THE UTILITY OF BEHAVIORAL SCREENERS IN A HIGH SCHOOL: EXAMINATION OF CONCURRENT VALIDITY OF THE BEHAVIOR SCREENING CHECKLIST (BSC-III)

by

JAMIL M. GILLIAM

(Under the Direction of Amy L. Reschly)

ABSTRACT

In recent years, proactive support of student behavior has been a major focus of school administrators. Prior research has indicated that previously popular approaches, e.g., corporal punishment and zero-tolerance policies, are ineffective in curbing student infractions, resulting in a shift to the use of data-driven and evidenced-based approaches and measures. Due to this shift, the implementation of Response to Intervention (RTI) and Positive Behavioral Interventions and Supports (PBIS) has rapidly increased. The purpose of the current study was to investigate the utility of behavior screening for high school students, using the Behavior Screening Checklist (BSC-III; Muyskens, Marston, & Reschly, 2007). This study was conducted during the first year of behavioral screening collection of the BSC-III for this school. Concurrent validity between BSC-III and achievement and behavioral data was explored; results indicated both forms of data were significantly related to BSC-III scores as evidenced by correlation and regression analyses.

INDEX WORDS: Behavior, Behavior Screening, High School Students, Behavior Screening Checklist, Office Discipline Referrals, Universal Screening, Positive Behavioral Interventions and Support, Response to Intervention

THE UTILITY OF BEHAVIORAL SCREENERS IN A HIGH SCHOOL: EXAMNIATION OF CONCURRENT VALIDITY OF THE BEHAVIOR SCREENING CHECKLIST (BSC-III)

by

JAMIL M. GILLIAM

B.A., Spelman College, 2007

M. Ed., Harvard Graduate School of Education, 2009

A Thesis Submitted to the Graduate Faculty of The University of Georgia in Partial Fulfillment of the Requirements for the Degree

MASTER OF ARTS

ATHENS, GEORGIA

2015

THE UTILITY OF BEHAVIORAL SCREENERS IN A HIGH SCHOOL: EXAMNIATION OF CONCURRENT VALIDITY OF THE BEHAVIOR SCREENING CHECKLIST (BSC-III)

by

JAMIL M. GILLIAM

Major Professor:	Amy L. Reschly
Committee:	A. Michele Lease
	Stacey Neuharth Pritchett

Electronic Version Approved:

Julie Coffield
Interim Dean of the Graduate School
The University of Georgia
May 2015

ACKNOWLEDGEMENTS

I sincerely appreciate the time, talent, support and patience of the many individuals who were instrumental in helping me complete this study. Special thanks to my advisor, Amy L. Reschly, for her guidance and patience during this process. I would also like to thank my committee, Dr. A. Michele Lease and Dr. Stacey Neuharth-Pritchett, for their feedback and insight. I also appreciate the efforts of Dr. Katie King, Mrs. Debbie Williamson and Dr. James Appleton for their assistance with data collection and data analysis. Finally, I extend great gratitude to my family and friends for their continued encouragement and prayers.

TABLE OF CONTENTS

Page

LIST OF TABLES

Page

LIST OF FIGURES

Page

CHAPTER 1

INTRODUCTION

For as long as one can remember, both scholars and non-academics alike, have sought to understand and predict behavior. For many, one's behavior greatly outweighs an individual's thoughts, words or intentions, as evidenced in the frequently quoted phrase, "*actions speak louder than words."* Behavior is an external manifestation of what drives us and more frequently a construct under which people are observed, analyzed, identified, and classified.

Behavior is shaped by one's environment. Thus, one's behavior is often influenced by the ecological context itself, as well as by individuals within the environment. School is one context where an individual's behavior is observed intensely. In schools, managing behavior is vital to establish order and ensure students' instructional time is productive. When examining research from previous decades, one might argue that schools today encounter more intense and serious displays of behavior (Osher, Bear, Spargue & Doyle, 2010). Many schools often contend with issues such as drug use, weapons, school shootings, bullying, and gang activity. In light of recent incidents of school violence, school administrators have been pressured to determine which students are most likely to exhibit problem behaviors and to provide interventions that prevent behaviors from escalating to tragedy (McIntosh, Frank, & Spaulding, 2010; Mulvey & Caufmann, 2001; Sugai, Sprague, Horner, & Walker, 2000).

Schools have implemented a variety of approaches to manage rule infractions. For decades, corporal punishment (i.e., spanking with an open hand, paddle, or yardstick on either the hand or buttocks) was the preferred method of reprimanding children in schools across the

nation (Dupper & Dingus, 2008; Greydanus et al., 2003). Although some districts still use these methods, corporal punishment has drastically declined. Changes in ideology and ineffectiveness of corporal punishment led to a shift in practices, such as after-school detention, suspension (in school and out-of-school) and expulsion. Although those consequences exist for a range of infractions (e.g., from tardiness to being caught in unauthorized areas on campus), schools often adopt zero-tolerance policies to apply to entire range of infractions. Zero tolerance policies are those with required and predetermined consequences for specific rule infractions which offer no flexibility in punishment assignment for more serious infractions such as fighting or possession of drugs or weapons (Skiba & Rausch, 2006). Zero tolerance policies first garnered attention after the enactment of the Gun-Free Schools Act of 1994, which mandated students in possession of a gun on school grounds be expelled for a year and have their case transferred to criminal and/or juvenile court (Nelson, Jolivette, Leone, & Mathur, 2010). Since its enactment, states and districts have expanded this law to include other weapons, such as knives and pepper spray, and violent offenses (e.g., fighting, bullying). However, many school districts have broadened the application of this law, as it relates to school policies and rules, to include non-violent offenses such as cursing and insubordination. As a result, an exponential number of students across the country have been suspended and/or expelled from school for infractions falling under these policies regardless of one's prior school discipline infraction history (American Psychological Association Zero Tolerance Task Force [APA ZTTF], 2008; Losen & Skiba, 2010; Nelson, Jolivette, Leone, & Mathur, 2010; Skiba & Rausch, 2006).

Although removing a student from school seems reasonable for the sake of school safety, recent data suggest that, in general, these practices are counterproductive. Specifically, students who experience school removals as a result of the consequences of disciplinary infractions miss

crucial instructional time, have a greater likelihood of retention or dropping out of school, and are likely to be at least one grade level behind as compared to same-aged peers (Fallon et al., 2012; Lassen, Steele, & Sailor, 2006; Sugai, O'Keeffe, & Fallon, 2012). In addition, the intended punishment, removal from school, often has an inverse effect on student and teacher behavior. The student may be escaping an environment he/she finds aversive and allowed to do other, more interesting things (to the student) while removed from the school environment, such as watching television or playing video games, thereby reinforcing rather than punishing the behavior that led to removal from school. Teachers and staff may also be negatively reinforced for sending students to the office and/or otherwise removing them from the school environment in that they receive a reprieve from dealing with a student that may be exhibiting difficult behavior. If the purpose of punishment, suspensions, and expulsions is to reduce the instances of rule infractions, one could assume the rates of suspensions and expulsions would decrease. Additionally, there is an assumption that students who receive suspension or expulsion would not commit the same offense or additional offenses; however, research indicates these ideals are unsubstantiated as the majority of office discipline referrals (ODR) are generated from a small number of students (Skiba & Knesting, 2001; Skiba & Peterson, 2000; Reynolds et al., 2008). Thus, opponents contend that that zero tolerance policies are ineffective and do not curb the frequency of behavior that violates the established school rules (APA ZTTF, 2008; Losen & Skiba, 2010).

Recently, United States Attorney General, Eric Holder, and United States Secretary of Education, Arne Duncan, spoke in support of the 2014 Release of the School Discipline Guidance Package from the United States Departments of Justice (DOJ) and Education (ED). This package provided school districts with recommendations to cultivate positive school

environments and utilize more effective school discipline practices, practices that would not only increase school safety but also reduce discriminatory practices that disproportionally affect students from minority populations. Although these recommendations are not yet mandates, adherence is especially crucial for districts embroiled in lawsuits and investigations from the Department of Education's Office of Civil Rights (Duncan, 2014; United States Department of Education, 2014).

In sum, zero tolerance policies take a reactive stance on discipline by condemning the behavior by assigning a predetermined punishment without regard to the frequency and severity of the infraction. Although research has provided little evidence supporting the use of these policies, their popularity has not yet waned. In a report issued by the National Academy of Sciences Committee of Minority Representation in Special Education, early intervention, both behaviorally and academically, was found to be more beneficial than later interventions (Donovan & Cross, 2002). Consequently, focus has been placed on discovering more effective ways of managing school behavior and utilizing consequences that help curb rule infractions, while eliciting appropriate behaviors. Over the last ten years, school districts across the nation have begun taking a proactive stance with the implementation of positive behavioral interventions and supports (PBIS), which parallels the tiered decision-making processes framework of Response to Intervention (RTI) (Flannery & Sugai, 2009; Sugai & Horner, 2002).

PBIS and RTI

Comparatively, although both models share foundational features, RTI is often inaccurately viewed as a solution for academic difficulty and subsequent support, whereas PBIS is linked with behavior supports or the behavior aspect of RTI. However, it is more accurate to conceptualize RTI as the overarching framework of principles enhancing decision-making for

assessments and interventions. By relying on those principles, behavior and academic support systems are created for all students. Essentially, the PBIS framework is considered as an "application of RTI principles to the improvement of social behavior outcomes for all students" (Sugai & Simonsen, 2009, p. 4).

Response to Intervention

Response to Intervention (RTI) is a data based decision-making process that provides academic and/or behavior support through a set of tiers increasing in intensity, measurement, and service delivery (Reschly & Bergstrom, 2009; Sugai & Horner, 2009). RTI is intended to provide high-quality instruction and interventions individualized based a student's need where frequently monitoring of the student's progress occurs to make necessary adjustments in instruction delivery or outcomes. Further, RTI interventions utilize information from the student's behavior to make data-based decisions (Batsche et al., 2005). This model is often viewed as an alternative to the IQ-discrepancy model, which was typically used to identify students with learning disabilities (Barnes & Harlacher, 2008; Fuchs & Fuchs, 2006; National Association of State Directors of Special Education, 2006; Sprague, 2009; Sugai & Simonsen, 2009).

Positive Behavior Intervention and Supports

PBIS, also referred to as positive behavior supports (PBS) and school-wide positive behavior supports (SWPBS), is a framework that focuses on a set of decision-making processes guiding behavior practices. PBIS centers on four key components, *data, outcomes, practices, and systems. Data* are used to guide decision-making, which allow for measurable *outcomes* that inform the decision-making process. *Practices* and policies are then shaped by the measureable *outcomes* which reveal what practices work and which of those that do not. Lastly, from a

systems approach, administration and other teachers can use this information provided by the data to make systems parallel at the district and state levels (Sugai et al., 2000).

Although the term PBIS was not officially coined until the reauthorization of the Individuals with Disabilities Act (1997), the investigation and development of interventions for students with behavior disorders began with researchers at the University of Oregon in the 1980s (Sugai & Simonsen, 2012). This early work demonstrated a need for greater focus on prevention and early intervention, explicit social skill instruction, effective school-wide systems, and the use of data to guide decision-making. Importantly, the primary purpose of a school-wide system is to positively and to directly impact behavior outcomes for *all* students, not just those with a history of behavior challenges (Sugai et al., 1998; Sugai & Horner, 2006). The implementation of PBIS seeks to strengthen classroom management skills and enhance responses to discipline infractions, which lead to school and classroom environments that are positive, proactive, and less likely to be dangerous and exclusionary (Safran & Oswald, 2003). PBIS also offers support for more intensive interventions for students with emotional and behavior disorders. Lastly, the implementation of strategic, evidence-based practices aims to maximize academic achievement for students of all ability levels (Sandomierski, Kincaid, & Algozzine, 2007; Sugai & Horner, 2006). Increases in academic achievement within settings utilizing PBIS are noted in the literature (e.g., Horner, Sugai, Todd, & Lewis-Palmer, 2001; Lassen, Steele, & Olson, 1998); however, a causal relationship has not yet been established. Rather, the improvement in achievement has been attributed to the increased instructional time resulting from improved student behavior in the classroom (Algozzine & Algozzine, 2009; Lassen, Steele, & Sailor, 2006; Putnam, Horner, & Algozzine, 2006). Therefore, while additional research evidence is needed to

substantiate and confidently assert a casual relationship, currently positive impacts of implementing PBIS have been observed.

PBIS provides services based on three prevention-based tiers: primary, secondary, and tertiary. All students receive primary prevention (or Tier 1) support methods, which are delivered by all faculty and staff throughout the school. Primary level support is provided at both the classroom and school level and this level assistance is adequate for roughly 80% of the classroom and/or school population. Students who receive secondary prevention assistance (Tier 2) are identified as exhibiting at-risk behavior; 10-15% of the school population will require specialized group instruction and support. In this level, support is delivered in the specialized group settings. Lastly, 5-10% of the school population will also receive more intensive, individualized support (Tier 3). Students within this 5% typically have a history of significant challenges either academically or behaviorally. Specifically, these students also account for the majority of the disciplinary infractions and thus these students are designated as high-risk (Sugai et al., 2004; Sugai & Simonsen, 2008; PBIS.org). It is important to remember that although these students need more intensive levels of support, this need alone does not to equate to justification for special education identification.

Measurement Tools to Identify the Level of Support

Data are essential to every aspect of RTI/PBIS in that they are used to identify students in need of additional support, to monitor progress, and to make decisions regarding intervention effectiveness. Several forms of data have been used in behavioral RTI or PBIS models, though the accuracy and utility of the tools vary. Despite these differences, the goal is the same, to identify children and adolescents who may benefit from additional support. These methods are described below.

Teacher Referrals. Teachers spend countless hours with students over the course of the school year, so it is understandable that teachers often are asked to identify students who need increased support. Teacher referrals are a commonly used method to identify students who may benefit from additional behavior or academic support; these referrals can lead to consideration for placement in special education, counseling, or additional academic support (Eklund et al., 2009; Skiba, Peterson, & Williams, 1997). In some school districts, teachers are instructed to identify a percentage of students, determined by the school, for additional assessment and support. Although this method may identify students with externalizing behaviors that are high frequency and/or intensity, students are essentially compared to one another to determine which students meet criteria. Consequently, other students with less frequent or intense behaviors remain largely unidentified until their problems worsen. Another drawback of teacher referrals is that teachers may be pressured, actual or perceived, from school administration to over-identify or under-identify students. For example, in some school environments, teachers with a large number of referrals are viewed as ineffective classroom managers, thus those teachers may be less inclined to refer students for additional services or report discipline infractions using office discipline referrals. Conversely, if a teacher desires to have a child removed from the classroom, teachers have the ability to inflate the number of referrals, by over reporting incidents, for that student (Podell & Bodaki, 1993). A study by Skiba, Peterson, and Williams (1997), found that nearly 67% of office discipline referrals were generated from only a fourth of the teachers in one school. Wu, Pink, Crain, and Moles (1982) found that discipline infractions are not the only antecedent to discipline referrals, rather a range of factors such as teacher attitudes, centrality of administrators, teacher's perceptions of student achievement, and racial makeup explained a greater proportion of variance in the ratings and later referrals of students

rather than the actual attitudes and behaviors of students. These trends continue to be found in current studies (e.g., Bryan, Day-Vines, Griffin, & Moore-Thomas, 2012). Based on concerns over teacher bias, measurement tools that may be more objective and effective have been explored by researchers and teachers alike (Gottlieb & Weinberg, 2000; Polirstok & Gottlieb, 2006).

Office Discipline Referrals. Office discipline referrals (ODR) are frequently used to measure school-wide rule compliance and identify students who are "at-risk" and more likely to have future disciplinary infractions. Students receive an ODR for behavior infractions, both minor and major offenses, and might subsequently receive consequences based on the severity and/or the student's past behavior history. ODR differ from teacher referrals in that the student is cited for an actual act of noncompliance with an established school rule. After the infraction is recorded, the student is sent to an administrator's office where the consequence is delivered. Conversely, teacher referrals are often based on a body of student's academic performance or behavior, single event, or a combination of both. Moreover, based on the area of concern, the student may be referred to receive additional services from a number of school personnel (e.g., school counselor, school psychologist, reading specialist). Thus, teacher referral does not always equate to a specific discipline infraction and a subsequent referral unlike an ODR (Irvin, Tobin, Sprague, Sugai, & Vincent, 2004; Sugai, Horner, & Walker, 2000).

ODR data are typically managed by a school-wide information system (SWIS) and can provide information about a school's safety as well as inform the administration about the implementation and effectiveness of the school's behavior program. ODR data are thought to help identify the function of a behavior, which is helpful in developing an intervention; however, to truly determine the function of a behavior, a functional analysis of behavior must be

conducted (McIntosh, Frank, & Spaulding, 2010). Once an intervention is implemented, ODR data are used to monitor whether the intervention is working and if so, to what degree. Finally, these data are sometimes used to identify which students need additional interventions (McIntosh et al., 2010). For example, students who receive 2-5 ODR within a specified period, typically a school year, are noted to be at-risk for future infractions and additional support is recommended. Students who receive six or more ODR are viewed as needed intensive supports (Horner, Sugai, Todd, & Lewis-Palmer, 2005). Although these data might be important for monitoring intervention progress, the collection of ODR data is more reactive because students are identified after they have been referred to the office (Irvin et. al, 2006). Another criticism of ODR is that even though these data are more standardized than teacher referrals, rules, norms violations, and consequences vary across school districts. Within school differences also exist, for example, one teacher may provide many opportunities or chances for students to rectify problem behaviors, while another teacher may be less tolerant or strictly adhere to school rules and direct the student to the office (Lane, Kalberg, & Menzies, 2009). As a result of this lack of consistency, ODR for one school or student may not be analogously compared to another student or school. Despite these drawbacks, ODR data are typically used as screening information to determine which students or classrooms may require additional support and implementation problems in the school-wide model (Irvin et al., 2006; Martella et al., 2010).

Universal Screeners

By using universal screeners, students are less likely to remain unidentified because their identification is not dependent on a rule infraction, as with ODR, or a referral from a teacher. As such, universal screeners are proactive, rather than reactive, and reduce the possibility of referral bias (Donovan & Cross; 2002; Eklund et al., 2009; Muyskens et al., 2007; Severson et al., 2007).

Universal screening is a critical component in implementing RTI both academically and behaviorally (Albers, Glover, & Kratochwill, 2007; Glover & Albers, 2007; Reschly & Bergstrom, 2009; Raines, Dever, Kamphaus, & Roach, 2012) as universal screening measures are an avenue for the systematic early identification of academic, behavior, mental health, or other problems. The overarching goal in screening all students is that the early identification will distinguish students who are typically developing from those at a higher risk and those who have experienced difficulties (academically and behaviorally) throughout their lives (Walker & Shinn, 2002).

The utility of behavior screening rests upon the psychometric properties of the screeners (e.g., reliability, ability to correctly identify those in need of additional support) and efficiency with which the measures can be administered and scored (Glover & Albers, 2007; Levitt, Saka, Romanelli, & Hoagwood, 2007). Researchers have established a number of criteria essential for evaluating universal screeners. Glover and Albers (2007) proposed three guidelines for screeners, noting that a screener must have contextual appropriateness, technical validity, and be cost-effective. By appropriately considering context, the measure will align with areas of interest as well as fit the population of concern. Technical soundness analyzes the strength of the test itself, looking at constructs of reliability and validity. Lastly, usability considers the costs versus the benefits of administering and analyzing the data, outcome utility, and rates of acceptance of the measure by teachers (Glover & Albers, 2007; Jenkins, Hudson, & Johnson, 2007). Similar standards were proposed by Lane and colleagues (2007), along with specific standards for evaluating the screener (e.g., measures of internal consistency should be greater than or equal to .70). Although many screeners exist, there is variability in what the screeners measure, for whom they are most appropriate, time needed to complete the screener, and the cost

to administer it. In the following section, a few of the screeners most frequently used are described.

Behavior Screening Checklist. The Minneapolis Public Schools developed the Behavior Screening Checklist (BSC) to accommodate their comprehensive Problem-Solving/Response to Intervention Model (Muyskens et. al, 2007). The BSC-III is a 12-item measure and available to the public at no cost and was initially developed for use for students in kindergarten through eighth grade. This measure is distinguished from other measures in that it can be completed for a student within a few minutes. Students are rated across three domains (i.e., Classroom Behaviors, Externalizing Behaviors, and Socialization); those earning scores that correspond with 5% (Muyskens et al., 1997) and 20% of the distribution (King & Reschly, 2014) are identified for additional intervention and support. The primary purpose of the BSC-III is early identification, that is, to aid teachers in ascertaining which students may benefit from additional behavioral support and intervention. The BSC (all versions) is also designed to help facilitate consultative interactions and decision-making between classroom teachers and behavior specialists (Muyskens et al., 2007).

BASC-2 Behavioral and Emotional Screening System. The BASC-2 Behavioral and Emotional Screening System (BESS) is a 27-item adapted version of the BASC-2 (Kamphaus & Reynolds, 2007) and intended to be used as a screener. It reportedly takes 5-10 minutes to complete per student. Similar to the BASC-2, there are three sources of information: parent, teacher, and student self-report for students in preschool through high school (12^{th} grade); however, only students in grades 3 through 12 complete the self-report measure. Items are scored using a 4-point Likert scale. The properties of this measure have been examined with several studies (e.g., Dowdy, Chin, Twyford, & Dever, 2011; Kamphaus et. al, 2007). Costs for

this screener vary depending on the number of students in a classroom or school as well as how many screenings will be completed over the course of the year.

Strengths and Difficulties Questionnaire. The Strengths and Difficulties Questionnaire (SDQ) was developed by Goodman (1997) to identify socio-behavioral strengths and challenges in students ages 3-17. It is free and available for download online. Researchers (Janssens & Dobutte, 2009; Mason, Chmelka, & Thompson, 2012; Mieloo et al, 2014; He, Burstein, & Schmitz, 2013) have investigated the SDQ's validity and factor structure and compared its utility to the Achenbach System of Empirically Based Assessment (ASEBA) (Achenbach & Rescorla, 2001), as well as its effectiveness among international populations and youth in residential settings. This screening system collects information from teachers, parents, and self-reports (ages 11-17) based on a 3-point Likert-type scale each covering five domains: Emotional Symptoms, Conduct Problems, Hyperactivity, Peer Problems, and Prosocial Behavior. Higher scores on the first four scales indicate high levels of risk, whereas, high total scores on the Prosocial Behavior scale indicate that a student possesses and demonstrates a high level of positive social skills. On average, the SDQ takes approximately 45 minutes to complete per class of 25 students, less than two minutes per student (Walker, 2009).

Social Skills Rating System. Gresham and Elliott (1990) developed the Social Skills Rating System (SSRS) to measure a student's social behaviors in comparison to their same-age peers. This scale utilizes ratings from teachers, parents, and students, to form a comprehensive view of a student's social skill functioning; the self-report measure for students is only administered to those in grade three or above (Gresham & Elliot, 1990). The validity of this scale has been investigated numerous times by the developers as well by Van Horn, Atkins-Burnett, Karlin, Ramey, and Snyder (2007) and Vaz, Parsons, Passmore, Andreau, and Falkmer,

(2013). The SSRS authors recently developed the Social Skills Improvement System: Performance Screening Guide (SSIS) to improve in the identification of students, ages 8-18, who have more significant social skills challenges (Pearson Education, Inc., 2014). The SSIS includes various screeners and rating scales designed for use with students at different stages within the RTI process as well as those with more severe behavior difficulties; it is also used to help with the design and implementation of social skill interventions. The SSIS costs $5 per class per screening period and requires approximately 5-10 minutes to complete the screener for each student (Pearson Education, Inc., 2014).

Student Risk Screening Scale. Drummond (1994) developed the seven-item Student Risk Screening Scale (SRSS) for the identification of students at risk for antisocial behavior patterns from kindergarten to grade 12. Unlike rating scales that are completed for each student, teachers nominate students based on the frequency of the following behaviors: steals, lies, cheats, sneaks; behavior problems, peer rejection, low achievement, negative attitude, and aggressive behavior. Reliability and validity have been accessed across elementary, middle and high school levels (e.g., Lane et al., 2012; Lane, Oakes, & Ennis, 2013; Lane, Oakes, & Harris, 2012; Lane, Oakes, Carter, Lambert, & Jenkins, 2013; Menzies & Lane, 2012). Although this measure assesses student behavior, it is different from other tools in that teachers nominate a certain number of students. Therefore, the possibility for students to be included or excluded may be biased. In addition, the tool does not align with the overall purpose of identifying all students based on rating scales. The SRSS is available free of charge to educators and practitioners (costs for printing and copying copies for each student are the only incurred costs) and generally 10-15 minutes are needed to complete screening for a class of 25 students (Drummond, 1994).

Screening Summary. A key component of RTI is universal screening, thus using an empirically-sound screener is paramount to appropriately utilize this tiered framework. The aforementioned screeners allow for various forms of data to be collected regarding the social, emotional, behavioral, and academic functioning of children and adolescents. Differences in the number of raters required vary; however, the seemingly greater determinates of use are the costs associated with obtaining these measures and the time needed to complete a form for each student. As cost and time are highly important, those aspects may supersede selecting the best screener for a particular demographic. Prior to selecting a screener, it is recommended that administrators, school officials, and teachers, review psychometric evidence and costs among screening options to choose the one best suited for their population and context. Although there are disadvantages each of the screeners, the advantages and applicability with RTI make these suitable for screening purposes.

Current Study

Many schools are implementing both universal screening and PBIS as part of a comprehensive RTI model. However, implementation and evaluation of PBIS have largely been limited to elementary and middle schools. Thus, high school implementation and evaluation remain an important area for future work (Flannery & Sugai, 2009). In efforts to further investigate its utility within this population, the Technical Assistance Center in Positive Behavioral Interventions and Supports is conducting research to determine the effectiveness of screening and implementing PBIS in high schools. An additional challenge with high school implementation is the alignment of the PBIS framework with the structure and differential goals of high schools. For example, in elementary and middle schools there is less focus on postsecondary training and goals, dropout rates, and occupational training than there is in high

schools. Despite the differences, high school implementation remains centered on the core PBIS principles: data, outcomes, practices, and systems (Flanery & Sugai, 2009; Flannery, Sugai, & Anderson, 2009; Sugai et. al, 2000).

The purpose of this study was to examine the first year of behavior screening data collected with high school students in a rural school district in the Southeastern U.S. From the screeners previously presented, the BSC-III emerges as an ideal option for behavior screening because in addition to psychometric soundness, the BSC-III is obtainable at no cost and can be completed in less than fifteen minutes. Additionally, this is the first study examining the BSC-III (Muyskens et al., 2007) with high school students; thus, it will be important to examine the psychometric properties of the measure. Specifically examined were a) the psychometric properties in terms of internal consistency, b) concurrent correlations with variables of interest, and c) the extent to which behavior and achievement variables accounted for significant variance in BSC-III scores via regression. Finally, mean score differences on various demographic variables were explored.

CHAPTER 2

METHOD

Participants were drawn from a rural public high school located in southeastern United States. The high school population at the time of the study was 1458 students; 419 were excluded due to missing data, primarily because of missing BSC-III scores. Cross-tabulations were conducted to compare the group of students missing BSC-III data and those included in the sample. Results from chi-square tests revealed the missing data group was significantly different from the sample included in this study. Specifically, the two groups differed across numerous demographic variables (i.e., ethnicity, sex, meal status, special education status, and grade level), in that there were higher numbers of students who received free and reduced lunch, special education services, and students from minority ethnic backgrounds who were missing BSC-III scores. Since BSC-III data was missing for these students, the only viable resolution was to exclude these data from the data set; comparison data regarding students excluded from the sample is presented in Figures 1-5. The final sample of students was 1,039 (Table 1). When considering reasons for teacher non-compliance for completing the BSC-III, a few explanations are possible. The BSC-III was completed at the conclusion of the school year, in the Spring, for intervention planning the following year. There may have been the perception that the screener results would not have an immediate impact. Since the purpose of the screener was to identify students who need additional supports, some teachers may maintain that the students who need said supports have already have been identified via other methods thus further identification was not necessary. Lastly, completing the screener at the conclusion of the Spring semester, and end

of the academic school year, when many other data must be submitted (e.g., exam grades and final course grades), submitting screeners may not have been a priority during the time of the current study.

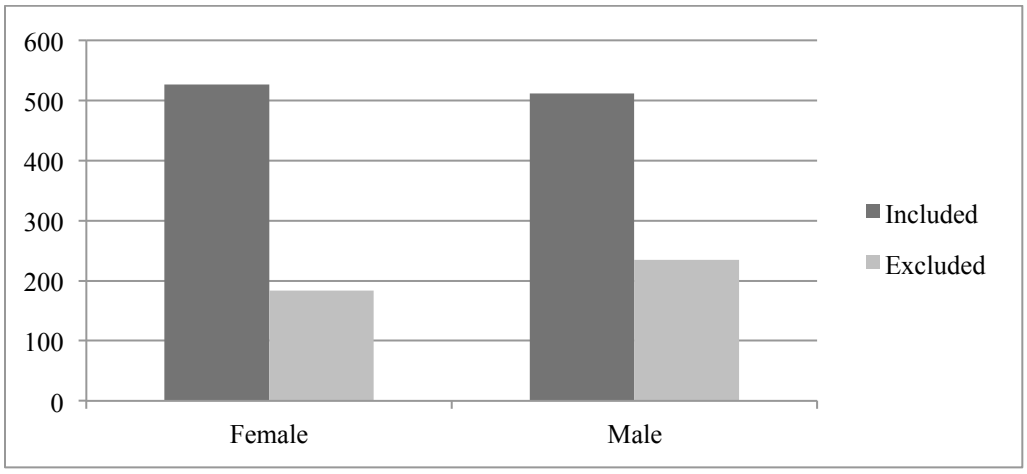

Figure 1- Sex

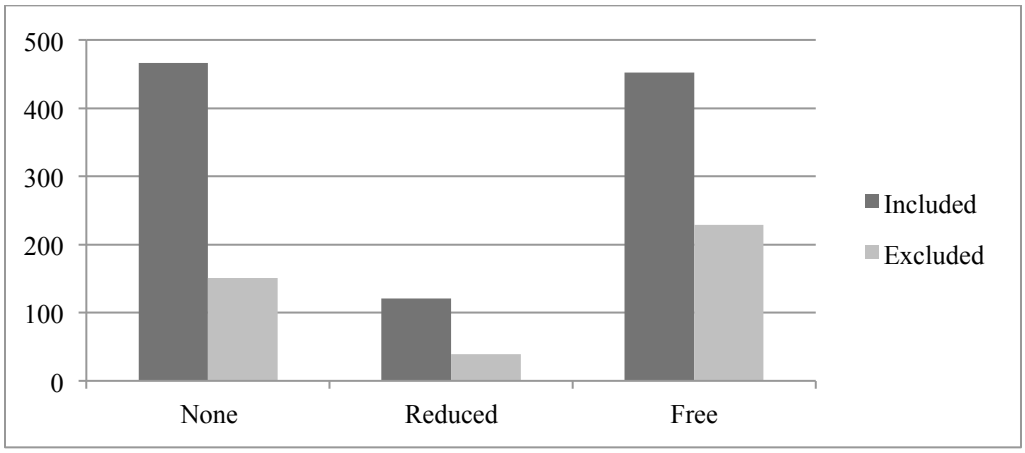

Figure 2- Meal Status

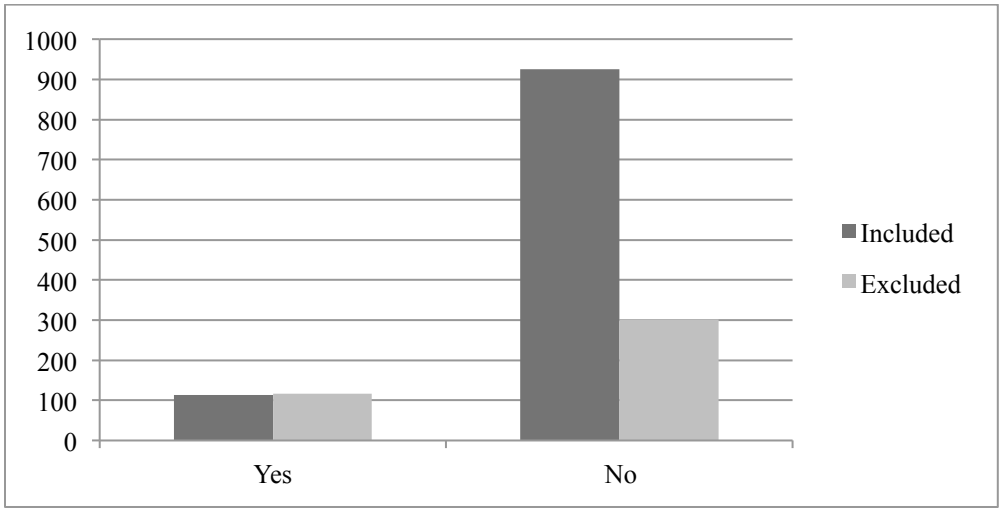

Figure 3- Special Education Status

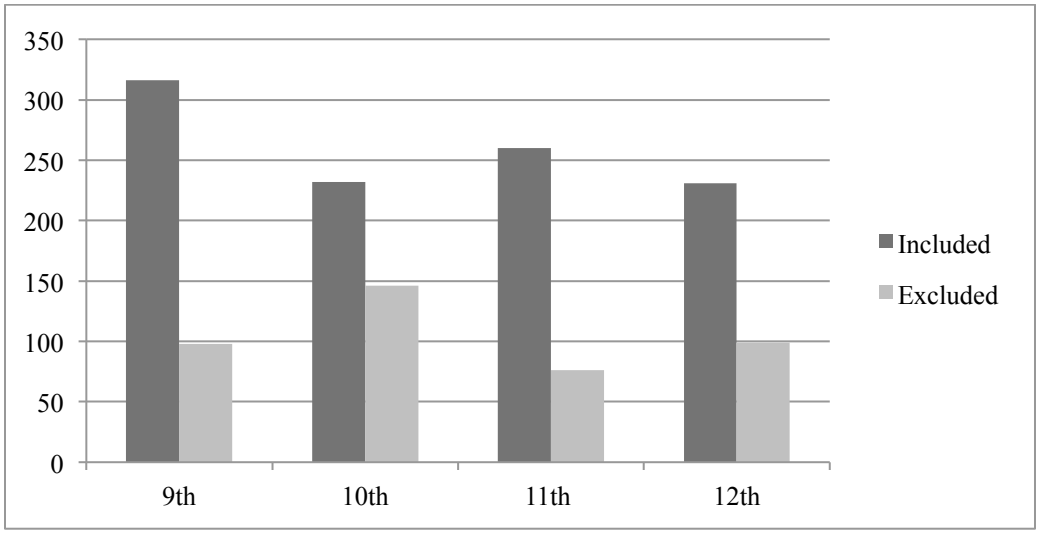

Figure 4- Grade Level

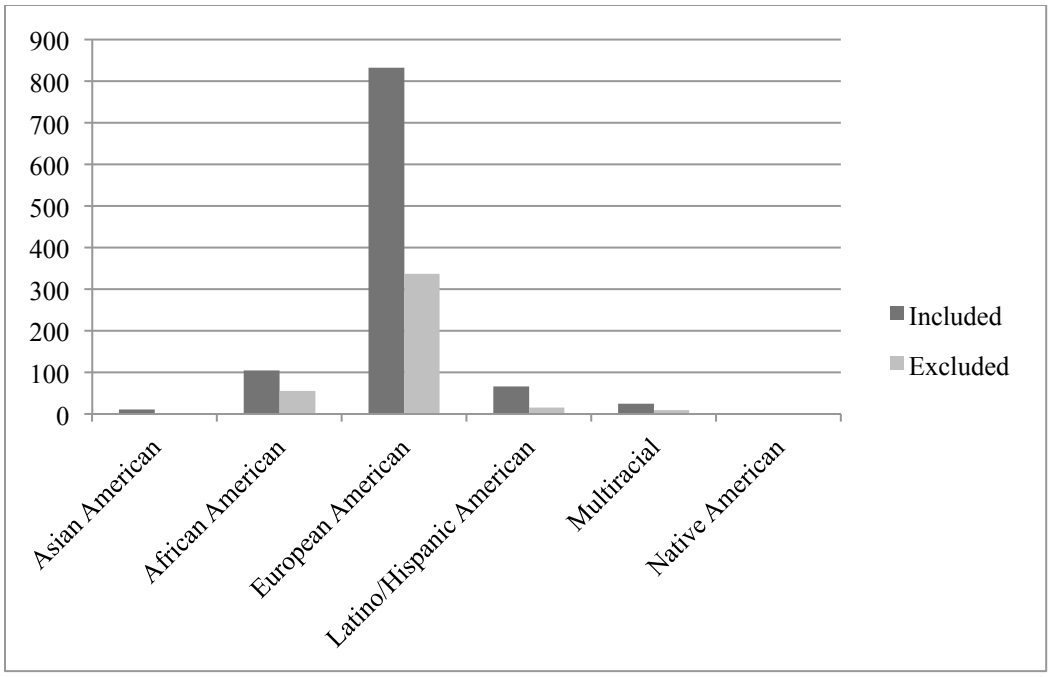

Figure 5- Ethnicity

Of the remaining sample, 30% were in the 9th grade, 22% were in 10th grade, 25% were in the 11th grade, and 22% were in the 12th grade. Information reported on ethnicity and race revealed 80.2% were European American, 10.0% were African-American, 6.4% were Hispanic American, and 1.1% was Asian American; 2.4% of the sample identified as multiracial. The sample divided evenly across sex, with 51% female and 49% male. Approximately 12% of the students received special education services under IDEA (2004); 3% received services under 504 plans as designated by the U.S. Rehabilitation Act of 1973. Almost 61% of students qualified for meal assistance through free- or reduced-price lunch vouchers. Nearly 30% of the student body had received at least one office discipline referral. All participants in the sample (n = 1,039) received an overall score on the BSC-III, a measure completed by one of their teachers.

Table 1
Characteristics of Participants by Grade

		Sex		Ethnicity/Race					Meal Status		Special Education	
		Female	Male	AFA	ASA	HA	EA	M	F/R	Full	504	IDEA
Grade	*n*	*n* (%)	*n* (%)	*n* (%)	*n* (%)	*n* (%)	*n* (%)	*n* (%)	*n* (%)	*n* (%)	*n* (%)	*n* (%)
9	316	157 (15.1)	159 (15.3)	35 (3.4)	0 (0)	24 (2.3)	252 (24.3)	5 (.48)	183 (17.6)	133 (12.8)	6 (.58)	24 (2.3)
10	232	126 (11.8)	106 (9.9)	18 (1.7)	2 (.19)	19 (1.8)	184 (17.7)	8 (.77)	137 (13.1)	95 (.09)	4 (.38)	30 (2.9)
11	260	133 (12.8)	127 (12.2)	31 (3.0)	4 (.38)	16 (1.5)	203 (19.5)	6 (.58)	141 (13.6)	119 (11.5)	14 (1.3)	29 (2.8)
12	231	111 (10.7)	120 (11.5)	20 (1.9)	4 (.38)	7 (.67)	194 (18.7)	6 (.58)	112 (10.8)	119 (11.5)	3 (.29)	30 (2.9)
Total	1039	527 (50.7)	512 (49.3)	104 (10.0)	11 (1.1)	66 (6.4)	833 (80.2)	25 (2.4)	573 (55.1)	466 (44.9)	27 (2.6)	113 (10.9)

Data Collection Procedure

For the current study, BSC-III scores employed in the study were based on the first BSC-III administration in the school district at the high school level. Teachers completed BSC-III screeners during the final weeks of the 2012 Spring semester for students on their caseload. One teacher completed the screener for each student. The University of Georgia Institutional Review Board as well as the administration at the aforementioned high school approved this research study. Data included in this study were collected from the school district's database**.** Data were de-identified over a period of two weeks and stored in a Microsoft Excel file by the researcher at the high school of study. Upon completion of each de-identifying session, the data set was saved on a universal serial bus (USB) and submitted to authorized school personnel who placed the USB in a secure location. The data set was not removed from the premises, physically or electronically, until all identifying information was removed. Once all student information was removed, the researcher converted the Excel file to SPSS where all data analyses were conducted. Data included in this sample were retrieved collectively at the end of the school year.

Measures

Behavior Screening Checklist. The Behavior Screening Checklist (BSC-III; Muyskens, et al., 2007) is a measure of a student's behavior based on teacher reports. The BSC-III was developed as an aid in the Minneapolis Public Schools Problem Solving Model (PSM) in order to better identify students who might benefit from behavior interventions.

The full-length version of the BSC-III has 12 items and is divided into three categories. The Classroom Behaviors category evaluates a student's ability to pay attention, follow directions, complete work, and the student's overall classroom involvement. The Externalizing Behaviors scale rates a student's physical and verbal behavior towards others, physical behavior toward property and how often he or she is out of place in relation to class schedule or requests from school personnel. Lastly, the Socialization scale views a student's interactions with peers and adults as well as his or her perceived self-image and ability to cope with change. Items were scored on a 5-point Likert scale, with "1" denoting appropriate levels of behavior and "5" representing problematic levels of behavior. Each category is comprised of items that ask the teacher to rate a range of behaviors that cumulatively yield a score in each of the aforementioned categories, which are combined into an overall BSC score. Scores are then used to determine a student's need for additional services.

To identify children who need more intensive interventions and services, the authors selected a cut-score of thirty-six, which corresponded with the top 5% of the distribution in the MPS population. This cut-score has been modified in other schools. King and Reschly (2014) discovered that there was a need to determine local cut score as the participants' higher scores in a rural sample identified larger than the 5% typically noted as needing intervention based on recommendations from previous studies. As such, the cut score was adjusted to reflect the top

5% in the local population. Additionally, in an effort to align the BSC-III scores with the RTI model, King and Reschly (2014) identified cut scores for students in the top 20% and 5%, which parallels tiers 2 & 3, respectively.

The norms for the BSC were based on a sample of 22,056 children (K-8) in Minneapolis Public Schools (MPS). In this sample, 68% of the students qualified for Free- or Reduced-price lunch; 40% were African American, 28% White, non-Hispanic, American, 16.6% Hispanic American, 11% Asian and 3.6% Native American (Muyskens et al., 2007). Inter-rater reliability, represented by correlation, based on an earlier 10-item version of the BSC averaged at .88 among six pairs of 3rd grade co-teachers. Additionally, there was 91% inter-rater agreement among teachers for students at or above and below the cut-score. On the other hand, internal consistency reliability, represented with Cronbach's alpha, was calculated using both versions of the BSC, 10-item and 12-item. The alpha coefficient for the 10-item version was .93; whereas, the value for the 12-item version ranged from .92 to .95. Alpha coefficients for the 12-item were collected at grade level for kindergarten through eighth grade (Muyskens et al., 2007). King and Reschly (2014) evaluated the BSC-III and BESS (BASC-2 BESS; Kamphaus & Reynolds, 2007) in a rural elementary school in the Southeastern United States. Inter-rater reliability between the BSC-III and BESS was lower than expected, 27.1% for the extremely elevated, or 5%, and 34.2% for the elevated, 20%, on both measures. Concurrent validity among the two measures was high, r = .854. Both the BESS and BSC-III were correlated as expected with measures of achievement and behavior.

In the pilot study of the BSC-III, predictive validity was calculated based on separate analyses for students in kindergarten through grade 5, and grades 6 through 8 due to predictions that the values would be different between the elementary and middle school levels (Muyskens et

al., 2007). After disaggregating by school level, the Fall BSC-III values were correlated with standardized achievement scores, ODR, and attendance data. All correlations were significant (p<0.001) for both groups, across all variables. The correlation between BSC scores and number of suspensions was r = .28 for the kindergarten - grade 5 sample and r =.51 for the grades 6 through 8. With respect to achievement, as one might expect, BSC-III scores were negatively correlated with achievement (r = -.46 and -.40, middle school and elementary school, respectively; Muyskens et al., 1997).

Student-level Data

Student-level data were obtained via school records from a district online database.

Office Discipline Referrals. Office discipline referrals (ODR) represent a referral to the administrative or main office. In this district, prior to receiving the initial office discipline referral, students receive three warnings for minor infractions within the classroom setting. For major infractions, such as fighting or possession of drugs or alcohol, students are sent directly to the main office. In this study, the referral counts reflect a combination of minor discipline infractions, the fourth and, if applicable, subsequent referrals, and major discipline infractions that are acute behaviors that are referred immediately. Majority of the discipline infractions in this study represent minor infractions. The total number of ODR calculated for this sample was 697. Since the data codes represent a class of behaviors, it was more difficult to distinguish which infractions are chronic, i.e., minor as defined by the fourth infraction, and more acute, but serious infractions. Despite this obstacle, we were able to determine which infraction codes most frequently led to classroom removals (e.g., ISS, OSS, and expulsion). Of the total, 391 (56%) ODR were coded as the following in the school database system: other serious discipline referral, tobacco, vandalism, fighting, larceny/theft, bullying and drugs, except alcohol. Nearly all of

these infractions resulted in classroom removals. The remaining 306 (44%) were coded as other office referral, disorderly conduct, and bus incidents; community service, after school detention and conference with administrators were typical consequences for these infractions. Bullying was included in the category with more severe infractions. A plausible explanation for this is that the school district in which the sample derives, strictly prohibits bullying and has implemented an anti-bullying curriculum tailored for the elementary, middle, and high school levels.

Socioeconomic Status. Socioeconomic status was measured by students' eligibility for free- or reduced-price lunch status. In this sample, students were identified as having free lunch, reduced-price lunch or full price (no reduction). Students qualified for free- or reduced-price lunch based on the United States Department of Agriculture, Food and Nutrition Service's annual Federal poverty guidelines based on income and household size (USDA, 2014).

Special Education and 504 Status. Students in this sample with special needs were identified through a formal process based on categories outlined in the Individuals with Disabilities Education Improvement Act (2004). Additionally, students with impairments not covered by IDEIA but serviced under Section 504 of the Rehabilitation Act of 1973 were represented as well.

Honors and Advanced Placement. In addition to special education distinction, students on the Honors track and Advanced Placement (AP) track were identified. Classes on these tracks were characterized by more intellectual rigor.

Unweighted Grade Point Average. The unweighted grade point average (GPA) served as the achievement variable in this study. By analyzing the unweighted GPA, one is able to

compare the GPAs of all students, independent of quality points awarded for more rigorous course tracks.

CHAPTER 3

RESULTS

Correlations and descriptive data regarding the analyzed variables are presented in Tables 2 and 3. Internal consistency of the BSC-III as measured by Cronbach's alpha was .903 for this sample. There were low to moderate significant correlations between the BSC-III score and each of the outcome variables. A slightly higher correlation was observed between the BSCIII and GPA (r = .524) than between GPA and the other behavior variables. Higher correlations were found between ODR, ISS, and OSS than between the BSC-III and the same variables. Concerning concurrent validity, each of the variables significantly predicted BSC-III scores across grade levels (Table 4). Parallel to the correlations, GPA predicted the greatest amount of variance in the BSC-III score. Due to the skewness of the variables, the log + 1 transformation of the values was conducted to determine if the coefficients differed in any meaningful way; no significant differences found.

Table 2
Correlations Between BSC-III and Academic and Behavior Variables

Variable	BSC-III	ODR	ISS	OSS	GPA
BSC-III	1.00				
ODR	.441**	1.00			
ISS	.387**	.776**	1.00		
OSS	.291**	.581**	.489**	1.00	
GPA	-.524**	-.502**	-.439**	-.321**	1.00

*Note.*** = Significant at .01. ODR = office discipline referrals; BSC-III = behavior screening checklist total score; ISS = in-school suspension; OSS = out of school suspension; GPA= unweighted grade point average. All correlations were calculated using Spearman's rho.

Distribution characteristics of the total sample: ODR (Skewness = 2.534, SE = .076; Kurtosis = 7.048, SE = .152), ISS (Skewness = 2.462, SE = .076; Kurtosis = 5.975, SE = .152), OSS (Skewness = 3.535, SE = .076; Kurtosis = 13.469,SE = .152).

Table 3

BSC-III Means for Populations within Demographic Groups

Variable	BSC-III Mean	N	SD	Minimum	Maximum
Sex					
Female	15.95	527	5.191	12	41
Male	8.19	512	7.010	12	45
Total	17.05	1039	6.253	12	45
Ethnicity					
African American	19.21	104	7.746	12	42
Asian American	15.00	11	3.376	12	20
European American	16.88	833	6.065	12	45
Hispanic/Latino	16.32	66	5.701	12	40
Multi-Racial	16.80	25	6.403	12	32
Total	17.05	1039	6.253	12	45
Grade Level					
9th	7.37	316	5.623	12	42
10th	6.10	232	5.923	12	45
11th	8.23	260	7.281	12	44
12th	6.26	231	5.915	12	41
Total	7.05	1039	6.253	12	45
Meal Status					
Free Rate	18.35	452	6.903	12	45
Reduced Rate	17.36	121	6.715	12	44
Full Rate	15.72	466	5.099	12	41
Total	17.05	1039	6.253	12	45
504 Status					
No	16.94	1012	6.167	12	45
Yes	21.48	27	7.832	12	40
Total	17.05	1039	6.253	12	45
Gifted Status					
No	17.43	884	6.469	12	45
Honors	14.89	117	4.095	12	32
AP	14.95	38	4.798	12	37
Total	17.05	1039	6.253	12	45
Special Education Services					
No	16.84	926	6.07	12	45
Yes	18.84	113	7.372	12	42
Total	17.05	039	6.253	12	45
ODR Level					
1 (0-1 ODR)	15.86	867	5.008	12	42
2 (2-5 ODR)	22.60	159	7.844	12	45
3 (6 or more)	29.00	13	9.883	12	43
Total	17.05	1039	6.253	12	45

Table 4
Measure of Concurrent Validity of the BSC-III with Outcome Variables

Variable	Standardized Coefficient	Standard Error	*t*-value
ODR	.490	.006	18.101*
ISS	.416	.002	14.718*
OSS	.362	.002	12.518*
GPA	-.547	.029	-21.024*

* denotes a *p* value of < .001

Means for each of the descriptive values are reflected in Table 3. Significant mean differences were found within each of the demographic variables using one-tailed ANOVA tests. To determine precisely where differences existed, Tukey's HSD post-hoc tests were conducted to make pairwise comparisons between group means at the .05 level. Significant differences among the post-hoc analyses were observed; however, small and moderate effects were revealed, as measured by Hedges *g* (Ellis, 2009; Table 5) between the majority of the comparisons. Conversely, large effects were noticed among ODR levels.

Table 5
Differences Between Within Population Group Means

Variable	Group 1	Mean	Group 2	Mean	Difference	Hedges *g*
Ethnicity	African American	19.21	European American	16.88	2.333**	0.371
			Hispanic/Latino	16.32	2.893*	0.410
Grade Level	11th	18.23	10th	16.10	2.123***	0.319
			12th	16.26	1.972**	0.295
Meal Status	Free	18.35	None	15.72	2.629****	0.434
	Reduced	17.36	None	15.72	1.634*	0.299
ODR Level	3 (6 or more)	29.00	1 (0-1)	15.86	13.141****	2.571
			2 (2-5)	22.60	6.403****	0.796
	2 (2-5)	22.6	1 (0-1)	15.86	6.738****	1.215
Gifted Status	0 (None)	17.43	1 (Honors)	14.89	2.543****	0.407
			2 (AP)	14.85	2.485*	0.387

CHAPTER 4

DISCUSSION

In recent years, school discipline has been at the forefront of priorities for school administrators across the nation, often spurred by acute incidents that result in mass injuries, and schools plagued by chronic discipline issues. Previous disciplinary methods such as corporal punishment and zero tolerance policies, though widely used, have not been found to effectively reduce student behavior infractions. PBIS is increasingly implemented independently and as part of a comprehensive RTI model to improve disciplinary climate and identify students who may benefit from additional behavior support and intervention. The key to success in both models is data that may be used to monitor progress of school-wide practices and initiatives and most notably to make decisions about planning behavior interventions and service delivery. Although there are many forms of data commonly collected in schools, numerous problems exist with the use of these data in PBIS and RTI models, including concerns about reactivity (i.e., initiated after a behavior is severe) and teacher bias.

As such, various behavior screeners have been developed to more easily identify students who may benefit from additional behavior support and intervention. Some screeners are structured and require that the raters (e.g., SSBD; Walker & Severson, 1992), typically classroom teachers, specify and/or rank a number of students who exhibit problem behaviors. However, limiting the number of students who may be identified within a classroom increases the risk that students may be overlooked and miss opportunities for early intervention. Another method of screening involves the universal screening of the school population. In this case, data

are collected for each student, which may be a more effective way to limit impact of bias on student referral and concerns regarding over- and under-identification.

One type of universal behavior screener, the BSC-III, has been examined in elementary and middle school populations (King & Reschly, 2014; Muyskens et al., 2007); however, limited data exist for high school students. For the current study, we sought to examine the psychometric properties of this screener with a high school sample. Data were collected from extant variables stored in the district's online database. Descriptive statistics, Spearman's rho correlations, ANOVA and post-hoc tests, and regressions were conducted to derive answers for these questions.

Study Results

Data were collected from 1,039 students who attended a southeastern high school in the United States; nearly 30% of the original sample was removed because of incomplete BSC-III data. Mean BSC-III scores were calculated across demographic groups and reflected that the following groups had the highest means across demographic groups, sex, ethnicity, grade level, ODR level, meal status, 504 status, gifted and special education status, respectively: males, African- Americans, 11th graders, those with 6 or more office discipline referrals, those who qualify for free lunch, those with 504 plans, those who did not qualify for gifted and those who receive special education services.

Internal Consistency. Cronbach's alpha for this sample was .903 for the 12 item BSC-III according to typical psychometric standards, this is a high level of reliability (Cronbach, 1951); similar results were found in Muyskens et al. (2007) and King and Reschly (2014).

Concurrent validity. In this study, concurrent validity was investigated by examining the strength of correlation coefficients between the BSC-III and other behavior and academic

variables. GPA was significantly, negatively correlated with BSC-III scores. Additionally, significant, positive correlations were found between the BSC-III and ODR, ISS and OSS; these results were similar to previous studies examining the BSC-III (King & Reschly, 2014; Muyskens et. al, 2007) where positive, moderate correlations with similar outcome variables were observed. In the King and Reschly (2014) study, BSC was most strongly correlated with ODR (r = .400) for students in grades 1-5 and BSC-III scores were highly associated with BESS scores (r = .854); however, BSC-III scores in the current study were more strongly correlated with GPA. The correlation between BSC-III and ISS was most strongly correlated across the behavioral outcome variables. ISS was the consequence given for many of the infractions, therefore elevated BSC-III scores revealed students who needed additional supports which was also evident by the number of ODR a student received. Though a student must receive an ODR to be assigned to ISS, a student can be given multiple days of ISS as a consequence for a single ODR. For this reason, ISS days can quickly exceed the number ODR which can influence the statistical relationship of the variables. Additionally, by assigning a student to ISS, the student is still present at school and able to receive class assignments and tests, whereas with OSS the student is unable to receive instruction. OSS appeared to be reserved for chronic and serious, acute incidents.

Relatedly, earlier work with the BSC-III with elementary and middle school students also found a relationship between academic performance and behavior problems as reflected in number of ODR (King & Reschly, 2014; Muyskens et al., 2007). These domains are thought to be closely related because students with behavior problems are often removed from the classroom, either because they are sent to the office for the infraction in order to receive a referral, or in addition to that time away from the classroom, the student's consequence could be

an assignment to ISS or OSS, circumstances that cause the student to miss instructional time (Lassen et al., 2006). In this study, regression analyses conducted across behavior and academic variables and ODR, ISS, ODD, and GPA, were each found to be significant predictors of BSC-III scores. These results support previous research and further illustrate the connected between academic outcomes and student behavior.

Differences Across Demographic Variables. In comparing differences between groups, significant differences existed between African- American students and European-Americans and Hispanic//Latinos. A significant subset of research with disciplinary data centers on the disproportionality in the number of ODR minority students receive, namely African American and Hispanics, and the severity of the consequence assigned for a particular infraction (Losen & Skiba, 2010; Skiba & Knesting, 2001; Skiba & Peterson, 2000; Skiba & Rausch, 2006). Though the scores for African-Americans are significantly higher in this study, the relationship between ODR, ethnicity, and consequence are beyond the scope of this study. However, it is important to consider the implications of particular minority groups having higher scores as well as the determining underlining factors that may lead to this outcome. Moreover, the presence of higher scores across demographic groups does not automatically denote that a measure is biased. In this study, a student's qualification for free or reduced lunch served as a proxy for socioeconomic status. Low-income students received higher BSC-III scores; however, prior studies did not explore BSC-III score differences for this group, therefore a comparison to previous findings was not possible for this variable. The connection between a student's ethnicity and SES is important in this regard. Some studies suggest that discrepancies that exist between White or European American and Black or African American students may be mediated in part by poverty (Skiba & Williams, 2014); however, Skiba and Williams (2014) and Noltemeyer and Mcloughlin (2010)

report that disproportionality among minority groups remains, even when SES is accounted for in the analyses.

Lastly, Muyskens et al. (2007) reported a trend that as students transition to higher grade levels, their BSC scores increase as well. Similar results were observed in this sample, 11th grade students had significantly higher BSC-III scores as compared to 9th, 10th and 12th grade students.

Limitations

Nearly 30% of the original data set was excluded because of incomplete BSC-III rating forms for students, which poses as a significant limitation to the results obtained in this current study. These data were excluded because BSC-III screener data were not available. Of students who were excluded, some had transferred from the school while for others, information was not input by teachers, perhaps due to lack of communication about which students and classes for which the teacher was responsible. Another limitation is the lack of additional achievement variables other than GPA. Numerous studies have illustrated the indirect relationship of these two variables; results often reflect that students with lower academic achievement have more behavior difficulties and the converse has been observed as well (e.g., Darney, Reinke, Herman, Stormont, & Ialongo, 2013; Nelson et. al, 2010; Putnam et al., 2006). Though this study compared GPA to BSC-III scores, additional measures of academic achievement are beneficial to further illustrate the connectivity of academic achievement and behavior. As previously mentioned, frequent assignments to ISS and OSS reduce the amount of instructional time a student receives, which would likely negatively affect the student's academic performance (Darney et al., 2013; Lassen et al., 2006). Another reason for ascertaining a student's level of academic achievement is the finding that students with existing academic difficulties presented

with an increased presentation of behavior problems, that is that their behaviors amplified (Darney et al., 2013; McIntosh, Horner, Chard, Dickey, & Braun, 2008). Thus with these connections, academic achievement is an important link and worthy of future review. As early intervention is the primary goal, intervention ought not be restricted to behavior outcomes because the nature of the BSC-III; rather it is the hope that screener data would be instrumental in facilitating better outcomes for students academically and behaviorally.

Data for the current study were collected as a snapshot of the concurrent validity of the BSC-III of the BSC for high school students. Future studies may be able to obtain a more comprehensive view of the predictive variability of the BSC-III if researchers are able to collect data on a student as he or she matriculates from elementary to high school. Lastly, data regarding student attendance, absences and tardies, were not available at the time of collection and not included in the current study. Previous works report attendance data as a predictor variable for student engagement and student behavior (Christenson et al., 2008; Sugai & Horner, 2002), thus the inclusion of this information will beneficial in future studies investigating the BSC-III among high school student populations.

Future Directions

This study investigated the utility of the BSC-III for high school students. In recognizing that by high school typical students have been enrolled and formally educated for a minimum of nine years, one must ask if identifying students at this juncture perhaps appears delayed rather than early and proactive. Furthermore, if students are identified at this level, are these the same students that have been identified previously? Finally, what additional supports are available, and effective, to and for the student? Essentially, are there more efficacious methods for identifying students who need support? In future studies analyzing the BSC-III for high school

students, ensuring that BSC-III data are obtained for a larger portion of the sample will be important because having a complete data set will provide the most comprehensive view. Significant differences between the sample used for this study and those excluded were observed thereby exemplifying the value of reducing the quantity of missing data. Of particular interest is the further investigation into the SES, special education, and ethnicity as it relates to the BSC-III. Given research on disproportionality among these groups, future researchers should disaggregate ODR data to identify the various types of infractions, and corresponding severity to determine if that factor controls for group differences, as suggested in Skiba and Williams (2014). Relatedly, nearly all of the teachers in this school district are White or European American according to state census data. Given research describing the disproportionality about the impact of a racial mismatch between students and their teachers and the application and reference of discipline, further studies ought to collect data at the teacher level in order to determine if this applies for this population as well. Another recommendation is to conduct a longitudinal study examining students as they matriculate from elementary to high school as it will provide information regarding behavior trends across and between grades. This information will also aid teachers and administrators in social skills and behavior intervention planning, particularly if certain areas of functioning appear to be an area of concern for a number of students. This study measured the concurrent validity with outcome variables but further investigation of validity with other screening behavior measures ought to be explored. Subsequent studies should examine how well the BSC-III predicts later school outcomes, like ISS, OSS, and graduation rates. Finally, extending this research beyond the 12th grade may provide insight on how post-secondary outcomes and achievement are related to a student's BSC-III scores.

REFERENCES

Achenbach, T. M., & Rescorla, L. A. (2001). *Manual for the ASEBA school-age forms & profiles*. Burlington: Research Center for Children, Youth, & Families, University of Vermont.

Albers, C.A., Glover, T.A., & Kratochwill, T.R. (2007). Where are we, and where do we go now? Universal screening for enhanced educational and mental health outcomes. *Journal of School Psychology, 45*, 257-263.

Algozzine, B., & Algozzine, K. (2009). Facilitating academic achievement through schoolwide positive behavior support. In *Handbook of positive behavior support* (pp. 521-550). Springer US.

American Psychological Association Zero Tolerance Task Force (2008). Are zero tolerance policies effective in the schools?: An evidentiary review and recommendations. *American Psychologist*, *63*(9), 852-862.

The Annie E. Casey Foundation. (2012). *Zero Tolerance and Exclusionary School Discipline Policies Harm Students and Contribute to the Cradle to Prison Pipeline*® Baltimore, MD: Biehl, S., Celeste, G., McFarland, K., van Lier, P., & Wheeler, S. Retrieved from http://www.ohiopovertylawcenter.org/oplc-and-childrens-defense-fund-release-zero-tolerance-and-school-discipline-issue-brief

Barnes, A. C., & Harlacher, J. E. (2008). Clearing the confusion: Response-to-intervention as a set of principles. *Education and Treatment of Children*, *31*(3), 417-431.

Batsche, G. M., Elliott, J., Graden, J. L., Grimes, J., Kovaleski, J. F., Prasse, D., et al. (2005). Response to Intervention: Policy Considerations and Implementation: National

Association of State Directions of Special Education, Inc.

Bourdon, K. H., Goodman, R., Rae, D. S., Simpson, G., & Koretz, D. S. (2005). The Strengths and Difficulties Questionnaire: U.S. Normative Data and Psychometric Properties. *Journal Of The American Academy Of Child And Adolescent Psychiatry*, *44*(6), 557.

Bryan, J., Day-Vines, N. L., Griffin, D., & Moore-Thomas, C. (2012). The disproportionality dilemma: Patterns of teacher referrals to school counselors for disruptive behavior. *Journal of Counseling & Development*, *90*(2), 177-190.

Christenson, S. L., Reschly, A. L., Appleton, J. J., Berman, S., Spanjers, D., & Varro, P. (2008). Best practices in fostering student engagement. *Best practices in school psychology*, *5*, 1099-1120.

Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, *16*(3), 297-334.

Darney, D., Reinke, W. M., Herman, K. C., Stormont, M., & Ialongo, N. S. (2013). Children with co-occurring academic and behavior problems in first grade: Distal outcomes in twelfth grade. *Journal of school psychology*, *51*(1), 117-128.

Donovan, S. & Cross, C. (2002). Minority students in special and gifted education. Washington, DC: National Academy Press.

Dowdy, E., Chin, J.K., Twyford, J.M., & Dever, B.V. (2011). Factor analytic investigation of the BASC-2 Behavioral and Emotional Screening System Parent Form: Psychometric properties, practical implications, and future directions. *Journal of School Psychology 49(3)*, 265-280.

Drummond, T. (1994). *The Student Risk Screening Scale (SRSS)*. Grants Pass, OR: Josephine County Mental Health Program.

Duncan, A. (2014, January). Remarks of U.S. Secretary of Education Arne Duncan. Speech presented at the Release of the Joint DOJ-ED School Discipline Guidance Package, Baltimore, MD.

Dupper, D. R., & Dingus, A. E. M. (2008). Corporal punishment in US public schools: A continuing challenge for school social workers. *Children & Schools*, *30*(4), 243-250.

Eklund, K., Renshaw, T. L., Dowdy, E., Jimerson, S. R., Hart, S. R., Jones, C. N., & Earhart, J. (2009). Early Identification of Behavioral and Emotional Problems in Youth: Universal Screening versus Teacher-Referral Identification. *California School Psychologist*, *14,* 89-95.

Ellis, P.D. (2009, September 27), *Effect size equations*. Retrieved from *http://www.polyu.edu.hk/mm/effectsizefaqs/effect_size_equations2.html*.

Fallon, L. M., O'Keeffe, B. V., & Sugai, G. (2012). Consideration of Culture and Context in School-Wide Positive Behavior Support A Review of Current Literature. *Journal of Positive Behavior Interventions*, *14*(4), 209-219.

Flanagan, R. (1995). A review of the Behavior Assessment System for Children (BASC): Assessment consistent with the requirements of the Individuals With Disabilities Education Act (IDEA). *Journal of School Psychology,* 33(2), 177-186.

Flannery, K. B., & Sugai, G. (2009). School-wide PBIS implementation in high schools: Current practice and future directions. Eugene, OR: Center on PBIS.

Flannery, K. B., Sugai, G., & Anderson, C. M. (2009). School-Wide Positive Behavior Support in High School Early Lessons Learned. *Journal of Positive Behavior Interventions*, *11*(3), 177-185.

Fuchs, D., & Fuchs, L. S. (2006). Introduction to Response to Intervention: What, why, and how

valid is it?. *Reading Research Quarterly*, *41*(1), 93-99.

Glover, T. A., & Albers, C. A. (2007). Considerations for evaluating universal screening assessments. *Journal of School Psychology, 42,* 117–135.

Goodman, R. (1997). The Strengths and Difficulties Questionnaire: a research note. *Journal of child psychology and psychiatry*, *38*(5), 581-586.

Gottlieb, J., Gottlieb, B. W., & Trongone, S. (1991). Parent and teacher referrals for a psychoeducational evaluation. *The Journal of Special Education*, *25*(2), 155-167.

Gottlieb, J., & Weinberg, S. (1999). Comparison of students referred and not referred for special education. *The Elementary School Journal*, 187-199.

Gresham, F. M., & Elliott, S. N. (1990). *Social skills rating system (SSRS)*. American Guidance Service.

Greydanus, D. E., Pratt, H. D., Richard Spates, C., Blake-Dreher, A. E., Greydanus-Gearhart, M. A., & Patel, D. R. (2003). Corporal punishment in schools: Position paper of the Society for Adolescent Medicine. *Journal of Adolescent Health*, *32*(5), 385-393.

He, J., Burstein, M., Schmitz, A., & Merikangas, K. R. (2013). The Strengths and Difficulties Questionnaire (SDQ): The factor structure and scale validation in U.S. adolescents. *Journal Of Abnormal Child Psychology*, *41*(4), 583-595.

Horner, R. H., Sugai, G., Todd, A. W., & Lewis-Palmer, T. (2005). School-wide positive behavior support. *Individualized supports for students with problem behaviors: Designing positive behavior plans*, 359-390.

Hosp, J. L., & Reschly, D. J. (2004). Disproportionate representation of minority students in special education: Academic, demographic, and economic predictors. *Exceptional Children, 70,* 185- 199.

Irvin, L., Horner, R., Ingram, K., Todd, A., Sugai, G., Sampson, N., & Boland, J.(2006). Using Office Discipline Referral Data for Decision Making About Student Behavior in Elementary and Middle Schools: An Empirical Evaluation of Validity. *Journal of Positive Behavior Interventions, 8(1)*, 10-23.

Irvin, L. K., Tobin, T. J., Sprague, J. R., Sugai, G., & Vincent, C. G. (2004). Validity of office discipline referral measures as indices of school-wide behavioral status and effects of school-wide behavioral interventions. *Journal of Positive Behavior Interventions, 6*, 131–147.

Janssens, A., & Deboutte, D. (2009). Screening for psychopathology in child welfare: the Strengths and Difficulties Questionnaire (SDQ) compared with the Achenbach System of Empirically Based Assessment (ASEBA). *European Child & Adolescent Psychiatry*, *18*(11), 691-700.

Jenkins, J. R., Hudson, R. F., & Johnson, E. S. (2007). Screening for at-risk readers in a response to intervention framework. *School Psychology Review*, *36*(4).

Kamphaus, R. W., & Reynolds, C. R. (2007). *Behavioral & Emotional Screening System*. NCS Pearson.

Kamphaus, R. W., Thorpe, J. S., Winsor, A. P., Kroncke, A. P., Dowdy, E. T., & VanDeventer, M. C. (2007). Development and predictive validity of a teacher screener for child behavioral and emotional problems at school. *Educational and Psychological Measurement*, *67*(2), 342-356.

Kern, L., & Manz, P. (2004). A look at current validity issues of school-wide behavior support. *Behavioral Disorders*, 30, 47–59.

King, K. R., & Reschly, A. L. (2014). A Comparison of Screening Instruments: Predictive

Validity of the BESS and BSC. *Journal of Psychoeducational Assessment*, 0734282914531714.

Lane, K., Little, M., Casey, A. M., Lambert, W., Wehby, J., Weisenbach, J. L., & Phillips, A. (2009). A Comparison of Systematic Screening Tools for Emotional and Behavioral Disorders. *Journal Of Emotional & Behavioral Disorders*, *17*(2), 93-105.

Lane, K. L., Parks, R. J., Kalberg, J. R., & Carter, E. W. (2007). Systematic screening at the middle school level: Score reliability and validity of the students risk screening scale. *Journal of Emotional and Behavioral Disorders*, 15, 209-222.

Lane, K. L., Kalberg, J. R., & Menzies, H. M. (2009). *Developing schoolwide programs to prevent and manage problem behaviors: A step-by-step approach*. Guilford Press.

Lassen, S., Steele, M., & Sailor, W.(2006). The Relationship Of School-Wide Positive Behavior Support To Academic Achievement In An Urban Middle School. *Psychology in the School, 43(6),* 701-712.

Levitt, J., Saka, N., Romanelli, L., & Hoagwood, K. (2007). Early Identification of Mental Health Problems in Schools: The Status of Instrumentation. *Journal Of School Psychology*, *45*(2), 163-191.

Losen, D. J., & Skiba, R. J. (2010). Suspended education: Urban middle schools in crisis.

Martella, R. C., Marchand-Martella, N. E., Woods, B., Thompson, S., Crockett, C., Kubrock, E., Benner, G.J., & Ralston, N. C. (2010). Positive behavior support: Analysis of consistency between office discipline referrals and teacher recordings of disruptive classroom behaviors. *Behavioral Development*, *10*, 25-33.

Mason, W., Chmelka, M. B., & Thompson, R. W. (2012). Responsiveness of the Strengths and Difficulties Questionnaire (SDQ) in a sample of high-risk youth in residential treatment.

Child & Youth Care Forum, *41*(5), 479-492.

McIntosh, K., Frank, J.,& Spaulding, S.(2010). Establishing Research-Based Trajectories of Office Discipline Referrals for Individual Students. *School Psychology Review, 39(3)*, 380-394.

Mieloo, C. L., Bevaart, F., Donker, M. H., van Oort, F. A., Raat, H., & Jansen, W. (2014). Validation of the SDQ in a multi-ethnic population of young children. *European Journal Of Public Health*, *24*(1), 26-32.

Mulvey, E. P., & Cauffman, E. (2001). The inherent limits of predicting school violence. *American psychologist*, *56*(10), 797.

Muyskens, P., Marston, D., & Reschly, A. (2007). The Use of Response to Intervention Practices for Behavior: An Examination of the Validity of a Screening Instrument. *The California School Psychologist, 12,* 31-45.

National Education Association.(2007). Truth in labeling: Disproportionality in special education. Washington, DC: National Education Association.

Nelson, C. M., Jolivette, K., Leone, P. E., & Mathur, S. R. (2010). Meeting the Needs of At-Risk and Adjudicated Youth with Behavioral Challenges: The Promise of Juvenile Justice. *Behavioral Disorders*, *36*(1).

Noltemeyer, A., & Mcloughlin, C. S. (2010). Patterns of Exclusionary Discipline by School Typology, Ethnicity, and Their Interaction. *Penn GSE Perspectives on Urban Education*, *7*(1), 27-40.

Osher, D., Bear, G, Spargue, J, and Doyle, W.(2010). How Can We Improve School Discipline. *Educational Researcher, 39(1),* 48-58.

Polirstok, S., & Gottlieb, J. (2006). The Impact of Positive Behavior Intervention Training for

Teachers On Referral Rates for Misbehavior, Special Education Evaluation and Student Reading Achievement in the Elementary Grades. *International Journal of Behavioral Consultation & Therapy*, *2*(3).

Putnam, R. F., Horner, R. H., & Algozzine, R. (2006). Academic achievement and the implementation of school-wide behavior support. *Positive Behavior Interventions and Supports Newsletter*, *3*(1).

Raines, T. C., Dever, B. V., Kamphaus, R. W., & Roach, A. T. (2012). Universal Screening for Behavioral and Emotional Risk: A Promising Method for Reducing Disproportionate Placement in Special Education. *Journal Of Negro Education*, *81*(3), 283-296.

Reschly, D. J., & Bergstrom, M. K. (2009). Response to Intervention. In T. B. Gutkin & C. R. Reynolds (Eds.), Handbook of School Psychology (4th ed., pp. 434-460). Hoboken, NJ: John Wiley & Sons, Inc.

Reynolds, C. R., Skiba, R. J., Graham, S., Sheras, P., Conoley, J. C., & Garcia-Vazquez, E. (2008). Are zero tolerance policies effective in the schools?: an evidentiary review and recommendations. *The American Psychologist*, *63*(9), 852-862.

Safran, S. P., & Oswald, K. (2003). Positive behavior supports: Can schools reshape disciplinary practices?. *Exceptional children*, *69*(3), 361-373.

Sandomierski, T., Kincaid, D., & Algozzine, B. (2007). Response to intervention and positive behavior support: Brothers from different mothers or sisters with different misters. *Positive Behavioral Interventions and Supports Newsletter*, *4*(2), 1-4.

Severson, H. H., Walker, H. M., Hope-Doolittle, J., Kratochwill, T. R., & Gresham, F. M. (2007). Proactive, early screening to detect behaviorally at-risk students: Issues, approaches, emerging innovations, and professional practices. *Journal of School*

Psychology, *45*(2), 193-223.

Skiba, R. J. and Knesting, K. (2001), Zero tolerance, zero evidence: An analysis of school disciplinary practice. New Directions for Youth Development, 2001: 17–43. doi: 10.1002/yd.23320019204

Skiba, R. J., & Peterson, R. L. (2000). School discipline at a crossroads: From zero tolerance to early response. *Exceptional Children*, *66*(3), 335-396.

Skiba, R. J., Peterson, R. L., & Williams, T. (1997). Office referrals and suspension: Disciplinary intervention. *Education & Treatment Of Children*, *20*(3), 295.

Skiba, R. J., & Rausch, M. K. (2006). Zero tolerance, suspension, and expulsion: Questions of equity and effectiveness. *Handbook of classroom management: Research, practice, and contemporary issues*, 1063-1089.

Skiba, R.J., & Williams, N. T. (2014). Are Black Kids Worse? Myths and Facts About Racial Differences in Behavior. Bloomington, IN: The Equity Project.. Retrieved from: http://www.indiana.edu/~atlantic/wp-content/uploads/2014/03/African-American-Differential-Behavior_031214.pdf

Sugai, G., Sprague, J. R., Horner, R. H., & Walker, H. M. (2000). Preventing School Violence The Use of Office Discipline Referrals to Assess and Monitor School-Wide Discipline Interventions. *Journal of Emotional and Behavioral Disorders*, *8*(2), 94-101.

Sugai, G., & Horner, R. H. (2002). The evolution of discipline practices: School-wide positive behavior supports. *Child & Family Behavior Therapy, 24*(1/2), 23–50.

Sugai, G., & Horner, R.H. (2006). A promising approach for expanding and sustaining the school-wide positive behavior support. *School Psychology Review, 35*(2), 245-259.

Sugai, G., Horner, R. H., Dunlap, G. Hieneman, M., Lewis, T. J., Nelson, C. M., Scott, T.,

Liaupsin, C., Sailor, W., Turnbull, A. P., Turnbull, H. R., III, Wickham, D. Reuf, M., & Wilcox, B. (2000). Applying positive behavioral support and functional behavioral assessment in schools. Journal of Positive Behavioral Interventions, 2, 131-143.

Simonsen, B., & Sugai, G. (2009). School-wide positive behavior support: A systems-level application of behavioral principles. In A. Akin-Little, S. G. Little, M. A. Bray, T. J. Kehle, (Eds.), *Behavioral interventions in schools: Evidence-based positive strategies* (pp. 125-140). Washington, DC, US: American Psychological Association. doi:10.1037/11886-008

Sugai, G., & Simonsen, B. (2012). Positive behavioral interventions and supports: History, defining features, and misconceptions. *PBIS Revisited*, *1*(1).

Taylor-Greene, S., Brown, D., Nelson, L., Longton, J., Gassman, T., Cohen, J., Swartz, Horner, R., Sugai, G., & Hall, S.(1997). School-Wide Behavioral Support: Starting the Year Off Right. *Journal of Behavioral Education, 7(1)*, 99-112.

United States Department of Agriculture. (2014). Federal Register. *Income Eligibility Guidelines, 79(43)*. Retrieved from http://www.fns.usda.gov/sites/default/files/2014-04788.pdf

United States Department of Education (2014). U.S. Departments of Education and Justice Release School Discipline Guidance Package to Enhance School Climate and Improve School Discipline Policies/Practices [Press release]. Retrieved from http://www.ed.gov/news/press-releases/us-departments-education-and-justice-release-school-discipline-guidance-package-

Van Horn, M., Atkins-Burnett, S., Karlin, E., Ramey, S., & Snyder, S. (2007). Parent ratings of children's social skills: Longitudinal psychometric analyses of the Social Skills Rating

System. *School Psychology Quarterly*, *22*(2), 162-199.

Vaz, S., Parsons, R., Passmore, A. E., Andreou, P., & Falkmer, T. (2013). Internal consistency, test–retest reliability and measurement error of the self-report version of the Social Skills Rating System in a sample of Australian adolescents. *PloS one*, *8*(9), e73924.

Walker, H. M., & Severson, H. H. (1992). *Systematic screening for behavior disorders (SSBD)*. Sopris West, 1140 Boston Ave., Longmont, CO 80501.

Walker, H. M., & Shinn, M. R. (2002). Structuring school-based interventions to achieve integrated primary, secondary, and tertiary prevention goals for safe and effective schools. *Interventions for academic and behavior problems II: Preventive and remedial approaches*, 1-26.

Wu, S. C., Pink, W., Crain, R., & Moles, O. (1982). Student suspension: A critical reappraisal. *The Urban Review*, *14*(4), 245-303.