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A Collaborative Approach to Address Student Behavior and Academic Achievement across Systems

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A COLLABORATIVE APPROACH TO ADDRESS STUDENT
BEHAVIOR AND ACADEMICS ACROSS SYSTEMS

A Thesis
Presented to the
Faculty of
California State University,
San Bernardino

In Partial Fulfillment
of the Requirements for the Degree
Master of Arts
in
Child Development

by
Beverly Ngozi Okereke

September 2016

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ABSTRACT

Academic achievement and in-classroom behaviors are two significant child outcomes that affect student success in school. According to Systems Theory, in order to truly understand the factors that affect these outcomes for children, one must look to the major systems that encapsulate the child (including their school and home environments). This project is a meta-analytic review that examined the effectiveness of measures representing each system in predicting child achievement and behavior: School-Wide Positive Behavior Supports (SWPBS) for the school as a system, level of parent involvement (high versus low) for the home system, and student motivation (intrinsic versus extrinsic) for the child system. Archival research was used to examine children who attended K-12 schools in various Westernized countries. A total of 15 studies were examined to compute the effect sizes which were combined to examine the relative strength of each factor on the two outcome variables. For academic achievement, it was found that effect sizes were very large for SWPBS (0.768) and student motivation (0.807), and were large (0.589) for parent involvement. For behavior, SWPBS was associated with a very large effect size (-0.780). In other words, SWPBS is strongly associated with both increased academic achievement and decreased problem behavior, whereas parent involvement and student motivation are strongly associated with increased academic achievement. A suggested systems approach including the school counselor is proposed that meshes the effects of these three child

systems into a more fluid, collaborative model that address child academic achievement and behavioral concerns.

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CHAPTER ONE

INTRODUCTION

Teacher perceptions surrounding student misbehavior in schools is associated with the belief that the students who misbehave do so for attention, apathy, or problems at home; whereas parent perceptions include the belief that these students have bad peer influences at school (Cothran, Kulinna, & Garrahy, 2009). These perceptions from teachers, parents, and other important stakeholders for the child often result in punitive measures used to tackle classroom misbehavior, and may be a direct result of poor classroom management techniques (Allday, 2011). Poor classroom behavior management techniques can be attributed to a potential deficit in the teacher's knowledge (which can also be applied to parents in the home setting) regarding how to decrease disruptive and inappropriate classroom behaviors, and promote more appropriate behaviors.

According to research on classroom behavior management in the school setting, the sharing and communication of more effective evidence-based behavior management techniques are not consistent across schools, as many educators continue their accustomed classroom management techniques (Astramovich & Loe, 2006). In the home setting, parents believe that the schools should handle their child's misbehavior, and keep their child away from negative behavioral influences (Cothran, Kulinna, & Garrahy, 2009). As such, it would help if a third party (e.g., the school

counselor) within the school setting could not only educate educators and parents about more effective ways to view the causes of and handle inappropriate behaviors, but also to connect both parties to discuss and address the behavioral issues further. This could be accomplished through the use of a Systems Theory approach to addressing behavior in the schools.

A systemic approach could also extend to academics, as an improved behavior management system would also generalize to both short-term and long-term benefits for in-class instruction and learning. This preventative approach could be used to address multiple issues within the school, including behavioral issues in the classroom (Filter, Ebson, & Dibos, 2013). As such, this systemic approach should provide the best outcome for the student due to the addressing of the underlying issues and effects of the behavior problem, and a consistency in behavior management techniques across the student's primary environments, such as the school and the home (Miller, Colebrook, & Ellis, 2014; Splett et al., 2013). By addressing the student's primary environments, one then involves those people who have the most interest or concern about the child's future success (i.e., the parent and teachers).

In addition to addressing the parent and teachers as stakeholders in the home and school settings, the child should also be included, as their motivation to change their behavior or do better in school will have a large effect on whether any interventions will improve classroom behaviors and academics. In particular, the child's perception of their ability to be successful

in school and to have some control in the extent of that success will have an influence on how motivated the child is to change how they approach their school and home environments (Ryan & Deci, 2001). Building on this promotion of intrinsic motivation in the child (Deci, Nezlek, & Sheinman, 1981) while also increasing the collaborative relationship between the home and school environments should lead to a better chance of positive academic and behavioral outcomes for the child. Employing this approach through a promotion of more positive behavior supports throughout the school, increased parent involvement with the child, and more focus on the individual child's motivational constructs in regard to their academic potential can best serve to both decrease disruptive problem behaviors long-term while also promoting academic achievement.

Current Issues with Misbehavior in the Schools

Although academics and classroom behavior are both significant outcomes to study, misbehavior is of primary concern as problem behaviors lead to a need for in-class behavior management. The way a teacher manages problem behavior in their classroom affects the quality of both teaching and student learning. In many schools, especially urban schools that have fewer resources, teachers find themselves spending much of their classroom time managing problem behaviors (Reinke et al., 2011). The researchers found that, while teachers see themselves as the primary person to implement behavior programs with students, they did not believe that they

had the knowledge, skills, or enough cultural knowledge and interpersonal skills to serve the mental health needs of their students. This is disconcerting as 97% of teachers reported that the main mental health issue in school is disruptive and acting out behaviors. In addition, 68% of teachers reported that their most common experiences with gaining knowledge relevant to implementing behavior programs came from workshops and in-services with the school psychologist, and most rated their education/training and experience with behavioral interventions from little/no knowledge (21%) and little/no experiences (20%) to moderate knowledge (62%) and moderate experiences (48%) (Reinke et al., 2011).

While research shows that there are evidence-based practices that could work to alleviate some classroom behavior problems, there is an apparent disconnect between the empirical findings for effective practices and getting these practices to those who can and need to implement them (i.e., teachers and parents). In terms of teacher reports on how to alleviate behavioral problems, teachers believe that parent supports, followed by prevention programs for externalizing and internalizing behaviors, are needed in addition to staff training on behavioral intervention, implementation, and mental health in general (Reinke et al., 2011). According to Chafouleas, Volpe, Gresham, and Cook (2010), behavioral problems in school are associated with many negative factors for the child and society as a whole. One such negative outcome is lower academic achievement throughout school, which is

associated with other negative outcomes for the child later on such as further misbehavior and higher likelihood of dropping out of school (Finn, Fish, & Scott, 2008).

Misbehavior in Schools: Definition and Potential Causes

There are many different problem behaviors that teachers have to manage in the classroom. Finn, Fish, and Scott (2008) defined typical classroom misbehaviors as being late or not going to class, leaving one's seat, being disruptive/talking when not supposed to, cheating, and not following directions or finishing assignments. They also defined some out-of-classroom misbehaviors including being in a gang, being truant, doing drugs, vandalizing property, and bullying/fighting (Finn, Fish, & Scott, 2008). Cothran and Kulinna (2007) further classified misbehaviors into two general categories:

1) misbehaviors students most recognize, and 2) misbehaviors which occur most often. Regarding the first category, they found five misbehavior subcategories that were seen as problematic by students: "aggressive, illegal/harmful, low engagement/irresponsible, fails to follow directions, and poor self-management", the most common misbehaviors that students recognized were distracting/disturbing others. In addition, teachers reported "dodging participation, disrespectful, and complaining" as the most common misbehaviors (217).

In terms of potential reasons for misbehavior at school, students and teachers have differing views. Teachers typically responded by saying that

they either did not know why the students misbehaved or that the root of the problem lies within the home environment. Students, on the other hand, did not believe their home environment was the primary reason for their misbehavior (Cothran, Kulinna, & Garrahy, 2009). Instead, they stated that the misbehavior could stem from the class lessons being boring, an attempt to get attention from peer groups or the teacher, or the belief that they couldn't do the lesson (Cothran & Kulinna, 2007).

Misbehavior in Schools: Short-Term Effects

One primary concern about classroom misbehavior is that learning is greatly impeded as the teacher has to stop instruction in order to focus on managing the misbehavior, effectively reducing time available for teaching and learning. This leads to less material being learned and greater potential for delayed academic functioning for later school years. Cothran, Kulinna, and Garrahy (2009) reported that teachers and students both cited lessened time to teach content, changed curricular content, and a negative effect on teacher attitude. When the students misbehave, not only do the teachers have to stop teaching the material, but they must also spend time trying to manage the behaviors of the students (and some students do this intentionally). Because of this, the teacher must modify their teaching of certain topics or forego them altogether. This leads to an overall teacher negative affect, decreased teacher patience, teacher frustration, and a strained teacher-student relationship (Cothran, Kulinna, & Garrahy, 2009). This strained relationship may not do

anything to rectify the classroom behavior situation. In fact, in times like this, teacher attributions and frustrations from the more severe misbehaviors lead to more reactionary and punitive practices for behavior management (Kulinna, 2007), which may inadvertently serve to reinforce the disruptive behavior in the long run (Tran, 2016).

Misbehavior in Schools: Long-Term Effects

Finn, Fish, and Scott (2008) looked into the long-term effects for high school students who exhibited at least one type of misbehavior. They found that high school students not only were more likely to exhibit other misbehaviors, but they were also more likely to self-report lower test scores and grades. This implies that it is rare for a student to only have one misbehavior at school. In other words, if a student exhibits one type of problem behavior in school, there is an increased likelihood that they also exhibit other problem behaviors as well. Students who exhibited many of the aforementioned misbehaviors were the most likely to drop out of high school and are less likely to enter or finish some form of postsecondary schooling (Finn, Fish, & Scott, 2008).

Teachers also experience many adverse effects in their attempts to manage misbehaviors over a long period of time. Stress, burnout, and emotional apathy toward their students were listed as long-term effects of misbehaviors for teachers (Kulinna, Cothran, & Regualos, 2006). Teacher stress is an important factor to consider in discussing student outcomes, as it

creates and perpetuates negative teacher-student interactions. With chronic stress in teachers, teachers are not only less likely to have positive interactions with these students, but are more likely to try to avoid interactions with these students altogether (Tran, 2016). In fact, when misbehavior is a consistent problem in their classroom, teacher concerns about misbehavior are thus increased, leading to more stress. In a study examining the effects of teachers' coping styles in relation to student misbehavior, Tran (2016) surveyed 397 high school teachers in Vietnam and found that when teachers had more concern over student misbehavior in their classrooms, they were less likely to use positive coping styles (e.g., relaxation and social problem solving) and were more likely to use passive avoidant coping styles which were positively correlated with punitive behavior management techniques such as aggression (e.g., yelling) and punishment (e.g., detention). In addition, students who perceive their teachers to be aggressive tend to misbehave more and to be more resistant to teacher direction in the classroom (Miller, Ferguson, & Byrne, 2000). If this student perception continues long enough, this perception can generalize to the students' behavior in other classes and also negatively affect the student's academic achievement as the student tends to be more distracted and to accept less responsibility for their behaviors in class (Lewis, 2001).

Managing Misbehavior - Reactionary Techniques: Punishment and Aggression

Student behaviors in the classroom can greatly affect the way a teacher perceives and addresses the class as a whole, leading teachers to create negative attributions of the students and to use ineffective coping styles to address student misbehavior over time. With regards to classroom management and addressing student misbehavior, Tran (2016) described that teachers who deal with more misbehaviors in their classroom regularly tend to adopt more passive avoidant coping strategies which leads to more punitive behavior practices such as punishment and aggression.

Lewis (2001) created a questionnaire to measure the three coping styles (i.e., passive avoidant coping, social problem solving, and relaxation). He described passive avoidant coping strategies as those involving blaming oneself, wishing things were better, changing eating/ sleeping patterns, and becoming sick. These strategies included “Worry about what will happen to me; Wish a miracle will happen to make things turn out well; Blame myself; Don’t let others know about my problem; I get sick; Shut myself off from the problem so I can try and ignore it; and Find a way to let off steam, for example cry, scream, drink, take drugs” (5). Tran (2016) found that coping styles mediated the relationship between teachers’ concerns about the way their students behave and how they addressed their students’ behavior, and that passive avoidant coping styles tended to lead to teachers being more likely to use punishing and aggressive strategies to address behavior in the classroom.

Drawing upon Lewis' (2001) definitions of how teachers use punishment and aggression, teachers' use of punishment increases the frequency of consequences in multiple instances including when the child argues, when the child does not do the appropriate behavior, and when the child does the inappropriate behavior again. Teacher aggression includes yelling at the student, intentionally embarrassing the student, responding sarcastically to the student, and keeping the whole class in because a few students misbehaved (Lewis, 2001). The problem with these types of procedures is that they do not teach the students what they should be doing, such as replacement behaviors or proactive strategies. Instead, they only teach the student what they should not be doing at that point in time (Downing, Keating, & Bennet, 2005), and may also serve as a reward for the students who misbehave for attention (Kazdin, 2001).

Generally, punitive reactionary responses have long been shown to not only be ineffective in the long-term, but they also provide a potential reinforcing response for student and teacher. Through the aforementioned development of passive avoidant coping strategies in teachers who deal with chronic misbehavior (Tran, 2016), teachers' increased use of aggressive tactics subsequently increases the students' tendency to resist the teacher, making it more likely that this resistance behavior will generalize outside of that teacher's classroom (Lewis, 2001; Miller, Ferguson, & Byrne, 2000). In other words, these punitive, aggressive tactics may lead to an increase in

student misbehavior and increase teacher use of reactive strategies to address the misbehavior (Allday, 2011; Downing, Keating, & Bennet, 2005). Negative reinforcement is an increase in one's behavior response after the removal of an aversive stimulus. It can be readily found in schools and is associated with reactionary techniques used to address misbehavior. For example, when a teacher sends a disruptive student into the hallway, to the principal's office, or even back home through suspension, this removes the disruptive student from their classroom. This results in increased time for the teacher to teach because they no longer have to deal with the disruptive student. Over time, this strategy will increase the likelihood that when a teacher does not like a student's behavior, they will remove him or her from their classroom and not attempt to remediate on the reason for the problem behavior. This resulting increase in the teacher's student removal from the classroom reflects a negatively reinforcing effect of the removal on the teacher. Removing a disruptive student may also lead to a reinforcing effect for the student in which they use the disruptive classroom behavior as a ticket out of the aversive class period (to avoid the teacher, subject matter, certain students, etc.) (Sugai & Horner, 2002).

Other frequently-used classroom management tactics include time-outs from in-classroom activities or outside activities (recess, field trips, etc.) and scolding (Allday, 2011). However, research indicates that punishment tactics only serve as temporary solutions that have little to no effect on the behaviors

(Belfiore, Basile, & Lee, 2008). In fact, many times these tactics lead to reactionary responses from the student which can further harm the teacher-student relationship. Further, these tactics can harm both the student and the teacher's feelings of competence and autonomy as both parties lose their belief in their ability to fill their respective roles and their ability to take control of the situation at hand.

Summarizing the research on problematic classroom behaviors indicates consistent findings on the numerous negative influences of misbehavior and its effects on student outcomes. However, these outcomes are not solely the result of school factors. They can also be affected by factors outside of the school (i.e., the home). One can argue that the two major contexts for a child include both the school and the home. As such, one should consider both of these major contexts along with the teachers and parents in order to truly understand the student and their behaviors. These contexts can also be called systems.

Systems Theory

In their book *Family Theories: An Introduction (4th ed)*, White, Klein, and Martin (2014) described Systems Theory as having four basic assumptions. The first assumption is that all of the parts (i.e., child, school, and home) within the system are interconnected. As such, if one part within the system were to change, it would consequentially affect the rest of the parts within the system. The second assumption is that the system can only be understood by looking

at it as a whole, rather than at its internal parts. Only by looking at it as a whole will one be able to fully grasp the behaviors that go on within the system. The third assumption is that there is a reciprocal relationship between the system and its surrounding environment. In other words, the system can influence its surrounding environment, and vice versa. Lastly, systems theory assumes that systems are merely heuristics to be used to understand the bigger picture of reality, and are not reality in and of themselves.

Systems theory also has several propositions. The first proposition states that as variety within a system increases, the potential to adapt and continue on as a system also increases. This potential to adapt decreases as conflict and problems within the system increases. The third proposition is related to the idea of system goals having a hierarchy in which some goals are higher in priority than others. Higher level goals set the stage for the lower level goals and are more resistant to change than the lower level goals. An example could be related to child academic pursuits. If the goal of a child and his/her family is for the child to graduate high school and go to college, there are a number of lower level goals that can be created to reach this higher level goal of graduating high school. The parents could consistently help the child with their homework, provide positive feedback, and have regular discussions with the child about their academic future. Each of these lower level goals increase the chances of the child graduating high school and going to college, but do not all need to happen for the child to reach that goal. In the end, the

child may reach that higher level goal regardless of which of the lower level goals are employed. As the number of levels within the system increase, the more variety a system typically has. In other words, when more of these lower level goals are used to help the child, more resources become available to the child to accomplish their higher level goals (i.e., graduation and college).

Using Systems Theory to Understand Misbehavior across Systems

Systems theory postulates that adding levels (such as the lower level family goals stated above) to a child's system increases the variety of the system. Variety, or additional resources, could include parent education, more academic materials sent to the child's home, and increased communication between the school and the parent about the child. More variety in a system allows for increased adaptability within the system in response to change. This all implies that by adding more levels to a child's system more resources are available to the child (White, Klein, & Martin, 2014). By examining the child as the center of the system, and then add on their primary systems (family and school), this will increase the child's resource variety. This would then make the family system more viable as a unit by providing more resources that can help to decrease any conflict (i.e., behavior issues at home or academic deficits).

In this case, resource variety refers to the knowledge, skills, materials, and human capital that a particular system has at its disposal. This means the family would have more resources to enhance the family unit if it connects with

members of the school, such as teachers, administrators and other school staff members. In other words, through important members within the school as a system, the family has access to more variety, and can gain access to needed academic supports for their child.

According to Systems Theory, the best way to understand a child is to look at him/her as a whole, while understanding that there is a reciprocal relationship between the child and his/her environment. When the child is interconnected with his/her environment, and to fully understand the child and why he/she interacts with their environment the way they do, one must look to the child in addition to their major interconnected systems (i.e., school and home). In terms of addressing the child's behavior and academics in the school, one must consider what it is about the child, as the system's center, that may be contributing to any problems in their environment (White, Klein, & Martin, 2014). One influence in children's behavior is their motivation, as it is this motivation that drives the way children interact with their environment and the degree to which they believe they can affect change on their environment (Ryan & Deci, 2001).

Child Motivation

Much of the research surrounding motivation focuses on the effects of the two major types of motivation - extrinsic and intrinsic motivation – and how they impact various outcomes like student achievement. Witzel and Mercer (2003) propose that an intrinsic motivator is one that invokes an inherent

feeling of satisfaction as a function of some internal value. An extrinsic motivator is one that is done as a result of some external reward or as a function of some external pressure. Much research has pointed towards intrinsic motivation as being more effective than extrinsic, claiming academic performance and classroom behavior are most influenced when one is intrinsically motivated (Deci, Nezlek, & Sheinman, 1981). With this in mind, many teachers should be more willing to increase this intrinsic motivation in their students, as doing so would increase the potential of the teacher to influence student academic and behavior outcomes.

Cognitive Evaluation Theory (CET) proposes ways to increase motivation, stating that through a change in perceived competence and locus of control, extrinsic motivators can become more intrinsic (Deci, Nezlek, & Sheinman, 1981). Specifically, through an enhanced perception of competence in addition to an internal locus of causality, individuals can feel more self-determined in and more internally satisfied by the activity that they are doing. In other words, through their accomplishments children can become more intrinsically motivated. CET was developed from Self Determination Theory (SDT) by Ryan and Deci (2001), who state that competence, autonomy, and relatedness are important factors that enhancement intrinsic motivation in various social contexts (e.g., home and school).

In general terms, competence is related to one's feelings of self-efficacy, while autonomy refers to one's feelings of independence (Ryan &

Deci, 2001). Through SDT, CET's focus is on competence, which is increasingly effective for intrinsic motivation when coupled with an increase in one's perceived autonomy, or locus of control. With the goal of increasing intrinsic motivation, it is important to consider students' perceptions of their competence and autonomy as they are important factors that influence student achievement. In addition, the teacher's own attributions, or beliefs surrounding the student and their effort/achievement/behaviors also affect the student's perceptions of themselves (Sodak & Podell, 1994). Specifically, the way a teacher perceives and acts toward a student can directly affect how the student perceives his/her own ability to achieve (feelings of competence). Enhanced perceptions of both self-competence and autonomy via an internal locus of causality have been consistently shown to affect academic achievement (Deci, Schwartz, Sheinman, & Ryan, 1981).

Many students come to their classroom with a lower sense of perceived competency due to past academic failures, and an externally-based locus of control due to their high dependency on others. And on the teacher side, Witzel and Mercer (2003) state that educators tend to use more extrinsic motivators and externally-controlled interventions, which make trying to increase intrinsic motivation a bit more problematic. In many cases, some external contingencies for rewarding behaviors must be used. This is especially true for students who need assistance in learning (e.g., children with problems regulating their emotions, children with autism, etc.), such as in the

case of children with autism who actually benefit from tangible reinforcers as they help to reduce dysfunctional behaviors (Guerts, Luman, & van Meel, 2008; Koegel, Singh, Koegel, 2010). However, if one is attempting to increase student motivation beyond short-term behavior reduction, the focus should return to increasing intrinsic motivation in the student. Any rewards or constraints used must therefore be utilized in ways that promote student autonomy for a more long-term effect.

Deci, Nezlek, and Sheinman (1981) state that rewards and constraints may be either controlling or informational. Controlling rewards and restraints put the person receiving them under their control (Ryan & Deci, 2001). So, for example, a teacher who always gives stickers to the children in her classroom whenever they do a classroom chore (e.g., sweep the floor, dust chalkboard erasers) puts the children and that behavior under the control of the teacher and that reward. To a certain extent, this is beneficial and can lead to an increase in prosocial and seemingly selfless behaviors. However, when the child reaches the end of their time with this teacher, those behaviors may diminish or disappear altogether. On the other hand, informational rewards and constraints give the receiver valuable information about their unique competence (Ryan & Deci, 2001). Informational rewards not only reward the child for good behavior, but also tell them why they have received the reward which increases the likelihood that the behavior will be maintained in the future. Overall, the perceived saliency of either side – informational versus

controlling - is what determines the observed response from the receiver. In regards to rewards, CET has some basic tenets for reward use, stating that they must be perceived as more informational than controlling to the person receiving the reward. That way, the individual's locus of control can become more internally-driven, thus promoting the development of intrinsic motivation. This technique is reflective of an approach that looks to promoting student autonomy.

Unfortunately, punitive measures that are typically used to address misbehaviors generally have the opposite effect. When it comes to punishment, the student's sense of autonomy is drastically diminished since these measures are often associated with loss of privileges and tangibles (Sodak & Podell, 1994). The student's sense of competence can also be decreased, especially if they believe the teacher does not believe in their academic ability. With decreases in both autonomy and competence, there is also a decreased likelihood of developing intrinsic motivation in that environment (Ryan & Deci, 2001). With the aforementioned research on motivation and achievement (Deci, Schwartz, Sheinman, & Ryan, 1981; Ryan & Deci, 2001; Sodak & Podell, 1994; Witzel & Mercer, 2003), one could also generalize this lessening of intrinsic motivation to less interest in the subject matter being taught in the classroom and the person teaching it due to a reduced perception of their own abilities relative to that classroom environment (Sodak & Podell, 1994). This reduced perception of their academic ability

could lead to further misbehavior in the classroom, and thus less potential for academic achievement (Cothran & Kulinna, 2007).

Systems Approach with Teachers and Schools

Punitive techniques to address such misbehavior in schools generally lead to shorter-term solutions that do not effectively address the cause of the problem behavior (Tran, 2016). They also lead to a lower sense of student's autonomy and a potentially diminished sense of self-competence if students believe that the teacher thinks they are less capable of achieving than their peers (Cothran, Kulinna, & Garrahy, 2009; Miller, Colebrook, & Ellis, 2014). As such, a preventative approach has been suggested in order to avoid these negative effects on the student, their academic achievement, and long-term motivation: the School-Wide Positive Behavior Supports (SWPBS). In the SWPBS program, a leadership team comprised of necessary school staff (e.g., teacher, school psychologist, school counselor, principal, etc.) develops and defines behavioral expectations for the school. Each member must have the knowledge and expertise related to policy, implementation, and effective behavioral and social skills. They then teach those expectations to the students while reinforcing appropriate behaviors and discouraging inappropriate behaviors. This strategy is implemented throughout the school and thus focuses not only on the individual student but also on all of the systems within and related to the school (e.g., the school, family, and related community systems) (Sugai & Horner, 2002; Warren et al., 2006).

SWPBS is a program that can be implemented by any school that recognizes the four major elements of the program: 1) the defining of important student outcomes within the school (e.g., academic achievement), 2) a behavioral approach focused on creating a supportive environment, 3) data-based techniques to achieve desired outcomes, and 4) the implementation of these data-based techniques through a systems approach (Sugai & Horner, 2002). One establishing this operational definition of SWPBS, a leadership team has to be created, with each member having the knowledge and expertise related to policy, implementation, and effective behavioral and social skills. It typically includes the school psychologist, school counselor, teacher, family, and relevant community members. This team plans and establishes system-wide interventions, trainings, and supports, all of which are based on evidence-backed practices. With the use of preventative approaches to manage misbehaviors, not only can teachers help to reduce the future frequency of the problem behavior but also help to increase student academic achievement (Sugai & Horner, 2006). This approach was intended to do all of this through a systems approach to behavior intervention, using principles of applied behavioral analysis by teaching appropriate social skills, positively desired behavior, and discouraging inappropriate behavior (Sugai & Horner, 2006).

Polirstok and Gottlieb (2006) compared the results of three schools who received this positive, preventative model of intervention. The program's aim

was to “increase the level of teacher praise and reinforcement to students, thereby decreasing punishment and negative teacher comments” (356) through such techniques as planned ignoring, “high approval” teaching (where students feel comfortable with taking academic risks and reducing their misbehaviors, thus promoting pro-academic and prosocial behaviors), and use of tangible reinforcers. The first school received seven half-days of training, while the second and third schools received five half-days. The 150-minute trainings each included a question-and-answer phase, a discussion phase, a training phase for a specific behavior technique, and small group discussions to talk about the technique and how to use it for their specific classroom environments. During the training phase, the school professionals were taught about the technique, what it typically looked like, and how to use the technique in the classroom. After using this for an entire school year, information was gathered on that school year’s number of referrals to the principals and to special education, in addition to student academic achievement results in reading scores. Results showed a decrease in referrals to the principal, a decrease in special education referrals, and overall increased scores in reading achievement when compared to schools in the district that did not receive the training (Polirstok & Gottlieb, 2006).

Given the strong research support for SWPBS, it is surprising that more schools do not implement school wide programs. Additionally, positive behavior support strategies in the school, while seen as needed, are not

consistently practiced across all schools. Of the practices known, there is not enough research-based tracking of the most effective behavioral techniques for in-school practices. However, the SWPBS appears to be very effective at addressing student misbehavior, as it utilizes a systemic approach in order to use evidence-based practices in order to produce measureable, optimal outcomes through consistent, school-wide supports. This approach is better than punitive or reactionary approaches in that it takes a more preventative approach to behavior by implementing broad-based programs that generalize outside of the classroom and into the school and district (Sugai & Horner, 2006). It also specifies the importance of including key stakeholders in the child's life, such the teacher and family.

Systems Approach with Parents and Families

Family cohesion is important for overall family functioning. Olson, Sprenkle, and Russel (1979) describe cohesion in the family as the emotional bond between each of the family members. According to the authors, family cohesion is linked to family health as families who have too much or too little family cohesion are more likely to exhibit some kind of pathology. In general, the healthiest family would be one with a moderate or balanced amount of cohesion. The same goes for adaptability, as families who have a balanced level of adaptability exhibit the fewest signs of pathology. For the family system, pathology in this sense would be lessened family functioning due to

an increased potential for problems arising within a family (Olson, Sprenkle, & Russel, 1979).

Systems theory proposes that adaptability in a system (in this case, a family) increases as the amount of variety, or resources in the system increases (White, Klein, & Martin, 2014). More variety within the system allows for a better chance of the system reaching its unique goals since it has more resources and capital at its disposal. Adaptability decreases as conflict within the family system increases. Conflict could refer to a disagreement or clash between individuals or groups. This clash may occur between or within systems, and in the family it may occur between individuals or between subsystems within the greater family system as a function of the behaviors of any member of the system, including the student (White, Klein, & Martin, 2014).

Further, one cannot understand an individual's behavior (the student) without seeing how he/she fits in the system. As such, in order to understand why an individual behaves in a certain way, one must look at the system that encapsulates that individual (White, Klein, & Martin, 2014). By doing so, a better understanding of the external influences acting upon the individual will help in understanding that individual's interactions with other individuals within and between systems. That way, not only will the family members be able to make positive change, but the child's decrease in negative behaviors could

also result from therapy and ongoing support in the schools (White, Klein, & Martin, 2014).

The aforementioned systems approach with teachers and schools can also be expanded to work with families as well. If the families, especially the parents, are not wholly aware of their role in providing healthy social supports to their child, then inappropriate externalizing behaviors in the child can result. In this sense, the mental health providers such as school counselors could work on their connections with the family by seeing it as another system in which the child is the center (Miller, Colebrook, & Ellis, 2014). With help of a trained school staff member, such as the school counselor, the development of parental trainings could provide information for outside support groups to help build and maintain healthy relationships within the family, especially between the child and their parent(s) (Stewart & Suldo, 2011). As a practice, this relates to the significance of family cohesion for child health and well-being by providing parent training programs and services that connect parents through regular events and programs that make it more natural and easy for families to collaborate with the school (Miller, Colebrook, & Ellis, 2014). With parent education, better collaboration, and increased communication between the home and the school, one could infer an increased likelihood of positive outcomes (i.e., reduced misbehavior across both systems) throughout the student's life, including school, could likely result.

Systems theory also implies that social groups are more easily able to adapt to significant life events when they have more resources at their disposal (White, Klein, & Martin, 2014). Without the needed resources, family functioning may deteriorate, opening the door to potential future conflict (White, Klein, & Martin, 2014). While there are many services available to families to help reduce the problem behaviors and promote the self-care and socially appropriate behaviors for these children, there are still many internal family problems that arise as a result of the negative behaviors. Hopefully, family cohesion and functioning will improve as a result of appropriate intervention strategies.

Present Study

Current research for SWPBS focuses mostly on either the reduction of problem behaviors as a child outcome, without much focus on the indirect effects it may have on child outcomes (e.g., achievement). Research on parent involvement and its effects on student outcomes are typically not addressed by the SWPBS literature. Student motivation is also not directly addressed by the SWPBS literature; motivation literature focuses more on ways to increase intrinsic motivation in students and the differential effects of different types of motivations on student outcomes. There is not much research that puts SWPBS, parent involvement, and motivation together to see all of their effects on the frequency of misbehaviors and promotion academic achievement.

Knowing how to effectively address learning and behavioral issues in the classroom may ultimately lead to an increase in the intrinsic motivation of even the most misbehaved students, especially if this approach translates into several systems surrounding the child. Tackling the issue on the individual (motivation), classroom, and home fronts should lead to a longer-term decrease in inappropriate behaviors in the classroom.

The purpose of this study is to compare student outcomes (behavior and achievement) as a result of factors from the three main parts of the child's system: the child, the school, and the home. For the child as the center of the system, there will be a comparison into the effects of intrinsic versus extrinsic motivation on academics and behavior. For the school as an interconnected system, there will be a comparison into the effects of schools that employ SWPBS and those that do not. For the home as an interconnected system, there will be a comparison into the effects of parent involvement in their child's education versus little to no parent involvement. The purpose of this study is to summarize a comprehensive literature review for child motivation, School-Wide Positive Behavior Supports, and parent involvement in the school context through a comparison of these three factors on student academic achievement and inappropriate behavioral occurrences.

Specifically, it is hypothesized that students (within the SWPBS model) will have higher overall academic achievement and less instances of problem behaviors than those in the reactionary, punitive models of discipline. Second,

it is hypothesized that students with parents who are more involved in their student's education will have higher overall academic achievement and less instances of problem behaviors. Third, it is hypothesized that students who are more intrinsically motivated will have higher overall academic achievement and less instances of problem behaviors than those who are extrinsically motivated.

Overall, the focus of the following study is to examine current empirical research in the areas of academic achievement and behavior management in order to expand the current knowledge about the effects of different systemic factors on a child's learning and behavior in the schools. This analysis should help inform educators and parents of how to change their practices and perceptions surrounding student behavior in ways that will elicit better academic outcomes for these students through a gradual decrease in these inappropriate behaviors.

CHAPTER TWO

METHOD

Literature Search

A comprehensive search of two major electronic databases – PsycInfo (1936-2016) and ERIC (1964-2016) was conducted during spring and summer of 2016 using the following keywords: “*competence motivation + academic outcome*”(25 results), “*self-determination theory + Deci*” (141 results), “*motivation+ autism*” (149 results), “*Deci motivation*” (166 results), “*autonomy and special education*” (56 results), “*competence motivation + student achievement+ special education*” (14 results), “*Harter competence motivation*” (5 results), “*self-determination theory and student achievement*” (105 results), “*student misbehavior*” (269 results), *addressing student misbehavior*” (11 results), “*role of school psychologist + behavior*” (113 results), “*school wide positive behavior supports*” (202 results), “*increase motivation + decrease misbehavior*” (1 result), and “*punishment + academic achievement*” (62 results) for a total of 1,319 results.

Decision rules to determine viability for the present study included only using articles that had undergone the peer-review process. Studies needed to have one or more of the variables of interest, and the studies needed enough empirical data to compute effect sizes (Cohen’s d).

Data Extraction

Data from the selected studies were organized into Microsoft Excel Spreadsheets and are included in the appendix. Characteristics and variables recorded included: year of study, author of study, purpose of study, setting, number of participants, grade/ age range of participants, variables of interest, sample country, system type, results of study, and relevant statistical data. A total of three separate Excel spreadsheets were generated for each of the integral parts of the child's system: the child, the school, and the home (see appendix).

Meta-Analytical Procedure

Overall, effect sizes (Cohen's d ; Cohen, 1988) were computed from selected studies by dividing the difference of the means for the two groups by the standard deviation for each group [(mean- control mean), divided by the standard deviation of the control group]. This was done to obtain a measure for each of the three comparisons in order to determine which factor in each system was more effective in both reducing problem behaviors in school and optimizing student achievement.

Based on Cohen's classification, effect sizes ranging from 0.00 to 0.20 were classified as no effect to small effect, 0.21 to 0.33 were classified as a small to moderate effect, 0.34 to 0.50 were classified as a moderate to large effect, 0.51 to 0.75 were classified as a large effect, and 0.76 and beyond were classified as a very large effect. For each independent variable (SWPBS,

parent involvement, and student motivation), weighted effect sizes were calculated by first multiplying each effect size by the sample size (n). Those values were then summed, with the ensuing value divided by the total n for the entire group in order to establish a weighted effect size.

Variables used in the analysis:

Academic achievement. In the current study, academic achievement was measured by standardized achievement scores and GPA/grades of students at the end of each school year.

Inappropriate behavior. Typical in-classroom misbehaviors include being late or not going to class, leaving one's seat, being disruptive/talking when not supposed to, cheating, and not following directions or finishing assignments (Finn, Fish, and Scott, 2008). Out-of-classroom misbehaviors including being in a gang, being truant, doing drugs, vandalizing property, and bullying/fighting (Finn, Fish, and Scott, 2008). In the current study, inappropriate behavior was measured by office discipline referrals and frequency of problem behaviors.

Parent Involvement. Parent involvement could be generally defined as "parents' activities and behaviors related to children's schooling, enhances the academic, socioemotional, and behavioral outcomes" (277) (McCormick, Cappella, O'Connor, & McClowry, 2013). In addition, there are different subtypes of parent involvement, including home-based parent involvement (parent discussion,

monitoring, homework help and review), school-based parent involvement (e.g., PTO involvement), and home-school communication between the parent and the teacher concerning child progress or problems (e.g., writing notes to the child's teacher) (Domina, 2005; McCormick, Cappella, O'Connor, & McClowry, 2013; Pettit et al., 2001). The general definition of parent involvement will be used in the current study, examining achievement and behavioral outcome differences between high and low levels of parent involvement.

School-wide Positive Behavior Supports. SWPBS is a program that can be implemented by any school that recognizes the four major elements of the program: 1) the defining of important student outcomes within the school (e.g., academic achievement), 2) a behavioral approach focused on creating a supportive environment, 3) data-based techniques to achieve desired outcomes, and 4) the implementation of these data-based techniques through a systems approach (Sugai & Horner, 2002). It is a preventative program that includes several strategies to tackle problem behaviors including bolstering skills in communication and self-management, contriving opportunities for decision-making, changing the setting events that directly affect the reinforcers for desired behaviors, and restructuring the academic curriculum (Carr et. al, 2002). These proactive strategies focus on the school climate via an alteration of various environmental factors,

address both the school as a whole and the students as individuals, and are given before the problem behaviors occur in order to prevent them from happening again (Carr et. al, 2002; Flannery, Sugai, & Anderson, 2009). This is done through the clarification of behavioral expectations to faculty and the teaching of these expectations to students, followed by opportunities for students to practice these expectations, and reinforcement for students who meet or surpass those expectations (Lane, Wehby, Roberston, & Rogers, 2007). Positive behaviors are the desired results of such practices, and are further defined as skills that increase the potential for both success and satisfaction in various life settings, including the school setting (Carr et. al, 2002). The current study will examine the differential effects of schools that implement SWPBS and schools that do not implement SWPBS on student achievement and behavior.

Student Motivation. Intrinsic motivation is inherent is associated with feelings of satisfaction as a function of some internal value (Witzel & Mercer, 2003). Extrinsic motivation results from external reward or as a function of some external pressure (Witzel & Mercer, 2003). The current study will examine the differential effects of both types of motivation on achievement and behavior outcomes.

CHAPTER THREE

RESULTS

A total of 15 studies were selected and measured in the current study, with six studies selected for SWPBS (Table 1), four studies selected for parent involvement (Table 2) and five studies selected for student motivation (Table 3). Of the six studies selected for SWPBS, four of the studies corresponded to achievement outcomes (Table 4) and five of the studies corresponded to behavior outcomes (Table 5). All four studies for parent involvement and five studies for student motivation corresponded to academic achievement only (Table 6 and Table 7, respectively).

Participant ages varied, spanning elementary, middle, and high schools. Individual study overviews are outlined in Tables 1, 2, and 3, and include year of study, author(s), sample size, country, and participant grade level. Weighted effect sizes were calculated to determine the effectiveness of each independent variable on achievement and behavior, regardless of sample size. Overall, the weighted effect sizes for all three independent variables (Table 8) – SWPBS, parent involvement, and student motivation - on student achievement ranged from large to very large, with student motivation (ES = 0.807) having the largest effect on academic outcomes when compared to SWPBS (ES = 0.768) (Table 4) and parent involvement (ES = 0.589). Of the three independent variables, only SWPBS had a weighted effect size for behavior (-0.780), which is a very large effect.

School System: School-Wide Positive Behavior Supports

A total of six studies were selected to examine the effectiveness of SWPBS programs. Four studies measured achievement outcomes (Table 4) and four studies measured behavior outcomes (Table 5). Achievement was measured through either GPA/grades or achievement standardized test scores, while behavior was measured through either office discipline referrals (ODRs) or frequency of problem behavior. For achievement, six effect sizes were converted into a weighted ES of 0.768 (see Table 4), which can be interpreted as a very large effect (Cohen, 1977). For behavior, four effect sizes were converted into a weighted ES of -0.780 (see Table 5), which is interpreted as a very large effect (Cohen, 1977). These weighted effect sizes show that SWPBS produced very large effect on both achievement and behavior, with more effect on student behavior than academic achievement. In summary, students in schools that implement SWPBS tend to have higher test scores and grades than schools with no SWPBS implementation. In addition, schools that employ SWPBS tend to have lower problem behaviors (office discipline referrals, suspensions, unexcused absences) than students in schools that do not employ SWPBS.

Family System: Parent Involvement

A total of four studies were selected for parent involvement, all corresponding to achievement outcomes (Table 6). Achievement was measured through either GPA/grades or achievement standardized test

scores. For achievement, these four effect sizes were converted into a weighted ES of 0.589 (see Table 6), which is interpreted as a large effect (Cohen, 1977). This weighted effect size show that parent involvement has a generally large effect on achievement. In summary, these studies indicated that students with parents who are more involved tend to have higher test scores and grades than those whose parents are seldom/not involved.

Child System: Student Motivation

A total of five studies were selected for student motivation, all corresponding to achievement outcomes (Table 7). Achievement was measured through either GPA/ grades or achievement standardized test scores. Student motivation was typically measured through standardized questionnaires and motivation inventories. Students with higher motivation scores were consistently found to be higher in intrinsic motivation, and children with lower motivation scores were consistently found to have either lower in intrinsic motivation or closer to extrinsic motivation. For achievement, five effect sizes were converted into a weighted ES of 0.807 (see Table 7), which is interpreted as a very large effect (Cohen, 1977). This weighted effect size shows that student motivation has a generally very large effect on achievement. Students with more intrinsic motivation tend to have higher test scores and grades than those with little to no/extrinsic motivation.

Table 1. Overview of Selected School-Wide Positive Behavior Supports

Studies

Year	Author	N (# of schools)	Country	Participant Grade Level
2011	Caldarella et al.	2	U.S.	6-8 grade
2012	Farkas et al.	1	U.S.	5-12 grade
2009	Horner et al.	53	U.S.	K-5 grade
2006	Lassen et al.	1	U.S.	6-8 grade
2003	McCurdy et al.	1	U.S.	K-5 grade
2012	Pas & Bradshaw	421	U.S.	K-8 grade

Note. N = sample size

Table 2. Overview of Selected Parent Involvement Studies

Year	Author	N	Country	Participant Grade Level
2015	Cheung & Pomerantz	374	U.S.	7-8 grade
1987	Dornbusch et al.	7,836	U.S.	9-12 grade
2004	Englund et al.	187	U.S.	1 & 3 grade
1992	Steinberg et al.	6,400	U.S.	9-12 grade

Note. N = sample size

Table 3. Overview of Selected Student Motivation Studies

Year	Author	N	Country	Participant Grade/Age
2014	Corpus & Wormington	490	U.S.	3-5 grade
2007	Grolnick et al.	90	U.S.	7 grade
2012	Niehaus et al.	47	U.S.	6-8 grade
2005	Nurmi & Aunola	211	Finland	10 & 15 years
2014	Schwabe et al.	8,979	Germany	6-7years

Note. N = sample size

Table 4. Effect Sizes (ES) for School-Wide Positive Behavior

Supports -Academic Achievement and total ES

Year	Author	N (# of schools)	ES
2011	Caldarella et al.	2	-0.151 (GPA)
2009	Horner et al.	53	0.493 (Reading)
2006	Lassen et al.	1	0.007 (Reading)
2006	Lassen et al.	1	0.459 (Math)
2012	Pas & Bradshaw	421	0.801 (Reading)
2012	Pas & Bradshaw	421	0.777 (Math)
Total N & ES		901	0.768

Note. N = sample size, ES = effect size

Table 5. Effect Sizes (ES) for School-Wide Positive Behavior Supports - Behavior and total ES

Year	Author	N (# of schools)	ES
2011	Caldarella et al.	2	-0.123
2012	Farkas et al.	1	-1.5
2006	Lassen et al.	1	-0.201
2003	McCurdy et al.	1	-1.172
Total N & ES		4	-0.780

Note. N = sample size, ES = effect size

Table 6. Effect Sizes (ES) for Parent Involvement-Academic Achievement and total ES

Year	Author	N	ES
2015	Cheung & Pomerantz	374	0.316
1987	Dornbusch et al.	7,836	0.468
2004	Englund et al.	187	0.081
1992	Steinberg et al.	6,400	0.769
Total N & ES		14,797	0.589

Note. N = sample size, ES = effect size

Table 7. Effect Sizes (ES) for Student Motivation-Academic Achievement and total ES

Year	Author	N	ES
2014	Corpus & Wormington	490	0.635
2007	Grolnick et al.	90	0.707
2012	Niehaus et al.	47	0.302
2005	Nurmi & Aunola	211	3.9
2014	Schwabe et al.	8,979	0.75
Total N & ES		9,817	0.807

Note. N = sample size, ES = effect size

Table 8. Effect sizes (ES) for all Factors on Achievement

IV	N	ES
SWPBS	901 (schools)	0.768
Parent Involvement	14.797	0.589
Student Motivation	9,817	0.807

Note. IV= independent variable, N = sample size, ES = effect size

CHAPTER FOUR

DISCUSSION

The current study compared academic and behavioral outcomes for children in three different systems: school, family, and child. A total of 15 studies were selected with six studies in the SWPBS group, four studies in the parent involvement group, and five studies in the student motivation group. All three groups of variables reflect a positive effect on academic achievement, with student motivation ($ES = 0.807$) showing the greatest effect on academic outcomes when compared to SWPBS ($ES = 0.768$) and parent involvement ($ES = 0.589$). These results mirror their respective fields of research, as all three of these outcomes are generally associated with positive outcomes in academics. Out of the three systems variables, only one variable had relevant statistical data for a Cohen's d effect size in the current study: SWPBS. The data for SWPBS reflects a very large effect of SWPBS practices on student behavior in school ($ES = -0.780$), which further corroborates current research trends that promote SWPBS by showing the negative correlation between SWPBS implementation and problem behaviors (Farkas et al., 2012; Horner et al., 2009).

Systems Predictors of Achievement Outcomes

School System

SWPBS was associated with higher achievement outcomes in both standardized achievement tests and student GPAs. This effect could be due to the preventative nature of SWPBS. SWPBS uses a multi-tiered technique to approach student achievement and behavior that is very similar to the Response to Intervention (RTI) approach. RTI is known for its personalized, rigorous instructions to students who need the most help in school (Fuchs, Mock, Morgan, & Young, 2003). It utilizes a three-tiered system in order to distinguish those students who are struggling due to an actual learning disability versus those struggling due to inadequate classroom instruction (Fuchs, Mock, Morgan, & Young, 2003). It does this by first teaching all students in general classrooms, utilizing effective, evidence-based instructional practices. For those students who still struggle after this first step, they are then moved to more focused instruction, in smaller subject-based groups. For any students who still struggle after this more focused phase of intervention, they are given more individualized instructional services and considered for special education (Fuchs, Mock, Morgan, & Young, 2003). This approach allows for more structured, preventative, and personalized measures that are more likely to catch students who are struggling academically. This thus increases the likelihood for better academic outcomes due to consistent

and enhanced academic support (Scott, Gagnon, & Nelson, 2008). These better academic outcomes mirror the results of SWPBS in the current study.

Increased academic achievement could also be due to increased instruction time in the classroom due to less time being used to address problem behaviors in the classroom. SWPBS is also associated with reduced problem behaviors, so this reduction could lead to more time available for teachers to teach students. As a result, students get more opportunity to learn new information in the classroom. Scott and Barret (2004) looked into how much instructional time was gained from reduction in problem behaviors (ODRs) after implementation of SWPBS in an elementary school. They found that nearly 3 months (79.5 days) worth of instructional time was saved after SWPBS implementation (Scott & Barret, 2004). The gained instructional time could lead to more academic material being exposed to students, thus leading to greater potential for students to learn and perform better academically.

Home System

The current study also examined the effects of parent involvement on student achievement, comparing low parent involvement scores to higher parent involvement scores on standardized parent questionnaires. Generally, parent involvement has the best achievement outcomes when it is home-based (Altschul, 2011; Choi, Chang, Kim, & Reio Jr., 2015). In a comparison of different types of parent involvement, parent home-based involvement (parent discussion, monitoring, homework help and review)

seems to have the most consistently positive effect on both student behaviors and grades when compared to home-school communication and parent school involvement (e.g., PTO involvement) (Domina, 2005; Pettit et al., 2001). As such, it could be that the increased achievement in the current study was the result of increased parent involvement in the home. Choi, Chang, Kim, and Reio Jr. (2015) specifically examined the relationships between school-based versus home-based parent involvement on student math self-efficacy and math performance. They surveyed 8,673 10th grade students and found that home-based parent involvement indirectly affects academic math achievement through student math self-efficacy, whereas school-based parent involvement does not have as much of an effect on student achievement (Choi, Chang, Kim, & Reio Jr., 2015).

In addition, parenting style (authoritative, authoritarian, permissive) tends to have a moderating effect on parent involvement, such that parents who are more involved and who employ an authoritative parenting style have the most positive effects on student achievement (Dornbusch, Ritter, Leiderman, Roberts, & Fraleigh, 1987; Gonzalez, Holbein, & Quilter, 2002; Steinberg, Lamborn, Dornbusch, & Darling, 1992; Zellman & Waterman, 1998). With this in mind, it may be that the parents in the current study who displayed more parent involvement were also more authoritative in their interactions with their children. In an effort to determine whether adolescent perceptions of parenting style moderate the relationship between parent

practice and adolescent student outcomes, Spera (2006) surveyed 184 middle school students about their perceptions of their interactions with their parents and their parents' level involvement with them for school. Spera found that adolescent perceptions of parenting styles moderate the relationship between parent practices (parent involvement) and grades. Specifically, parenting styles high on child-centeredness (authoritative parenting style) were associated with higher grades (Spera, 2006).

Child System

Student motivation was associated with higher academic achievement as well, and had the highest weighted effect among the three predictor variables. Student motivation is highly correlated with student engagement (Grolnick, et al. 2007), and is affected by many factors, including parent involvement (Mo & Singh, 2008). Mo and Singh (2008) used data from the National Longitudinal Study of Adolescent Health (AddHealth; Wave 1, 1994-1995) to examine the effects of parent involvement on the child academic engagement and performance. They analyzed data for 1,971 7th and 8th grade students and found that parent relationship and involvement, in addition to student school engagement, significantly affect student academic achievement. (Mo & Singh, 2008). As such, the significant effects of student intrinsic motivation could be an extension of the effects of parent involvement on student internal outcomes.

Systems Predictors of Behavioral Outcomes

School System

SWPBS was associated with decreased levels of problem behavior in the schools. This could be due to the simple fact that SWPBS is a preventative approach to behavior. As problem behaviors in the schools continue to increase (Safran & Oswald, 2003), increased evidence for alternative measures to circumvent such issues are necessary. SWPBS provides a preventative model to address this issue by creating a leadership team to clearly define behavioral expectations for everyone in the school, followed by careful teaching and shaping of these expectations to students in the school through consistent reinforcement of appropriate behaviors (Sugai & Horner, 2006). SWPBS is associated with a reduction in such problem behaviors as office discipline referrals, frequency of suspensions, and overall number or behavioral violations (Nocera, Whitbread, & Nocera, 2014). This is in contrast to many traditional, reactionary behavioral techniques, which are associated with increased, potentially amplified externalizing problem behaviors (Kulinna, 2007; Tran, 2016). Through changes in school climate and an increased awareness of staff, teacher, and student behavior throughout the school, SWPBS leaves little room for misinterpretation of expectations (Tran, 2016). When this SWPBS program is implemented with high treatment fidelity, this increase regular leads to continued reductions in problem behavior and

increases in academic achievement (Kelm, McIntosh, & Cooley, 2014; McCurdy, Mannella, & Eldridge, 2003).

Limitations

One major limitation in this study is that only a limited number of studies were analyzed to measure the behavior outcome variable. While there was an effect size measure of behavior for SWPBS, there were no behavior effect sizes for parent involvement and student motivation.

For parent involvement, many studies defined parent involvement differently from each other. Some measured parent involvement in general, while others differentiated between home-based, school-based, and home to school communication types of involvement. In order to account for the variation in parent involvement measures, the current study only used measures that looked at a general definition of parent involvement, and did not include studies that divided parent involvement into different types.

For student motivation, there was a general lack of studies measuring the effect of motivation on behavioral outcomes. The research on motivation was concentrated on measures that directly or indirectly improve academic achievement. Such studies measured the relationships between different student and teacher factors and student motivation, such as teacher perceptions (Gottfried, 1985), student grade level (Corpus, McClintic-Gilbert, & Hayenga, 2009), anxiety (Gottfried, 1990; Shores & Shannon, 2007), student self-concept (Shores & Shannon, 2007), and student age (Prospero, Russell,

& Vohra-Gupta, 2012). And in terms of student motivation itself as a factor variable, the primary outcome studied was student academic performance throughout the research. Future studies could thus also look into the effects of student motivation on behavior as another student outcome of interest.

Future Research

This study looked into the effects of three major predictor variables – Schoolwide Positive Behavior Supports (SWPBS), parent involvement, and student motivation - on child outcomes in school. The variables were related to the three major systems surrounding the child and their long-term development: the child as the center of the system (student motivation), surrounded by the school system (SWPBS), and the family/home system (parent involvement). Each of the independent variables had a positive effect on student academic outcomes. Yet, even though these results are currently reflected in the literature, there does not seem to be any study that puts all three variables together for an ecological approach to student outcomes. Such an approach mirrors the systemic premise behind the SWPBS approach, and could better explain child outcome variables than any one variable alone. Future studies can look into the separate and combined effects of different factors that influence the child within these three systems to determine this.

With regards to parent involvement, future studies should consistently define the definition of what it means for a parent to be involved. The literature surrounding parent involvement is scattered with different outcomes, leading

to results that are positive, negative, and nonsignificant (McCormick et al., 2013). This could be due to the lack of a clearly defined operationalization of parent involvement. Parent training could also focus on the different types of parent involvement and the effects of parenting styles, as parent involvement may have differential effects on child outcomes, depending on the type of involvement and parenting style (Pettit, Laird, Dodge, Bates, & Criss, 2001; Zellman & Waterman, 1998). In regards to parenting type (home- versus school- based), home-based has been shown to have more effect than school-base involvement (Choi et al., 2015), and this effect can be mediated by such student factors as student self-efficacy (Choi et al., 2015), and moderated by such school factors as teacher emotional support (McCormick et al., 2013). In regards to parenting style, research into parent involvement consistently shows that authoritative parenting styles are associated with higher academic achievement, and a great chance of the child developing mastery over performance goals (Dornbusch, et al., 1987; Gonzalez, Holbein, & Quilter, 2002; Steinberg, Lamborn, Dornbusch, & Darling, 1992).

In terms of student motivation, future studies could look into potential factors that influence the decline in student motivation over time. The current study demonstrated that increased levels of intrinsic motivation in students lead to higher academic achievement. However, research into the subject regularly shows that student intrinsic motivation declines over time (Lepper, Corpus, & Iyengar, 2005). This is concerning, especially due to student

motivation had the highest effect on student achievement outcomes in the current study. Future research could explore this further. Also, in terms of student motivation effects on achievement, the increase in achievement is typically restricted to math grades (Nurmi & Aunola, 2005), and to student grade results over standardized test scores (Gottfried, 1990). Future research could look into the reasons for why math grades are most affected by positive supports in schools.

Proposed Systemic Model: Introducing the School Counselor

As Miller, Colebrook, and Ellis (2014) state, assisting in the maintenance of children's rights is a job for all of the child's major stakeholders (i.e., educators and parents primarily), and calls for a collaborative partnership between all of those involved. They state that children have better outcomes overall when these key stakeholders work together, resulting in increased academic achievement, increased feelings of academic self-competence, and more positive outcomes in life. Doing this could also help the families who typically do not have the resources or knowledge available to provide proper supports for the children, and do not know how to evaluate their child's behaviors in order to implement the appropriate responses to address them. In all, the school counselor in this instance can help to best ameliorate the issues surrounding a child by collaborating with both the school and the family

The positive effects of all three systemic factors in the current study on academic and behavior outcomes further supports this notion that it would be

beneficial to find a way to combine the three into one model in a way that would have an enhanced effect on student outcomes. Again, one cannot understand an individual's behavior (the student) without seeing how he/she fits in the system. As such, in order to understand why an individual behaves in a certain way, one must employ an SWPBS approach to look at the whole system that encapsulates the child (White, Klein, & Martin, 2014). This enhanced understanding could further generalize to a greater comprehension of any hindrances upon the child's potential success in school. One way to better understand the child would be to connect the child's two major external systems – school and home – in order to increase the variety, and thus, the resources that the child has available to them to succeed. Students who have access to more resources, whether that be through social capital (parent education, family socioeconomic status, etc.), increased early maternal quality of instruction, or other tangible resources are more likely to experience higher academic outcomes (Englund, Luckner, Whaley, & Egeland, 2004; McCormick et al., 2013; McNeal, 2001).

With this in mind, communication between school staff and the family is essential. To accomplish this, an optimal intervention team for the child should be created that not only includes school personnel (i.e., teachers) but also family members (Miller, Colebrook, & Ellis, 2014). But also by having regular communication with the child's parents, conducting observations of the child, having the parents rate the child's behavior and track the frequency of the

behavior, and establishing a stable, collaborative partnership between the child's teacher and the parent. If a child is exhibiting problem behavior at school, the problem may not be isolated to the school environment; it may also generalize to and/or from the home environment as well (Sullivan, Long, & Lucera, 2011). The resulting decrease in negative student behaviors could serve to increase classroom learn time, decrease negative attributions of the student on part of the teacher, and thus increase academic achievement and, further, increase the student's self-concept and feelings of competence and autonomy (intrinsic motivation). Knowing that behaviors are not restricted to either just school or home, and that they will thus generalize outside of those systems (Sullivan, Long, & Lucera, 2011), it is important to have someone to make the communication between these two systems more fluid. Specifically, the school counselor could facilitate the communication between the home and school environments, creating a context in which there is consistent communication between the two systems through which to regularly discuss child progress.

In addition to using SWPBS as a preventative measure, school counselors could also pay more attention to the social-emotional needs of the students (Stewart & Suldo, 2011). As a child ages, their perceived social support systems change, and their overall stress and confusion increase as they try to navigate their changing internal and external environment. In addition, parent involvement decreases (Green, Walker, Hoover-Dempsey, &

Sandler, 2007) along with overall student intrinsic motivation (Lepper, Corpus, & Iyengar, 2005). Through positive peer relationships and teacher supports, students would be more likely to exhibit more optimal behaviors, and ultimately have more positive outcomes (McCormick, Cappella, O'Connor, & McClowry, 2013), including a better self-concept that could generalize to better academic outcomes (Nurmi & Aunola, 2005). Thus, within the school setting, the school counselor could work with teachers and after-school advisors and coaches to design peer groups and trainings for both students and in-school personnel surrounding positive peer supports and relationships (Stewart & Suldo, 2011).

In terms of working with parents, the school counselor could help to design and facilitate regular parent education trainings about parenting styles, positive child rearing practices, and optimal parent involvement techniques. After the parent education class, a continuing parent support group could be established, in which the school counselor designates a parent liaison to work with a rotating classroom teacher, depending on those parents' children's grade in school. That way, parents could share parenting practices, stories, and more, while also being able to build a consistent and positive relationship with their children's teachers. This enhanced relationship should further promote parent involvement, and thus lead to more positive student outcomes long term (Deslandes & Bertand, 2005).

APPENDIX A
PARENT INVOLVEMENT - ACHIEVEMENT

Year	Authors	Purpose	Setting	N	Grade	Age	Variables	Country	Result	System	X Low P.I.	SD Low P.I.	X High P.I.	SD High P.I.	Effect Size	Interpretation
2015	Cheung & Pomerantz	to determine if parental involvement improves student academic functioning through an increase in student's value placed on academic achievement	school	374 American children, 51 Chinese children	Grades 7 and 8	varied	parent involvement and student academic functioning (engagement and achievement)	U.S. and China	More Parent involvement associated with more student value placed on achievement; this was further associated with better academic functioning (engagement and grades)	Home	3.37	0.76	3.61	0.71	0.316 (U.S.)	Small to Moderate
1992	Steinberg, Lamborn, Dornbusch, & Darling	to determine the effects of authoritative parenting, parent involvement, and parental encouragement for student to succeed on adolescent academic achievement	School	6,400	high school	14-18 years	parenting style, parent involvement, parent encouragement, student academic achievement	U.S.	Parenting style significantly correlated with parent involvement. Authoritative parenting directly effects academic performance (authoritative parenting style associated with highest levels of academic performance when compared to other parenting styles)	Home	-0.2	0.78	0.4	0.62	0.769	Very Large

Year	Authors	Purpose	Setting	N	Grade	Age	Variables	Country	Result	System	X Low P.I.	SD Low P.I.	X High P.I.	SD High P.I.	Effect Size	Interpretation
1987	Dornbusch, Ritter, Leiderman, Roberts, & Fraleigh	to determine the effects of parenting style on student academic achievement	School	7,836	high school	varied	parenting style (authoritative, authoritarian, permissive), student academic achievement, parent education, demographic variables	U.S.	Authoritative parenting style associated positively with grades; Authoritarian and permissive styles associated negatively with grades. Authoritarian parenting style had the strongest effect on grades, except amongst Hispanic males	Home	2.65	0.79	3.02	0.75	0.468	Moderate to Large
2004	Englund, Luckner, Whaley, & Egeland	to examine the relationship between mother's education, mother's early quality of instruction, child's IQ, parent beliefs, parent behavior, and child achievement	School, Home	187	Grades 1 and 3	varied	parent expectations, parent involvement, child achievement	U.S.	Parent involvement and expectations was significantly associated with child achievement in 3rd grade, but not 1st grade. Mother's quality of instruction at 42 months and parent expectations in 1st grade indirectly affected child achievement in 3rd grade.	Home	3.25	1.11	3.34	1.1	0.081	No effect/Small

APPENDIX B
SCHOOL-WIDE POSITIVE BEHAVIOR SUPPORTS -
ACHIEVEMENT

Year	Authors	Purpose	Setting	N	Grade	Age	Variables	Country	Result	System	X No SWPBS	SD No SWPBS	X SWPBS	SD SWPBS	Effect Size	Interpretation
2009	Sugai et al.	To determine the effect of SWPBS on fidelity, safety, ODRs, & achievement	school	53 schools	K-5	varied	ODRs & achievement	U.S.	higher reading scores	school	0.436	0.203	0.536	0.178	0.493	Moderate to Large
2006	Lassen, et al.	To examine the effect of SWPBS on fidelity, suspensions, ODRs, & achievement	school	1 school, 623 students	middle school	varied	suspensions, ODRs, & achievement	U.S.	significant relationship between behavior & achievement; significant improvement in test scores (only math)	school	R:72.27 M:31.97	R:11.74 M: 11.57	R:72.19 M:37.28	R:11.93 M:14.77	R:-0.007 M:0.459	R: none/small M: Moderate to Large
2011	Caldarella et al.	To determine the effect of SWPBS on school climate and student outcomes	school	2 schools	middle school	11-13 years	GPA, tardiness, unexcused absences, & ODRs	U.S.	Significant increases in GPA for both control & treatment groups; Nonsignificant interaction between the groups	school	3.31	0.73	3.2	0.76	-0.151	No effect/Small
2012	Pas & Bradshaw	To examine effect of SWPBS on student outcomes	school	421 schools	K-8	varied	Behavior & achievement	U.S.	higher math and reading scores	school	R:68.74 M:63.46	R:18.87 M: 21.69	R:83.85 M:80.31	R:9.36 M:12.96	R:0.801 M:0.777	R: Very large M: VeryLarge

APPENDIX C
STUDENT MOTIVATION - ACHIEVEMENT

Year	Authors	Purpose	Setting	N	Grade	Age	Variables	Country	Result	System	X Low Motiv.	SD Low Motiv.	X High Motiv.	SD High Motiv.	Effect Size	Interpretation
2014	Corpus & Wormington	effects of motivation type on achievement	school	490	Grades 3-5	varied	motivation & achievement	U.S.	Intrinsically motivated students performed better than extrinsically motivated students in both GPA and testing over time (Fall to Spring)	child	3.07	0.74	3.54	0.7	0.635	Large Effect
2014	Schwabe, McElvany, & Trendtel	effects of gender and motivation on reading achievement	school	8,979	varied	10- & 15-year olds	motivation & achievement	Germany	15-year-old intrinsically motivated students performed better than students who were less motivated	child	-0.08	0.04	-0.05	0.04	0.75	Large effect
2012	Niehaus, Rudasill, & Adelson	effects of academic self-efficacy, intrinsic motivation, and participation in an after-school program on academic outcomes (GPA, standardizes test scores, & attendance)	school	47	Grades 6-8, Latino	varied	motivation & achievement	U.S.	intrinsic motivation significantly predicted student GPA	child	2.53	19.13	-3.25	0.68	0.302	small to moderate effect

Year	Authors	Purpose	Setting	N	Grade	Age	Variables	Country	Result	System	X Low Motiv.	SD Low Motiv.	X High Motiv.	SD High Motiv.	Effect Size	Interpretation
2007	Grolnick, Farka, Sohmer, Michaels, & Valsiner	effects of after school program on student engagement, learning goals, achievement in science class, and motivation	school	90	7th grade	varied	motivation & achievement	U.S.	Students who completed the science program were more engaged, intrinsically motivated, and achieved higher science grades than students who did not complete the program	child	76.5	11.08	84.33	9.13	0.707	Large Effect
2005	Nurmi & Aunola	to examine motivational patterns in reading, writing, and math, and the effect of these patterns on academic achievement and student's ability self-concept	school	211	primary school	6-7 years	motivation & achievement	Finland	students in the high motivation groups had significantly higher academic performance (only in math) than those in the low math motivation group	child	45.94	0.8	49.07	0.42	3.9	Very Large

APPENDIX D
SCHOOL-WIDE POSITIVE BEHAVIOR SUPPORTS -
BEHAVIOR

Year	Authors	Purpose	Setting	N	Grade	Age	Variables	Country	Result	System	X No SWPBS	SD No SWPBS	X SWPBS	SD SWPBS	Effect Size	Interpretation	
2006	Lassen, Steele, & Sailor	SWPBS on fidelity, suspensions, ODRs, & achievement	school	623 students	middle school	varied	suspensions, ODRs, & achievement	U.S.	significant relationship between behavior & achievement; significant reductions in ODRs & suspensions	school	yes	5.22	7.56	3.7	3.65	-0.201	Small
2011	Caldarella, Shatzer, Gray, Young, & Young	SWPBS on school climate student outcomes	school	2 schools	middle school	11-13 years	GPA, tardiness, unexcused absences, & ODRs	U.S.	Significant reduction in behavioral outcomes; Significant interaction between the groups	school	Yes	0.79	2.2	0.52	1.61	-0.123	No effect/small effect
2012	Farkas, Simonsen, Migdole, Donovan, Clemens, Cicchese	SWPBS on student outcomes	school	1 school, 44 students	Gr 5-12; ED, OHI	varied	Levels of appropriate behavior, ODRs	U.S.	Significant reduction in ODRs	school	Yes	0.07	0.02	0.04	0.02	-1.5	Very Large
2003	McCurdy, Mannella, & Eldridge	SWPBS on ODRs & social validity	school	1 school, 500 students	K-5	varied	ODRS & social validity	U.S.	Significant reduction in ODRs	school	Yes	31.2	13.23	15.7	10.78	-1.172	Very Large

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