaptation included a contingency of earning morning points prior to lunch check-in in order for the participants to pick their lunch seats. Both participants greatly decreased their amounts of problem behaviors after the implementation of the Check-in/Checkout system and the Function-based Adaptation.
During baseline data, participant one demonstrated problem behaviors at an average of 31% of intervals and after implementation demonstrated problem behaviors at an average of 10% of intervals. Participant two demonstrated problem behavior at an average of 27% of intervals and after the implementation demonstrated problem behavior at an average of 12% intervals. Campbell and Anderson (2008) agree that more research needs to be conducted about how behavior function data can be used to help teams choose appropriate target interventions (Campbell and Anderson, 2008).

Mong, Johnson, and Mong (2010) also completed a qualitative study that looked the effectiveness of the Check-in/Checkout system. The study was completed at an elementary school in the southeast United States. Schoolwide Positive Behavior Supports was already implemented at the school. Four students, two girls and two boys, were chosen for the intervention. These participants were chosen because they had received 5 office discipline referrals in one month, the participants behavior occurred in multiple settings throughout the school, and the students Functional Behavior Assessments hypothesized that the functions of problem behavior was attention seeking behavior. The Functional Behavioral Assessments conducted included an interview with students’ teachers using the Functional Analysis Informant Record for Teachers which helped to identify the reason for the problem behavior and to determine possible reinforces for the behavior. The researchers used direct observation of the participants’ problem behavior. The participants were observed 3 days per week for 20 minute, 10-s partial interval recording system. Office Discipline Referrals were collected prior to the implementation of the intervention and after implementation as well as the participants’ daily percentage of points were collected to gather data on the effectiveness of the Check-in/Checkout system. The Check-in/Checkout treatment integrity checklist was used “to determine the degree
with which the Check-in/Checkout intervention was implemented as prescribed (Mong, Johnson, & Mong, 2010, p. 228). Academic data was collected by administering Curriculum Based Measurements to determine the participants’ math instructional levels. During the 8 weeks of Check-in/Checkout intervention, the participants received math instruction once per day and did not receive any other math instruction. Math probes were used to progress monitor the students and their academic progress. The Behavior Intervention Rating Scale was completed by school counselors and the participants’ teachers once a week during the 8 week period. This assessed the social validity of the intervention. Baseline data was collected multiple times prior to implementing the intervention. The Check-in/checkout system consisted of five parts: students checked in with school counselors at the start of the day, students checked in three times with their teachers at specified times to be rated on their behavior, students checkout with their counselors at the end of the day to review the day and their behaviors, the days progress report was then sent home and signed, and finally, the student was responsible for returning the previous days progress report signed by their parents to the counselor at the morning check-in. Before implementation, the participants displayed problem behavior at an overall mean of 32.8%. After implementation, two participants had an instant reduction in problem behaviors and the other two participants had a gradual reduction in problem behaviors with a final overall mean of 21.4%. According to the mean score of the counselor rating for Acceptability, Effectiveness, and Time of Effect on the BIR were 76 out of 90, 33 out of 40, and 8 out of 12. The mean teacher ratings for Acceptability, Effectiveness and Time of Effect on the BIR were 69 out of 90, 36 out of 40, and 6 out of 12. Mong, Johnson, and Mong (2010) believe more research is needed on the effects of Check-in/Checkout intervention and its effects on students reading including comprehension and mathematics area including computation or application. All in all, the Check-
in/Checkout system was effective for the participants at this elementary school. It helped to improve their behavior as well as an improvement in their mathematics ability (Mong, Johnson, & Mong, 2010).

According to Horner, Sugai, and Anderson (2010), Check-in/Checkout is an evidenced-based intervention that can be used at the secondary level of School-wide Positive Behavior Supports system. Check-in/Checkout is the use of a “daily report card intervention designed to improve daily structure (e.g. prompts), social links with adults, access to academic support, and coordination between school and home” (Horner, Sugai, & Anderson, 2010, p. 9). During the intervention, the students check in with an adult at the beginning of the school day to set their behavior goal for the day and return the previous days behavior report, check in with their teachers to receive feedback on their behavior and to receive behavior points earned, check in again at the end of the day to review their days progress, and then the student takes the behavior report home to review it with their parents and have their parents sign it along with returning it to school again the next day. The daily behavior reports can be used as a measure to collect data which can help the staff determine whether or not this intervention is effective for that individual student. Further, the authors explain that the research completed on the Check-in/Checkout intervention positively supports the use of the Check-in/Checkout intervention at the tier 2 level of a School-wide Positive Behavior Supports system as well as the Check-in/Checkout intervention displays a reduction in problem behavior (Horner, Sugai, & Anderson, 2010).
Chapter III: Results and Analysis Relative to the Problem

Studies suggest that effective behavior interventions can help promote positive behaviors among students identified with low reading fluency (Campbell & Anderson, 2008; Luiselli, Putnam, Handler, & Feinber, 2005; Mong, Johnson, & Mong, 2010; Childs, Kincaid, & George, 2010; Horner, Sugai, & Anderson, 2010; & Carney & Stiefel, 2008). Behavior RTI is one of the preventative behavior interventions that can be utilized in the school to support students with difficult behavior. All three studies discussed found success with a Behavioral Response to Intervention approach to supporting students with problem behavior with their three levels of support. The studies were successful because the schools in the study had a Universal Schoolwide Positive Behavior Supports system in place with fidelity. They also used evidence based behavior interventions to support students at the Tier two level as well as added special education for those students who were identified as having a disability and needed a more individualized Tier three support (Fairbanks, Sugai, Guardino, and Lathrop, 2007; Carney & Stiefel, 2008, & Pearce, 2009).

Schoolwide Positive Behavior Supports is another three-tiered model preventative behavior intervention that has been proven by research to be successful. Schoolwide Positive Behavior Supports consist of Tier one supports that support 80% of the school population by teaching behavior procedures and expectations in all school settings, rewards good behaviors, and data collection is used to progress monitor the effectiveness of the interventions. Tier two interventions are used along with Tier one supports to offer another level of behavior support for about 15% of the population who need a little more support to be successful. Finally, Tier three or individualized supports including special education are implemented to help the final 5% of the population be successful with the behavioral interventions (Hawken, et. al., 2008). Childs,
Kincaid, and George (2010) and Luiselli, Putnam, Handler, & Feinberg (2005) found that after schools implemented a Schoolwide Positive Behavior Supports intervention, the amount of office discipline referrals and the amount of problem behavior observed decreased. The students’ academic progress also increased after the implementation of the Schoolwide Positive Behavioral Supports (Childs, Kincaid, & George, 2010; & Luiselli, Putnam, Handler, & Feinberg, 2005).

Tillery, Varjas, Meyers, and Collins (2010) interviewed several teachers about their thoughts on behavior and how to support student behavior. Many of the teachers felt behavior was impacted by environmental factors at school and at home as well. The teachers interviewed were also more comfortable at implementing individual or Tier three interventions than they were at implementing Tier two or small group interventions. The teachers were also not very familiar with Positive Behavior Supports or Behavior Response to Intervention, so more training in these areas including more Tier two intervention trainings were needed by the school staff (Tillery, Varjas, Meyers, & Collins, 2010).

One Tier two intervention that has been proven to be successful by research is the Check-in/Checkout intervention. Mong, Johnson, & Mong (2010) as well as Campbell & Anderson (2008) studied the use of Check-in/Checkout as behavior intervention at the Tier two level. Horner, Sugai, & Anderson (2010) explain Check-in/Checkout intervention as a five step intervention. First, the students check-in with a familiar staff member in the morning. Here the student turns in their daily point sheet that is signed by their parents from the day before and set their behavior goal for the day. Then the students check-in with their teacher three times during the day. During the check-ins, the students earn points for their behavior displayed between check-ins. At the end of the day, the students check-out with the same staff member that they
checked in with during the morning to review their daily points and receive their reward if it was earned. Finally, these daily points sheets are sent home to be reviewed by the parents and to be signed (Horner, Sugai, & Anderson, 2010). The use of this Tier two intervention can help reduce problem behaviors in students as well as increase their academic achievement (Mong, Johnson, & Mong, 2010 & Campbell & Anderson, 2008).
Chapter IV: Recommendations and Conclusion

Recommendations

Mandates from the federal government are telling school districts to develop behavior interventions to help keep positive, safe school climates (Stoppa, Kuzmanoff, & Chavez, 2011). The school districts are implementing multi-tiered, preventative behavior interventions that offer different levels of support to allow all students to be successful (Mitchell, Stormont, & Gage, 2011). Research recommends the use of these multi-tiered behavior interventions including Positive Behavior Supports or Behavior Response to Intervention to decrease the amount of problem behavior and the amount of discipline office referrals as well as increase academic achievement (Campbell & Anderson, 2008; Luiselli, Putnam, Handler, & Feinber, 2005; Mong, Johnson, & Mong, 2010; Childs, Kincaid, & George, 2010; Fairbanks, Sugai, Guardiano, & Lathrop, 2010; Horner, Sugai, & Anderson, 2010; & Carney & Stiefel, 2008).

These multi-tiered behavior interventions have many elements, but can be successful if implemented with fidelity. The first element of a multi-tiered behavior intervention is having three different tiers or level of support for students. The first tier, tier 1 or primary level, interventions are effective for 80% of the school population. Tier 2 or secondary interventions are for a small group (15%) of the population who need extra intervention or support along with the tier 1 supports. The final tier is tier 3 or tertiary level of support. This level is beneficial for the bottom 5% of the school population that often needs an individual level of support or an individual behavior plan (Mitchell, Stormont, & Gage, 2011). These different levels of support allow students to be successful and can decrease the amount of office discipline referrals (Luiselli, Putnam, Handler, & Feinber, 2005; & Childs, Kincaid, & George, 2010).
In order for the use Positive Behavior Supports Intervention to be effective, the intervention needs to include several other elements along with the tiered level of support. One of these elements is setting behavior expectations for every school setting including; the classrooms, hallways, cafeterias, gyms, etc. The students are taught these expectations and procedures at the beginning of the school year and reviewed throughout the school year. Another element is progress monitoring of the behavior intervention. By progress monitoring, the staff is able to see if the intervention is successful or not (Luiselli, Putnam, Handler, & Feinberg, 2005). Schools also need a team who is committed to leading all school Positive Behavior Support efforts. The school should also have procedures in place that discourage negative behavior including breaking school expectations and procedures (Childs, Kincaid, & George, 2010). By implementing these elements, the students can be successful with their behavior as well as their academics (Childs, Kincaid, & George, 2010).

Tier two interventions need to be evidence based interventions that are progressed monitored to track the effectiveness of this intervention (Horner, Sugai, & Anderson, 2010). By using evidence based interventions like Check-in/Checkout can help students to be successful at the Tier two level (Mong, Johnson, & Mong, 2010). The amount of the problem behaviors can decrease as well as their academic achievement can increase, but only if the intervention can be implemented with fidelity and is appropriate for that student (Mong, Johnson, & Mong, 2010). The intervention should be progress monitored to check the effectiveness for each individual student and if it is not successful for them, then the team needs to look at either another evidence-based intervention or look at a more individualized Tier three intervention (Fairbanks, Sugai, Guardino, and Lathrop, 2010).
Areas of Further Research

In the area of Behavior Response to Intervention, more research is needed on the use of secondary or Tier two interventions (Carney & Stiefel 2008). Carney and Stiefel also recommend more studies need to be completed in the areas of the problem solving models. Teachers are struggling with finding interventions for students who are struggling with Tier two interventions, but yet do not qualify for special education. This information is crucial for teachers to help best support all of the students in their classrooms and for all students to be successful (Carney & Stiefel, 2008).

In the area of Positive Behavior Supports, according to Luiselli, Putnam, Handler, & Feinberg (2005), more research is needed to help refine this large-scale approach to behavior. More research in this area and refining Schoolwide Positive Behavior Supports will help teachers and others will be able to better understand how to implement Schoolwide Positive Behavior Supports in their schools and do this with fidelity (Luiselli, Putnam, Handler, & Feinberg, 2005).

The Check-in/Checkout intervention also needs further intervention. Further research needs to be done on how this intervention affects students reading abilities including their reading comprehension. As well as more research on how it impacts the students receiving this intervention and their math computation skills and math application skills (Mong, Johnson, & Mong, 2010).

Summary & Conclusion

In conclusion, the use of preventative behavior interventions including Behavior Response to Intervention and Schoolwide Positive Behavior Supports are being used in more and more school districts across the nation (Childs, Kincaid, & George, 2010). School districts are also being expected to have their students perform at higher academic levels than ever before
(Adolphson, Hawken, & Carroll, 2010). When schools implement preventative behavior interventions, students are able to learn socially expected behavior through teacher instruction of expected school-wide procedures and expectations and positive reinforcements for displaying these expected procedures and expectations (Luiselli, Putnam, Handler, & Feinber, 2005). As well as, schools are able to decrease their amount of office discipline referrals and suspensions (Childs, Kincaid, & George, 2010). Also, when preventative behavior interventions are put into place, students’ also increase their academic skills including on-task behavior (Campbell & Anderson, 2008; Childs, Kincaid, & George, 2010; & Luiselli, Putnam, Handler, & Feinberg, 2005).
References


