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Impact of Universal Social-Emotional and Behavioral Screening Among Middle School Students: A Multistage Approach to Identification

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IMPACT OF UNIVERSAL SOCIAL-EMOTIONAL AND BEHAVIORAL SCREENING
AMONG MIDDLE SCHOOL STUDENTS: A MULTSTAGE
APPROACH TO IDENTIFICATION

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ABSTRACT

Impact of Universal Social-Emotional and Behavioral Screening Among Middle School Students: A Multistage Approach to Identification

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Kristen M. Ballinger

Mental health problems often have an onset during the school age years and significantly impact the development, academic achievement, and future success of children and adolescents (Kessler et al., 2005). Less than half of the 10% to 20% of youth believed to be emotionally and behaviorally at-risk receive the mental health services they need (Bradshaw et al., 2008; Gresham, 2007). As a result, universal screening for mental health risk has been recommended as the best initial step to identifying and intervening with at-risk students. Numerous screeners and methods of implementation exist, but a widely accepted and utilized process has failed to emerge.

This study investigated a multistage approach to universal emotional and behavioral screening of adolescents in secondary schools utilizing self-report measures of the Behavioral and Emotional Screening System (BESS) and Behavior Assessment System for Children, Second Edition (BASC-2). Specifically, the relationship between level of risk for emotional and behavioral difficulties and various demographic variables including gender, ethnicity, language status, and special education status were examined. The participants consisted of 358 eighth grade students.

Results found approximately 17% of students rated themselves in the at-risk range for emotional and behavioral difficulties on the BESS. Significantly more females rated themselves as at-risk for behavioral and emotional risk. Contrary to expectations, males and females did not

rate themselves significantly different in the types of behavioral problems they were experiencing. Severity ratings of risk on the BESS administered at Stage 1 were consistent with the results of the BASC-2, the comprehensive behavioral assessment administered at Stage 2. Students identified with the most risk on the BESS endorsed more clinically significant maladaptive behaviors and less adjustment or functional skills on the BASC-2 than students with less measured risk. Overall, at-risk students reported negative feelings about school and themselves, difficulty with attention and focus, difficulties with parents, inability to solve problems, and feelings of sadness, which were most likely significantly impacting their ability to be successful at school.

The present study uncovered a large number of students who appeared to be in imminent need of mental health services, but were not receiving any formal intervention in or out of school. Without implementation of a mental health screening program such as this, students may not be appropriately identified as at-risk for emotional and behavioral problems and therefore, continue to struggle academically, socially, and behaviorally. The comprehensive data collected on at-risk students may ultimately be used to guide and direct future interventions based on a student's descriptive profile.

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CHAPTER 1—INTRODUCTION

According to the National Institute of Mental Health, approximately 1 in 5 children and adolescents living in the U. S. would meet the criteria for a clinical identification of a mental health disorder (Merikangas, Avenevoli, Costello, Korte, & Kessler, 2009). This includes several of the most prevalent emotional and behavioral disorders including: Attention Deficit Hyperactivity Disorder (ADHD), Depression, Oppositional Defiant Disorder (ODD), and Conduct Disorder (Denby, Owens, & Kern, 2013). Mental health problems often have an onset during the school age years and significantly affect the development, academic achievement, and future success of children and adolescents (Kessler et al., 2005). Research has shown, students with behavioral and emotional difficulties have lower grades, deficient reading skills (Bulotsky-Shearer & Fantuzzo, 2011), and are also at an increased risk for school suspension, dropout, and involvement with the criminal justice system (Bradley, Doolittle, & Bartolotta, 2008; Bradshaw, Buckley, & Ialongo, 2008). Despite this, less than half of the 10% to 20% of youth believed to be emotionally and behaviorally at-risk receive the mental health services needed (Bradshaw et al., 2008; Gresham, 2007).

Low-income, urban youth are at an even greater risk of experiencing mental health problems due to risk factors often associated with poverty (Hart, Hodgkinson, Belcher, Hyman, & Cooley-Strickland, 2013; Sanchez, Lambert, & Cooley-Strickland, 2013). These factors may include: increased exposure to crime and violence, child abuse, family dysfunction, homelessness, and economic disadvantage (Hart et al., 2013; Smokowski, Mann, Reynolds, & Fraser, 2004). Grant et al. (2011) linked exposure to community violence to development of externalizing behaviors. This suggested there may be some type of functionality behind the development of externalizing behaviors in an urban setting.

Kataoka, Zhang, & Wells (2002) examined children 6 to 17 years of age who were in need of mental health services as determined by the Child Behavior Checklist. Their study investigated whether those children received mental health services within one year of identification. According to Kataoka and colleagues (2002), despite an identified need for mental health services, only 6% to 9% of those identified received services. Lack of access to mental health services may have resulted from a number of inherent barriers, such as fear of stigma, lack of information, and confusion about the service system (Stephan, Weist, Kataoka, Adelsheim, & Mills, 2007). Additional barriers include: inaccessible location of services, financial expense, insurance coverage or lack thereof, and past negative experiences with mental health services (Boulter & Rickwood, 2013; Williams, Perrigo, Banda, Matic, & Goldfarb, 2013).

Speaking a language other than English creates an additional barrier to accessing mental health services (Williams et al., 2013). Williams and colleagues (2013) found of Spanish-speaking callers attempting to make an appointment for mental health services, less than half were able to do so. Kim et al. (2011) found that of Latino immigrants with psychiatric disorders, limited English proficiency significantly reduced the probability of accessing mental health services. Despite documented needs, Asian immigrants accessed mental health services the least of all ethnicities included in the study (Kim et al., 2011). Other research studies have indicated immigrants access services at varying rates depending upon birth country and age at the time of immigration (Abe-Kim et al., 2007). Immigrants were three times less likely to access mental health services than those born in the U.S. Implications of these studies indicate the need for bilingual services to aide in communication. There is also a need for educational mental health awareness trainings that may focus on intervening with specific cultures. Further research

should also be done to identify cultural differences in willingness and ability to access mental health services, and how these barriers may be overcome.

Due to hindrances in accessing mental health services in the community, schools have become the entry point for provision of these services (Chafouleas, Kilgus, & Wallach, 2010; Farmer, Burns, Phillips, Angold, & Costello, 2003; Stephan et al., 2007). Research has shown, schools have the ability to support the mental health of youth. Most schools have various mental health professionals, such as school psychologists and counselors, to utilize for mental health initiatives, such as universal social-emotional and behavioral screening (Bradshaw et al., 2008).

Universal mental health screening has been found to be a quick, inexpensive, and systematic approach to identifying students that may be at-risk for developing behavioral or emotional difficulties (Renshaw et al., 2009). Similar to widely used academic screeners within a multi-tiered system of support framework, behavioral screeners would not be used to make a diagnosis, but rather assess for early deviations from the norm (Chafouleas, Volpe, Gresham, & Cook, 2010; Kamphaus, 2012). A multi-tiered system of support framework is a three-tiered, data driven assessment model designed for early identification of deficit areas, which then leads to varying levels of intervention. Universal mental health screeners provide information regarding an entire student population. At the same time, these screeners may provide information in multiple domains of behavior, which may then initiate the implementation of problem solving approaches to remediating behavior (Kamphaus, DiStefano, Dowdy, Eklund, & Dunn, 2010). This may allow schools to provide services without requiring a special education eligibility (National Research Council, 2002) and may reduce stigma often associated with mental health services (National Academy of Sciences, 2009).

Although the present study will focus on secondary students, emotional and behavioral screeners may be and are recommended for use with a wide range of ages including preschool students (Dowdy, Chin, & Quirk, 2013; McCabe & Altamura, 2011). Possible implications include: providing efficient mental health services in schools and appropriately integrating mental health services within multi-tiered systems of support (Artiles, Bal, & King-Thorius, 2010; Harris-Murri, King, Rostenberg, 2006; Lane, Oakes, & Menzies, 2010).

Recent Changes, Mandates, and Legislation

Due to recent changes in the health care systems, overall economic improvement of states, and the growing prevalence and need for mental health services, state legislatures have focused on strengthening and expanding the public mental health care system (NAMI, 2013). With the enactment of the Affordable Care Act (ACA), many individuals now have access to mental health services that were previously not available. Under the ACA, all health insurance policies were required to provide mental health coverage equal to medical benefits (Beronio, Po, Skopec, & Glied, 2013). This mandate recognized the significance and importance of providing mental health services at the same rate as medical services.

With the dissemination of the high prevalence rates of youth experiencing emotional and behavioral difficulties, legislative action has been taken to monitor and improve mental health service delivery in the schools (Essex et al., 2009). As a result of the 2013 Congressional session, legislation was enacted in the following areas: mental health system improvement, crisis intervention, community mental health, and stigma reduction (NAMI, 2013). The National Alliance on Mental Health Illness (2013) specifically advocated for early identification and treatment of mental health issues and school-based mental health services. Furthermore, educational legislation such as the Every Student Succeeds Act (ESSA) of 2015 specifically

addressed the need for behavioral and mental health services in schools. Specifically, ESSA (2015) recommended the following: early intervention for at-risk students, implementation of multi-tiered systems of support to address behavior, positive behavioral interventions, and school-based mental health services, such as counseling.

Another impetus to proposing legislation that would focus on the identification of mental illness was the school shooting which occurred at Sandy Hook Elementary in Newtown, Connecticut (NAMI, 2013). Upon investigation, the perpetrator of these crimes had documented mental illness. This tragedy took place just prior to the 2013 legislative sessions and therefore, generated a sense of urgency in developing legislation to address mental health in schools. The early identification and intervention of at-risk youth may be essential for positive student outcomes such as increased: high school graduation, academic achievement, emotional and behavioral regulation, and resilience to stressors (Blair & Diamond, 2008).

State and national legislation has focused on early identification of emotional and behavioral difficulties through the use of mental health screening measures, thus moving from a reactive to proactive approach to identification (Albers, Glover, & Kratochwill, 2007). Problems associated with current practices in identification of students at-risk for emotional and behavioral difficulties include: identifying symptomology only after it has increased in magnitude, disproportionately identifying more ethnic minority students, and not identifying all students who may be in need of support (Balagna, Young, & Smith, 2013; Harris-Murri et al., 2006; National Research Council, 2002). Additionally, reactive approaches have relied on subjective teacher referrals and singular indicators of difficulty, such as office discipline referrals (Pas, Bradshaw, & Mitchell, 2011).

According to the National Academy of Sciences (2009) symptoms often precede a disorder by two to four years, with symptomology often becoming more debilitating as time goes on. Quickly identifying and intervening with students at-risk for emotional and behavioral problems before a behavioral disorder manifests is essential (Clark County Children's Mental Health Consortium [CCCMHC], 2010). Early identification and intervention often requires less intensive and costly treatment and increases the student's chance of retuning to an optimal level of school performance. According to Raines, Dever, Kamphaus, and Roach (2012), universal screeners may reduce the reliance on teacher report, as well as shift resources from treatment to prevention.

In 2013, four states enacted legislation to address early identification and mental health screenings in schools: Minnesota, Nebraska, Virginia, and Nevada (NAMI, 2013). Likewise, Connecticut proposed a Senate Bill that would mandate mental health screenings for all students in the secondary grades (Altimari, 2013). This bill failed due to opposition by parents and the American Civil Liberties Union (ACLU). Potential impediments to the implementation of universal, school-based screenings includes: litigation and liability, misidentification, and issues with informed consent, which will be discussed further in Chapter 2 (Artiles, Kozleski, Trent, Osher, & Ortiz, 2010; Fu, 2007; Gardner, 2011; Gelman, 2005; Jackson, 2006).

Minnesota established the family home visiting program and Nebraska established the Behavioral Health Screening and Referral Pilot Program to target the mental health needs of children and families. The State Board of Community Colleges in Virginia developed a policy to appoint two clinicians per community college to aide in screening and making referrals of students in emergency mental health situations. Additionally, the community colleges were tasked with forming collaborations with community mental health providers to supply treatment

to students in nonemergency situations. The present study will focus on Nevada's Assembly Bill 386 (2013), which allowed for the creation of a pilot mental health screening program to be implemented in secondary schools.

Although not legislatively mandated, one of the most comprehensive reports of a universal mental health screening program is the Children's Behavioral Health Initiative (Spielberger, Haywood, Schuerman, & Richman, 2004). This program was implemented with elementary aged children in the Palm Beach County public schools. The initiative began as a pilot program with 14 schools and expanded to 39 schools. All kindergarten students were universally screened utilizing teacher ratings of behavior on the Teacher-Child Rating Scale (T-CRS). This screener yields ratings in four areas of social and emotional functioning including: task orientation, behavioral control, assertiveness, and peer socialization. Of the students screened, 9% fell in the at-risk range in all four areas of social and emotional functioning. According to Vander Stoep et al. (2005), future research should focus on the implementation of systematic universal screening programs to assist in the development and expansion of future screening initiatives.

Assembly Bill 386

According to the Clark County Children's Mental Health Consortium in 2010, approximately 118,830 children had emotional and behavioral problems and 38,942 of those children had a special education eligibility of Emotional Disturbance. According to the Nevada Administrative Code (NAC 388.105, 1993) a serious Emotional Disturbance is a, "severe emotional disorder that: (1) Is exhibited by a person for at least 3 months; (2) Adversely affects academic performance; and (3) Includes one or more of the following: (a) An inability to learn which is not caused by an intellectual, sensory or health factor; (b) An inability to engage in or to

maintain interpersonal relationships with peers and teachers; (c) Inappropriate behavior or feelings; (d) A general and pervasive mood of unhappiness or depression; (e) A physical symptom associated with a personal or academic problem; or (f) The expression of fears regarding personal or academic problems.”

The substantial number of children suffering from emotional and behavioral difficulties was one of the factors behind the enactment of mental health legislation in Nevada Assembly Bill 386 (2013). According to Assemblywoman Melissa Woodbury, Clark County Assembly District No. 23, “This legislation addresses two key factors: one, there is a growing epidemic of untreated mental illness which often eventually manifests itself in unfortunate ways for both the individual and society, including, but not limited to, acts of violence; and two, early identification and intervention is the key for best outcomes” (Anderson, 2013, p. 10). Assembly Bill 386 (2013) set the standards for implementation of this pilot program, which included standards for identifying the schools, qualified persons, method of consent, mental health screening measures, and necessary follow-up for at-risk students. Parents of children determined to be at-risk by the mental health screener were offered with a list of resources for psychological services. School-based interventions were recommended on a case-by-case basis, but the bill also stated the school district was not responsible for directly providing services (A.B. 386, 2013).

According to the Clark County Children’s Mental Health Consortium, “Nevada’s children and families experience difficulty in accessing adequate behavioral health resources, with many people reporting that services are fragmented and complex, making the system difficult to navigate” (Denby et al., 2013, p. 7). Additionally, Boulter and Rickwood (2013) found that parents described the mental health system as a strenuous process that takes extreme

persistence to find appropriate services. Despite this, the present legislation still recommended outside services, but attempted to simplify the process by creating collaborations between the school, family, and community providers (Boulter & Rickwood, 2013; Denby et al., 2013; Kataoka et al., 2002).

According to Adelman & Taylor (1999), in order to maximize the effectiveness of school-based mental health services a plan that utilizes a multi-faceted, integrated approach is the most beneficial to the student. An integrated approach may include: school personnel aiding a family in finding appropriate community resources, collaborations between the school and community-based providers, and school-based screening within a multi-tiered system of support (Barrett, Bradshaw, & Lewis-Palmer, 2008; Berkeley, Bender, Peaster, & Saunders, 2009; Boulter & Rickwood, 2013; Walsh, 2013; Weist, Rubin, Moore, Adelsheim, & Wrobel, 2007). According to Denby and colleagues (2013), families must be included in all aspects of treatment planning to ensure follow through on recommendations.

The implementation of the Assembly Bill 386 (2013) pilot program included comprehensive, follow-up assessment of deficit areas for students identified as at-risk. Assessment for deficit areas is a key component of multi-tiered systems of support. Mental health screening has the ability to fit within the multi-tiered systems of support framework already widely used in many school districts. Thus how these two initiatives fit into one comprehensive framework for identifying and remediating behavioral and emotional difficulties will be discussed. With the expansion of legislative mandates for mental health screenings in schools, there is an insistent need for research to explore the validity, utility, and long term effects of implementing these measures (Levitt, Saka, Romanelli, & Hoagwood, 2007; Romer, 2012).

Theoretical Framework

The present study utilized a public health framework, which evolved from the ecological framework for human development, to demonstrate how school psychologists roles continue to evolve to a population-based approach to service delivery within schools (Daly et al., 2006; Dowdy, Ritchey, & Kamphaus, 2010). The ecological approach to child development may help to explain how children come to develop behavioral and emotional risk factors through the interaction between personal, environmental, and systemic factors (Bronfenbrenner, 1979). Furthermore, a child's health, behavior, and relationships are all interwoven with each impacting the other and the broader system. Therefore, a child's health, behavior, and relationships with family, schools, and communities affects whether a child may develop positive or negative patterns of behavior. The interrelations between these factors must be taken into account to understand the complexity of how problem behavior may develop (Farmer, Farmer, Estell, & Hutchins, 2007). This is consistent with the public health framework, which assumes if one person is ill this will ultimately affect the health of others.

A public health framework focuses on a society or population, rather than treating one person individually (Dowdy et al., 2010). The primary focus is prevention rather than treatment. Increasing positive behavior and relationships between the student and school may decrease a child's chance of developing emotional and behavioral risk in the first place. The main goal of a public health framework is to provide services in a way that most effectively makes positive changes in the majority of a population (Strein, Hoagwood, & Cohn, 2003). Consequently, this reduces the number of individuals in need of intensive intervention.

Service delivery by school psychologists has traditionally taken a reactive role with referral-based models, intervening with one student at a time (Doll & Cummings, 2008; Dowdy

et al., 2010). With the high rate of untreated students with emotional and behavioral difficulties and limited mental health resources allocated to schools, a population-based approach to service delivery may help school psychologists provide more widespread improvement (Doll & Cummings, 2008). This may be accomplished by utilizing more efficient strategies to identify, assess, and intervene with populations of students. Universal mental health screening and forming collaborations with families and community behavioral health providers may ensure the proper utilization of available resources in a time-efficient and effective manner.

The public health framework was utilized as the theoretical approach for the present study because universal screeners were administered to a population of students. This allowed for identification of all students in need of mental health support. Universally screening for emotional and behavioral risk allows for “population-based problem identification and monitoring” within a multi-tiered system of support (Dowdy et al., 2010, p.170). For example, most students will report normal behavioral development and therefore, will respond to Tier 1 school wide interventions (Lane et al., 2010). Of the students found to be at-risk, additional more comprehensive assessment was utilized to properly identify deficit areas. This is where targeted Tier 2 (secondary) or intensive Tier 3 (tertiary) interventions may become necessary. Behavioral profiles achieved through the screening process in the present study may ultimately be used to guide the development of targeted interventions.

Also of importance, screening a student only once in their entire educational career may not be serving in the best interest of the child. A student is in constant interactions with various ecological factors and may develop maladaptive problem behaviors at any time. Therefore, having a quick and effective behavioral screening process that can be replicated from year to year may help districts intervene in a timely manner before behavior problems escalate. The

focus on intervening with populations of students and moving from intervention for disorder to prevention is the main premise behind utilizing a public health framework for identification of problem behaviors in the schools.

Purpose of Study

The purpose of the present study was to investigate a multistage approach to universal emotional and behavioral screening of adolescents in secondary schools. This study described the students who were identified as at-risk for emotional and behavioral difficulties and how the universal screener identified these students. The present study also investigated the relationship between level of risk for emotional and behavioral difficulties as measured by two universal screeners of behavioral and emotional risk and various demographic variables.

Research Questions

The following research questions were specifically addressed.

1. Are there significant group differences in the descriptive profiles (e.g., ethnicity, gender, ELL status, special education status, ODRs, number of school absences) of students identified as elevated or extremely elevated on the BESS?
2. Are there significant group differences in the descriptive profiles (e.g., ethnicity, gender, ELL status, and special education status) of students identified as at-risk (elevated and extremely elevated) and those not identified as at-risk (normal) on the BESS?
3. Do males and females in different at-risk BESS groups (elevated and extremely elevated) significantly differ on the following variables: ODRs, absences, and BASC-2 composite scores (e.g., Emotional Symptoms Index, Internalizing, School Problems, Inattention/Hyperactivity, Personal Adjustment composites)?

4. Do males and females in different at-risk BESS groups (elevated and extremely elevated) significantly differ on the following BASC-2 subscales: Attitude to School, Attitude to Teachers, Sensation Seeking, Atypicality, Locus of Control, Social Stress, Anxiety, Depression, Sense Inadequacy, Somatization, Attention Problems, Hyperactivity, Relations with Parents, Interpersonal Relations, Self-Esteem, and Self-Reliance?

Implications for Research

The present study extended current research on universal mental health screenings utilized within a school setting. The results of this study may help guide future social change initiatives by providing information on the implementation of universal mental health screeners with a middle school population. Results also provided descriptive profiles of students demonstrating behavioral and emotional risk. This information has substantial practical significance as the descriptive profiles may eventually be used to focus interventions for groups of students based upon patterns and characteristics within their profiles. Ultimately, this study may provide insight into how other school districts can effectively support the social-emotional needs of all students through the implementation of universal screening for behavioral and emotional risk.

CHAPTER 2—LITERATURE REVIEW

Introduction

This review of the literature will focus on the key factors and research that influenced the move towards universal, school wide mental health screening in schools. Several of the driving forces include: changes to special education law, increased prevalence of mental health problems in younger populations of children, changes to the mode of service delivery in the schools, and disproportionality issues in special education (Denby et al., 2013; NAMI, 2013). There has also been an increase in preventative interventions provided within multi-tiered systems of support and the establishment of differential treatment effectiveness of mental health programs depending on certain demographic variables, such as socioeconomic status (Albers et al., 2007).

A universal screening system that is both valid and may be widely used to identify a number of emotional and behavioral problems across a diverse student population has been proposed as the best initial step in identifying students at-risk for emotional and behavioral problems (Albers et al., 2007; Harrison, Vannest, & Reynolds, 2013; Henderson & Strain, 2009; Levitt et al., 2007; Severson, Walker, Hope-Doolittle, Kratochwill, & Gresham, 2007). Use of universal screening instruments is supported by several professional bodies including: the American Educational Research Association [AERA], American Psychological Association [APA], and National Council on Measurement in Education [NCME] 1999). Universal screeners may also aide in reducing unnecessary referrals and disproportionality in special education (Hoover, 2012; Raines, 2012). Overall, this literature review should support and guide future research studies in the area of universal screening, as well as provide the impetus for the current investigation of a multistage approach to universal screening.

Multi-Tiered Systems of Support

Several key shifts may have played a role in creating an educational environment that is conducive to providing mental health services in schools (Lane, Oakes, & Menzies, 2014). These key shifts include: changes to educational legislative mandates and the implementation of multi-tiered systems of support. Tiered models of support are also referred to as Response to Intervention (RTI; Henderson & Strain, 2009) and three-tiered models of support and prevention (Lane et al., 2014). IDEA (2004) promoted multi-tiered systems of support as a means to early identification and intervention for students at-risk for academic, social, and behavioral difficulties. IDEA (2004) also addressed the need for universal screeners to determine which students are at-risk for school failure. According to Walker (2010), student success is based on an interaction of both academic and social-emotional areas. This indicates schools would not be successful unless intervention occurs in both areas. With the reauthorization of IDEA (2004) along with the paradigm shift to the public health framework, many school districts have adopted multi-tiered systems of support, which includes positive behavioral supports (PBS; Doll & Cummings, 2008; Kalberg, Lane, & Menzies, 2010; Lewis, Jones, Horner, & Sugai, 2010; McIntosh, Campbell, Carter, & Dickey, 2009).

A multi-tiered system of support is a data based, problem solving assessment model that includes all students. This system is designed to provide research-based interventions to identified deficit areas through the use of universal screening and progress monitoring data (Berkeley et al., 2009; Henderson & Strain, 2009). Based on the research literature, although three-tiered models have taken on several forms, all models appear to focus on improving academic achievement and behavioral outcomes (Adelman & Taylor, 1999; Doll & Cummings, 2008). This is accomplished through a continuum of systematic supports of increasing intensity.

Key features of multi-tiered systems of support include: universal screening for precise identification and equal access to high quality, rigorous instruction. This may help tackle longstanding equality issues, such as disproportionality of ethnic minority students represented in special education and diverse students lack of access to equal learning opportunities (Artiles & Bal, 2008; Artiles, Kozleski, et al., 2010; Fuchs & Fuchs, 2009; Fuchs, Fuchs, & Stecker, 2010; Hoover, 2012).

The following represents what three-tiered models of support may approximate at many schools. At Tier 1, universal or preventative interventions are provided to all students through school or district wide implementation (Dowdy et al., 2010). These interventions may include: bullying prevention programs, positive behavior interventions and supports, and academic curriculum addressing the Common Core State Standards (Burke, Davis, Hagan-Burke, Lee, & Fogarty, 2014; Hawken, Vincent, & Schumann, 2008; Kalberg, Lane, Driscoll, & Wehby, 2011). Approximately 80% of students make adequate progress in response to Tier 1 interventions with no need for additional support. Universal screening may be appropriate to identify students not making adequate progress in relation to school wide Tier 1 preventative interventions (Romer, 2012).

At Tier 2, 15% to 30% of students will be deemed at-risk and require supplemental supports in the form of targeted, skill specific interventions. Interventions provided at Tier 2 may occur in small groups and include interventions such as, behavioral education programs and small group reading fluency instruction. Students in need of Tier 2 behavioral interventions traditionally have been identified by teacher referral or number of office discipline referrals. Without the use of universal screening, students in need of more individualized services may be missed, while others are over identified.

Finally, at Tier 3, 1% to 10% of students will have obvious impairment or lack of sufficient progress in response to targeted interventions at Tier 1 and Tier 2. Interventions at Tier 3 often involve highly individualized, intensive interventions with close progress monitoring, such as Functional Behavioral Analyses (FBA), Behavior Intervention Plans (BIP), and intensive reading supports. Academic and behavioral screening data, as well as office discipline referrals and attendance, may be used to determine what students are in need of Tier 2 and Tier 3 supports (Kalberg et al., 2010; Lane, et al., 2014). According to Barnett et al. (2006), school psychologists can play key roles in systems planning and decision-making through the various tiers.

Identifying emotionally and behaviorally at-risk students within this framework relies on screening as the critical initial step (Dowdy et al., 2010; Hawken et al., 2008). A universal emotional and behavioral screening instrument may be administered to all students at Tier 1. Those students who rate themselves as either elevated or highly elevated may need more comprehensive follow-up assessment and individualized intervention at Tiers 2 and 3. Screening allows school personnel to efficiently identify all at-risk students, pinpoint deficit areas and severity level, and provide directed services to remediate those areas (Dowdy et al., 2010).

Universal Screening

Researchers and practitioners have long advocated for the use of universal screeners for early identification in order to decrease time between risk exposure and treatment, as well as the potential for improved access to services (Albers et al., 2007; Harrison et al., 2013; Severson et al., 2007). Universal screeners may be used to identify emotional and behavioral characteristics that may be indicative of potential future difficulties associated with educational failure (Henderson & Strain, 2009; Levitt et al., 2007). Universal screening for behavioral and

emotional risk (BER) may be defined as a “systematic approach to identifying students who are demonstrating behavioral and emotional difficulties or ‘risk factors’ for the development of such problems” (Raines, 2012, p. 10). Universal screeners may be considered preventative if provided to all students in an attempt to decrease emotional and behavioral risk factors through early intervention (Husky et al., 2011; Walker, Gresham, & Ebrary, 2014).

Screening approaches may take on various forms depending on the intended goal, screening method (e.g., behavior rating scales, direct assessment, naturalistic observation), frequency of screenings, informant type (e.g., parent, teacher, or self-report), and targeted constructs (Achenbach, 2006; Glover & Albers, 2007; Henderson & Strain, 2009).

Recommendations from the research literature for guidelines in choosing a behavioral screener include: strong predictive validity, high internal consistency, high test-retest stability, flexibility to identify a variety of symptomology, positive predictive and negative predictive power to distinguish between the target and non-target population, and feasibility (Christ, Riley-Tillman, & Chafouleas, 2009; Glover & Albers, 2007; Lane et al., 2009).

Screeners for BER should also encompass multiple and broad domains such as, items related to inattention, hyperactivity, anxiety, aggression, and unhappiness (Kamphaus, 2012).

Although these items may be indicative of a particular component of a mental health disorder, BER screeners attempt to identify general risk for poor behavioral or emotional outcomes.

Universal screening provides schools with the ability to identify all students in need of intervention and not just individual students in need of immediate special education services.

Additionally, individualized interventions may be developed utilizing information provided by the student on the universal screener. Ideally, providing targeted interventions for identified deficit areas should remediate those deficient skills to increase the student’s chances of positive

school outcomes. If explicit and intensive interventions do not result in adequate rates of improvement, this may then be more indicative of a disability and educational need for special education services (Raines, 2012; Rice, 2013).

Guzman and colleagues (2011) conducted a study at the elementary level to determine the effect BER plays on students' progress through school and later academic achievement. The study screened students in the first grade to determine BER. The same students were assessed again in the fourth grade on a standardized national achievement test. The results indicated the students who were identified in the first grade as having emotional and behavioral problems scored significantly lower than their peers in the fourth grade on the achievement measure. Results indicate BER identified in the elementary years as being one of the most predictive factors in determining future academic progress or failure. Entry into school has been suggested as a critical time period when children should be screened for BER (Spielberger et al., 2004).

In contrast to the previous study, Chin, Dowdy, and Quirk (2013) suggested that the use of behavioral and emotional screeners in the middle school years provides more accurate prediction rates of disorder than early childhood screenings. Chin and colleagues (2013) utilized the BESS screener with a middle school population. The results of this study indicated behavioral outcomes could be predicted by results of teacher and student rated BESS forms. Increased rates of poor behavioral grades, which were measured by work habits and cooperation, school suspensions, and ODRs were all correlated with emotional and behavioral risk. Students who rated themselves on the BESS Student Form in the most severe risk group, extremely elevated, had the highest percentages of all three behavioral outcomes; suspensions (20%), ODRs (64%), and inadequate behavioral grades (88%). Students in the normal risk group had

the lowest percentages for suspensions (5.7%), ODRs (20.3%), and inadequate behavioral grades (40.8%). Students in the extremely elevated risk group demonstrated significantly more behavioral difficulties than the normal risk group. Ultimately, this study supported the use of the BESS student and teacher reports to identify behavioral risk in a middle school population.

Dever, Kamphaus, Dowdy, Raines, and Distefano (2013) indicated special education placement in middle and high school students was a significant predictor of risk on two BESS factors: Adjustment and Internalizing behaviors. Furthermore, Dowdy et al. (2014) determined that self-reported screening scores of BER were shown to be reasonably constant over a four-year interval. This revealed students identified with high levels of risk would remain at-risk unless interventions were provided in deficit emotional and behavioral areas. This again raises the notion of the importance of early identification and intervention to alleviate high-risk behaviors.

Universal screeners can measure both internalizing and externalizing behaviors children sometimes experience as a result of exposure to risk factors or stress. Externalizing behaviors are often associated with disorders such as, ODD, ADHD, and conduct disorder (American Psychiatric Association, 2013). These behaviors may include: impulsivity, hyperactivity, aggression, noncompliance, disruptive conduct, and substance abuse. Children with externalizing behaviors often draw attention from school staff due to highly noticeable and disruptive behaviors (Lambert, Epstein, & Cullinan, 2014). These behaviors often result in increased disciplinary infractions and referrals to special education.

Internalizing behaviors may be associated with depression and anxiety disorders and manifest as: social withdrawal, somatic complaints, loss of energy, inability to concentrate, sadness, irritability, nervousness, hopelessness, and a diminished interest in once enjoyed

activities (American Psychiatric Association, 2013). Internalizing behaviors are also known to be associated with an increased risk for suicidal ideation (Dever et al., 2013). Suicide is often hard to predict due to the high prevalence of those experiencing the associated risk factors. Although many exhibit this symptomology, only a fraction will commit suicide (Schwartz-Lifshitz, Zalsman, Giner, & Oquendo, 2012). School personnel have a legal and ethical responsibility to keep children safe, which includes recognizing suicidal tendencies and providing the necessary follow-up assistance and resources (Crepeau-Hobson, 2013). Several studies conveyed support for suicide prevention programs that utilized universal screening as the identification method for risk (Erickson & Abel, 2013; Schwartz-Lifshitz et al., 2012).

Children with internalizing behaviors often go unidentified due to the lack of outward signs or indications (Lane, Parks, Kalberg, & Carter, 2007; Weist et al., 2007). Universal screening may provide the impetus for identifying these students who may have otherwise gone unnoticed. Miller and colleagues (2015) investigated prevalence of risk utilizing several different assessment methods including: three standardized measures of BER (e.g., BESS, Direct Behavior Rating, Social Skills Improvement System), ODRs, and school nominations. Teacher report was utilized for all assessment methods. The results indicated standardized measures of BER identified more at-risk students than the ODR or school nomination methods. The school nomination method had the overall lowest rate of identification with only 5% of the population identified as at-risk. This was followed by the ODR method with only 7% of the population identified as at-risk. Standardized measures of BER identified significantly more students, ranging from 18% on the BESS to 39% on the DBR. When subjective data was used for making decisions, such as ODRs and school nomination, significantly fewer students were identified as at-risk. ODR and school nomination may be more likely to identify students with externalizing

behaviors, but miss the students experiencing internalizing difficulties. On the other hand the DBR may have over identified students in need of behavioral supports.

When determining choice of informant, research indicates student reports of their own behavior may be the best and most accurate way to achieve measures of internalizing behaviors, (Levitt et al., 2007). Previous studies suggest a large discrepancy between student self-reports and parent or teacher reports of behavior on screening instruments, with only low to moderate correlations (Romer, 2012; Salbach-Andrae, Lenz, & Lehmkuhl, 2009). Based on the data collected in the Chin et al. (2013) study, the BESS teacher report identified more at-risk students than the BESS Student Form. This may add to evidence suggesting teacher and parent perceptions of behavior may be vastly different than how a student truly feels. By utilizing self-report measures of behavior, certain informant biases that can occur when a parent or teacher completes a rating scale may be eliminated. On the other hand, self-report screeners may have the added disadvantage of social desirability bias (DeVylder & Hilimire, 2015). This occurs when students attempt to represent themselves in an overly positive or socially acceptable way. Choosing a screener that has a validity scale to monitor for inconsistent, improbable, and overly positive response styles is essential to identifying students that may be responding in a socially acceptable way (Reynolds & Kamphaus, 2004).

Multistage Approach to Universal Screening

A multistage approach to universal screening typically includes multiple levels of screening and assessment that increases in specificity (Dowdy, Kamphaus, Abdou, & Twyford, 2013). Numerous studies have recommended using some form of this approach to identify students at-risk for emotional and behavioral disorders as well as with specific populations of students, such as students with depressive symptomology (Young, Sabbah, Young, Reiser, &

Richardson, 2010). Dowdy and colleagues (2013) utilized a three-gate approach. At Gate 1, a universal, quick screener was administered. At Gate 2, a more comprehensive rating scale was administered to those identified as at-risk in Gate 1. Finally, at Gate 3, a full and comprehensive evaluation was completed. The BESS Parent was utilized as the initial screener for Gate 1 and was determined to be a valid and effective tool for identifying students at-risk for emotional and behavioral problems at the first stage of assessment.

The Systematic Screening for Behavior Disorders (SSBD) is a multistage approach to screening comprised of three stages (Caldarella, Young, Richardson, Young, & Young, 2008). Stage 1 requires classroom teachers to nominate at-risk students utilizing definitions and examples of internalizing and externalizing behaviors. Using the SSBD, teachers nominate ten students in each category, with the top three students in each category going on to Stage 2. Stage 2 consists of teacher-report behavior checklists and rating scales with standardized cutoff scores. Finally, the third stage includes observations of the student. Preliminary evidence suggested the SSBD is both reliable and valid for use in middle or junior high schools to identify students at-risk for mental health disorders. Volpe, Briesch, and Chafouleas (2010) also developed a similar, three stage system called the Adaptive Model of Behavioral Assessment. The main difference was that at the third stage of assessment, the screening questions were determined based upon previous assessment information and individualized for each student. For example, a series of studies by Volpe and colleagues (2010) suggested scales be developed using an idiographic approach, in which a consultee chooses from a menu of items or selects items based on at-risk areas from the initial assessment. This has been shown to have adequate reliability, treatment sensitivity, and criterion validity with as few as three items.

Ebesutani, Bernstein, Chorpita, & Weiz (2012) developed a protocol for assessing BER that was brief, utilized self-report child and parent questionnaires, and incorporated optimal cutoff points for making classification and treatment decisions. The Child Behavior Checklist (CBCL) and Youth Self-Report were used as screeners (Achenbach & Rescorla, 2001). Three decision trees were utilized. Each decision tree had a set of standards and cutoff scores for determining a specific course of treatment. Decision tree A, which was the first level of decision-making, had specified cutoff scores indicating whether treatment was needed or not. If either the child or parent indicated a CBCL total problems score or individual scale score in the clinically significant range, then treatment was considered needed. At decision tree A, 100% of the sample was classified as either in need of treatment or not. This indicated the CBCL and cutoff guidelines were appropriate for distinguishing between those referred and non-referred students.

The following two decision trees followed similarly defined guidelines with increasing specificity at each level (Ebesutani et al., 2012). Decision tree B was used for determining whether internalizing, externalizing, or no treatment was needed. This level classified 41% of with sample with “good” accuracy (83%). Decision tree C was used for determining whether anxiety, depression, ADHD, disruptive behavior, or no treatment was needed. This level had a lower classification accuracy, which was reported to be a result of the increased classification specificity. The third level only had “fair” accuracy, but was able to classify 40% of the sample into the categories of no treatment, disruptive behavior, or anxiety treatment. This demonstrated the practicality and classification accuracy of utilizing parent and self-report BER screeners with a decision tree methodology to guide treatment decisions. This assessment protocol also reduced interpretation burdens, thus making this system a viable method to be used in a school setting.

Additionally, this assessment protocol has the ability to fit well into multi-tiered systems of support, with the three decision-making trees representing the tiers of intervention.

Underidentification

Under IDEA (2004), less than 1% of students receive special education services under the Emotional Disturbance category. Based on prevalence rates, mental health disorders occur in children and adolescents at a much higher rate, ranging from 2% to 20% (Lane et al., 2009). This indicates underidentification of students that may be in need of mental health services in the schools. According to IDEA (2004) in order to meet the criteria for ED a student must exhibit debilitating symptomology over a long period of time. The specific criteria may include: depression, lack of relationships with peers and adults, behavior or feelings inconsistent with circumstances, and physical symptoms or fears related to perceived problems. Additionally, the student's ability to be successful at school must be impacted. Underidentification is widely acknowledged to contribute to poor outcomes of students, and failure to provide early intervention results in a significant cost to students and society (Kessler et al., 2008). According to Kessler et al. (2008), this cost is estimated to be \$193.2 billion per year in lost individual salaries.

The delayed or underidentification of students with emotional and behavioral risk factors appears to be a result of reactive approaches to identification (Schanding & Nowell, 2013). Practices utilized to identify students, such as teacher referral, often do not identify all students experiencing problems. The decision to refer a student for an ED evaluation has traditionally been in the teacher's hands, which has resulted in widely varying standards for referral (Raines et al., 2012). For example, referral decisions may be based on level of student disruption in the classroom (Eklund et al., 2009). According to a study by Hecker, Young, and Caldarella (2014),

teacher perceptions of at-risk student behaviors include: poor peer, family, and teacher relationships, hygiene and sleep difficulties, and noncompliance in the classroom. Additionally, according to Eklund et al. (2009), teacher referrals based on student emotional and behavioral functioning often do not coincide with referrals utilizing standardized measures of emotional and behavioral functioning. This indicates a need for referral decisions to be made utilizing a data-driven, decision-making process. According to results found by Dowdy, Doane, Eklund, and Dever (2013), universal screening identified significantly more students than teacher referral. Universal screening removes the dependence on teacher referral to identify students in need of special education services and also provides standardized assessment data to aide in the decision-making process (Raines et al., 2012).

Disproportionality

In a review of the literature that incorporated studies covering several decades of research, Klingner et al. (2005) concluded that diverse students continue to be referred for special education at a disproportionate rate. The Council for Children with Behavioral Disorders stated, "despite court challenges, abundant research, and policy initiatives, racial and ethnic disproportionality [including English Language Learners] persists as a critical and unresolved problem in the field" (Skiba, Albrecht, & Losen, 2012, p. 2). Disproportionality may be defined as any group of students (e.g., race, gender, language status) over or underrepresented in special education when compared to the general population (Gardner, 2011). This may occur as a result of true behavioral differences or bias in assessment measures or referral methods (Hosterman, DuPaul, & Jitendra., 2008).

Although emotional and behavioral problems are underidentified in the school setting, ethnic minority students are overrepresented in special education under the Emotional

Disturbance eligibility (Raines et al, 2012). Additionally, culturally and linguistically diverse students are disproportionately identified as emotionally or behaviorally at-risk or as having an emotional and behavioral disorder (Gage, Gersten, Sugai, & Newman-Gonchar, 2013). Utilizing universal screeners has been suggested as a way to reduce disproportionality in identification of BER. Therefore, when choosing a universal screener, cultural, language, and gender differences, which may all impact the appropriateness and validity of the measurement tools, must be taken into account (Dowdy, Dever, et al., 2011).

Cultural Differences

According to the DSM-5, “The boundaries between normality and pathology vary across cultures for specific types of behaviors” (American Psychiatric Association, 2013, p. 14). Behavior must be evaluated within the context of cultural norms to limit misinterpretations of abnormal behavior. Appropriate cross-cultural assessment is imperative because ethnic minority students currently make up approximately 43% of the U.S. school population and by the year 2020 are projected to become the majority of the U.S. school population (Dowdy, Dever, DiStefano, & Chin, 2011; National Center for Education Statistics, 2007). Utilizing universal screeners may reduce the disproportionate number of ethnic minority students referred and placed in special education under the Emotional Disturbance (ED) category (Gardner, 2011; Raines, 2012). Hosterman, and colleagues (2008) found teacher ratings of ethnic minority students utilizing the Conner’s Teacher Rating Scale for ADHD, to be an accurate indicator of the student’s true behavioral levels when compared to observational data (Conners, 1997).

Raines (2012) determined the BESS Student Form seems to measure equivalent constructs of risk among the three largest cultural subgroups in the United States (e.g., Black, Hispanic, and White students). This provides the rationale for use with students from different

cultural backgrounds (Dowdy et al., 2011; Raines, 2012). Additionally, Harrell-Williams, Raines, Kamphaus, and Dever (2015), determined measurement invariance across ethnicity, language proficiency, and socioeconomic status classifications. Dever and colleagues (2013) found that when the BESS Student Form was utilized with middle and high school students, there were significant differences in level of risk for various demographic variables, including ethnicity. White students rated themselves significantly higher or as having more problems and less functional skills than African American students on all four BESS scales, including Inattention/Hyperactivity, School Problems, Adjustment, and Internalizing Problems. Dever and colleagues (2013) suggested since white students were considered the minority population in the study, out-group status may be more indicative of BER than ethnicity alone.

Utilizing a universal screener that has been recognized as measuring equivalent constructs across various cultural groups, such as the BESS, may help to identify appropriate areas of difficulty, as opposed to teacher referral, which may actually be a result of a student's cultural differences and not true BER (Balagna, et al., 2013). Essentially, by utilizing self-report measures of behavior, certain biases that can occur in parent and teacher reports may be eliminated.

Language Differences

Despite growing numbers of English Language Learners (ELL) students in U. S. schools and their disproportionate representation in special education under the ED disability category, the research literature has focused little on language proficiency and its impacts on emotional and behavioral screening, thus resulting in much needed research in this area (Dowdy, Dever et al., 2011). ELL status has been linked to increased externalizing and internalizing behaviors (Dawson & Williams, 2008). "Language proficiency, more than ethnicity, is the key factor for

either struggling in school or having lowered teacher views, or perhaps both” (Edl, Jones, & Estell, 2008, pg. 43). Additionally, the process of learning a second language may have a direct influence on the development of behavioral problems (Dowdy, Dever et al., 2011). There is a need to investigate the ELL status of students and its possible impact on emotional and behavioral screening.

In a meta-analysis conducted by Brenner, Nelson, & Epstein (2002), over 70% of students identified with an ED also had simultaneous language impairments in either receptive or expressive language. Furthermore, language deficits may be perceived as noncompliance, inattention, or defiance and limit a child’s ability to respond to instructional and behavioral interventions (Donahue, Cole, & Hartas, 1994; Hollo, Wehby, & Oliver, 2014). In school-aged children, extensive research has indicated interrelations among language, learning, and behavioral problems (Hollo et al., 2014). This signifies the importance of screening for language deficits along with emotional and behavioral problems. Additionally, Hoover (2012) recommends four steps to reducing disproportionate referrals for special education of culturally and linguistically diverse learners. This includes: knowledge of overrepresentation issues, creating a culturally responsive environment, and understanding cultural and linguistic factors associated with learning. Additionally, cultural and linguistic factors that distinguish learning difference from disability should be considered before making referral decisions.

Gender Differences

The DSM-5 refers to gender differences as, “variations that result from biological sex as well as an individual’s self-representation that includes the psychological, behavioral, and social consequences of one’s perceived gender” (American Psychiatric Association, 2013, p. 15). According to Young et al. (2010) little research has been conducted on the role gender plays in

the results of universal screening instruments. Research indicates more females exhibit internalizing behaviors and disorders, such as Major Depressive Disorder and Generalized Anxiety Disorder (American Psychiatric Association, 2013). On the other hand, males are more likely to exhibit externalizing pathology, such as ADHD and Conduct Disorder. Despite this, more males are identified for special education services. Of students identified as Emotionally Disturbed between the ages of 13 and 17, 77% were male (U.S. Department of Education, 2005).

According to a study completed by Young et al. (2010), when teachers nominated students exhibiting concerning behavior, males outnumbered females for all measures including: externalizing, internalizing, and total number of behavioral nominations. Despite the fact that more females are diagnosed with internalizing disorders, teachers still nominated more males than females in the area of internalizing behaviors at a rate of 2:1. At Stage 2, teachers completed the Systemic Screener for Behavior Disorders (SSBD) on the students they had nominated at Stage 1. Results indicated SSBD scores could not be predicted by gender. Males and females were not rated significantly different on the SSBD internalizing and externalizing scales, but females were rated higher on the adaptive scale. Gender differences across the internalizing and externalizing behaviors decreased at Stage 2 with the introduction of the screening instrument.

Dever and colleagues (2013) administered the BESS Student Form to 2,222 middle and high school students. Overall, more females (13.5%) rated themselves as at-risk than males (11.5%). Additionally, females rated themselves significantly different on the internalizing and personal adjustment scales. Females indicated higher levels of internalizing behaviors and lower levels of personal adjustment than males. Based on prevalence rates, one may have expected the male students would rate themselves higher on the measures of externalizing behaviors, such as

inattention/hyperactivity and school problems. To the contrary, males in this study did not rate themselves significantly different than females on these scales. How universal screeners can be utilized to decrease disproportionate identification of male students for BER and ED is an area that may need to be investigated further.

Barriers to Implementation

Despite universal behavioral screeners potential for quick assessment of all students, only about 2% of schools in the U.S. incorporate this practice (Romer & McIntosh, 2005). Barriers to implementation of universal screening may include fear of stigma, lack of appropriate resources, shortage of qualified staff to implement screening programs, myths such as cost and feasibility, concerns over whether behavioral success is the responsibility of the schools, and parent or guardian rights, such as consent (Chafouleas, Vopler, et al., 2010; Cowell, 2013; Dever, Raines, & Barclay, 2012). In a review of current educational case law, evaluation and the three-tier model of intervention were the most common areas involved in litigation (Katsiyannia, Losinski, & Prince, 2012). This may be a deterring factor to mental health screening implementation.

Additionally, some items included on emotional and behavioral screeners may be upsetting or depressing to some students (Blount, Evans, Birch, Warren, & Norton, 2002). Research has shown that answering questions related to sensitive topics such as drug use, sexual or physical victimization, and suicidal ideation may cause some individuals distress (Langhinrichsen-Rohling, Arata, O'Brien, Bowers, & Klibert, 2006). Providing the appropriate educational groundwork for the use of mental health screeners with populations of students may lead to more widespread social acceptance, reduction in stigma, and increased implementation in schools (Chartier et al., 2008).

Myths

Dever and colleagues (2012) described several myths associated with universal screening leading to barriers to implementation. These myths include: screening will overload the mental health system of schools, universal screening is too costly, valid and reliable universal screeners are difficult to find, and universal screening is redundant and unessential. In determining the feasibility of utilizing a universal screening program is the training necessary for school personnel to correctly administer and interpret the screener in a time efficient manner. Improvements in screening instruments, has resulted in screeners that can be quickly administered and easily scored with only a small amount of training. Dever and colleagues (2013) determined the total time associated with gathering behavioral data on the BESS Student Form was less than 1 hour per school. Additionally, new screeners are inexpensive and may cost under \$1 per student.

The initial expenditures involved with utilizing a universal screening program may include training school staff and purchasing screening materials. Although more resources may be required at the onset, the costs associated with providing early intervention are much lower than the intensive, long-term services required for students with a serious Emotional Disturbance. Another consideration for cost effectiveness is the use of a multistage approach to screening (Dowdy & Kim, 2012). Following this approach, a universal screener is administered to all students narrowing which students need further, more comprehensive assessment.

Other areas of concern include identifying too many students in need of mental health services and therefore, not having enough resources to serve all identified students (Dever et al., 2012). Initially, a screener may identify many students as at-risk for emotional and behavioral

difficulties, but over time, these students may require fewer resources and have more positive school outcomes than if no early intervention services had been provided. The reallocation of personnel and resources to address early intervention and screening may be essential to addressing the needs of all students. For example, a school psychologist may be the key player in planning behavioral interventions based upon the universal screening assessment data of all students. This is in contrast to current practices of assessing only the most severe students. Similar to annual academic reports at the school or district level, universal screening for mental health can act in the same manner by presenting the overall mental health well-being of a given student population. This invaluable information can be utilized to allocate resources within the school district as well as to monitor the progress of behavioral interventions.

Social Acceptability

Social acceptability, or the perceived social importance of the constructs being measured on a universal screener, may be predictive of the level of acceptance, implementation, and use of these instruments by educators (Glover & Albers, 2007; Harrison et al., 2013; Kamphaus et al., 2007; Lane et al., 2009). Harrison et al., (2013) determined through an extensive review of the literature “social acceptability of screening instruments includes six characteristics: (a) overall time required for use; (b) costs; (c) infrastructure and personnel for administering, scoring, and interpreting assessment data; (d) readability of the instrument and availability of accommodations; (e) social importance of measured constructs to the school or community; and (f) psychometric properties (e.g., accuracy of the results and validity of the interpretations)” (p. 175-177).

These social acceptability characteristics were utilized to compare and contrast five screeners that provided measures of BER. The screeners included the BESS (Kamphaus &

Reynolds, 2007), Devereux Student Strengths Assessment-Mini (DESSA-mini; Naglieri, LeBuffe, & Shapiro, 2011), Strengths and Difficulties Questionnaire (SDQ; Goodman, 1997), Student Risk Screening Scale (SRSS; Drummond, 1994); and Systematic Screening for Behavior Disorders (SSBD; Walker & Severson, 1992). Overall, the results suggested each of the screeners required minimal time expenditure, low to no cost, and could be interpreted easily (Harrison et al., 2013). The screeners also had available adaptations, such as audio recordings, and were available in multiple languages.

Approximately 2% of schools utilize universal screeners for BER, but social acceptability does not appear to be the reason for lack of use. Based on the high social acceptability of BER screeners, one would think the utilization of BER screeners would be more widespread. Several other studies indicate concerns over feasibility (Dowdy et al., 2010; Ebesutani et al., 2012), lack of awareness of benefits (Lane, Kalberg, Parks, & Carter, 2008; Lane et al., 2007), uncertainty of how to implement such a program, and fears about how the results of screening instruments would be used (Harrison et al., 2013; Kataoka, Rowan, & Hoagwood, 2009). This indicates additional research regarding the feasibility of using standardized universal screeners in schools is absolutely necessary. Providing schools with information such as costs, benefits, and time expenditures may help to reduce the barriers associated with school implementation of universal screeners for BER.

Active Versus Passive Consent

According to Gardner (2011), there is evidence to suggest mental health screening programs may be linked to positive student outcomes. An obstacle to more widespread implementation is the issue of obtaining informed consent from parents and guardians. For children and adolescents, there are two widely accepted forms of consent, passive and active

consent (Pokorny, Jason, Schoeny, Townsend, & Curie 2001). Passive consent is the assumption the parent has already provided consent unless some other action is taken to revoke that consent. Utilizing passive consent, parents are informed in writing of the child's participation in a certain program and parental consent is inferred unless the parent actively withdraws the student from the program (Dever et al., 2012). According to IDEA (2004) parental consent is not needed if the screening is completed for instructional or routine school activities. When assessment becomes more comprehensive, such as when a student is referred for special education services, parental rights include the right to give and revoke consent.

In contrast, active consent requires the written approval from the child's parent to participate in the program. An argument for active consent is that "children are considered vulnerable research participants because they may have insufficient power, intelligence, education, resources, strength, or other necessary attributes to protect their own interests" (Jelsma, Burgess, & Henley, 2012, p. 56). Additionally, depending on the nature of the study and the source of funding, active parental consent is required. For example, all studies funded by the Department of Education require the researcher to obtain active consent. Research has shown that active consent can limit participation in a given study (Kearney, Hopkins, Mauss, & Weisheit, 1983). Some school administrators view the process of obtaining written permission as an unnecessary hindrance, which takes valuable time, energy, and personnel away from other duties (Pokorny et al., 2001).

Jelsma et al. (2012) conducted a study in which 557 students were given active consent forms to participate in a quality of life study. Of the original 557, 34 parents actively refused and 177 parents consented to participation in the study. A total of 345 consent forms went unsigned. Requiring active consent may impact the school's ability to provide necessary assessment and

intervention to all students, which is the primary function behind universal screening (Jelsma et al., 2012).

Summary

Although universal screening is viewed as a practical tool for identification of students at-risk for behavioral difficulties, no one universal screener or process has been collectively accepted as best practice (Harrison et al., 2013). Universal screeners for BER are still underutilized in the school setting despite recommendations for use in the research literature and educational legislation (Romer & McIntosh, 2005). Ultimately, universal screening for BER at some point over a student's academic career is better than no screening at all. This may be one of the only ways to identify students experiencing certain social-emotional problems that are not apparent to teachers or school staff. As the myths associated with mental health screening are overcome and more districts come to utilize universal screening for BER, best practices for this process will evolve.

CHAPTER 3—METHODOLOGY

The purpose of the present study was to investigate a multistage approach to universal emotional and behavioral screening of adolescents in secondary schools. This study utilized secondary analysis of a preexisting, de-identified dataset, which consisted of two self-report, standardized rating scales measuring behavioral and emotional risk; the Behavioral and Emotional Screening System (BESS) and Behavior Assessment System for Children, Second Edition (BASC-2). Additional data included: number of office discipline referrals (ODR), student attendance records, and other demographic variables (e.g., age, gender, ethnicity, ELL status, special education status). The relationship between level of risk for emotional and behavioral difficulties and various demographic variables was investigated.

Participants

All eighth grade students enrolled in two middle schools within a large, urban school district in the Southwestern United States were asked to participate in the study. Only students whose parents gave active consent were included. Approximately 358 students were screened utilizing the BESS Student Form at Stage 1. Students ranged from age 13 years, 2 months to 15 years, 4 months. The sample consisted of 188 females and 170 males. Students were from the following ethnic backgrounds: 186 Hispanic, 65 Caucasian, 51 Asian, 45 Black/African American, and 11 Multiracial. Approximately 8% of the students were classified as eligible for special education and 43% were ELL.

The second stage was comprised of only those students determined to be at-risk (elevated or extremely elevated) at Stage 1 on the BESS Student Form. Approximately 62 students were identified as at-risk. These students were then screened at Stage 2 with the BASC-2, a comprehensive behavior rating scale. The sample consisted of 43 females and 19 males.

Participants were from the following ethnic backgrounds: 30 Hispanic, 16 Caucasian, 9 Black/African American, 6 Asian, and 1 Multiracial. Approximately 11% of the students were classified as eligible for special education and 37% were ELL.

Instrumentation Stage 1

The following data was collected on all students at Stage 1: age, gender, ethnicity, ELL status, special education status, and results of the BESS Student Form.

BESS Student Form

The Behavioral and Emotional Screening System (BESS) Student Form was utilized as the universal screener at Stage 1 (Kamphaus & Reynolds, 2007). The BESS Student Form is a self-report instrument that includes 30 items and can be completed in approximately five minutes. This brief screener can be administered to students aged 8 through 18 years and does not require informant training prior to administration. This screener quickly identifies students at-risk for internalizing, externalizing, and school problems using a 4-point scale (e.g., never, sometimes, often, almost always). Additionally, this form is available in both English and Spanish. The present study focused solely on self-report measures, therefore only the BESS Student Form was utilized. Research indicates student reports of their own behavior may be the best and most accurate way to achieve measures of internalizing behaviors, such as depression or low self-esteem.

The BESS norming sample was comprised of students from grades 3 through 12 across 40 states. The sample included 12,350 teacher, parent, and student forms. Raw scores are computed using the sum of the items, which is then changed to a standardized *T*-score. There is an overall score as well as scaled scores in the areas of inattention/hyperactivity, internalizing problems, school problems, and personal adjustment. Higher *T*-scores suggest more problem

behaviors. *T*-scores in the 20 to 60 range indicate age-appropriate or “normal” behavior, 61 to 70 is considered “elevated,” and 71 and higher signifies “extremely elevated” risk for BER. These scores can be used as cutoff scores for determining follow-up assessment and development of interventions.

The following will provide a summary of the BESS Student Form psychometric properties: moderate to high test-retest (.80), split-half (.90-.93), and inter-rater (0.71-0.83) reliabilities, moderate sensitivity, and high specificity (Kamphaus & Reynolds, 2007). The BESS Student Form has moderate to high positive (.68) and negative (.92) predictive values. There is also moderate concurrent validity with total standard scores of other similar measures, such as the Achenbach System of Empirically Based Assessment (ASEBA) Youth Self Report Form (.81).

Also of importance, previous research has indicated this instrument may measure equivalent constructs of risk across Black, Hispanic, and White cultural subgroups (Raines, 2012). This provides validity evidence for use with a diverse student population (Dowdy et al., 2011; Raines, 2012). Additionally, a study by Harrell-Williams et al. (2015), determined measurement invariance across ethnicity, language proficiency, and socioeconomic status classifications.

Instrumentation Stage 2

The second stage was comprised of only those students determined to be at-risk (elevated or extremely elevated) at Stage 1 on the BESS Student Form. These students were then screened at Stage 2 with the BASC-2, a comprehensive behavior rating scale. The following additional data was collected at Stage 2 for students identified as at-risk on the BESS: number of student absences and ODRs. Data was not collected regarding number of school absences and ODRs for

the students who rated themselves in the normal range on the BESS screener. The BESS Student Form was used to identify a general level of risk at Stage 1, while the BASC-2 was able to pinpoint the exact areas of deficit at Stage 2.

BASC-2

The Behavior Assessment System for Children, Second Edition (BASC-2) is a comprehensive assessment of social, emotional, and behavioral functioning (Reynolds & Kamphaus, 2004). The BASC-2 is designed to evaluate children aged 2 through 25 years. There are three formats including: the Parent Rating Scales (PRS), Teacher Rating Scales (TRS), and Self-Report of Personality (SRP). The present study utilized the SRP, which also has several separate forms depending on the child's age: child (ages 8 to 11), adolescent (ages 12 to 21), and college (ages 18 to 25). The BASC-2-SRP adolescent form, which was the form used in the current study, takes approximately 30 minutes to complete and has 176 items rated on a 4-point scale (e.g., never, sometimes, often, and almost always) or dichotomous scale (e.g., true or false).

The BASC-2-SRP includes the following composite scales: Emotional Symptoms, Internalizing Problems, School Problems, Inattention/Hyperactivity, and Personal Adjustment. On the clinical scales (e.g., Internalizing Problems, Inattention/Hyperactivity, School Problems, and Emotional Symptoms) higher *T*-scores indicate more maladaptive or problem behaviors. Higher scores on the Personal Adjustment scale indicate more positive or functional behavior. *T*-scores of 59 and below are considered average, 60 to 69 are considered at-risk, and 70 and above are considered clinically significant.

The norming sample was comprised of students that closely matched the 2001 U.S. Census data for various demographic variables, including special education eligibility (Reynolds & Kamphaus, 2004). The following will provide a summary of the BASC-2-SRP psychometric

properties: high internal consistency—composite scales (.90) and individual scales (.80)—and good to high test-retest reliability—composite (.80) and individual (.70-.80). The BASC-SRP was compared to similar measures such as the ASEBA Youth Self Report, Children’s Depression Inventory (CDI), Revised Children’s Manifest Anxiety Scale (RCMAS), Beck Depression Inventory, Second Edition (BDI-2), and Minnesota Multiphasic Personality Inventory, Second Edition (MMPI-2), which yielded moderate correlations (.50-.60; Reynolds & Kamphaus, 2004). An advantage of the BASC-2 is the validity scales, which monitor for inconsistent, improbable, and overly negative or positive response styles. Overall, the BASC-2 has moderate to good reliability and validity.

Office Discipline Referrals

Number of disciplinary referrals were based on behavioral infractions, which resulted in an office discipline referral (ODR). Reasons students received an ODR included the following: gum chewing, violation of dress code, work refusal, verbal and physical altercations, aggressive behavior, truancy, excessive tardiness, insubordination, disregard for school rules, unacceptable school behavior, inappropriate language or touching, computer misuse, harassment, cyberbullying, forgery, stealing, arson, and possession of a weapon. The total number of times a particular student was referred for an ODR was counted for each student determined to be at-risk.

Research Questions

1. Are there significant group differences in the descriptive profiles (e.g., ethnicity, gender, ELL status, special education status, ODRs, number of school absences) of students identified as elevated or extremely elevated on the BESS?

2. Are there significant group differences in the descriptive profiles (e.g., ethnicity, gender, ELL status, and special education status) of students identified as at-risk (elevated and extremely elevated) and those not identified as at-risk (normal) on the BESS?
3. Do males and females in different at-risk BESS groups (elevated and extremely elevated) significantly differ on the following variables: ODRs, absences, and BASC-2 composite scores (e.g., Emotional Symptoms Index, Internalizing, School Problems, Inattention/Hyperactivity, Personal Adjustment composites)?
4. Do males and females in different at-risk BESS groups (elevated and extremely elevated) significantly differ on the following BASC-2 subscales: Attitude to School, Attitude to Teachers, Sensation Seeking, Atypicality, Locus of Control, Social Stress, Anxiety, Depression, Sense Inadequacy, Somatization, Attention Problems, Hyperactivity, Relations with Parents, Interpersonal Relations, Self-Esteem, and Self-Reliance?

Hypotheses

Previous research has indicated gender differences when screening for behavioral and emotional risk. There are also documented differences in prevalence rates for mental health disorders among males and females. Therefore, it is expected that there will be significant differences found for gender across normal and at-risk BESS groups. There also may be more special education students identified as at-risk on the BESS, as these students have already been identified as having some type of educational difficulty. Furthermore, previous research has indicated the BESS is able to predict special education placement with students in special education endorsing more problems and less adjustment than the general population (Dever et

al., 2013). Finally, it is expected there will be no significant differences across BESS groups for ethnicity or ELL status.

At Stage 2, ODRs, absences, and the BASC-2 composite and subscale scores were included as variables. According to Young et al. (2010), students exhibiting externalizing or internalizing behaviors were more likely to have significantly more ODRs for behavioral infractions and attendance issues. Chin and colleagues (2013) also found emotional and behavioral risk to be correlated with increased rates of poor behavioral grades, school suspensions, and ORDs. Therefore, it was expected that students in the extremely elevated BESS group would have higher rates of ODRs and student absences than the elevated BESS group.

It was also hypothesized that students in the extremely elevated BESS group would rate themselves higher than the elevated BESS group on the BASC-2 maladaptive composite scales and subscales. The opposite was expected for the Personal Adjustment scales and subscales. Students in the elevated group were purported to have less difficulties than the extremely elevated group. Therefore, the elevated group would be expected to have more adaptive or coping skills, which would be indicated by higher scores than the extremely elevated group on the Personal Adjustment scale. Finally, on the BASC-2, it was hypothesized that males would endorse more externalizing symptomology and females more internalizing symptomology.

Data Analysis

Screening data was transferred from an Excel dataset into SPSS for analysis. Multiple quantitative analyses were utilized to answer the research questions examining the relationship between various demographic variables and level of risk. Descriptive statistics were used to

describe the data for age, gender, ethnicity, ELL status, special education status, ODRs, and number of absences.

To address the first research question, differences between the categorical variables (e.g., ethnicity, gender, ELL status, and special education status) and level of student risk were analyzed using chi-square analyses. A multivariate analysis of variance (MANOVA) was conducted to examine the differences between BESS groups and the continuous variables (e.g., ODRs and absences). To address research question 2, differences between students rated on the BESS in the normal range and at-risk range (both elevated and extremely elevated) were examined. The following variables were utilized: ethnicity, gender, ELL status, and special education status. Number of ODRs and absences were not available for those students who were categorized as normal on the BESS, so only categorical variables were analyzed. To address research questions 3 and 4, multivariate analyses of variance (MANOVA) were conducted to assess whether gender and level of student risk on the BESS significantly differed on the following variables: ODRs, absences, and BASC-2 composite and subscale scores. Follow-up pairwise comparisons were then conducted to determine which dependent variables were significantly different between groups.

CHAPTER 4—RESULTS

Descriptive Statistics

Data was collected from 358 students at Stage 1. Table 1 provides a summary of the descriptive statistics for the total sample. In regards to gender, 53% were male ($n = 170$) and 47% were female ($n = 188$). Students ranged from age 13 years, 2 months to 15 years, 4 months. The mean age was 13 years, 5 months. Students were from the following ethnic backgrounds: 52% Hispanic, 18% Caucasian, 14% Asian, 13% Black/African American, and 3% Multiracial. Of the 358 students, 43% were ELL ($n = 154$) and 57% spoke English as a first language ($n = 204$). Examining the number of students who received special education services under any IDEA eligibility category, 8% were in special education and 92% were in general education.

Table 1
Descriptive Statistics for the Total Sample at Stage 1

	<i>N</i>	%
Gender		
Male	170	53
Female	188	47
Ethnicity		
Asian	51	14
Black/African American	45	13
Caucasian	65	18
Hispanic	186	52
Multiracial	11	3
ELL Status		
ELL	154	43
English	204	57
Special Ed. Status		
Special Ed.	28	8
General Ed.	330	92

In addition, a descriptive profile was created consisting of the means and percentages of the following variables: ethnicity, gender, ELL status, and special education status in terms of how the students rated themselves on the BESS. Table 2 provides a summary of the descriptive statistics for gender, ethnicity, ELL status, and special education status across normal, elevated, and extremely elevated BESS groups. Overall, approximately 83% of students rated themselves in the normal range ($n = 296$), while 17% of students rated themselves in the at-risk range ($n = 62$). Of the students determined to be at-risk, 12% fell in the elevated risk group ($n = 42$) and 5% fell in the extremely elevated risk group ($n = 20$).

Table 2
Descriptive Statistics for Normal, Elevated, and Extremely Elevated BESS Groups by Gender, Ethnicity, ELL Status, and Special Education Status

Descriptive Category	Normal		Elevated		Extremely Elevated	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Gender						
Male	151	51	12	29	7	35
Female	145	49	30	71	13	65
Ethnicity						
Asian	45	15	5	12	1	5
Black/African American	36	12	6	14	3	15
Caucasian	49	17	11	26	5	25
Hispanic	156	53	20	48	10	50
Multiracial	10	3	0	0	1	5
ELL Status						
ELL	131	44	17	41	6	30
English	165	56	25	59	14	70
Special Ed. Status						
Special Ed.	21	7	6	14	1	5
General Ed.	275	93	36	86	19	95
Total Sample	296	83	42	12	20	5

Research Question 1

Differences between students rated on the BESS as elevated and extremely elevated were examined in relation to the following variables: ethnicity, gender, ELL status, special education status, ODRs, and number of absences. Categorical variables (e.g., ethnicity, gender, ELL status, and special education status) were analyzed using chi-square analyses. Examining ethnicity, participants were from the following ethnic backgrounds: 48% Hispanic, 26% Caucasian, 15% Black/African American, 10% Asian, and 1% Multiracial. There were no significant differences between the elevated and extremely elevated BESS participant groups on any of the categorical variables: ethnic background ($X^2 = 2.80, p > .05, df = 4$), gender ($X^2 = 2.06, p > .05, df = 1$), ELL status ($X^2 = 3.86, p > .05, df = 1$), or special education status ($X^2 = 1.23, p > .05, df = 1$).

To assess the continuous variables (e.g., number of ODRs and absences) a multivariate analysis of variance (MANOVA) was used. One case of a student who had an extreme number of absences (75) and ODRs (77) was deleted, as both variables were more than 5 standard deviations above the mean. After deletion of this case, there were no violations of normality or homogeneity of variance for Levine's Test & Brown-Forsythe tests = $> .05$. The assumption of normality (multivariate) was verified using Mahalanobis distances, which determined no scores were in violation ($X^2 (2) \text{ crit} = 5.99$). Additionally, there were no violations of the homogeneity of variance. The assumption of homogeneity of covariance was verified using Box's M, which determined there were violations ($F (3, 31635) = 26.91, p < .001$). Assessing differences between elevated ($M = 12.74, SD = 8.41$) and extremely elevated ($M = 11.95, SD = 8.11$) BESS groups for number of ODRs and absences, the multivariate test showed there were no significant group differences ($F (2, 59) = 1.55, p = .22$; Pillai's Trace = 0.73, partial $\eta^2 = .05$). Therefore, the data failed to support the hypothesis that students in the extremely elevated BESS group

would have more ODRs and absences than the elevated BESS group. Table 3 provides a summary of the descriptive statistics for ODRs and school absences across elevated and extremely elevated BESS groups.

Table 3
Descriptive Statistics for Elevated and Extremely Elevated BESS Groups by ODRs and Absences

Variable	BESS							
	Group	<i>M</i>	<i>SD</i>	<i>Mdn</i>	Mode	Range	Skew	Kurtosis
Absences	E	12.74	8.41	10.00	6, 8, 10	0 - 33	.81	-.01
	EE	11.95	8.11	10.00	10	2 - 31	1.09	.56
ODRs	E	6.60	7.24	4.50	0	0 - 30	1.43	1.72
	EE	8.00	7.96	6.00	0	0 - 29	1.14	1.17

Note: E = Elevated; EE = Extremely Elevated

Research Question 2

Differences between students who rated themselves in the normal range and at-risk range (both elevated and extremely elevated) on the BESS screener were examined. The following variables were utilized: ethnicity, gender, ELL status, and special education status. Number of ODRs and absences were not available for those students who were considered normal or not at-risk on the BESS, so only categorical variables were analyzed (e.g., ethnicity, gender, ELL status, and special education status). Examining ethnicity, participants were from the following ethnic backgrounds: 52% Hispanic, 18% Caucasian, 14% Asian, 13% Black/African American, and 3% Multiracial. Utilizing chi-square analyses, there were no significant differences between the normal and at-risk (elevated and extremely elevated) BESS participant groups among different ethnic backgrounds ($X^2 = 6.54, p >.05, df = 4$), ELL status ($X^2 = 0.85, p >.05, df = 1$), or special education status ($X^2 = 1.36, p >.05, df = 1$). There were significant differences, however, in terms of gender ($X^2 = 2.06, p <.05, df = 1$), with 22% of females classified as at-risk (elevated or extremely elevated) compared to 11% of males. There was more than twice the number of

females ($n = 43$) than males ($n = 19$) in the at-risk group. Upon examination of the differences among males and females within BESS categories, the major differences were found in the elevated group, with more than twice the number of females ($n = 30$) than males ($n = 12$) in the elevated condition. As predicted, gender was significantly different across the normal and at-risk BESS groups with more females endorsing at-risk symptomology. The data did not support the hypothesis more special education students may be identified as at-risk.

Research Question 3

A MANOVA was performed to assess whether gender differences and level of student risk significantly differed on the following variables: ODRs, absences, and BASC-2 composite scores. Seven dependent variables were used: ODRs, absences, and five BASC-2 composite scales. The BASC-2 composites included: Emotional Symptoms, Internalizing, School Problems, Inattention/Hyperactivity, and Personal Adjustment composite scales. Independent variables included the elevated and extremely elevated BESS groups and gender. The assumption of normality (multivariate) was verified using Mahalanobis distances, which determined no scores were in violation ($X^2(7)$ crit = 24.32). Additionally, there were no violations of the homogeneity of variance. The assumption of homogeneity of variance was verified using Box's M, which determined there were no violations ($F(28, 4705) = 22.17, p = .91$). There were no significant effects for gender on any of the dependent variables, nor were there any significant interaction effects between gender and BESS group on any of the dependent variables. There was a significant multivariate effect for BESS group ($F(7, 50) = 2.63, p < .0005$; Wilk's $\Lambda = 0.73$, partial $\eta^2 = .27$). Univariate analyses showed there were significant mean differences for BESS groups (elevated and extremely elevated) on five of the seven

dependent variables: Personal Adjustment, Emotional Symptoms, Inattention/Hyperactivity, School Problems, and Internalizing composite scales (refer to Table 4 for a variable summary).

Table 4
Univariate Analysis of Variance and Descriptive Statistics for Level of Student Risk by Absences, ODRs, and BASC-2 Composites

Variables	<i>M</i>	<i>SD</i>	<i>Mdn</i>	<i>F</i>	<i>p</i>	η^2	Skew	Kurtosis
Absences	12.49	8.26	10.00	.21	.65	.004	.87	.02
ODRs	7.03	7.43	5.50	.33	.57	.01	1.30	1.28
Personal Adjustment*	34.78	9.78	35.00	7.47	.01	.12	-.01	-.35
Emotional Symptoms*	69.86	11.07	70.00	10.51	.00	.16	-.25	-.45
Inattention/Hyperactivity*	61.83	11.13	63.00	16.14	.00	.22	-.02	-.89
Internalizing*	69.27	11.45	70.00	12.95	.00	.19	.13	-.41
School Problems*	56.00	8.40	56.00	4.58	.04	.07	.10	-.66

* Denotes significance at $p < .05$

Looking closer at the BESS group differences, the contrasts, as shown in Table 5, display which BESS group (elevated and extremely elevated) differences were found on the significant variables. An inspection of the mean scores indicated that participants in the extremely elevated group scored significantly higher on the Emotional Symptoms, Inattention/Hyperactivity, Internalizing, and School Problems composite variables. The students in the extremely elevated BESS group endorsed clinically significant behavior or significantly more problems on the Emotional Symptoms Index ($T = 75.95$) and Internalizing ($T = 76.16$) composite scores. The elevated group endorsed at-risk ratings on these scales.

The opposite was found with the Personal Adjustment scale with those in the elevated group scoring significantly higher. Although there was a statistically significant difference between the groups on the Personal Adjustment Composite, both the elevated ($T = 37.28$) and extremely elevated ($T = 30.21$) groups endorsed at-risk functioning. As predicted, students in the extremely elevated BESS group would rate themselves higher on all BASC-2 composite scales

except for the adjustment scales. In the area of Personal Adjustment, students in the elevated BESS group were expected to rate themselves higher or as having more functional skills than the extremely elevated BESS group, which was also supported by this data.

Table 5
Elevated and Extremely Elevated BESS Groups Mean Differences on Significant BASC-2 Composites

Variable	BESS	<i>M</i>	<i>SD</i>	<i>Mdn</i>	SE	Skew	Kurtosis
	Group						
Behavior Scales							
Emotional Symptoms	E	66.64	10.77	67.50	1.64	-.28	-1.03
	EE	75.95	9.87	76.50	2.35	.05	-.17
Inattention/Hyperactivity	E	58.28	10.41	56.00	1.56	.23	-.72
	EE	69.26	8.82	68.50	2.24	-.32	-.40
Internalizing	E	65.56	10.62	66.00	1.69	.13	-.58
	EE	76.16	10.80	76.50	2.41	.22	-.64
School Problems	E	55.18	7.84	55.00	1.27	-.05	-.64
	EE	59.85	8.98	60.50	1.78	.00	-1.41
Personal Adjustment	E	37.28	9.75	30.50	1.48	-.11	-.68
	EE	30.21	8.70	35.00	2.12	-.22	.69

Note: E = Elevated; EE = Extremely Elevated; Behavior Scales: Average $T \leq 50$, At-risk $T = 60-69$, Clinically Significant $T \geq 70$, Adjustment Scales: Average $T \geq 40$, At-risk $T = 30-39$, Clinically Significant $T \leq 20$

Research Question 4

In addition to the composite scores, a MANOVA was performed to investigate whether gender differences and level of student risk on the BESS significantly differed on subscales of the BASC-2. Sixteen BASC-2 subscale scores were utilized as the dependent variables: Attitude to School, Attitude to Teachers, Sensation Seeking, Atypicality, Locus of Control, Social Stress, Anxiety, Depression, Sense Inadequacy, Somatization, Attention Problems, Hyperactivity, Relations with Parents, Interpersonal Relations, Self-Esteem, and Self-Reliance. Independent variables included the elevated and extremely elevated BESS groups and gender. There were no violations of the homogeneity of variance assumption, which was verified by Box's M ($F(68,$

4991) = 100.52, $p = .20$). There were no significant effects for gender on any of the subscales, nor were there any significant interaction effects between gender and BESS group on any of the subscales. There was a significant multivariate effect for BESS group ($F(11, 46) = 3.44, p < .002$; Wilk's $\Lambda = 0.55$, partial $\eta^2 = .45$). Univariate analyses revealed there were significant mean differences for BESS group (elevated and extremely elevated) on nine of the sixteen dependent variables; Attitude to School, Atypicality, Locus of Control, Depression, Sense of Inadequacy, Attention Problems, Hyperactivity, Relations with Parents, and Self-Reliance (refer to Table 6 for variable summary).

Table 6
Univariate Analysis of Variance and Descriptive Statistics for Level of Student Risk by BASC-2 Subscales

Variable	<i>M</i>	<i>SD</i>	<i>Mdn</i>	<i>F</i>	<i>p</i>	η^2	Skew	Kurtosis
Behavior Scales								
School Problems								
Attitude to School*	54.53	10.79	54.00	8.27	.01	.13	.27	-.73
Attitude to Teachers	59.40	8.72	60.00	1.36	.25	.02	-.13	.28
Sensation Seeking	50.30	8.57	51.00	.28	.60	.01	.03	.18
Internalizing								
Sense of Inadequacy*	69.67	11.03	73.00	13.38	.00	.20	-.51	-.64
Locus of Control*	62.70	10.65	64.00	12.19	.00	.18	-.36	-.49
Depression*	67.22	11.34	70.00	5.70	.02	.09	-.46	-.77
Atypicality*	62.57	16.10	59.00	4.64	.04	.08	.56	-.69
Social Stress	63.38	12.00	65.00	2.55	.12	.04	.02	-.55
Anxiety	66.28	9.72	66.00	3.50	.07	.06	.12	-.40
Somatization	64.35	13.06	65.00	3.00	.09	.05	-.08	-.40
Inattention/Hyperactivity								
Attention Problems*	62.52	11.48	67.00	15.98	.00	.23	-.69	-.39
Hyperactivity*	58.18	11.64	57.00	6.57	.01	.11	.14	-.80
Adjustment Scales								
Personal Adjustment								
Relations with Parents*	38.40	9.34	39.00	11.41	.00	.17	.03	-.51
Self-Reliance*	42.15	10.66	40.50	6.11	.02	.10	.05	-.22
Interpersonal Relations	40.67	13.01	45.00	.14	.71	.00	-.69	-.26
Self-Esteem	32.61	10.85	30.00	.89	.35	.02	.65	-.17

* Denotes significance at $p < .05$

Looking closer at the BESS group differences, the contrasts, as shown in Table 7, display which BESS group (elevated and extremely elevated) differences were found on the significant variables. As can be seen, participants in the extremely elevated BESS group scored significantly higher on the Attitude to School, Locus of Control, Depression, Atypicality, Sense of Inadequacy, Attention Problems, and Hyperactivity subscales. The students in the extremely elevated BESS group endorsed clinically significant behavior or significantly more problems on the Depression ($T = 71.90$), Sense of Inadequacy ($T = 76.40$), and Attention Problems ($T = 70.0$) scales, while the elevated group indicated average to at-risk ratings on these scales.

Table 7
Elevated and Extremely Elevated BESS Groups Mean Differences on Significant BASC-2 Subscales

Variable	BESS						
	Group	<i>M</i>	<i>SD</i>	<i>Mdn</i>	<i>SE</i>	Skew	Kurtosis
Behavior Scales							
Attitude to School	E	52.50	9.42	52.00	1.47	.41	-.36
	EE	60.80	11.75	61.00	2.34	-.37	-.67
Atypicality	E	59.34	14.94	57.00	2.33	.75	-.36
	EE	68.30	16.70	68.00	3.84	.19	-.90
Locus of Control	E	59.21	9.65	60.00	1.54	-.26	-.03
	EE	68.70	9.70	72.00	2.13	-.37	1.47
Depression	E	64.90	11.07	65.00	1.74	-.31	-.87
	EE	71.90	10.25	73.00	2.39	-1.02	.49
Sense of Inadequacy	E	66.40	11.21	69.00	1.63	-.24	-1.04
	EE	76.40	7.10	77.00	2.25	-.44	.30
Attention Problems	E	59.05	11.39	60.00	1.66	-.44	-.83
	EE	70.00	7.49	71.00	2.29	-1.41	4.41
Hyperactivity	E	55.92	11.13	54.00	1.81	.48	-.60
	EE	63.35	10.92	65.00	2.50	-.61	.97
Adjustment Scales							
Relationship w/ Parents	E	41.26	9.13	42.00	1.38	-.28	.00
	EE	33.05	7.21	31.00	1.90	.27	-1.04
Self-Reliance	E	44.34	10.16	43.00	1.65	.25	-.73
	EE	37.70	10.69	37.00	2.27	-.16	.19

Note: E = Elevated; EE = Extremely Elevated; Behavior Scales: Average $T \leq 50$, At-risk $T = 60-69$, Clinically Significant $T \geq 70$, Adjustment Scales: Average $T \geq 40$, At-risk $T = 30-39$, Clinically Significant $T \leq 20$

The opposite was found with the Relationship with Parents and the Self-Reliance variables, with those in the elevated group scoring significantly higher or as having more functional skills. Students in the elevated BESS group rated the Relationship with Parents and Self-Reliance scales in the average range, while students in the extremely elevated group rated the same scales in the at-risk range.

These results partially support the hypothesis that students in the extremely elevated BESS group would rate themselves higher on all BASC-2 maladaptive behavior subscales except for the Personal Adjustment subscales. Students in the extremely elevated group rated themselves higher on 7 out of 12 of the maladaptive behavior subscales. The elevated and extremely elevated groups were not significantly different on five of the maladaptive behavior subscales. In the area of Personal Adjustment, students in the elevated BESS group were expected to rate themselves higher or as having more functional skills than the extremely elevated BESS group on all adjustment subscales. The students in the elevated BESS group did rate themselves higher on 2 out of 4 of the Personal Adjustment subscales. The elevated and extremely elevated groups were not significantly different on half of the adjustment subscales. As expected, the extremely elevated group endorsed more at-risk and clinically significant maladaptive behaviors on the BASC-2, while the elevated group endorsed more personal adjustment or functional skills. Lastly, the data failed to support the prediction that males would endorse significantly more externalizing symptomology and females significantly more internalizing symptomology. Males and females in both the elevated and extremely elevated BESS groups did not rate themselves significantly different on any of the BASC-2 composites or subscales.

CHAPTER 5—DISCUSSION

Summary

Due to difficulties in accessing mental health services in the community, schools have oftentimes become the entry point for provision of mental health services (Chafouleas, Kilgus, & Wallach, 2010; Farmer et al., 2003; Stephan et al., 2007). With the high prevalence of youth experiencing behavioral and emotional difficulties and low number of those children and adolescents accessing mental health services, legislative action has been taken to monitor and improve mental health service delivery in the schools (Essex et al., 2009). Specifically, the Every Student Succeeds Act (ESSA) of 2015 recommended early intervention for identified at-risk students and implementation of multi-tiered systems of support to address behavior. Both recommendations were directly relevant to the current study. Students in need of Tier 2 or Tier 3 behavioral interventions traditionally have been identified by teacher referral or number of office discipline referrals. Without the use of universal screening, students in need of more individualized services may be missed, while others are over identified.

Schools are equipped with mental health professionals, such as school psychologists and counselors to implement initiatives, such as universal screening to support the social-emotional and behavioral needs of students. Research has indicated that the more traditional approaches to identification of at-risk students have failed to identify all students in need of support, identified symptomology only after it has escalated, and disproportionately identified more ethnic minority students (Balagna et al., 2013; Harris-Murri et al., 2006; National Research Council, 2002). Due to the limitations of the subjective and reactive methods traditionally employed for problem identification, a data-driven method of identification was needed. Utilizing a universal mental health screener is a proactive and systematic approach to identifying students that may be at-risk

for developing behavioral or emotional difficulties (Renshaw et al., 2009). Mental health screeners may be implemented in the same way academic screeners are used within multi-tiered systems of support. A multi-tiered system of support framework allows for early identification of deficit areas and varying levels of intervention. This is important because early identification and intervention often require less intensive and costly treatment and ultimately increases a student's chance of being successful in school.

As evidenced by changes in educational legislation and adaptations to service delivery within schools, there has been a transition to preventative initiatives that incorporate all students. The public health framework, which began with universal youth surveillance of various medical problems and disease, has expanded to include surveillance of mental health problems (Freeman et al., 2010). It has been acknowledged that there is an interplay between various factors, including mental health that leads to behavioral and emotional risk. In the present study, this the main premise behind utilizing a public health theoretical framework to guide the identification and interpretation of problem behaviors among children and adolescents. Previous research has provided evidence to demonstrate the benefits of incorporating mental health screening in schools, but a single universal screener or process has yet to be widely accepted. Additionally, previous research has called for explorations of descriptive variables, such as language proficiency, ethnicity, special education status, and their relationship to screening for BER.

The purpose of the present study was to investigate a multistage approach to universal emotional and behavioral screening of adolescents in secondary schools utilizing self-report measures. These measures included the Behavioral and Emotional Screening System (BESS) and Behavior Assessment System for Children, Second Edition (BASC-2). Specifically, the relationship between level of risk for emotional and behavioral difficulties and various

demographic variables was examined. The remainder of this chapter will provide a discussion of the results and interpretations of the findings for each research question. Additionally, the study's limitations, educational implications, and recommendations for future research will be discussed.

Discussion of Results

The present study utilized secondary analysis of a preexisting, de-identified dataset. This consisted of two standardized rating scales measuring behavioral and emotional risk. The BESS Student Form, BASC-2, number of ODRs, student attendance records, and other demographic variables (e.g., age, gender, ethnicity, ELL status, and special education status) were used to investigate the relationship between level of risk and various demographic variables.

Findings indicate, approximately 17% of students rated themselves in the at-risk (elevated or extremely elevated) range for emotional and behavioral difficulties on the BESS screener. The remainder of the student sample (83%) rated themselves in the normal range and therefore, were determined not to be at-risk for emotional and behavioral difficulties. Of the students determined to be at-risk, 12% fell in the elevated risk group and 5% fell in the extremely elevated risk group ($n = 20$). This is consistent with previous research indicating approximately 10% to 20% of the school-aged student population is at-risk for emotional and behavioral difficulties (Bradshaw et al., 2008; Gresham, 2007; Kessler et al., 2005). This is also consistent with other research studies utilizing the BESS, such as the Miller et al. (2015) study, which identified approximately 18% of elementary and secondary students to be at-risk for BER.

Research Question 1

To explore severity or level of risk and its relationship to demographic variables and other measures of emotional and behavioral risk, the following research question was examined.

Are there significant group differences in the descriptive profiles (e.g., ethnicity, gender, ELL status, special education status, ODRs, number of school absences) of students identified as elevated or extremely elevated on the BESS? The findings indicate there were no significant differences between the elevated and extremely elevated BESS participant groups. Non-significant variables included: ethnicity, gender, ELL status, special education status, number of ODRs, or number of absences. Therefore, the expectation that number of ODRs and absences would be significantly more prevalent in the extremely elevated risk group could not be confirmed. Although there was not a statistically significant difference between the elevated and extremely elevated BESS groups, the extremely elevated group did have a higher average number of ODRs than the elevated group. The opposite was true for absences, with the elevated group having a higher average number of absences than the extremely elevated group. This may indicate ODRs and student absences were not appropriate measures of students experiencing behavioral and emotional risk. Since there was no data available for comparison to the general student population a more definite conclusion could not be reached.

Previous research in the area of screening for BER and its relationship to ODRs and absences has yielded mixed results. Some research has indicated students with extremely elevated levels of risk also had higher rates of ODRs and absences, but this has not been consistently demonstrated across studies. For example, Chin et al. (2013) indicated the BESS was able to significantly predict behavioral outcomes such as suspensions and ODRs, while Miller et al. (2015) indicated ODRs were unable to predict emotional and behavioral risk on the BESS. According to Chin and colleagues (2013), students in the extremely elevated risk group demonstrated significantly more behavioral difficulties than both the elevated and normal risk groups.

Research Question 2

Previous research has indicated differences in the demographic profiles of students identified as at-risk for emotional and behavioral difficulties and the general student population. To investigate this phenomenon in the present study, the following research question was posed. Are there significant group differences in the descriptive profiles (e.g., ethnicity, gender, ELL status, and special education status) of students identified as at-risk (elevated and extremely elevated) and those not identified as at-risk (normal) on the BESS? Number of ODRs and absences were not available for those students in the normal BESS group, so only categorical variables were analyzed. According to Young et al. (2010), students exhibiting behavioral difficulties were more likely to have significantly more ODRs for behavioral infractions or attendance issues than the general school population. Unfortunately, ODRs and attendance data were only collected for the students found to be behaviorally and emotionally at-risk on the BESS. Therefore, it could not be determined whether rates of school absences and ODRs were significantly higher for at-risk students than students in the normal BESS group.

Upon analyzing ethnicity, gender, ELL status, and special education status, the only variable for which there were significant group differences among the normal and at-risk (elevated and extremely elevated) BESS groups was gender. Interestingly, there were significantly more females than males in the at-risk group, with more than double the number of females identified as at-risk. As predicted, gender was significantly different across the normal and at-risk BESS groups. These results are consistent with a study completed by Dever and colleagues (2013), which indicated on the BESS Student Form more females (13.5%) rated themselves as at-risk than males (11.5%).

According to a study completed by Young et al. (2010), when teachers nominated students exhibiting concerning behavior, males outnumbered females by at least 2 to 1. Eligibility for special education under the ED category is predominantly male (U.S. Department of Education, 2005). Of note, all students in the present study with an ED eligibility were male. Therefore, just based on prevalence rates alone, one may expect that more males would be identified as at-risk for BER. This was not the case in the present study, with many more females endorsing at-risk symptomology on the universal screener. Disproportionate rates of male students placed in special education may be a result of biased referral methods, which tend to focus on externalizing, disruptive behaviors. This may fail to identify female students who often internalize their difficulties. Using a universal screener to identify at-risk students may help reduce the disproportionate identification of male students under the ED eligibility category as well as identify other students in need of emotional and behavioral supports.

Previous research has indicated the BESS is able to predict special education placement with students in special education endorsing more problems and less adjustment than the general population (Dever et al., 2013). Dever and colleagues found that students in special education indicated more problems on the BESS Student Form Internalizing and Adjustment scales, but not on the Inattention/Hyperactivity or School Problems scales.

In the present study, students in special education did not rate themselves as having more difficulties on the BESS Student Form than the general population. Of note, special education students in the present study were from any one of the 13 IDEA special education eligibility categories. Students with a Speech Language Impairment or Specific Learning Disability may have minimal to no social-emotional or behavioral difficulties. Looking closer at students identified as having an Emotional Disturbance in the present study, only one of these students

endorsed at-risk symptomology on the BESS. A possible explanation for this may be that students identified under the ED eligibility are presumably already receiving intensive, individualized social-emotional and behavioral interventions. This may have resulted in less behavioral difficulties for these students. On the other hand, if these students were still experiencing behavioral difficulties, then why did the BESS screener not identify these students? The present study could not determine if these students were still struggling behaviorally as no follow-up information was gathered on students not identified as at-risk of the BESS screener. Overall, results of the present study do not coincide with the results of the Dever et al. (2013) study, which indicates the BESS screener can predict special education placement. Future research may consider separating students into different special education eligibility categories to identify if one group consistently endorses more at-risk symptomology than another.

In regards to ethnicity, Dever and colleagues (2013) found that when the BESS Student Form was utilized with middle and high school students, there were significant differences in level of risk for various demographic variables, including ethnicity. White students rated themselves as having more problems and less functional skills than African American students. Of note, white students were the minority and African Americans students were the majority population in the studied schools. Dever and colleagues (2013) suggested minority or out-group status in a particular school or district might be a better predictor of BER rather than ethnicity alone. Castro-Olivo, Preciado, Sanford, and Perry (2011) indicated Latino students may have an increased probability of developing emotional and behavioral difficulties due to language acquisition factors. Results of these studies indicate other influences, such as language acquisition and out-group status, may be more indicative of differences in BER than ethnic group

membership alone. The present study was unable to identify any differences in level of at-risk behavior for ethnicity, language distinctions, or students considered to be the ethnic minority.

Previous research has suggested investigating ELL status of students and its possible impact on emotional and behavioral screening due to a lack of research in this area. Castro-Olivo et al., (2011) found the longer an ELL student was in an English language development program (five years or more), the more likely the student would endorse social-emotional related difficulties on screeners, such as the Behavior Emotional Resiliency Scale and Acculturative Stress Inventory Scale. Ultimately, the longer students spent learning English the higher the risk for developing social-emotional and behavioral difficulties.

In the present study, ELL students and English speaking students did not rate themselves as significantly different. The present study included all students that were considered ELL by the school district. Students ranged from very limited English proficient to those students who were considered to have advanced and proficient fluency, which may have impacted the results. As demonstrated in the Castro-Olivo et al. (2011) study, length of time acquiring the English language impacted social-emotional outcomes. Therefore, one question in relation to the present study would be, for research purposes: should all students who did not learn English as a first language be considered ELL, or should students who have developed proficient English skills be included as English speakers? Future studies may want to investigate level of language proficiency and time spent learning the language as factors to determine how language differences may impact results on screeners of BER.

Research Question 3

To examine gender and level of risk differences on various measures of behavioral and emotional risk, including discipline history, attendance history, and assessment of internalizing,

externalizing, and adaptive functioning, the following research question was addressed. Do males and females in different at-risk BESS groups (elevated and extremely elevated) significantly differ on the following variables: ODRs, absences, and BASC-2 composite scores (e.g., Emotional Symptoms Index, Internalizing, School Problems, Inattention/Hyperactivity, and Personal Adjustment composites)? Upon examination of level of risk, significant differences were found between the elevated and extremely elevated BESS groups on all the BASC-2 composites. Students in the most at-risk group on the BESS indicated more problems on the Emotional Symptoms, Inattention/Hyperactivity, Internalizing, and School Problems composite scores. This confirmed the prediction students in the most at-risk group would endorse more difficulties on the maladaptive behavior scales. Students in the extremely elevated BESS group endorsed the most difficulty or clinically significant behavior on the Emotional Symptoms Index ($T = 75.95$) and Internalizing ($T = 76.16$) composite scores. The elevated group endorsed at-risk functioning in these areas. While clinically significant ratings are considered more severe than at-risk ratings, both clinically significant and at-risk ratings are concerning and may indicate a need for intervention.

The opposite was found with the Personal Adjustment scale with those in the elevated group scoring significantly higher. This confirmed the prediction that students with less risk would endorse more functional skills than the most at-risk students. Although there was a statistically significant difference between the elevated and extremely elevated groups on the Personal Adjustment Composite, both groups endorsed at-risk functioning. This is understandable as both groups were determined to be at-risk on the BESS. Therefore, it is not surprising both groups indicated at-risk Adjustment skills on the BASC-2. Overall, these results

indicate the BESS Student Form and BACS-2 consistently identified the most at-risk students from one measure to the other.

Research has suggested that more females exhibit internalizing behaviors and disorders, while more males exhibit externalizing behaviors (American Psychiatric Association, 2013). Despite this, in the current study there were no significant effects for gender or an interaction between gender and BESS group on any of the dependent variables (ODRs, attendance, or BASC-2 composite scores). Therefore, the expectation that males would endorse more externalizing symptomology and females more internalizing symptomology on the BASC-2 could not be confirmed.

Results of the present study are inconsistent with results by Dever and colleagues (2013) who found that male and female students rated themselves significantly different in the areas of Internalizing behaviors and Adjustment on the BESS. Specifically, female students indicated higher levels of Internalizing behaviors and lower levels of Personal Adjustment. In the same study, Dever and colleagues (2013) found that male students did not rate themselves significantly different than female students on the Inattention/Hyperactivity and School Problems scales. This is consistent with the results of the present study indicating males and females had similar ratings on these scales.

According to a study completed by Young et al. (2010) when teachers nominated students exhibiting concerning behavior, males outnumbered females for all measures including: externalizing, internalizing, and total number of behavioral nominations. In the same study, teachers completed the Systemic Screener for Behavior Disorders (SSBD) on the same students they had nominated. This indicated SSBD scores could not be predicted by gender. Males and females were not rated significantly different on the SSBD internalizing and externalizing scales.

Gender differences were apparent however, for adaptive functioning, in which females were rated as having more adaptive skills than males. According to Young et al. (2010) gender differences across the internalizing and externalizing scales decreased with the introduction of the screening instrument. Results of the present study are consistent with the Young et al. (2010) study indicating males and females experience similar internalizing and externalizing behavioral difficulties.

Research Question 4

Since significant differences were found in regards to level of risk on the BESS and BASC-2 composite scores, the following research question was addressed. Do males and females in different at-risk BESS groups (elevated and extremely elevated) significantly differ on the following BASC-2 subscales: Attitude to School, Attitude to Teachers, Sensation Seeking, Atypicality, Locus of Control, Social Stress, Anxiety, Depression, Sense Inadequacy, Somatization, Attention Problems, Hyperactivity, Relations with Parents, Interpersonal Relations, Self-Esteem, and Self-Reliance? Consistent with the results of the previous research question, there were no significant effects for gender or significant interaction effects between gender and BESS group on any of the BASC-2 subscales. The data failed to support the prediction that males would endorse significantly more externalizing symptomology and females significantly more internalizing symptomology. Males and females in both the elevated and extremely elevated BESS groups did not rate themselves significantly different on any of the BASC-2 subscales.

Also consistent with Research Question 3, there was a significant effect for BESS group on the BASC-2 subscales. There were significant mean differences for BESS group (elevated and extremely elevated) on nine of the sixteen dependent variables. These variables included:

Attitude to School, Atypicality, Locus of Control, Depression, Sense of Inadequacy, Attention Problems, Hyperactivity, Relations with Parents, and Self-Reliance. Students in the extremely elevated BESS group scored significantly higher on the Attitude to School, Atypicality, Locus of Control, Depression, Sense of Inadequacy, Attention Problems, and Hyperactivity subscales. The opposite was found with the Relationship with Parents and the Self-Reliance variables, with those in the elevated group scoring significantly higher. As expected, the students in the most severe risk group endorsed more maladaptive behaviors on the BASC-2. The elevated group endorsed more personal adjustment or functional skills. Overall, students in the extremely elevated BESS group endorsed clinically significant Depression, Sense of Inadequacy, and Attention Problems. The elevated group indicated at-risk ratings for Depression and Sense of Inadequacy and average ratings for Attention Problems.

Anecdotal Data

In the current study, anecdotal data provided by parent and teacher report was available on the majority of students identified as at-risk. Although not systematically analyzed, the information was reviewed for examples of difficulties at-risk students were experiencing around the same time the present study was completed. Exposing the severe circumstances faced by many of these at-risk students adds perspective to the significance and meaning behind the results of the current study.

Students identified as at-risk on the universal screener often had at least one report of behavioral difficulty, but most students had a long list of troubles that no doubt resulted in the determination of at-risk and clinically significant behaviors on the screeners for BER. Examples of these reported difficulties include: hospitalizations for acute mental health events, suicidal ideation and attempts, self harm, sexual harassment at school, poor self esteem, being bullied by

or bullying others, and school refusal. Other behavioral observations frequently reported were withdrawal from previously enjoyed activities, personality changes, difficulties keeping and maintaining relationships with peers and adults, difficulties with parents and other family members, and a history of retentions and academic school failure. Parental divorce, financial problems, homelessness, and family history of mental health disorders were also reported. This data also revealed several at-risk students were being treated for a mental health disorder or behavioral difficulties outside of school through a private psychologist, psychiatrist, or therapist, but were not receiving services at school.

Summary of Results

Overall, results of the present study found significantly more females rated themselves as at-risk for BER, but males and females did not rate themselves significantly different in the types of behavioral problems they were experiencing. Although not statistically significant, on average students rated in the most severe at-risk group had more ODRs, while the elevated group had more student absences. Severity ratings of risk on the screener administered at Stage 1 were consistent with the results of the comprehensive behavioral assessment administered at Stage 2. Specifically, students identified in the extremely elevated BESS risk group had significantly higher scores on all the BASC-2 maladaptive behavior scales including, Emotional Symptoms, Inattention/Hyperactivity, Internalizing Problems, and School Problems. The elevated BESS group had significantly higher Personal Adjustment scores. In other words, students identified with the most risk endorsed more clinically significant maladaptive behaviors and less adjustment or functional skills than students with less measured risk. The students with the highest level of risk on the BESS endorsed clinically significant problems on the BASC-2 in the areas of Depression, Sense of Inadequacy, and Attention Problems. These students also

endorsed at-risk problems in the areas of Attitude to School, Atypicality, Locus of Control, Hyperactivity, Relationship with Parents, and Self-Reliance. The students in the elevated BESS group also endorsed at-risk behaviors in many of the same areas, but with less severity. Overall, at-risk students reported negative feelings about school and themselves, difficulty with attention and focus, a lack of control, difficulties with parents, inability to solve problems, and feelings of sadness. These feelings and behaviors were most likely significantly impacting their ability to be successful at school.

Finally, many of the students identified as at-risk by the mental health screeners had notably concerning reports by parents and teachers, but these same students were not receiving any formal intervention in or out of school. Anecdotal data appeared to be consistent with students' ratings on standardized measures of BER. Communication of universal screening data between the school staff and families of at-risk students uncovered a large number of students who appeared to be in imminent need of mental health services. Through the implementation of this pilot study, a narrative emerged providing a full representation as to why these at-risk students were struggling in school. Without the implementation of a mental health screening program such as the one used in the present study, students in need may not be appropriately identified as at-risk and therefore, continue to struggle academically, socially, and behaviorally. Although the best and most effective screening process is yet to be acknowledged, the present study adds evidence to the importance of collecting this social-emotional and behavioral data as a necessary component of every student's educational career.

Educational Implications

The present study revealed several important educational implications. First of all, more female students were identified as at-risk for BER, which may reveal possible gender differences

in the prevalence rates of mental health risk in a middle school population. This supports the use of universal screeners to help reduce the disproportionate number of male students in special education under the ED eligibility by properly identifying students who are truly at-risk. Additionally, utilizing a universal screener for BER may also help reduce disproportionate identification of ethnic minority students and ELL students for special education (Gardner, 2011; Hoover, 2012; Raines, 2012). The present study revealed students of different ethnicities and language backgrounds endorsed similar rates of normal and at-risk behavior. Results of a self-report universal screener of BER may identify true deficits rather than cultural or language differences. Consistent with previous research, the present study supports the measurement equivalence of the chosen instruments across a diverse student population (Harrell-Williams et al., 2015; Raines, 2012).

By identifying at-risk students through a brief screener at Stage 1 and identifying specific deficit areas for those at-risk students on a more comprehensive measure of BER at Stage 2, the rich data gathered by these measures may be used to implement targeted interventions. For example, students with the highest level of measured risk would need intervention in both at-risk or clinically significant behavioral areas as well as functional and adaptive skills. The present study also identified how a multistage approach to screening for BER can fit within already widely implemented multi-tiered systems of support. Mental health screening data may also be used to analyze trends in mental health prevalence over time (Dowdy et al., 2010) and monitor the progress of interventions.

Children with internalizing behaviors often go unidentified due to the lack of outward signs or indications (Lane et al., 2007; Weist et al., 2007). Universal screening through self-report may provide the impetus for identifying students who may have otherwise gone unnoticed.

As described in the present study, the students with the highest level of risk endorsed Depression, Sense of Inadequacy, and Attention Problems as the most significant areas of impairment. This is critical, as many of these same students may not have been identified through other channels of referral due to the internalizing and non-disruptive symptomology associated with these constructs. While hyperactivity may be easily observed, a student who is struggling to pay attention to class lessons or focus on reading content, may not be clearly identified in a general education classroom. Furthermore, internalizing behaviors are also known to be associated with an increased risk for suicidal ideation (Dever et al., 2013). Students with clinically significant depressive symptomology as identified by the BASC-2, may be in imminent need of mental health services. Without universal screening, these students may not have received the necessary interventions. Universal screening for BER may be the most effective way of identifying these serious risks and providing the appropriate supports.

Overall, through the implementation of the present study, students who were not receiving social-emotional and behavioral interventions in or out of school were identified. Through the informed consent process, multistage screening approach, and communication between school staff and families, a collaboration was formed. Students in need of social-emotional and behavioral supports were identified and resources and recommendations were shared among school staff and family members. While programs such as these require additional school staff and time for program implementation, the valuable data attained through mental health screeners as well as the problem solving teams that can be formed between families and schools, is crucial for the public education system to adapt to the changing needs of students and meet requirements set by educational legislation.

Limitations

Several limitations were encountered when completing the present study. Data was collected only from a single grade level at two different middle schools. Although the demographics of the present study may best represent the surrounding geographical area in which the study was completed, other schools within the same school district and of course across the country have a vastly different demographic makeup. Incorporating schools with widely varying demographics and geographical locations, as well as a variety of grade levels, may be beneficial to making overall generalizations in regards to the relationship between demographics and universal screening for BER. Additionally, the present study had a limited number of special education students. Therefore, future research incorporating a larger sample of special education students may be necessary to validate the current results.

There were also data and statistical limitations. There was only certain data available on all students that participated in the study including: results of the BESS screener, age, ethnicity, gender, ELL status, and special education status. The BASC-2 was only administered to students determined to be at-risk at Stage 1. Future research may want to administer the BESS and BASC-2 to all students, in order to compare all three BESS risk groups with scores on the BASC-2. It should be noted that ODRs and attendance records were only available for the at-risk students. Therefore, it was impossible to compare the target (at-risk) and non-target (normal) populations on certain important variables.

Another limitation included the discipline records collected. The total number of times a particular student was referred for an office discipline referral was counted for each student determined to be at-risk. Behavioral infractions ranged from gum chewing and excessive tardiness to cyberbullying, arson, and possession of a weapon. The two middle schools in the

present study varied in the type and number of ODRs. For example, for middle school 1, office discipline referrals ranged from 0-77, with a mean number of 10.43 ODRs per student, while middle school 2 office discipline referrals ranged from 0-14, with a mean number of 2.61 ODRs per student. It was clear middle school 1 reported significantly more behavioral infractions than middle school 2. While this may have been due to actual differences among schools in behavioral incidences, it also may have resulted from one school keeping more consistent and thorough documentation of behavioral violations. Additionally, there may have been differences in what types of behaviors warranted an ODR between schools. Although other studies have analyzed data per individual school, in the present study the sample size of each school would be too small to analyze each school separately.

Finally, results of the BESS Student Form may be presented in two ways, as an overall *T*-score and four scale scores measuring Inattention/Hyperactivity, Internalizing Problems, School Problems, and Personal Adjustment or using the BESS classification system into the three categorical levels of risk (e.g., normal, elevated, or extremely elevated). The dataset obtained in the present study only had results indicating the overall categorical level instead of *T*-scores. This constrained analyses of the data to certain statistical procedures. In the Dever et al. (2013) study, data analyses were run utilizing both the BESS category classifications and the *T*-scores associated with the BESS scales, which resulted in statistically similar results. Therefore, this limitation in available BESS data may not have been as problematic as first anticipated.

Recommendations for Future Research

The present study only incorporated self-report measures of emotional and behavioral risk. Findings indicate more females endorsed at-risk symptomology on the BESS Student Form than males. Gender stereotypes or gender self-representations may have impacted how students

rated themselves on measures of BER. These students also may have been answering in a socially desirable way or in a way the student thought would be socially acceptable to others. For example, females may be considered more emotional and thus, endorse symptomology consistent with this stereotype. Females may also be overly critical of themselves and therefore, report more problems. On the other hand, males may not endorse certain symptomology because they may not want to appear weak. For example, male students may be reluctant to indicate they cry easily. Future research may explore why gender differences occur on self-report screeners of BER. This may be examined by conducting follow-up interviews to get an indication of the student's mindset at the time of completion. Additionally, a survey may be conducted in regards to gender stereotypes related to mental health and how this impacts student's responses.

According to Husky et al. (2011) universal screeners may be considered proactive and preventative if provided to all students in an attempt to decrease the risk of developing an emotional or behavioral disorder through the implementation of targeted supports. Future research may focus on developing a list of interventions that align with certain deficits on measures of BER. By developing a reference list of interventions that can be used to address certain deficits, this may make the identification and intervention process less demanding on staff and more efficient in providing students with what they need. For example, if a student is rated in the clinically significant range in the areas of aggression, social skills, and sense of inadequacy on the BASC-2, there would be a list of interventions that align with these deficit areas to choose from. For example, explicitly teaching anger management and stress reduction techniques, social skills training, and small group counseling. Mental health screeners, such as the BESS and BASC-2 utilized in this study, also offer information regarding severity level of risk. How severity level can be used to determine intensity of services needed may also need to

be addressed. Research into how mental health screening information can be used most effectively to provide research-based interventions to students experiencing emotional and behavioral difficulties is needed. Additionally, the best approach to pinpointing interventions that best align with certain deficit areas, as well as recommendations for how severity level impacts provision of supports, may need to be investigated.

Crepeau-Hobson (2013) indicated school personnel have a legal and ethical responsibility to keep children safe, which includes recognizing suicidal tendencies and providing the necessary follow-up assistance and resources. A concern that arose while completing the present study was in relation to items on universal screeners involving depression, which could possibly indicate suicidal ideation in certain cases. For example, what if a student completes the screener and indicates their life is getting worse, that they don't care about their life anymore, and that they are often sad? The screener may identify students with an imminent need for emergency mental health care. Although the BASC-2 self-report does not have an item directly asking about suicidal thoughts, the BASC-2 teacher report does, as do a number of other mental health rating scales. Therefore, the following questions in relation to universal screening for mental health risk arose. If the screener is administered to an entire grade level on a particular day, will all those protocols be scored that day as well? Will the students with clinically significant depressive symptomology receive immediate follow-up? If the protocols are not scored and reviewed the same day as administration, the school district may be liable for having information that a student endorsed clinically significant depressive symptomology, but did not follow-up immediately upon the knowledge of such information.

Additionally, on the BASC-2 there is an item related to harm to the student from another person. What if the student indicates this is happening "almost always" and the student is

severely injured by another individual either at school or when they go home? While many students may not actually have suicidal ideation or be in actual danger of being harmed by another person, some students may truly be facing these scenarios. It is essential that the staff at the school administering these screeners have implemented a policy to conduct follow-up interviews with students that may have endorsed concerning symptomology. This also leads to what types of responses or score profiles would warrant follow-up? Would there be specific guidelines with specific thresholds of when to follow-up immediately or not? While there are numerous concerns regarding follow-up procedures and liability, the information collected in these screeners is essential and necessary to meet the mental health needs of students. In absence of this vital information, school staff may lack the opportunity to intervene at all.

Previous research has indicated screeners for BER may be completed by students in as little as one hour per school day. This does not appear to take into account the crucial and absolute necessity of scoring and reviewing protocol results and conducting follow-up interviews with students based upon their score profiles and responses to certain assessment questions. Therefore, more staff, time, and resources may be necessary than initially anticipated. Despite the added time and staff, if school districts want to comprehensively support all students, which includes social-emotional and mental health needs, some systematic program must be in place to address this increasing threat to the wellbeing of students in today's schools. As indicated in a number of previous research studies, how to best implement mental health screening within schools still needs to be determined as new implications evolve.

Conclusion

The present study offers promising results into prevalence rates of mental health risk, demographics of students endorsing at-risk symptomology, severity of risk associated with

certain problems, and specific information about the difficulties students are experiencing. This information may ultimately aid in the development of targeted supports and interventions. Furthermore, the present research supports utilizing the public health framework in guiding implementation of universal screening for mental health risk. Utilizing a multistage approach to identification of behavioral and emotional risk fits seamlessly into multi-tiered systems of support currently used in schools. While the present research provides additional information to the transforming culture of providing mental health services in schools, there are still many questions and concerns regarding how to best address the needs of all students through the universal screening process.

APPENDIX A



**UNLV Social/Behavioral IRB - Exempt Review
Exempt Notice**

DATE: April 14, 2015

TO: Tara Raines, Ph.D.
FROM: Office of Research Integrity - Human Subjects

PROTOCOL TITLE: [727960-1] IMPACT OF UNIVERSAL SOCIAL-EMOTIONAL & BEHAVIORAL SCREENING IN TODAY'S SCHOOLS

ACTION: DETERMINATION OF EXEMPT STATUS
EXEMPT DATE: April 14, 2015
REVIEW CATEGORY: Exemption category # 4

Thank you for your submission of New Project materials for this protocol. This memorandum is notification that the protocol referenced above has been reviewed as indicated in Federal regulatory statutes 45CFR46.101(b) and deemed exempt.

We will retain a copy of this correspondence with our records.

PLEASE NOTE:

Upon final determination of exempt status, the research team is responsible for conducting the research as stated in the exempt application reviewed by the ORI - HS and/or the IRB which shall include using the most recently submitted Informed Consent/Assent Forms (Information Sheet) and recruitment materials. The official versions of these forms are indicated by footer which contains the date exempted.

Any changes to the application may cause this protocol to require a different level of IRB review. Should any changes need to be made, please submit a **Modification Form**. When the above-referenced protocol has been completed, please submit a **Continuing Review/Progress Completion report** to notify ORI - HS of its closure.

If you have questions, please contact the Office of Research Integrity - Human Subjects at IRB@unlv.edu or call 702-895-2794. Please include your protocol title and IRBNet ID in all correspondence.

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PUBLICATIONS

Russler, K., Sanchez, I., Jones, W., Loe, S., Raines, T., & Hart, J. (2013). Impact of user interface for online assessment of simultaneous processing with compressed speech. *Archives of Clinical Neuropsychology*, 28(6), 513.

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PROFESSIONAL PRESENTATIONS

Russler, K., Sanchez, I., Jones, W., Loe, S., Raines, T., & Hart, J. (2013, October). *Impact of User Interface for Online Assessment of Simultaneous Processing with Compressed Speech*. Poster presented at the 33rd National Academy of Neuropsychology Annual Conference, San Diego, CA.

Heller, M.A., McClure, A.D., Kerr, M.E., Basso, A., Wanek, C., Srivastava, S., Kibble, S., Russler, K., & Campbell, J. (2007, June). *Haptic judgments of extent involving curves in the sighted and blind people*. Presented at Illinois Data conference, Illinois State University, Normal, IL.

Heller, M.A., McClure, A.D., Kerr, M.E., Kibble, S., Russler, K., & Basso, A. (2007, November). *The haptic horizontal – vertical curvature illusion*. Presented at the Psychonomics Society Meetings, Long Beach, CA.

Russler, K. & Kibble, S. (2008, April). *Attractiveness and credentials versus perceived success*. Presented at Mid America Undergraduate Research Conference, Crestview Hills, KY.