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A Process and Outcomes Evaluation of a Special Education Program for Students with Emotional Disturbance: The TIERS System

A dissertation submitted in partial satisfaction of the requirements for the degree Doctor of Philosophy in Counseling, Clinical, and School Psychology

by

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ABSTRACT

A Process and Outcomes Evaluation of a Special Education Program for Students with Emotional Disturbance: The TIERS System

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Students with Emotional Disturbance require an array of support at schools, including but not limited to proactive classroom management techniques, specialized academic instruction, motivation systems, frequent goal setting and monitoring, mentor-based supports, school-home collaborative efforts, and psychotherapeutic services. While research has highlighted the importance of these components, many programs serving students with Emotional Disturbance do not consistently implement these evidence-based practices. The present study is an exploratory analysis of the implementation and outcomes of Tiers of Intensive Educationally Responsive Services (TIERS), a comprehensive program consisting of several evidence-based practices to promote social-emotional growth in students with Emotional and/or Behavioral Disturbance (EBD). The purpose of the study was to examine 1) whether the TIERS package of interventions resulted in significant increases in student transitions to the least restrictive environment from baseline, and whether significant differences existed between programs on this basis of implementation fidelity, 2) the impact of TIERS interventions on the severity of problem behaviors in students in three selected

high school classrooms, 3) the impact of the TIERS model on the teacher ratings of treatment acceptability, and 4) whether or not a significant correlation exists between teacher treatment acceptability and the degree of implementation fidelity. The results of the study suggested that 1) there was a significant increase in the number of student transitions from baseline, though significant differences were not found on the basis of implementation fidelity, 2) single-case data demonstrated significant positive behavior growth among 24 high school students, 3) teachers' attitudes toward implementation were significantly improved from baseline, and 4) there was a statistically significant moderate positive correlation between treatment acceptability and implementation fidelity. Implications for future research in the areas of school-based programming for students with emotional disturbance and implementation science are discussed.

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I. Introduction of the Study

In schools, there is a subset of students who arrive with, or later develop, significant behavioral and emotional problems that severely impact not only their ability to profit from the educational process but that of other students as well (Reid, Patterson, & Snyder, 2002). These students are often afflicted with interpersonal issues with peers and educators, which makes it even more challenging for them to focus on academics and to perform up to grade level (Cook & Browning Wright, 2009). Among the externalizing behaviors common in this population of children are displays of physical and verbal aggression, school refusal, and bullying. It must be noted that internalizing symptoms are just as critical as externalizing behaviors when trying to understand and treat children and adolescents with Emotional Disturbance (ED).

Historically, children with intense emotional and/or behavioral challenges placed a tremendous amount of stress on educational professionals to meet their unique needs while maintaining a safe and productive classroom environment. Public schools are largely struggling to provide effective programming for students with Emotional Disturbance. Analyses of the long-term trajectories of these students are particularly distressing. School administrators (e.g., Directors of Special Education, Special Education Coordinators, Program and Inclusion Specialists) are continually searching for the latest in evidence-based practices to address the severe needs of these students (Walker, Ramsey, & Gresham, 2004). Fortunately, there are many evidence-based interventions available that have demonstrated favorable outcomes in terms of these students' social, emotional, and behavioral functioning (Kazdin & Weisz, 2003; Stage & Quiroz, 1997). However, despite the advent and promotion of these various supports by scholars in the field of education, evidence-based treatments are

often "either nonexistent in classrooms serving these students, or they are present but implemented with poor fidelity" (Cook & Browning Wright, 2009, p.1).

A remarkable research finding is that a small minority of K-12 students with Emotional Disturbance (between one and five percent) are responsible for creating the majority of disruption, crisis and havoc in schools (Rutherford, Quinn, & Mather, 2004; Walker, Ramsey, & Gresham, 2004). Moreover, according to a 1999 report by the U.S. Surgeon General, at least five percent of all children and youth suffer from a serious emotional or behavioral disorder, yet only one out of every five of these students receive any form of mental health support (U.S. Department of Health and Human Services, 1999). This is particularly significant and simultaneously disconcerting when one considers that children with emotional and/or behavioral problems will not simply outgrow them. There is substantial research to support the assertion that these students will continue to engage in negative behaviors in the absence of appropriate and effective interventions (Kazdin, 1987; Walker, Ramsey, & Gresham, 2004). Students with emotional and behavioral problems who do not receive needed services are more likely to experience negative outcomes, including school dropout, unemployment, substance use, adult mental health problems, and involvement with the legal system (Elliot, Hamburg, & Williams, 1998; Hinshaw, 1992; Loeber & Farington, 1998; Osher, Morrison, & Bailey, 2003; Parker & Asher, 1987; Wagner et. al, 2006).

II. Background of the Problem

A. Characteristics of Students with Emotional Disturbance

Prior to detailing evidence-base for supports for students with Emotional Disturbance, it is critical to discuss its very definition in addition to the demographic trends of these

students. In 2006–2007, approximately 7% of students who received special education supports and services were categorized under the eligibility of Emotional Disturbance (ED), or what was previously known as Severe Emotional Disturbance (SED). This translates to a national figure of 464,000 pupils (U.S. Department of Education, 2009).

As manifested in an educational setting, students who receive special education services under the designation of the ED category within the Individuals with Disabilities Education Improvement Act of 2004 (IDEA) exhibit one or more of the following characteristics over a long period of a time, to a marked degree, to the extent that educational performance is adversely impacted: (a) an inability to learn, which cannot be explained by intellectual, sensory, or health factors; (b) an inability to build or maintain satisfactory interpersonal relationships with peers and teachers; (c) inappropriate types of behavior or feelings under normal circumstances exhibited in several situations; (d) a general pervasive mood of unhappiness or depression; (e) a tendency to develop physical symptoms or fears associated with personal or school problems (IDEA, 2004; Sect. 300.8[c] 4 [i, ii]). These five qualifiers for Emotional Disturbance have remained essentially the same since PL 94–142, the Education for All Handicapped Children Act (EAHCS) of 1975. These conditions were mainly derived from the work of E.M Bower, a scholar who conducted a study commissioned by the California State Legislature in 1957 (Bower, 1982). With the passage of the Individuals with Disabilities Education Act of 1997 came the deletion of the term "Serious" from the previous classification label, Serious Emotional Disturbance (SED). However, the remaining language has stayed unchanged (Frye, 1998).

As highlighted by Cook and Browning Wright (2009), "students with emotional and/or behavioral disturbance" (EBD) refers to children and adolescents who exhibit one of two types of behavior patterns, or a combination of the two:

- The first behavior pattern is known as *externalizing*—behaviors directed outwardly toward the social environment. Externalizing behaviors, sometimes called "*undercontrolled*" behaviors, are viewed as behavior excesses and include disruption, defiance, noncompliance, aggression, and conduct problems (Hinshaw, 1992).
- The second behavior pattern is known as *internalizing behavior*, which refers to behavior problems that are inwardly directed and represent problems with self in relation to one's social surroundings. Internalizing behavior problems (or perhaps more appropriately termed as "symptoms") are viewed as behavioral deficits and include such behavior patterns as social withdrawal, shyness, anxiety, and depression (Walker & Severson, 1990).

B. Gender and Ethnic Makeup of Students with Emotional Disturbance

Two comprehensive nationwide studies were conducted to gather data regarding the lives and school experiences of children and adolescents who received special education services and to isolate the data for students designated as having ED. One of these reports was the Special Education Elementary Longitudinal Study (SEELS), which collected representative data on children with disabilities aged six to 12 who were in elementary or middle school in 19992000 (Garza, 2006). The second study, known as the National Longitudinal Transition Study-2 (NLTS-2) concentrated on students aged 13–16 who were in at least the seventh grade in 2000–2001 (Newman et. al, 2011).

The SEELS and NLTS-2 studies revealed significant findings, one being that higher percentages of students who received services under the eligibility category of Emotional

Disturbance are male and African American when compared to other eligibility areas collectively, as well as to the public in general (Newman et. al, 2011). Nearly 80% of students with Emotional Disturbance are male. The report indicated that in terms of other eligibility categories, 65% of students are male, and within the general public, statistically 50% of individuals are male. Approximately one in four students who have been made eligible under the ED category is African American, compared with one in five students from other disability areas, and with one in 10 students in general (Wagner, Kutash, Duchnowski, Epstein, & Sumi, 2005). In totality, there is over thirty years of research documenting the overrepresentation of males and African Americans within special education. Specifically, further research has been done in relation to the Emotional Disturbance category (Children's Defense Fund, 1975; Skiba, Michael, Nardo, & Peterson, 2002; Skiba & Peterson, 1999; Skiba & Rausch, 2006).

C. Female Students with Emotional Disturbance

According to Wagner et. al (2005), only one in five students with Emotional Disturbance is female. Despite this statistic, the work of Cullinan, Osborne, and Epstein (2004) emphasizes that some of the characteristics associated with ED manifest differently among females across grade levels and racial groups. These findings indicate that grade level and ethnicity may be prudent factors to consider when focusing on skills development. The researchers compared symptom ratings using the Scale for Assessing Emotional Disturbance. On the Social Maladjustment scale, ratings increased with students' grade level. Ratings were highest for high school students, followed by middle school and elementary grades, regardless of whether the students were identified with ED or not. Among non-ED students, Overall Competency, delineated as students' strengths and

resources, also increased as students progressed to higher grades. This, however, was not evident among female students identified with ED. For these students, personal and external resources remained relatively constant. Other grade level differences that were noted among female students with ED included Relationship Problems and Physical Symptoms/Fears that were more pronounced in elementary school than in higher grades.

Regardless of grade level, European American girls with ED had more Relationship Problems, marked Unhappiness/Depression, and increased Physical Symptoms/Fears than African American girls with ED. Among non-ED students, there was no difference in these areas along racial groupings. In contrast, African American females, for both ED and non-ED categories, demonstrated higher levels of inappropriate behavior than European American girls (Cullinan et al., 2004; Cullinan & Kaufman, 2005).

D. Home Environment

Youth with emotional and/or behavioral problems typically come from a home with more challenging home conditions as compared to other disabilities. Over one-third of students with ED come from a single parent home, and almost as many live in poverty, compared to 25% of students with other disabilities. In addition, one of four students with ED lives in a home where the head of the household is unemployed, and one of five students with ED lives in a home where the head of the household is not a high school graduate. Finally, nearly 45% of students with ED live in a home with another person who has a disability (Wagner et. al, 2005).

E. Co-morbid Conditions

A variety of co-morbid conditions and mental health diagnoses were noted among students with ED. These include anxiety, bipolar disorder, Tourette's, depression, obsessive-

compulsive disorder, oppositional behavior, and psychosis (Déry, Toupin, Pauzé, & Verlann, 2004). By far, the most frequently indicated co-morbid conditions are Attention Deficit Hyperactivity Disorder (ADHD) and Learning Disability (LD). Nearly two-thirds of students with ED had also been diagnosed with ADHD, and 25–30% had a learning disability (Wagner et. al, 2005).

F. Issues with Service Delivery for Students with EBD

1. Previous Service Delivery Framework

It can be said that the past methods of serving students with emotional and behavioral problems were ineffective in part due to being "based on a reactive approach that does not address a behavior problem until it has occurred, rather than employing a proactive supportive approach that prevents the problem (Cook & Browning Wright, 2009). Among the different methods school personnel employ when reacting to undesirable behaviors are "timeouts," office referrals, suspensions, or in severe instances, expulsion. In a misguided attempt to be "fair" to typical students who are trying to learn, educators have a strong proclivity toward "punishing" or excluding children who act out and disrupt the natural school environment (Skiba, 2002).

Reactive approaches, such as exclusion from school, are rarely conducive to positive long-term outcomes when attempting to address negative behavior. In fact, there is a growing body of research that supports the opposite conclusion. Schools that employ reactive strategies, such as administrative referrals, detention, suspension, and expulsion without an operational framework for explicitly teaching and rewarding the use of prosocial skills and behaviors have demonstrated higher rates of problem behavior, property destruction, and academic failure (Mayer, Butterworth, Nafpaktitis, & Suzer-Azaroff, 1983).

Deleterious effects on academic achievement aside, repeated instances of reprimands, school suspensions, and expulsion erode the teacher-student relationship, as well as student morale. Removing a student from the school environment merely reduces motivation to maintain self-control. It does not teach alternative ways to behave. In addition, it has been shown by extant research to have limited effect on long-term behavioral adjustment. In fact, school personnel may be inadvertently reinforcing students' poor behavior and pre-existing negative attitudes about schools and teachers by sending them home (Cook and Browning Wright, 2009).

Zero Toleranceor Get Tough policies are yet another example of the previous methods of addressing the behaviors of students with EBD. Strict rules (e.g., no physical aggression, or else) and "no exceptions" rhetoric are constituents of these policies and are rigidly followed without any regard for mitigating circumstances (e.g., the student's mental health status, whether or not the student was appropriately identified for special education services, and if so, was the student's Individualized Educational Program (IEP) and accompanying Positive Behavior Intervention Plan (PBIP) was executed with fidelity). Numerous research studies conducted in the past decade associate zero tolerance policies with what is known as a *contraindicated effect*. In essence, the schools that have chosen to adopt these "get tough" measures were associated with higher rates of behavior problems and poorer school climates (Skiba & Peterson, 1999; 2000). The current research does not appear to support these methodologies.

Within the realm of education, particularly in the realm of School Psychology, there has been a much-needed and incessant drive to move away from the "wait-to-fail" model in which students (and their educators) must endure a long period of suffering before they are

assessed and provided with the assistance they require (Reynolds & Shaywitz, 2009). In this model, teachers will not typically make efforts to ameliorate the situation until the student's issues become so pronounced and exist for a long period of time or hinder the teacher's overall classroom milieu. Once a teacher has reached his/her "breaking point" with the student's behaviors, it is usually ensued by a referral for a psychoeducational evaluation. While this process is highly utilized in schools, the more protracted the process and the longer the student continues to exhibit emotional and behavioral difficulties, the more resistant the student is likely to be to even the most well-intended and well-implemented remedial services (Kazdin, 1987).

The majority of students made eligible for services under the category of Emotional Disturbance were between the ages of 13 and 15 (Cook & Browning Wright, 2009). With a general consensus being that behavior challenges did not spontaneously develop during this time period without warning from previous years, it is realistic to posit that many of these students have gone years without timely intervention. The existing research base is rife with studies that students with EBD will not outgrow their symptoms (Olweus, 1977, 1988). Instead, they will follow a trajectory toward negative outcomes in high school and beyond (Campbell & Ewing, 1990; Webster-Stratton, 2000).

The prevailing mentality in many schools assumes that students are meeting academic and behavioral expectations unless a decision-making figure from within the school (i.e., school principal, school psychologist, and so on) deems otherwise (Fletcher & Vaughn, 2009). The consequences of a student traversing this approach is that educators will not address a student's emotional challenges when they first manifest (which is the best time to intervene), and the student will go on to develop deep-seated negative beliefs about school,

making it difficult to intervene. The resulting approach is what is colloquially known as "wait to fall," in which the only behaviors that are addressed are those that have reached the attention of a school's administration. Thus, whether or not a student receives a referral for a special education evaluation is highly dependent upon passage through the first gate, the "teacher test." This is especially troubling considering the multitude of research indicating that "teachers are imperfect tests" for identifying students in need of support (Gerber, 2005; Gerber & Semmel, 1984; Gresham, 2002; Gresham, MacMillan, & Bocian, 1997; Harry & Klingner, 2014).

Another significant research finding is that schools are vastly underserving the school-age population with emotional and behavioral problems (Walker, Nishioka, Zeller, Severson, & Feil, 2000). Cook and Browning Wright (2009) cited in their research that roughly 20 percent of school-aged children meet the diagnostic criteria for a psychiatric disorder that may require intensive services and support. However, only one percent of the student population receives special education services under the Emotional Disturbance eligibility category (Angold, 2000; Bradley, Doolittle, & Bartolotta, 2008; Hoagwood & Erwin, 1997). Perhaps even more detrimental, for the one percent of students who are receiving specialized supports, the provided services have not been linked to improvements in overall academics or behavior (Hodge, Riccomini, Buford, & Herbst, 2006; Gladhill, 2014; Walker & Sylvester, 1991).

G. Taking the Good with the Bad: Teachers and Classrooms Serving Students with EBD

Few would argue that more than any other group, students with EBD necessitate thoroughly trained, talented, supportive, patient, understanding, and dedicated teachers and classroom support staff (e.g., instructional assistants, therapists, and school psychologists).

Unfortunately, teachers of students with emotional and behavior disorders are more likely to be unqualified and inexperienced as compared to teachers serving students with other types of disabilities (Billingsley, Fall, & Williams, 2006; Kern, Hilt-Panahon, Sokol, 2009; Oliver & Reschly, 2010). The most needy students are being instructed by staff who are the least equipped to manage their behaviors and support their social/emotional needs. Consequently, "this mismatch provides part of the explanation for the high rates of stress and burnout among teachers and staff who work with students with EBD" (Cook & Browning Wright, 2009, p. 5).

Because school administrators are concerned with retaining their best staff, it is not unusual to avoid assigning these teachers to classrooms serving students with EBD. Still, we know that when people feel rewarded, and when their rewards commensurate to their degree of effort, they feel more valued and satisfied with their line of work (Islam, Ahmad, Ahmed, Ahmad, Muhammad, & Muhammad, 2012; Lazear, 2000). It then stands to reason that administrators should be compelled to reward good teachers by instituting structured incentives for their performance and dedication. This is not to say that more pay is the solution to retaining quality teachers. Instituting regularly scheduled meetings with teachers and paraeducators alike and soliciting their input in decision-making processes are highly conducive toward team members feeling valued and respected (Bogler & Nir, 2012; Cook & Browning Wright, 2009; Winter, Keedy, & Newton, 2014).

To compound the problem, in an attempt to provide students rightful access to an education in the Least Restrictive Environment (LRE), students with EBD are often mainstreamed in general education classes. However, general education teachers are often ill-equipped to manage the unique needs of students with Emotional Disturbance. Only one-

third of teachers reported having had at least eight hours of in-service training on behavior management within the previous three years, and less than 25% of teachers received in-service training regarding the needs of students with ED (Benner, Kutash, Nelson, & Fisher, 2013; Wagner et al., 2006). Support is generally provided to general education teachers via consultation with special education staff (Bettini, Kimerling, Park, & Murphy, 2014; Wehby, Lane, & Falk 2003). Twenty-three percent of teachers of elementary students with ED, 30% of teachers of middle school students with ED, and 13% of teachers of high school students with ED reported feeling that they had been given adequate training to teach students with disabilities (Benner et. al, 2013; Wagner et al., 2006).

Beginning in the 90s, light was shed on the inadequacy of programs serving students with Emotional Disturbance (Knitzer, Steinberg, & Fleisch, 1990). One of the most concerning revelations of the report was that most classrooms were of low quality and were simply serving "a containment" function of students with ED from their typical peers. Furthermore, the researchers also reported that most programs serving students with Emotional Disturbance focused almost exclusively on quelling disruptive behavior (e.g., noise-making, verbal and physical aggression, property destruction, and so on) at the cost of explicitly teaching students vital skills for their academic and social betterment. This brought forth the concept known as the "curriculum of non-instruction" (Maggin, Wehby, Partin, Robertson, & Oliver, 2011; Wheby & Shores, 1995). These practices continue to be implemented to this day (Maggin et. al, 2011; Rathel, Drasgow, Brown, & Marshall, 2013; Walker, Nishioka, Zeller, Severson, & Feil, 2000).

H. Home/School Disconnect

In considering the crucial role that parents and families play in child development, as well as the long-term impact of Emotional Disturbance on students and their caregivers, it is unfortunate that there is literature that indicates that parents of students with ED feel more dissatisfied with their student's school, special education supports, and teachers than parents of students with other disabilities (Wagner, Newman, Cameto, Javitz, & Valdes, 2012). Parents of secondary students with ED thought that they had to put forth an inordinate amount of effort in order to obtain needed supports for their children (Wagner et. al, 2012; Wagner et al., 2006). In addition, arbitrations and hearings occur twice as often for secondary students with ED than for secondary students with other disabilities (Mattison & Felix, 1997). While these findings imply that there is much work to be done to improve customer satisfaction, educational scholars and professionals alike should see this as an opportunity to harness a potentially powerful change agent in a child's life. There is research to support the assertion that greater parental involvement, whether in the IEP process or treatment phase (e.g. parent skills training, family therapy, and so on) is associated with greater satisfaction with the quality of services rendered to their children and adolescents (Harvey, 2011; Wagner et. al, 2012).

I. Ethnic Disproportionality in School Discipline and Special Education Placements

Disproportionality in Special Education (especially with regard to certain eligibility categories) and school discipline continues to be one of the most complex and persistent issues in the field. This issue has been deeply researched over the past 30 years (Chinn & Hughes, 1987; Finn, 1982; Gage, Gestern, & Sugai, 2013; Harry & Anderson, 1994; Jasper & Bouck, 2013; National Research Council, 2002; Parrish, 2002). National data from the

National Research Council (2002) indicate that compared to European American students, African American students are overrepresented in the categories of mental retardation (MR), emotional disturbance (ED), and multiple disabilities; that American Indian/Alaskan Native students are overrepresented in the category of learning disabilities (LD); and that Asian/Pacific Islander and African American students have slightly higher rates of identification in autism spectrum disorders. Parrish (2002) reported that African American students are the most overrepresented group in special education programs in nearly every state, and that disproportionate representation is most pronounced in MR and ED. African American students are 2.88 times more likely than European American students to be labeled as MR, and 1.92 times more likely to be identified as ED.

Continuations of that line of research reveal that the more things change, the more they stay the same. While legislations, such as those that emerged from Brown vs. Board of Education, No Child Left Behind, and even the law that began as a result of the Larry P. vs. Riles case, have sought to close the achievement gap and reduce racial disparities, disproportionality in discipline and Special Education is still a major problem. Skiba, Poloni-Staudinger, Gallini, Simmons, & Feggins-Aziz (2006) explored the extent to which African American students are proportionately placed in more and less restrictive settings within five disability categories. They found significant disproportionality in the two educational environments in four of the five disability categories tested. African American children were more likely than their peers with the same disability to be placed in more restrictive settings and less likely than their peers with the same disability to be served in the least restrictive environment.

In terms of school discipline, the theme persists. Skiba et. al (2006) also conducted a national examination of African American and Latino disproportionality in discipline practices. Their analyses indicated that students from African American families are 2.19 (elementary) to 3.78 (middle) times as likely to be referred to the office for problem behavior as their White peers. In addition, their findings revealed that students from African American and Latino families are more likely than their White peers to receive expulsion or out of school suspension as consequences for the same or similar problem behavior.

The discussion of disproportionality is salient to programming for students with EBD. In considering that these children and their families have likely been treated poorly in their history with the school system, it is incumbent upon educational professionals to stem this trend and explore solutions toward repairing these relationships. One such way is to develop Emotional Disturbance programs that aim to provide students with the social-emotional skill set necessary to transition to the Least Restrictive Environment. By moving away from the educational "warehousing" of prior years toward providing students with effective instructional supports in academics, social skills, social emotional learning, and behavior, true equality is a realistic long-term goal. Additionally, it is important for all school staff (particularly mental health professionals working with families of students with EBD) to be understanding of and willing to work with cultural differences. In doing so, the effectiveness of treatments can be potentially augmented with parental buy-in and follow-through.

J. Outcomes for Students with EBD: The School to Prison Pipeline

Research indicates that the combination of students with Emotional Disturbance and the old forms of service delivery places associates students with EBD with a host of poor outcomes. These poor outcomes include, but are not limited to poor academic achievement,

school dropout, grade retention, suspensions/expulsions from school, referral to mental health agencies, involvement with the juvenile justice system, substance abuse, and adult unemployment (Elliot, Hamburg, & Williams, 1998; Hinshaw, 1992; Loeber & Farington, 1998; Parker & Asher, 1987; Wagner & Newman, 2012).

1. The School to Prison Pipeline

According to Morris (2012), the *school-to-prison pipeline* "refers to the collection of policies, practices, conditions, and prevailing consciousness that facilitate both criminalization within educational environments and the processes by which this criminalization results in the incarceration of youth and young adults" (p. 2). However, the work of Wald and Losen (2003) points to a second aspect of the pipeline that speaks to shifts in public attitudes and policies surrounding juvenile misconduct. Since 1992, 45 states have passed laws making it easier to try juveniles as adults, 31 have stiffened sanctions against youths for a variety of offenses, and 47 have loosened confidentiality provisions for juveniles (Osher, Morrison, & Bailey, 2003). Furthermore, between 1990 and 2000, there was a 16.8% increase in the number of non-violent cases involving juveniles that were formally prosecuted nationally. Between 1989 and 1998, the number of juveniles detained at some point between the referral and case disposition increased by 25% (Stahl, Finnegan, & Kang, 2003).

The datasets provided by the Special Education Elementary Longitudinal Study (SEELS, 2003) and the National Longitudinal Transition Study of Special Education Students (NLTS, 2005) demonstrate strong evidence that students with EBD are at a significantly greater risk of failing in school and being involved in the justice system. As Cook and Browning Wright (2009) explain:

> "These students have an average GPA of 1.4 and miss roughly 18 days of school per year, which is more than any other group of students. Only 42 percent graduate from high school (58 percent drop out). Twenty percent are arrested at least once before leaving school, and 50 percent are arrested within one year of school ending. The incarceration rate for those that drop out is even higher, with 73 percent of dropouts being arrested within two years. With regard to employment, 68 percent are unable to get or hold down jobs up to five years after school ending. (p. 8)"

Considering the data regarding the delivery of services, teacher and classroom quality, and student outcomes, one could make the supposition that past methods of serving students with Emotional Disturbance are poorly informed, ineffective, and even potentially detrimental to their overall wellbeing. As emphasized by Cook and Browning Wright (2009), "schools must assume the responsibility of providing better services to students with EBD. If not, other systems will be left responding to the school system's failure: gangs, mental health departments, judicial system, welfare program, or prison system" (p. 8).

K. Issues with Full Inclusion of Students with EBD

According to Kauffman (2005), two longstanding issues regarding the education of students with Emotional Disturbance that consistently top the list are: (1) who should be served and (2) where they should be served. In the history of special education, the 1980s and 1990s were characterized by a movement for the restructuring of schools to accommodate all learners and advocacy for radical changes to the curriculum, claiming that past curricula were perpetuating exclusion (Ainscow, 1991, 1994; Rogers, 1993; Wang, Reynolds, & Walberg, 1990). Inclusive schooling acknowledges that special learning needs can arise from social, psychological, economic, linguistic, cultural, as well as physical (or disability) dynamics; hence, the use of the term "children with special needs" rather than

"children with disabilities" (Ainscow, 1991; Florian, 2013; Kauffman & Badar, 2014; Rogers, 1993).

While there is research to support the notion that there are benefits to full inclusion, including the opportunity for special education students to hone prosocial skills and observe developmentally "normal behavior" (Idol, 2006), "the idea is inconsistent with the legal definition of *least restrictive environment*, nor is it realistic for these students" (Cook and Browning Wright, 2009, p.8). Fully including students with emotional disturbance without considering their unique needs is in violation of the federal statute that mandates a range of alternative educational placements to meet those unique needs. Furthermore, as highlighted by Kauffman, Lloyd, Baker, and Riedel (2005), observational studies indicate that most regular education classrooms are not currently engaged in practices known to be efficacious with these students. To further the point addressing all of the unique needs of students with EBD in a full inclusion setting in overly ambitious, these students often require additional resources, including, but not limited to reduced staff-to-student ratios to increase monitoring, shaping and positive reinforcement, ongoing progress monitoring and feedback, training in social skills, psychotherapeutic services, continuous school-home communication, and specialized academic instruction (Walker & Fecser, 2002).

Even while acknowledging the limitations of the current offerings of restrictive settings, syntheses of large-scale research studies reveal that self-contained classrooms yield better academic behavioral outcomes for students with ED than those educated in general education (Carlberg & Kavale, 1980; Causton-Theoharis, Theoharis, Orsati, & Cosier, 2011; Cheney, 2012; Stage & Quiroz, 1997). Moreover, Kauffman, Lloyd, Hallahan, and Astuto (1995) have strongly asserted that alternative placements for all students with EBD are in

their long-term best interests. The group also aggregated a list of reasons supporting why these placements should be preferred, and this include the following:

- Provide greater opportunities to focus education or training in the areas of academics, life skills, emotional regulation, and conduct.
- Protect others from students' unregulated and intolerable behaviors.
- Protect students from themselves.
- Allow for the educating or training of families, teachers, and peers to provide an environment that is conducive to social-emotional growth.
- Provide access to therapies – psychotherapy, pharmacotherapy, and behavioral therapy.
- Provide greater opportunity for detailed observation and comprehensive assessment of children's behavior and its context.

These reasons notwithstanding, it must be recognized that restrictive settings (e.g., separate schools, community day programs, self-contained classrooms, and alternative placements) are highly stigmatized in the eyes of today's society among parents, children, and even amongst educators (Johnson, Byers, Byrnes, Davis-Groves, & McDonald, 2013). Furthermore, they are also prone to being labeled as "educational warehouses" or "black holes" from which the students will never transition. However, by adhering to the idea of a continuum of services based on the present level of need, these programs can employ and train skilled staff to address the unique needs of students with EBD, with the overall mission of re-integrating them back into the general education environment (provided they have shown the necessary improvements in academic, social, and behavioral functioning).

L. Tenets of Effective Programming for Students with EBD

To fully address the wide-range of emotional and behavioral difficulties in youth with EBD, it is essential to employ a multidisciplinary approach. Model programs involve a variety of professionals, including (a) special education teachers, (b) psychologists, (c) psychiatrists, (d) social workers, (e) psychiatric childcare counselors, (f) nurses, and (g) recreational therapists (Simpson, Peterson, & Smith, 2011). They are also based on multiple theoretical models. A multidisciplinary approach allows professionals working with EBD youth to construct solutions from a multitude of differing angles. In some cases, behaviors may be clearly captured from one theoretical orientation, while others may be best explained by employing multiple perspectives simultaneously (e.g., behavioral, psychodynamic, medical, ecological).

1. Proactive Interventions

Studies of programs for students with EBD indicate that these programs frequently emphasize control and exclusion rather than effective prevention and intervention (Knitzer, Steinberg, & Fleisch, 1990). Mitchell and Bradshaw (2013) assert that professionals can identify and implement classroom management strategies that make behavioral difficulties less likely to occur. Further research in this area suggests that those who work with students with EBD should strive to create therapeutic learning environments that help students understand and overcome, rather than reproduce, the conditions that have been key factors in impacting their emotional and behavioral problems (Cancio & Johnson, 2013; Jones, Dohrn, & Dunn, 2004; Xie, Sen, & Foster, 2014).

The conditions that promote positive behavior in the classroom are becoming increasingly clear (Farmer, Reinke, & Brooks, 2014; Nolan, Houlihan, Wanzek, & Jenson,

2013; Pas, Cash, O'Brennan, Debnam, & Bradshaw, 2015; Sugai & Simonsen, 2012). Conditions that promote positive behavior in the classroom include (a) clear behavior expectations, (b) the teaching of expected behaviors, (c) consistent and sound responses to rule violations, and (d) individualized programming for more chronic behavioral difficulties. Moreover, Katz (2013) asserts that to build a positive classroom climate, the classroom must have an engaging curriculum, curriculum modifications for students with academic difficulties, and a community of support. The community of support will be developed when (a) learning and behavioral expectations are clear; (b) rule violations are addressed immediately and effectively; (c) learning is personalized and demystified; (d) quality teacher-student and peer relationships are encouraged; (e) smaller, more personalized learning settings are established; and (f) individualized behavioral programs are instituted for students with more enduring behavioral difficulties.

2. Positive Behavior Support

Tragic occurrences of school violence have heightened the general public's awareness of school safety and discipline (Skiba & Peterson, 2000). This has prompted practitioners and scholars alike to identify effective interventions to promote a positive school climate, free from school violence and problematic behavior. A frequently cited and currently popular model that has emerged from major government and educational research programs is positive behavior support (Freeman, Eber, Anderson, Irvin, Horner, Bounds, & Dunlap, 2006; McIntosh, Predy, Upreti, Hume, Turri, & Matthews, 2014; Sugai & Horner, 2002; Sugai & Simonsen, 2012). Positive behavior support (PBS) is an encompassing term that refers to the application of a system of positive behavioral interventions to teach and promote important behavior change (Sugai, Sprague, Horner, & Walker, 2000). Positive behavior

support resulted from theories of behavioral science and primarily applied behavioral analysis. It has also evolved from an individualized focus to systems-level implementation, especially for the school as a whole (Anderson & Kincaid, 2005; Horner & Sugai, 2015). Positive behavior support emphasizes the use of preventive and positive strategies for addressing problem behavior instead of traditional aversive measures, such as reprimand and exclusion.

Walker, Horner, Sugai, Bullis, Sprague, Bricker and Kaufman (1996) and Bradshaw (2013) describe the implementation of PBS along a continuum of three levels of prevention. Primary prevention involves school-wide interventions aimed at decreasing the number of new cases of problem behaviors. These interventions include the use of effective school-wide disciplinary practices, classroom-wide behavior management strategies, and effective instructional practices. Secondary prevention involves the use of targeted interventions for at-risk students who are not responding to school-wide strategies. Interventions at this level include more focused individual or small group interventions, such as emotional regulation or problem solving skills training. Tertiary prevention involves interventions with students demonstrating early warning signs of chronic behavioral difficulties. Intervention at this level necessitates the development of specially designed instruction and personalized positive behavioral intervention plans. Among these interventions are functional behavior assessments, behavior intervention plans, and Individualized Education Plans (IEPs).

Extensive data verify that PBS interventions reduce the number of school-wide behavior problems. For example, a middle school in Oregon experienced a 42% drop in office referrals in one year after implementing PBS (Taylor-Greene et al., 1997). Moreover,

meta-analyses and syntheses of the extant research also reveal the high efficacy of PBS in schools (Horner, Carr, Strain, Todd, & Reed, 2002; Marquis et. al, 2000).

Despite the many promising features of PBS, the research is unclear as to its efficacy across diverse student populations (OSEP Center on Positive Behavior Supports, 2004). Furthermore, the research on whether PBS is helpful to students with limited backgrounds or those with limited English speaking ability is relatively new (Bal, Kozleski, Schrader, Rodriguez, & Pelton, 2014; OSEP Center on Positive Behavior Supports, 2004; Vincent, Randall, Cartledge, Tobin, & Swain-Bradway, 2011). In addition, Lane, Wehby, Robertson, and Rogers (2007) described that high school students exist in multiple categories (i.e. exhibiting internalizing or externalizing behaviors, comorbid conditions, and typical or non-typical behavior patterns). In turn, their responses to PBS interventions can vary significantly. Moreover, Fusco (2008) reported that factors, such as a school being located in a low-income area, result in inequality in supporting student's education, particularly in the areas of teaching quality, resources, and learning opportunities. Thus, it can be said that schools in impoverished neighborhoods may have greater difficulty in implementing positive behavior supports due to these obstacles.

3. Proactive Classroom Management

Pace, Boykins, and Davis (2014) describe a model of classroom behavior management that highlights the importance of positive teacher-student and peer relationships in managing student behavior. This model consists of many of the components of positive behavior support: (a) establishing general behavior standards, (b) development of clear classroom procedures and rules, (c) systematic responses to rule violations, and (d) the designing of individual behavior change plans for students with severe behavioral

difficulties. However, a key aspect of the model is its focus on (a) instructional excellence, (b) active student involvement in creating and learning classroom/school behavioral norms, (c) problem-solving skills, (d) working with parents, and (e) the establishment of a supportive and caring community.

Researchers in the field have clearly underscored the criticality of student relationships and caring school communities (Farmer, Farmer, & Gut, 1999; Gregory, Clawson, Davis, & Gerewitz, 2014; Larson, 2014). Exemplar of this concept is the work on developmental assets that indicates that children and adolescents who feel more of a connection to their schools and families are far less likely to engage in behaviors that are dangerous to their physical and mental health (Scales & Leffert, 1999). Scales and Leffert (1999) state, "The research consistently shows, for example, that schools that nurture positive relationships among students, and among students and teachers, are more likely to realize the payoff of more engaged students achieving at higher levels" (p.142).

Gable, Tonelson, Sheth, Wilson, and Park (2012) state that any comprehensive program addressing the needs of students with emotional/behavioral disorders must effectively implement both the methodologies described by school-wide positive behavior support (Sugai & Horner, 2002) and the establishment of a positive school-wide climate through proactive classroom behavior management. Based on data collected in a variety of schools, Jones and Jones' (2004) findings indicated that systematic implementation of comprehensive classroom management has resulted in a reduction of between 35 and 49% of office referrals, suspensions, expulsions, and disruptive behavior in common areas. Moreover, a comprehensive review of the literature conducted by Oliver, Wehby, and Reschly (2011) indicated that students in classrooms utilizing these practices showed less

disruptive, inappropriate, and aggressive behaviors than those in classrooms utilizing typical classroom practices.

4. Re-Education

Re-Education is an acronym that stands for "The Re-Education of Emotionally Disturbed Children and Youth." It is an intervention model for serving children with Emotional Disturbance and their families. The model is grounded in educational, psychological, and ecological principles (Fescer, 2003) and was first created and dubbed "Project Re-ED" by Dr. Nicholas Hobbs (1994). Re-Education's guiding purpose was to help troubled (those affected by emotional or behavioral disorders) and troubling (those engaged in illicit behavior) children and youth successfully learn and grow through a positive behavioral approach, blending quality education and mental health services in partnership with families, schools, and communities. Furthermore, the model builds on positive concepts of normalcy and health rather than on deviance and illness (Hobbs, 1994).

The philosophy of Re-Ed involves four core concepts and 12 basic principles. The first of the four concepts is the "Teacher/Counselor" concept. According to Hobbs (1994), "A teacher/counselor is a decent adult, educated, well-trained, able to give and receive affection; to live relaxed but be firm, a person with private resources for the nourishment and refreshment of his/her own life; not an itinerant worker but a professional through and through; a person with a sense of significance of time of the usefulness of today and the promise of tomorrow; a person of hope, quiet confidence, and joy, one who has committed him/herself to children and to the proposition that children who are emotionally disturbed can be helped by the process of Re-Education" (p. 86).

The second concept is entitled "Just Manageable Difficulty." In Hobbs's view, "Life is highly problematic, and what one becomes will rest in no small measure on the kinds of problem situations you get yourself into and have to work your way out of...The art of choosing difficulties is to select those that are indeed JUST manageable. If the difficulties chosen are too easy, life is boring; if they are too hard, life is defeating...When one achieves this fine tuning of his/her life, she/he will know zest and joy and deep/fulfillment" (Hobbs, 1974, pp. 164-165).

Hobbs labels the third core concept as the "Ecological Approach." This was what gave rise to what is now referred to as wraparound treatment planning. Proponents of Re-Ed believe that the interplay and interaction of the people important in the life of a child have more impact than any other variables (Farmer, Farmer, & Brooks, 2010). Thus, Re-Ed involves a "systems approach" style of thinking on both a global and an individual level.

"Joy" is the fourth core concept articulated by Hobbs. He states, "Some of the most satisfying moments are generated by successful achievements in school. To do well in spelling or arithmetic, especially for students who expect and dread failure, is to know a sharp delight" (Hobbs, 1994, p. 14).

In addition to these four core concepts, Hobbs described 12 principles of Re-Education. They are as follows: (a) Life is to be lived now, not in the past, and lived in the future only as a present challenge; (b) Trust between child and adult is essential, the beginning point for Re-Education; (c) Competence makes a difference. Children and adolescents should be helped to become good at something, especially at schoolwork; (d) Time is an ally, working on the side of growth in a period of development when life has a tremendous forward thrust; (e) Self-control can be taught, and children and adolescents can

be helped to manage their behavior without the development of psychodynamic insight. Symptoms can and should be controlled by direct address, not necessarily by an uncovering therapy; (f) The cognitive competence of children and adolescents can be considerably enhanced. They can be taught generic skills in the management of their lives, as well as strategies for coping with the complex array of demands placed on them by family, school, community, or job. In other words, intelligence can be taught; (g) Feelings should be nurtured, shared spontaneously, controlled when necessary, expressed when too long repressed, and explored with trusted others; (h) The group is very important to young people. It can become a major source of instruction in growing up; (i) Ceremony and ritual give order, stability, and confidence to troubled children and adolescents whose lives are often in considerable disarray; (j) The body is the armature of the self, the physical self around which the psychological self is constructed; (k) Communities are important for children and youth, but the uses and benefits of community must be experienced to be learned; (l) In growing up, a child should know some joy in each day and look forward to some joyous event for tomorrow.

Walker and Fecser's work (2003) outlined the four key elements of an effective Re-Education program for the 21st century. Element #1 is the *program foundation and philosophy*. The foundation of any program lies in its orienting philosophy. Any successful program must have a clearly articulated values system, mission statement, vision, and set of program objectives.

Element number #2 is *program structure*. Children with EBD require a structured and predictable environment. All children do best when expectations are clear and consistent, and changes in routine are kept to a minimum. A positive building structure occurs when

adults do the following: (a) consistently enforce rules, (b) develop a clear system of both positive and negative consequences, (c) use effective limit setting, and (d) use a much higher rate of positive reinforcement than negative consequences in their interactions with students.

Element #3 is *program climate and group process*. The elements of the program must come together in a way that create a healthy feeling tone or climate in the program. A healthy program climate provides its members with a sense of identity, cohesion, and belonging, which encourages more appropriate behavior and facilitates success. In a program where the overall climate is not well developed, there will be a higher level of disruption, less cooperation, and a requirement of more external controls.

Element #4 entails *individualized programming*. The first three elements of Walker and Fescer's depiction of Re-Education address the ecological setting within which the child is treated. However, the core of every program lies in meeting the individualized needs of each child (Walker & Fecser, 2003). The first step in individualizing a program involves a comprehensive assessment of strengths and needs. This includes ascertaining a student's unique learning style, along with social/emotional and developmental needs. Element #4 also incorporates the use of functional behavioral assessments and the use of individualized positive behavior support plans.

The first published study of Project Re-Ed compared outcomes for adolescent males in Project Re-Ed with untreated disturbed adolescents and with non-disturbed adolescents. Weinstein (1969) noted that treated adolescents improved in self-esteem, impulse control, and internal control compared to those who were untreated. A follow-up study in 1988 indicated that outcomes were often predicted by community influences upon admission, which suggests that community intervention may be as effective as placement in the

treatment setting (Lewis, 1988). In spite of a relative lack of efficacy research, Re-ED has continued to grow in popularity and has become recognized as an effective and useful means of providing help to EBD children and adolescents (Walker & Fecser, 2003). Referring to the current trend toward the increased use of psychotropic drugs to curtail negative behaviors, Foltz (2012) noted that existing "treatment guidelines are virtually devoid of discussions and skill development" (p. 31). In his article, Foltz also emphasizes the importance of interpersonal connections, personal choice, and supportive communities in treating distressed youth. Surrounding a child with these elements is deemed to be more conducive to long-term social/emotional growth than neuropsychiatric treatment in isolation.

5. Wraparound

A product of the fields of mental health and child welfare, wraparound is a team-based, collaborative process for developing and implementing individualized care plans for youth at-risk for emotional and behavioral disorders. The core principles of wraparound (Bruns & Walker, 2008), explain that "wraparound is not a single service, but a process through which specific school and/or community-based interventions can be designed, implemented, and coordinated. The logic is that by bringing together a team made up of family members, natural supports (e.g., extended family, friends, mentors), and school and community professionals, the wraparound process will produce a plan that (a) is accepted by the family, (b) addresses the family's priorities, and (c) leads to realistic and practical strategies to support the student in his or her home, school, and community" (Eber, Hyde, & Suter, 2011; p. 783).

The latest meta-analysis of published, peer-reviewed, controlled research on the wraparound process was conducted by Suter and Bruns (2009). Their study demonstrated

positive effects for the youth receiving wraparound compared to the youth receiving traditional services from mental health, child welfare, and juvenile justice service settings. The strongest effects were found for positive changes in the youth's living situation (e.g., successfully living at home rather than at residential or hospital placements). Smaller positive effects were found for emotional and behavioral outcomes, reduced juvenile recidivism rates, and improved functioning at school (e.g., improved grades and attendance).

M. Overview of the TIERS Model for Students with EBD

In 2009, Clayton R. Cook and Diana Browning Wright synthesized the research base of effective EBD programming from multiple settings (e.g., residential treatment facilities, public and nonpublic schools), and created what is known as the Tiers of Intensive Educationally Responsive Services (TIERS) model for Students with Emotional/Behavioral Disorders. The following sections are an overview of the Response to Intervention framework used to unify TIERS and the model's key concepts and features.

1. RTI for Behavior

In defining Response to Intervention, Batsche et. al (2005) state,

> "Response to intervention is the practice of providing high-quality instruction and intervention matched to student need, monitoring progress frequently to make decisions about changes in instruction or goals and applying student response data to important education decisions. This approach is not about placing the problems within the student, but rather examining the student's response to instruction and/or intervention. In essence, RTI expands the practice of looking at students' risk of learning and behavioral failure beyond the student and takes into consideration a host of factors."

Cook and Browning Wright (2009) emphasize that RTI for behavior is the decision-making framework that drives the delivery of evidence-based emotional and behavioral interventions matched to students' unique needs. The progression of service delivery can go

beyond the general education setting and into more restrictive placements, such as resource programs, self-contained classrooms, and residential treatment (the most restrictive placement). The degree of need is determined by the student's lack of response to evidence-based interventions implemented with fidelity (per the program developer's established guidelines). Another key aspect of the RTI framework is continuous progress monitoring and its use toward making decisions about whether or not the student is responding to specialized supports (Sprague, Cook, Browning Wright, & Sadler, 2008).

2. Key Concepts and Features

What separates the TIERS model from the majority of other EBD programs in the extant literature is the fact that it is specifically tailored to address settings supervised by school districts (e.g., self-contained classroom on general education campus, alternative day school, or nonpublic school). The TIERS model draws from the eight key concepts from the RTI literature, as well as the research describing risk and protective factors of students with emotional and/or behavioral disorders. The concepts that are specifically related to RTI are:

- Multiple levels of emotional and behavioral support
- Selecting evidence-based practices
- Continuous progress monitoring
- Monitoring of intervention fidelity or integrity
- Data-based decision-making
- Problem-solving process

The remaining two key concepts were derived from the EBD risk and protective factor research. They are:

- School-home collaboration
- Wraparound service coordination

3. TIERS Model and Intensification of Services

It is important to note that the supports required by the TIERS model are at a level that is beyond the capability of a general education classroom. The TIERS model provides services according to the following five criteria:

1.) Format

The TIERS model calls for reduced class sizes of six to 12 students. The model also provides a range of services that are individualized for students. The fact that the model adopts both small group and individualized service delivery formats is the primary reason why it cannot be achieved in a general education classroom.

2.) Adult Input from Multiple Settings

The TIERS model raises the amount of adult input to increase the intensity of services delivered to students in the classrooms. Adult input, service delivery, and decision-making may include teachers, administrators, parents, behavior specialists, school psychologists, school counselors, and social workers. The involvement of additional adults to collaborate and coordinate services around the student provides the student with interventions across settings that include increased monitoring and feedback from multiple sources.

3.) Dose

Dose is defined by Cook and Browning Wright (2009) as the amount of time students in a TIERS classroom receive services. A student in a TIERS classroom receives continuous

support and teaching interactions that pinpoint prosocial skill development. Again, these are at a level that simply cannot be sustained in a general education classroom.

4.) Intervention Components

Intervention components in the TIERS model are combined to intensify services rather than to implement isolated interventions to address specific and narrow aspects of the students' functioning. By doing this, the program is able to provide comprehensive services that address all aspects of student functioning.

5.) Staff to Student Ratio

The TIERS model necessitates a reduced staff-to-student ratio (1:5). The rationale for the reduction of the ratio is simply to be able to provide more attention to each student. This allows for increased teaching interactions, greater consistency in the monitoring of behavior, and the provision of frequent prompting of the student to use replacement behaviors or coping strategies. In addition, and perhaps most importantly, the reduced ratio allows for the increased use of positive verbal reinforcement.

The TIERS model, as implemented in a classroom with students with EBD, is comprised of three Levels of Support: Intensified Level 1 Supports for ALL, Intensified Level 2 Supports for SOME, and Intensified Level 3 Supports for a FEW. The levels of support adopt the three-tier pyramid structure that has been widely used in the RTI literature. The following paragraphs describe each of the three levels of TIERS:

Intensified Level 1 supports are intended for all students in the restrictive setting. Supports at this level are designed with the intent of explicitly teaching students the skills necessary to re-integrate back into the general education setting *or* to provide the structure

that is essential for students with EBD to make appropriate educational progress in the restrictive classroom. The specific supports that comprise Intensified Level 1 are:

- Proactive classroom management/PROMPT hierarchy (See Appendix)
- Good Behavior Game
- Token economy and motivation system (See Appendix).
- Social skills training and social emotional learning
- Weekly school-home communication
- Self-governance meetings

Intensified Level 2 is intended for those students whose needs are not being met at Level 1. These supports are a package of five complementary strategies to those of *Intensified Level 1* that aggregates information from multiple adults in the child or adolescent's life. The intervention package includes the following:

- Behavioral contracting and goal setting
- Mentor-based programming
- Self-monitoring protocol
- Daily systematic school-home note system
- Small group social skills training

Intensified Level 3 is designed to meet the needs of students who have not responded to intervention at the previous two levels. Intensified Level 3 consists of weekly cognitive behavior therapy (CBT) that is individualized to the specific mental health distress of the student (e.g., anger, anxiety, depression, trauma, and so forth), as well as on the development of a behavior support plan that has been informed by a functional behavior assessment, and the coordination of wraparound services (i.e., in-home/family therapy). If students do not

respond to this maximal level of specialized supports (as provided by a public school) and are not demonstrating sufficient educational progress, then they are considered for a more restrictive placement (e.g., nonpublic school, alternative school, residential treatment center).

4. Critical Components of TIERS

Cook and Browning Wright (2009) posited that there are 18 critical components of an effective TIERS program. These ingredients consist of the following:

1) Vision: Vision was described by Manasse (1986) as "the force which molds meaning for the people of an organization" (p. 150). As applied to the schools, Chrispeels (1990) stated that "if a school staff has a shared vision, there is a commitment to change." Thus, a shared vision is critical to the adoption and implementation of a revamped program for students with EBD.
2) Beliefs: Teacher beliefs about their students have been known to have significant effects on their achievement and school experiences (Ross & Gray, 2006; Stanovich & Jordan, 1998; van Uden, Ritzen, & Pieters, 2014). The same holds especially true for students with special needs, such as emotional disturbance. In studies that examined teacher attitudes toward the inclusion of special education students (an overarching goal of the TIERS program with respect to students with EBD), general educators have been mostly found to be unsympathetic to disabling conditions (Avramidis, Bayliss, & Burden, 2000; de Boer, Pijl, & Minnaert, 2011; Horne & Ricciardo, 1988; Secer, 2010). They have also been found to be seemingly reluctant to accommodate students with special needs (Avramidis & Norwich, 2002; Barton, 1992; MacFarlane & Woolfson, 2013; Sharma, Forlin, & Loreman, 2008). These are potential obstacles that must be overcome for a TIERS classroom to be effective.

3) Goals: The TIERS program emphasizes the pursuit of mastery goals. "Mastery goals represent a desire to develop competence, improve skills, and understand concepts" (Urdan, 2004, p. 251). The majority of research about the goal theory has yielded positive outcomes associated with pursuing mastery goals, such as intrinsic motivation, the use of deep-cognitive and self-regulatory strategies, persistence in the face of failure, positive feelings about school and school work, and self-efficacy (Burnette, O'Boyle, VanEpps, Pollack, & Finkel, 2013; Duckworth & Gross, 2014; Dweck & Leggett, 1988). The message of pursuing mastery goals is delivered to students as a part of the social-emotional learning curriculum to which students are exposed in a TIERS classroom.
4) Progress monitoring: Monthly monitoring is a critical element of TIERS. As the program aims to help students eventually transition into LRE, data collection is necessary to promote movement out of intensive intervention and into less intensive supplemental assistance (Stecker, Fuchs, & Fuchs, 2008). Kuo (2014) highlights several benefits to progress monitoring, including accelerated learning because students are receiving more appropriate instruction, more informed instructional decisions, documentation of student progress for accountability purposes, more efficient communication of student progress to families and other professionals involved in the student's life, and higher expectations for students by teachers.
5) Teaming: Collaborative teaming can be described as two or more people working toward a common goal. With respect to the TIERS model, collaborative teaming facilitates the inclusion of students with disabilities in general and special education environments in particular (Anderson, 2013; Barnett & O'shaugnessy, 2015; Snell & Janney, 2000). Moreover, teaming fulfills many functions in inclusive programs, including a) assisting in

reducing barriers to participation in school activities, b) facilitating social interactions between students, c) building peer support, d) soliciting parental input and feedback, e) embedding related services into the school day, and f) designing plans to ease student transitions between environments (i.e., special day class to general education class) (Snell & Janney, 2000).

6) Fidelity checks: Spillane, Byrne, Leathem, O'Malley, and Cupples (2007) suggested that without a means of assessing fidelity, it is difficult for researchers to determine if poor outcomes are a result of the intervention itself or if they are a result of the intervention being implemented correctly. Moreover, without checking fidelity "it would also be unclear whether any positive outcomes associated with an intervention might be further improved, if it were determined that it had not been implemented fully" (Carroll, Patterson, Wood, Booth, Rick, & Balain, 2007).
7) Program-wide PBIS: A detailed description of PBIS and its limitations has been provided earlier in this manuscript.
8) Points and level system: Points and level systems are a commonly recommended behavior management approach that is used for students exhibiting difficult behaviors. As described by Heward (2003), they are designed to be an organizational framework for managing student behavior where "students access greater independences and more privileges as they demonstrate increased behavioral control" (p. 306). Students learn appropriate behavior through clearly defined behavioral expectations and rewards, privileges, and consequences linked to those expectations. There are specific criteria for advancement to the next level where the student(s) enjoy more desirable contingencies. It is intended that students who proceed through the levels are more able to self-manage, capable of handling more

responsibility, and therefore, enjoy greater independence. There are four main objectives of point and level systems: 1) increasing prosocial behavior; 2) promoting academic achievement; 3) fostering a student's improvement through self-management; and 4) developing personal accountability for social emotional and academic performance (Farrell, Smith & Brownell, 1998; Fitzpatrick & Knowlton, 2009; Santmire, 2009). According to Cancio and Johnson (2007), the primary advantage of level systems is that they delineate a hierarchy of skills that are needed to be successful in the educational setting. Moreover, teachers generally have found point and level systems to be effective in increasing appropriate behavior and academic achievement. In terms of disadvantages, Mohr, Martin, Olson, and Pumariega (2009) argue that point and level systems are "actually counterproductive with some children, and at times can precipitate dangerous clinical situations, such as seclusion and restraint" (p. 8). Furthermore, Mohr and colleagues (2009) contend that "continuing such programming is antithetical to individualized culturally and developmentally appropriate treatment" (p.8).

9) Proactive classroom management: A description of the research and tenets of proactive classroom management is provided earlier in this manuscript.
10) Good behavior game (GBG): The GBG was developed as a classroom management tool that would prevent teachers from having to respond on an individual basis to problem behaviors. First implemented by University of Kansas researchers Harriet Barrish, Muriel Saunders, and Montrose Wolf, the GBG improves upon a teacher's consistency and efficiency in instructing elementary school students in appropriate classroom behavior. To establish the game, the teacher displays a large poster of the class rules listing proper behaviors, such as sitting still, raising one's hand to speak, and staying on task. After the students have had enough time to

familiarize themselves with one another (typically a period of two weeks), the teacher divides the students into teams that are balanced in terms of gender, aggressive/disruptive behavior, and shy/isolated behavior. Teams earn points during a designated interval for exhibiting appropriate behaviors, but do not earn points when the team has had more than a set number of rule infractions. Rewards for points begin with tangibles (e.g., pencils, stickers) and later become more abstract and deferred (e.g., free time) (Kellam, Mackenzie, Brown, Poduska, Wang, Petras, & Wilcox, 2011). Research into the efficacy of the GBG yielded favorable results. The original study conducted in 1969 noted significant reductions in "talking out of turn" and "out of seat" behavior during the times the GBG was played (Barrish, Saunders, & Wolf, 1969). In a series of replications of the original GBG study, Kellam and colleagues (2011) noted similar results with respect to aggressive and disruptive behaviors in primary school classrooms (1st–6th grade). Furthermore, several positive long-term outcomes were reported, such as reductions in drug abuse and dependence disorders, antisocial personality disorder, and incarceration for violence. However, the study also indicated that the GBG had a minimal impact among girls, a finding that they agreed warranted further study.

11) Social-emotional learning curriculum: Social-emotional learning curriculum is designed to teach students pivotal life skills including recognizing and managing one's emotions, appreciate the perspective of others, establish positive goals, make responsible decisions, and handle interpersonal conflict effectively (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011; Greenberg, Weissberg, O'Brien, Zins, Fredericks, Resnik, & Elias, 2003; Lemerise & Arsenio, 2000). The research indicates that exposure to SEL is associated with positive outcomes. A review of existing programs conducted by Catalano, Berglund, Ryan, Lonczak, and Hawkins (2002) yielded highly favorable results among 25 SEL programs that

were deemed effective. "These results included improvements in interpersonal skills, quality of peer and adult relationships, and academic achievement, as well as reductions in problem behaviors, such as school misbehavior and truancy, alcohol and drug use, high-risk sexual behavior, violence and aggression" (Greenberg, Weissberg, O'Brien, Zins, Fredericks, Resnik, & Elias, 2003). In a meta-analysis conducted by Durlak, Weissberg, Dymnicki, Taylor, and Schellinger (2011), compared to controls, participants in SEL "demonstrated significantly improved social and emotional skills, attitudes, behavior, and academic performance that reflected an 11-percentile-point gain in achievement" (p. 405). However, there have been instances of studies into SEL programs that did not yield similar outcomes. The Social and Character Development Research Consortium (2010) released a report that evaluated seven such programs by comparing a group of five to seven schools running each program with other schools in the district not utilizing the SEL curriculum. There were significant differences in social and emotional learning between the schools that received SEL training and those that did not. There were also no increases in academic achievement or decreases in problematic behavior. However, the study was criticized by several SEL researchers who suggested that the study was underpowered (too small a sample size). They also critiqued the inability of the IES researchers to determine if the non-SEL schools had informal exposure to SEL (Suttie, 2011).

12) Positive relationships: Several studies have highlighted the importance of the quality of children's relationships with their teachers and the implications for children's concurrent and future academic and behavioral adjustment (Hattie & Yates, 2013; Meehan, Hughes, & Cavell, 2003; Pianta, Hamre, & Allen, 2012). Moreover, several studies indicate a causal link between the strength of student-teacher relationships and academic engagement (Furrer

& Skinner, 2003; Roorda, Koomen, Split, & Oort, 2011; Wigfield, Eccles, Fredricks, Simpkins, Roeser, & Schiefele, 2015). Students who enjoy a close and supportive relationship with their teachers demonstrate engagement by working harder in the classroom, persevering in the face of challenges, accepting teacher direction and criticism, coping better with stress, and attending more to the teacher's instruction (Guo, Connor, Tompkins, & Morrison, 2011; Ridley, McWilliam, & Oates, 2000; Rimm-Kaufman, La Paro, Downer, & Pianta, 2005).

13) Supporting students' physiology to learn and behave well: The TIERS model emphasizes the teaching of basic life skills to promote healthy physiology. The role of physiology on learning and behavior has been well documented. One of the most crucial physiological functions for children (and humans at all ages) is sleep. Reale, Guarnera, and Mazzone (2014) identified a significant relationship between sleep fragmentation and school functioning. Sleep problems have also been associated with learning disorders (Owens et. al, 2013; Sadeh, Gruber, & Raviv, 2003). Moreover, and perhaps critical to school behavior, recent studies have indicated that executive control, located in the prefrontal cortex, is the system that is most sensitive to sleep deprivation, sleep disorders, or reduced alertness (Astil, Van der Heijden, Van IJzendoorn, & Van Someren, 2011; Dahl, 1996; Durmer & Dinges, 2005). A healthy physical makeup is also dependent on exercise. In a meta-analytic review conducted by Sibley and Etnier (2003), several studies indicated a significant association between exercise and improved cognition in children. Furthermore, a randomized control trial study of aerobic exercise on the executive functions of obese children conducted by Davis, Tomporowski, Boyle, Waller, Miller, Naglieri, and Gregoski (2007) revealed significantly higher planning scores on the Cognitive Assessment System

than those of the control group. In light of this and other findings, incorporating and stressing the benefits of exercise is a key component of the TIERS model.

Discussions about proper nutrition also take place within the TIERS classrooms. In 2003, 5200 students in Nova Scotia, Canada were surveyed as a part of the Children's Lifestyle and School-performance study. Students with decreased overall diet quality were significantly more likely to perform poorly on a provincial standardized literacy assessment (Florence, Asbridge, & Veugelers, 2008). Additionally, a study conducted by Northstone, Joinson, Emmett, Ness, and Paus (2010) indicated that a poor diet associated with high fat, sugar, and processed food content in early childhood may be associated with small reductions in IQ in later childhood, while a healthy diet, associated with high intakes of nutrient rich foods described at about the time of IQ assessment may be associated with small increases in IQ.

14) Progressive system of responding to problem behavior: According to West and Billingsley (2005), "the system of least prompts ('least to most' or 'increasing assistance prompting') is one fading method designed to achieve appropriate student responding when only the natural cue is present. This system contains presentation of a presumed prompt hierarchy that is ordered from least to most invasive" (p. 131). In the classroom context, this is a preferable means of eliciting desired student responses, such as "staying on task" or otherwise adhering to the school rules because it helps foster independence, as well as demonstrate respect for the child or adolescent's dignity in front of his or her peers. Within the TIERS model, the prompting hierarchy is described by the acronym PROMPT, which stands for Proximity control, redirection, ongoing monitoring to shape behavior, prompt, and teaching interaction. The first element of PROMPT, proximity control, is a classroom management technique

where the teacher makes a meaningful effort to be physically near problem areas or target students. In a study conducted by Conroy, Asmus, Ladwig, Sellers, and Valcante (2004), proximity was found to be the most effective in increasing classroom engagement as compared to reducing inappropriate behaviors. However, when proximity is used without a clear purpose, the effects can be detrimental. However, multiple research studies suggest that while close physical proximity of paraeducators reduced problem behaviors, it also significantly impeded the number of social interactions experienced by the children in the study (Causton-Theoharis, 2009; Causton-Theoharis & Malmgren 2005; Giangreco, Suter, & Doyle. 2010). Redirection is a behavioral modification technique used to halt undesirable behavior and direct the student to an appropriate replacement behavior. Although there is little research that clearly describe the impact of redirection on problem behaviors, Tulis (2013) stated that redirection prevents behavior from repeating or escalating, is an intervention strategy that teaches appropriate behavior, and minimizes misbehavior and maximizes learning time. However, the TIERS model also emphasizes the importance of interspersing positive statements with redirections in order to maintain a positive relationship with the student. In a case study conducted by Haydon and Hunter (2011), students demonstrated higher levels of on-task behavior, correct responses, and test score percentages when exposed to fewer redirections and more instances of positive praise. Ongoing monitoring to shape behavior asks that a teacher continue to observe a student who has been redirected in order to catch instances of appropriate behavior that can be readily reinforced (verbally or tangibly). This is corroborated by research emphasizing the impact of positive praise on behavior and the ideal reinforcement ratio. As described in their book “Meaningful Differences” (1995), Betty Hart, Ph.D. and Todd Risley, Ph.D. noted that parental "feedback

tone" of approximately five confirmations, praise, and approvals for every criticism or denigration resulted in the greatest improvements. "Feedback tone was ... strongly related to rate of vocabulary growth and general accomplishments estimated by I.Q. score...The more positive the affect during interaction the more motivated the child is to explore new topics, to try out tentative relationships, to listen and practice, to add words to those already accumulated, and to notice the facts and relationships that IQ testers ask about" (p. 155). Prompting involves a direct, explicit, and concise command to the student about what he or she should be doing instead of the problem behavior. Macduff's (1999) review of 268 applied analysis journal articles and book chapters revealed that verbal prompts are the most commonly reported supplementary cues. However, existing research indicates that excess reliance on prompting can result in prompt dependence, a condition in which a student only responds to prompts instead of responding to the cues that are expected to evoke the target behavior (Hume, Loftin, & Lantz, 2009; Martens & Sullivan, 2014). Finally, teaching interactions are a standardized method of addressing problem behavior that did not respond to lesser corrective tactics. As a result, the teacher or paraprofessional must teach the problem behavior in a structured and systematic way. A teaching interaction treats the presence of chronic problem behavior as an opportunity for the student to learn appropriate, desired behavior (See Appendix for further detail).

15) School/home communication system: In its position statement, the National Association of School Psychologists (NASP, 2012) cited numerous benefits to collaboration between school-family partnerships, including positive attitudes toward school and learning, higher achievement and test scores, improved behavior, increased homework completion, greater participation in academic activities, improved school attendance, and a reduced need for

more intensive services. These benefits have been documented across diverse student populations (Booth & Dunn, 2013; Christenson & Reschly, 2009; Henderson & Mapp, 2002). To achieve this, the TIERS model asks that teachers send home the student's point sheet that is maintained throughout the course of the school day with a section for the parents to include their feedback to be returned to the teacher the following morning. Cook and Browning Wright (2009) assert that "this allows parents the ability to deliver consequences to their child based on his/her performance at school on a more frequent basis, which increases the number of learning trials the student is exposed to at both school and home" (p. 78). Periodic phone contacts are also encouraged to signal a partnership with the family and for staff to express their appreciation for parental efforts.

16) Effective academic instruction: As cited by Cook and Browning Wright (2009), research has indicated that more often than not students with EBD have associated academic skill deficits in reading, math and/or written language (Wehby, Lane, & Falk, 2003). Cook and Browning Wright (2009) assert that "each enrolling student be assessed for the presence of those deficits, and that the school adopt appropriate curricula that has an empirically established likelihood that skill acquisition will develop with lessons implemented with fidelity" (p. 39). Moreover, there is research to support that when a student's academic performance improves, so does the student's behavior and vice versa (Cook, Collins, Dart, Vance, McIntosh, Grady, & DeCano, 2014). Additionally, the TIERS model does not recommend a high amount of independent seatwork, as this practice is associated with poor academic progress and high levels of off-task and noncompliant behavior (Hayling, Cook, Gresham, State, & Kern, 2008). The antithesis to this approach is explicit direct instruction, which should result in a high level of engagement from all students, and which follows a brisk pace, and possesses

repeated feedback (Coughlin, 2011; Edwards, Weinsten, Goetz, & Alexander, 2014). According to Kirscher, Sweller, and Clark (2006), "Direct instruction is defined as providing information that fully explains the concepts and procedures that students are required to learn, as well as learning strategy support that is compatible with human cognitive architecture" (p. 75). Kirschner and colleagues (2006) also presented evidence for the superiority of guided instruction over unguided or minimally guided instructional approaches, despite educators' apparent affinity for these practices. Mayer (2004) reviewed evidence from studies conducted from 1950 to the late 1980s comparing guided with unguided instruction. He suggested that in every decade, when popularized unguided approaches did not work, they were repackaged under a different name with the cycle repeating itself. Moreover, he asserted that in every decade, a guided approach to learning has been favored. Controlled experimental studies also support direct instructional methods (Dean Jr. & Kuhn, 2007; Flores & Gantz, 2009; Graham, McKeown, Kiuhara, & Harris, 2012). In terms of specific curricula, the TIERS model compiled a list of interventions for academic skill deficits, teaching strategies, and curricula that have been researched and identified as effective for use in the main academic content areas of reading, math, and writing (See Appendix).

17) Cognitive Behavioral Therapy (Individual and Group Settings): Cognitive Behavioral Therapy (CBT) is the preferred approach to psychotherapy by the TIERS model due to its strong empirical support. Cognitive Behavioral Therapy aims to "improve emotional and behavioral wellbeing by addressing dysfunctional thoughts (i.e., what one thinks), feelings (i.e., the emotions one experiences), and behaviors (i.e., how one acts) through a structured yet flexible process. There is a substantial research base indicating that CBT is the most

effective approach for addressing the spectrum of mental concerns, including depression, anxiety, post-traumatic stress, and conduct problems (Gladstone, 2013; Kazdin & Weiss, 2003; Little & Akin-Little, 2012; Macklem, 2011).

18) Self-Governance Meetings: Self-Governance Meetings are a component of TIERS derived from the Responsive Classroom approach. According to Rimm-Kaufman (2006), the Responsive Classroom is an educational intervention that uses developmentally appropriate teaching practices along with assorted techniques to integrate social and emotional learning in the classroom. One of these techniques is what is known as the "Morning Meeting." The Morning Meeting is a gathering of students and classroom staff each morning for 20–30 minutes that includes the following components:

- Greeting: Students and teachers greet one another by name and practice, offering hospitality.
- Sharing: Students share information about important events in their lives. Listeners often offer empathetic comments or ask clarifying questions.
- Group Activity: Everyone participates in a brief, lively activity that fosters group cohesion and helps students practice social and academic skills (for example, reciting a poem, dancing, singing, or playing a game that reinforces social or academic skills.
- Morning Message: students read and interact with a short message written by their teacher. The message is crafted to help students focus on the work they will do in school that day (Allen-Hughes, 2013).

In the TIERS model, the Self-Governance Meeting occurs once or twice per week and addresses the following four targets:

1. Listening to and helping one another solve life challenges
2. Solving classroom problems

3. Giving compliments
4. Planning events (e.g., P.E. activities, weekly outings, holiday parties, and so on) and providing input regarding classroom reinforcers (e.g., items, privileges, and so forth)

5. Previous Evaluations of TIERS

The TIERS program underwent an evaluation of its effects on students in 25 self-contained classrooms across six school systems in three states (California, Nebraska, and Washington). There were a total of 153 students in these classrooms. Of the 25 classrooms, 13 were elementary classrooms (n = 77 students), six were middle school classrooms (n = 34 students), and six were high school classrooms (n = 32 students). The average class size was six students. With regard to student demographics, the average age of the students was 12.6 years of age, and were predominantly males (85% - n = 130); majority were White (41% - n = 64; African American 23% - n = 35; Latino % - n = 33; Other 14% - n = 21).

A variety of outcome data were collected to evaluate the impact of the TIERS model. These data were collected after a full year of implementation of the TIERS model involving a system change process that included a minimum of six days of contact of professional development, multiple leadership team meetings, and classroom observations and feedback sessions by expert consultants. The following is a summary of those data:

- Reductions in documented restraints (defined as restricting a student's freedom of movement due being a physical threat to self or others) from a baseline of 752 restraints to 121 post-intervention.
- Reductions in the use of timeouts (defined as a form of punishment that involves removing a child from an environment where inappropriate behavior has occurred, and is intended to decrease positive reinforcement for a behavior). Data were collected from 97 out of the 153

students and the average number of minutes of timeout was reduced from a baseline of 14.7 minutes/day to 4.3 minutes/day post-intervention.

- Re-integration of students back to general education (defined as students spending 60% or greater of their day in general education). At baseline, approximately 7% of students spent 60% or more of their day in general education (n =11 students). Post-treatment, this number increased to 27% of students in the sample (n = 37 students).
- Reductions in suspensions. At baseline, there was an average of 5.6 suspensions per student per year (total= 872 suspensions). Post-treatment, there was a decrease in the average number of suspensions to 1.3 suspensions per student per year (total= 199 suspensions.
- Increases in attendance. At baseline, there was an average of 18.3 absences per student per year (2,800 total absences). Post-treatment, this number decreased to an average of 8.8 absences per student per year (1,346 total absences.
- Increases in grade point average (GPA). Data were collected from 61 of the 153 students in the sample. At baseline, the average GPA was 2.3 compared to a GPA of 2.8 post-treatment.

While outcome data on the TIERS model is valuable, data on implementation fidelity with regard to TIERS has yet to be published (though the authors state that there are studies underway). This is an area that this study hopes to address to further the science of implementation, especially with regard to increasing treatment protocol adherence by school personnel.

6. Intervention Fidelity

While TIERS appears to be a comprehensive model of key concepts and programmatic components and procedures, it (as with any intervention) is ineffective if the staff does not implement it as designed, a concept known in intervention research as

implementation fidelity (Fisher, Smith, Kinney, & Pinder, 2014). One of the key aspects of intervention fidelity is data collection, which allows a staff to draw valid conclusions about a student's response to the therapeutic milieu. That is, without this data, it is difficult to conclude whether a student failed to respond to interventions due to inconsistency of implementation or because the intervention itself was ineffective. According to Cook and Browning Wright (2009), a byproduct of intervention fidelity data is that it "embeds a mechanism for holding staff accountable for implementing evidence-based practices" (p. 113). Multiple contemporary researchers have affirmed the importance of these practices (Sanetti, Collier-Meek, Long, Kim, & Kratochwill, 2014; Sanetti & DiGennaro-Reed, 2012).

Research by Flannery, Fenning, Kato, and McIntosh (2014) indicated that poor intervention fidelity is often responsible for weakening the efficacy of school-based interventions. In addition, McKenna, Flower, and Ciullo (2014) revealed that the efficacy of academic and behavioral interventions was significantly increased when implemented with higher levels of integrity. According to Cook and Browning Wright (2009), there are two dimensions that are important to consider when examining intervention implementation. These are:

1. **Consistency —** whether the intervention is *routinely implemented* on a daily basis.
2. **Accuracy —** whether the intervention is *implemented correctly* on a day-to-day basis.

In their manual of the TIERS model, Cook and Browning Wright discuss several methods for collecting data on treatment integrity: (a) direct observation, (b) permanent product, and (c) self-report.

- **Direct Observation:** Direct observation necessitates a 3rd-party (someone who is not the implementer) to enter the setting at the time an intervention is being delivered and

objectively determine whether the treatment protocol is being implemented consistently and accurately. Checklists of intervention components are typically used for this purpose. Despite direct intervention being perhaps the best approach to assessing implementation fidelity, it is often difficult to utilize in schools due to school staff (often teachers and paraeducators) fearing that observational data will be used against them (Conley, Smith, Collinson, & Palazuelos, 2014; Delvaux, Vanhoof, Tuytens, Devos, & Van Petegem, 2013). Furthermore, the research of Whitehurst, Chingos, and Lindquist (2014) noted that while classroom observations have the potential to promote positive teaching practices, improvements in existing observation practices are needed to address bias and misuse of the data.

- **Permanent product:** According to Cook and Browning Wright (2009), **"**Permanent product data are byproducts of behavior that can be used to assess the effectiveness of intervention (e.g., number of chairs turned over during an aggressive episode)" (p. 114). Hawken, Bundock, Kladis, O'Keeffe, and Barrett (2014) and Hawken and Horner (2003) describe that a common example of using permanent product data to assess treatment fidelity is the implementation of a daily progress protocol (e.g., point sheets, school-home notes, and check-in, check out point cards). This protocol requires multiple components that can be monitored, including (a) the student marking his or her own progress at scheduled intervals; (b) the teacher conducting "honesty checks" of the student's responses; (c) the point card being turned in; (d) feedback being provided to the student; and (e) rewards being delivered as appropriate if goals/targets are met.
- **Self-report:** This approach to collecting intervention fidelity data asks that implementers self-rate how well they are adhering to the various components of the treatment protocol.

Although this approach is highly preferable in school systems, it also has inherent problems (Detrich, 2014; Witt, Gresham, & Noell, 1996). The research of Noell and Gansle (2014) suggests that self-report methods inflate estimated levels of integrity as compared to direct observation. However, it must again be noted that in light of teacher fears about the accuracy and use of observational data, this is a more feasible approach to data collection than direct observation.

7. School-Based Consultation and Adult Behavior Change Theory

In searching for ways to increase intervention fidelity in the schools, researchers are increasingly examining the relationships between consultants and consultees. Contrary to other areas of psychology (e.g., clinical, counseling) and in health professions (e.g., medicine, occupational therapy), the majority of interventions taking place in the schools are directly implemented by mediators (e.g., teacher or paraeductor), and not by the individual (e.g., school psychologist, behavior specialist, school-based therapist) (Kratochwill, 2008). Thus, consultation has become the most common form of mediator-based intervention delivery in the schools, and the research base documenting its effectiveness is burgeoning (Erchul & Martens, 2010; Hughes, Loyd, & Buss, 2014; Sanetti et. al, 2014).

Through an extensive review of the extant research, Sanetti, Kratochwill, and Long (2013) sought to better conceptualize behavior change at the implementer level, and understand how it can be better facilitated and supported. The authors go on to describe a theory of adult behavior change from health psychology, known as the Health Action Process Approach (HAPA; Schwarzer, 1992), and how it led to the development of Planning Realistic Intervention Implementation and Maintenance by Educators (PRIME), a system of supports to facilitate educators' intervention implementation.

The Health Action Process Approach, or HAPA, details the mechanisms underlying behavior change and predicts cognitive and behavioral outcomes vital to the behavior change process (Schwarzer, 2008). The HAPA is a continuum model comprised of two stages: the motivational stage and a volitional stage. According to Sanetti, Kratochwill, and Long (2013), the motivational stage is intended to lead to the development of the consultee's intention to change his or her behavior while the ensuing volitional stage "leads to an actual change in and maintenance of a new behavior" (p. 51). The motivational stage consists of three variables highlighted by the literature as conducive to motivation or intention development: outcome expectancies (when an individual weighs the pros and cons of different actions vs. continuing the status quo), perceived action self-efficacy (the degree to which the consultee believes himself capable of performing the new behavior), and risk perception (the degree to which a person believes that the problem is worth addressing; Schwarzer, Luszczynska, Ziegelmann, Scholz & Lippke, 2008; Schwarzer, 2008). When a person has committed himself to the change, he moves from the motivational stage to the volitional stage. At this point, the individual's intention to enact change becomes actualized. The HAPA predicts that new behaviors are initiated and maintained due to action and coping planning and what is known as volitional self-efficacy (belief in one's ability to sustain the behavior over time; Belanger-Gravel, Godin, & Amireault, 2013; Schwarzer et. al, 2008). Furthermore, the HAPA's efficacy in changing behavioral outcomes is strongly backed by empirical evidence (e.g. Renner, Spivak, Kwon, & Schwarzer, 2007; Smith, Murray, Greaves, Hooper, & Abraham, 2014; Sniehotta, Scholz, & Schwarzer, 2005). Thus, HAPA has become one of the most popular models of behavior change.

While the HAPA is a prominent model, its health psychology origin does not seamlessly translate to schools. Planning Realistic Intervention Implementation and Maintenance by Educators was born out of a desire to adapt the HAPA to the educational setting. At its core, PRIME is comprised of three components relevant to school-based practice: (a) implementation planning, (b) assessment of implementation intention and sustainability self-efficacy, and (c) strategies to increase implementation intention and/or sustainability self-efficacy (Sanetti, Kratochwill, & Long, 2013).

Key to this study of TIERS is the assessment of implementation intention and sustainability self-efficacy. Without intentionality and self-efficacious beliefs from the targeted consultees (teachers and paraeducators), it is hypothesized that the data will not yield favorable outcomes with regard to implementation fidelity, nor will it lead to positive behavior change in students. The research-based strategies recommended by Sanetti, Collier-Meek, Long, Byron, and Kratochwill (2015) to increase implementation fidelity (i.e., modeling, motivational consulting, and role-play) are key components to the consultation process professed by TIERS. Assessing implementation intention and sustainability self-efficacy is a relatively new science, and as such, there exists few known scales to accomplish this task, one of which is the Implementation Beliefs Assessment (IBA; Sanetti, Long, Neugebauer, & Kratochwill, 2012). "The IBA is comprised of 19 items covering the HAPA components across two broad subscales (i.e., Outcome Expectations, Self- efficacy). Each item is rated on a seven-point Likert scale from (1 = completely disagree to 7 = completely agree). According to Sanetti, Kratochwill, and Long (2013), "Both subscales of the IBA have demonstrated adequate internal consistency in a large-scale validation study that included an exploratory factor analysis and confirmatory factor analysis" (p. 53). While this

study does not employ the IBA, a similar scale tailored to assess teachers' amenability to the TIERS model and likelihood of adherence to its protocols is used. This scale and its purpose is further explained in the methods section of this document.

III. Summary of the Study

A. Purpose and Contributions to the Literature

As a byproduct of a growing concern for the rising mental health needs of today's youth, school psychologists, educational administrators, and lawmakers have placed an increased emphasis on improving school-based mental health (SBMH) (Paternite, 2005). In the state of California, the transition to Assembly Bill 114 (AB 114) from Assembly Bill 3632 (AB 3632) was a critical moment, as the bill transferred responsibility and funding for educationally related mental health services, including residential services, from county mental health and child welfare departments to education (Local Education Agencies/LEA; Matz, 2012). This was the impetus for school districts and special education local plan areas (SELPAs for short) to re-examine their models of mental health service delivery to students in need, particularly those for students with Emotional Disturbance. Considering the cost of more restrictive placements for students with EBD (anywhere from $4,000 to $11,000 per month at residential treatment centers), and more importantly, the obligation of the education system to provide free and appropriate education (FAPE) in the least restrictive environment (LRE), LEAs realized that major changes had to be made. One of the major changes was to reconfigure, or even completely redesign EBD programs to promote greater movement from more restrictive to less restrictive environments. As discussed earlier, EBD programs have become stigmatized and labeled as "educational warehouses" or "black holes" from which these students do not escape (Cook & Browning Wright, 2009).

The purpose of this study is to ascertain the effectiveness of the TIERS model for Students with EBD, as it has been applied to 11 schools in the Central Coast area of

California. This study will contribute to both scholarship and practice by examining the following:

1. Whether the transition to the TIERS model as described by Cook and Browning Wright (2009) promotes greater student movement to the least restrictive environment (LRE), as compared to the previous standard of treatment for students with EBD;
2. The effects of the TIERS model on teacher ratings (teachers of EBD classrooms) of program effectiveness;
3. The process and value of obtaining treatment integrity data and comparing it to the extant literature on implementation science;
4. The effects of exposure to the system of interventions afforded by TIERS on the severity of problem behaviors (e.g., anxious, depressive, aggressive, inattentive, social skills).

B. Questions and Hypotheses

The ensuing research questions and hypotheses have been formulated through a thorough review of the literature related to educational programming for students with Emotional Disturbance, as well as studies examining treatment integrity. A summary of questions, hypotheses, variables, and analyses can be found in Table 1.

- Question 1a: Does the TIERS EBD program significantly increase the number of student transitions to a less restrictive environment as compared to treatment as usual (previous year)?
  - Hypothesis: Yes, the TIERS model will result in a significantly greater number of student transitions to a less restrictive environment (e.g., most restrictive special day class (SDC) to less restrictive SDC, SDC to general education, or more time spent in general education).

- There are currently four levels of placement for students with Emotional Disturbance, the first three of which take place in traditional school settings (in order of least to most restrictive).

1. General education or special education resource class with supports (though supports that are not as intense as in more restrictive settings).
2. Center for Therapeutic Education (CTE) Level 1

a. EBD classroom in which students receive group therapy and individual therapy 1x/week and have inclusion opportunities

3. Center for Therapeutic Education (CTE) Level 2

a. Most restrictive EBD classroom in which students receive group therapy 1x/week and individual therapy 2x/week.

b. There are no/minimal inclusion opportunities in this setting.

4. Nonpublic School/Residential Treatment Center

a. If a student's behavior is not responding to the maximal level of support, a referral for placement in a nonpublic school is initiated. These placements typically last between one to two years, but can be extended in special circumstances.

- N= 68 students

- Question 1b: By the end of the academic year, do programs that have reached treatment fidelity ratings of 80% or greater have significantly greater number of students with EBD transitioning to inclusion settings (LRE) than those that do not?

- Hypothesis: Yes, programs that have reached at least 80% fidelity will have significantly greater numbers of students with EBD transitioning to inclusion settings than those that have not reached that standard.

- N=11 programs/68 total students

- Question 2: Does exposure to the TIERS model result in a pattern of reductions in severity of problem behaviors, or improvements in social skills among high school students (e.g., anxious, depressive, aggressive, inattentive, social skills deficits) as measured by problem-specific Brief Behavior Rating Scales (BBRS)?

- Hypothesis: Yes, exposure to the TIERS model will yield significantly lower severity ratings of problem behaviors/emotional symptoms than at baseline.

- N= 24 high school students

- Students are matched to a specific scale based on their greatest area of need (i.e., a student identified as exhibiting depressive symptoms by the treatment team would be assigned the "Depressive Behaviors" scale.

- Question 3: Are teacher ratings of program effectiveness of the TIERS model significantly more favorable over the course of implementation (pre vs. post implementation)?

- Hypothesis: Yes, teacher ratings of program effectiveness of the TIERS model will significantly become more favorable than at baseline over the course of implementation.

  - Teacher ratings will be captured with a seven-item Likert scale that also includes one open-ended question (see Appendices).

  - N=11 teachers

- Question 4: Is there a significant association between treatment acceptability and treatment implementation fidelity?

- Hypothesis: Yes, it is predicted that higher treatment acceptability will be associated with greater treatment implementation fidelity.

IV. Methods

A. Participants

Data from this study were collected from one Special Education Local Plan Area (SELPA) comprised of 11 EBD programs across four school districts in the Central Coast of California. Eleven teachers (*n* =11) and approximately 68 students (*n* =68) across grades three to twelve will be included. Twenty-four high school students from three TIERS classrooms were specially chosen to examine changes in behavioral severity in response to social/emotional interventions. These students were chosen due to accessibility, as well as because their classroom staff expressed a desire to cooperate with the study. The demographic breakdown of the 11 teachers was as follows: nine White/Caucasian, one African-American/Black, and one Latino American. Eight of the teachers were female and three were male. Of the 68 students studied within all of the EBD programs operated by the SELPA, the demographics were as follows: 48.8% Latino/Latina, 43% White/Caucasian, 3.5% African-American/Black, and 4.7% Other. Seventy-two percent of these students were male and 28% were female. Of the 24 high school students specially chosen, the demographics were as follows: 56% White/Caucasian, 40% Latino/Latina, and 4% African-American/Black. Approximately 16 (67%) of the students were male and eight (33%) were female. The overall breakdown of students attending public school in the county is as follows: 1.5% African-American/Black, 0.5% American Indian/Alaska Native, 2.0% Asian/Asian American, 1.2% Filipino, 65.8% Hispanic/Latino, 0.2% Native Hawaiian/Pacific Islander, 26.1% White, 2.1% Multiracial.

B. Measures

While some of the data collected preclude the use of standardized measures (e.g., number of students transitioning to LRE, teacher ratings of program effectiveness, and ratings of overall program treatment integrity), Brief Behavior Rating Scales (which have been validated for this purpose) were used to chart student progress.

1. Teacher Ratings of Program Effectiveness Data

For this study, 11 teachers rated program effectiveness by completing a seven-item questionnaire (see Appendix) that indicated a teacher's feelings about the procedures in place to deal with and manage problem behavior. Responses to each item fell upon a seven-point continuum with selections closer to one indicating disapproval and those closer to seven indicating amenability. In addition, the questionnaire includes one open-ended question soliciting anecdotal comments about the behavior support system in place in the individual teacher's EBD classroom. These questionnaires were given during three time periods over the course of the study: 1) Baseline (first week of school), 2) after three months of school, and 3) after six months of school.

2. Ratings of Treatment Fidelity

The researcher examined adherence to the TIERS program by utilizing a 13-item program evaluation rubric across the 11 EBD programs implementing TIERS. The 13-items are components that Cook and Browning Wright (2009) believe to be critical in the establishment of successful programs serving students with Emotional Disturbance (See Appendix). These ingredients include building positive relationships, school-wide Positive Behavior Supports, a weekly Social Skills curriculum, a weekly Social Emotional Learning

curriculum, ongoing data collection practices to monitor student progress, a progressive system of responding to classroom behavior ("PROMPT"; See Appendix), the use of an "Honors Room" for positive reinforcement at the end of the school day, the use of a "Boring Room" to implement time-out from reinforcement procedures, use of evidence-based classroom management practices, good behavior game, daily debriefs between staff members about student and classroom functioning, weekly team meetings between staff members and administration, and weekly "Self-Governance" meetings between staff and students to problem solve ways in which the program and student behavior could be improved. Programs were rated on a one to three- point Likert Scale (1= Baseline, 2= Moving towards full implementation, and 3= Full implementation).

3. Brief Behavior Rating Scales (BBRS)

Brief Behavior Rating Scales were born out of the desire to reveal an equivalent to curriculum-based measurement in the area of progress monitoring for social behavior (Gresham, Cook, Collins, Dart, Rasetshwane, Truelson, & Grant, 2010). As emphasized by Gresham and colleagues, "one of the main advantages of a BBRS relative to other procedures is that it potentially represents a general outcome measure (GOM) of social behavior. That multiple change-sensitive items can be included in a BBRS allows it to capture multiple aspects of a student's overall social behavior, including a range of both social skills and problem behaviors" (p. 374). In addition, multiple studies have found direct behavior ratings to be feasible and technically sufficient progress monitoring tools for social behavior (Chafouleas, Riley-Tillman, & Christ, 2009; Chafouleas, Kilgus, Jaffery, Riley-Tillman, Welsh, & Christ, 2013). For this study, five Brief Behavior Rating Scales were chosen: 1) Anxious Behaviors (seven items), 2) Depressive Behaviors (seven items), 3) Aggressive

Behaviors (eight items), 4) Inattentive Behaviors (six items), and 5) Social Skills (eight items). Regardless of the scale chosen, each item is endorsed along a continuum of responses with corresponding scores: Never (0), Rarely (1), Sometimes (2), Often (3), and Almost Always (4).

C. Procedure

This study utilized inclusion data from 11 EBD classrooms (number of students transitioned to LRE) from the 2012–2013 and 2013–2014 academic years. In each classroom, teacher questionnaires of program effectiveness were administered twice. The first scale was intended to establish teacher ratings of the previous behavior management system and the second administration was used to solicit teacher ratings of the TIERS model.

Each classroom was subjected to a program of three fidelity checks during the academic year (Fall, Winter, Spring). The researcher completed the fidelity questionnaire to examine relationships between treatment integrity and student outcomes.

1. Daily Points System

For this study, the 11 EBD programs chose behaviors that fell under three distinct categories: Safety, Respect, and Responsibility. Each of these three categories are rated on a scale of zero to three points that are earned based on the degree of independence demonstrated by the student (See Appendix for sample point sheet). Three points are awarded for the student demonstrating expected behaviors with minimal or no prompting (i.e., gestural cue). Two points are awarded for the correct behavior that followed after the student was given a specific verbal prompt. One point is awarded if the student necessitates a specific teaching interaction. According to Cook and Browning Wright (2012), a teaching interaction is a standardized method of addressing problem behavior that did not respond to

lesser corrective tactics. "A teaching interaction treats the presence of chronic problem behavior as an opportunity for the student to learn appropriate, desired behavior" (p. 2). Zero points are awarded if the student continues to demonstrate the problem behavior despite the structured teaching interaction. The students also accrue bonus points by demonstrating the use of a functionally equivalent replacement behavior as described by their individualized behavior support plan.

2. Review 360: A Web-Enabled Research-Based Behavioral Support System (Pearson, 2012)

Prior to software solutions, point sheet data were typically collected through paper/pencil format, and later examined to determine if progress was being met. Unfortunately, this process has a host of issues, including its inefficiency toward generating outcomes for students and the difficulty of representing the data in a manner that is "user-friendly" to parents, administrators, and other professionals in contact with the student. To address many of these issues, the 11 EBD programs chose to invest in a software solution known as Review 360. Review 360 is a web-enabled program that assists in the implementation of effective research-based best practices to improve behavioral and academic outcomes of students. In the context of the TIERS model, it serves as the data-based decision making component that is key to documenting responses to intervention. The software tracks all individual students' behavior goals, progress in the daily points/levels system, and minutes spent in inclusion settings. Furthermore, the software is able to demonstrate progress in specific areas of behavior as defined by the user.

The students' behavior progress and minutes spent in inclusion are entered into the database daily at intervals of approximately 30–45 minutes (depending on the age range and

classroom needs) using a computer or web-enabled tablet device (e.g., iPad, Android tablet, and so on). The system is then responsible for aggregating the data and representing it in multiple ways (through various analyses including charts and graphs) to demonstrate progress over time.

To analyze individual student progress, Brief Behavior Rating Scales (BBRS) were administered in a problem-specific manner (i.e., students with anxiety will be monitored using the Anxious Behaviors BBRS) for 24 high school students to examine behavioral responses to intervention. The students' EBD classroom staff completed the measures monthly.

D. Data Analysis Plan

1. Chi-Square Test

The original chi-square test, often known as Pearson's chi-square, originated from papers by Karl Pearson in the early 1900s (Howell, 2009). Chi-square is a statistical test that measures the association between two categorical variables.

In this study, a 2x2 chi-square test was used to determine whether or not there was a significant difference between the number of students who transition to the least restrictive environment (LRE) between the 2012–2013 and 2013–2014 school years. The sample size was 68 students.

2. Odds Ratio

An odds ratio (OR) is a measure of the degree of association between an exposure and an outcome. According to Szumilas (2010), the odds ratio represents the probability that an outcome will occur given a particular exposure, compared to the odds of the outcome

occurring in the absence of that exposure. While odds ratios are commonly used in case-control studies, they can also be used in cross-sectional and cohort study designs with modifications (Szumilas, 2010). This study utilized odds ratios to determine whether programs operating at 80% or greater in terms of treatment integrity evidence significantly more movement into inclusion settings than programs that did not.

3. Single-Case Design

Single-case research designs are a diverse and powerful set of procedures useful for demonstrating causal relations among clinical phenomena. Although such designs are flexible, efficient, and have been used to make key advances since the earliest days of psychological science, they are currently extremely underused by psychological scientists and clinicians (Nock, Michel, Photos, 2007; Riley-Tillman & Burns, 2011). Single-case design was used in this research study through the following steps:

1.) Brief Behavior Rating Scale data in problem-specific areas (e.g., inattentive, aggressive, depressive behaviors, and so forth) were collected at baseline to determine students' current level of behavioral functioning.

2.) The BBRS data were collected on a monthly basis to determine responses to intervention.

3.) These data were plotted for individual students and grouped into 5 categories that correspond with the 5 variations of BBRS scales.

4.) The data were further grouped to represent classroom effects on student behaviors.

5.) A "General Education Line" was generated by having 1 general education teacher from each campus complete each of the BBRS scales to represent the behavior of an average student in their general education classroom. The 3 teacher ratings were compiled and averaged to create a composite line that will stretch across all periods of data collection.

These steps allowed the researcher to conduct a visual comparison of student behavior in the TIERS programs and those students whose behaviors are deemed appropriate for a general education setting.

6.) The data were represented in an at-a-glance composite that can demonstrate response to intervention among multiple students in the five categories of behavior.

4. Paired Samples T-test

A paired sample t-test is used to determine whether there is a significant difference between the average values of the same measurement made under two different conditions. Both measurements are made on each unit in a sample, and the test is based on the paired differences between these two values. The usual null hypothesis is that the difference in the mean values is zero (DeCoster, 2006). The proposed study used a paired samples t-test to determine if exposure to the TIERS model resulted in a significant positive change in teacher attitudes toward implementation of the behavior support program for EBD students.

5. Pearson Correlation Test

The Pearson product-moment correlation coefficient (or Pearson correlation coefficient, for short) is a measure of the strength of a linear association between two variables and is denoted by r (Good, 2009). A Pearson test was used to determine whether or not a relationship exists between treatment acceptability and treatment fidelity. Treatment acceptability ratings (on a one to seven Likert scale) were completed by teachers at the beginning and end of the first year of implementation (n=11).

V. Results

A. Research Question 1a: Does the TIERS EBD program significantly increase the number of student transitions to a less restrictive environment as compared to treatment as usual (previous year)?

A 2x2 chi-square test was performed to determine whether the programming under the TIERS EBD model significantly increased the promotion of students into the least restrictive environment (LRE). The sample size for both the 2012–2013 and 2013–2014 academic years was maintained at 68 pupils to ensure the continuity of results. The difference was statistically significant, $\chi 2\ (1) = 8.84$, $p < .05$, suggesting that the TIERS package of interventions introduced in 2013–2014 academic year were effective in improving student behavior, such that a larger number of students were deemed fit to join less restrictive placements (See Table 1). However, it must be noted that this analysis only examined the impact of the interventions in concert, making it difficult to ascertain which aspects contributed most to the change. Furthermore, these analyses looked at the sum total of changes of all 11 schools; thus, failing to identify significant change on a school-by-school basis. These limitations will be discussed in further detail in the conclusions section.

Table 1.

Chi-Square Analysis of Student Movement in EBD Programs from 2012–2013 to 2013–2014 Years

Movement	Number of Students in Academic Year		$\chi 2$
	2012–2013	2013–2014	
LRE	5 (11.5) [3.67]	18 (11.5) [3.67]	8.84
No Change/MRE	63 (56.5) [0.75]	50 (56.5) [0.75]	

Note. **= $p < .05$. Adjusted standardized residuals appear in parentheses next to group frequencies.

B. Research Question 1b: By the end of the academic year, do programs that have reached treatment fidelity ratings of 80% or greater have significantly greater numbers of students with EBD transitioning to inclusion settings (LRE) than those that do not?

As discussed earlier, this researcher examined fidelity on the basis of the 13 components identified by Cook and Browning Wright as essential to successful EBD Programs (See Table 2 for a listing of these components). Each component was evaluated on the Likert scale with a minimum value of one (baseline) and a maximum value of three (full implementation). The total possible score that any classroom program may receive is 39 points. As described earlier, these ratings were collected over a three-time period (fall/pre-implementation, winter/middle of the school year, and spring (end of the school year). Fidelity ratings of the 11 classroom programs indicate that only two out of the 11 classrooms reached the recommended threshold of 80% implementation fidelity (See Table 3). However, it is also notable that all 11 classrooms demonstrated growth toward full implementation fidelity.

To address the research question of whether programs with 80% or above fidelity showed significantly greater numbers of transitions to LRE than those that did not, an odds-

ratio analysis was utilized. The odds ratio (OR) is calculated using the following formula: Odds Ratio= (A/C) / (B/D) = (AD/(BC). The calculation of the odds ratio is as follows: (2*44)/(6*16)= 0.92 (See Table 5). This data indicates that students in programs with 80% or greater implementation fidelity are nearly 0.92 times more likely to transition into a less restrictive classroom placement. However, this finding was not found to be statistically significant ($p > .05$), suggesting that 80% or greater treatment fidelity is not associated with significantly greater transitions into the least restrictive environment.

Table 2.

Components of Successful EBD Programs Evaluated by the Current Study

Component #	Name:
1	Positive Relationships
2	Positive Behavior Supports
3	Social Skills Curriculum
4	Social Emotional Learning
5	Data Collection Infrastructure
6	Use of PROMPT Hierarchy
7	Use of Honors Room
8	Use of Boring Room
9	Classroom Management Techniques
10	Use of Good Behavior Game
11	Daily Staff Debriefs
12	Weekly Team Meetings
13	Self-Governance Meetings

Table 3.

Treatment Fidelity Ratings of EBD Programs During the 2013–2014 Academic Year

Classroom #	Start of 2013–2014	Middle of 2013–2014	End of 2013–2014	Reached 80% (Yes/No)
1	20 (51%)	28.5 (73%)	32 (82%)	Yes
2	26.25 (67%)	27.25 (70%)	29 (74%)	No
3	19 (49%)	22 (56%)	23.75 (61%)	No
4	17.5 (45%)	20 (51%)	22.5 (58%)	No
5	19.5 (50%)	24.75 (63%)	29.5 (77%)	No
6	15 (38%)	19.75 (51%)	21 (54%)	No
7	16 (41%)	24 (62%)	28 (72%)	No
8	13.5 (35%)	15.5 (40%)	17.5 (45%)	No
9	16 (41%)	26 (67%)	28 (72%)	No
10	13 (33%)	13 (33%)	15 (38%)	No
11	30.5 (78%)	32.5 (83%)	33.5 (86%)	Yes

*Note: Maximum score is 39

Table 4.

Movement of Students into LRE by Classroom 2013–2014

Classroom	Movement to LRE	Movement to MRE	No Change
1	2	0	3
2	3	2	6
3	3	0	8
4	0	0	3
5	0	0	5
6	4	4	1
7	2	0	2
8	1	0	4
9	2	1	2
10	1	0	5
11	0	1	3
Totals	18	8	42

N=68 students

Table 5.

Odds Ratio Table Comparing # transitions in Programs with ≥ 80% Fidelity to Those That Do Not

	LRE (YES)	LRE (NO)	Total	95% Confidence Interval	Z	Significance
Programs ≥ 80% Fidelity	2 (A)	6 (B)	8			
Programs < 80% Fidelity	16 (C)	44 (D)	60	0.17 to 5.02	0.10	NS, p >.05
	18	50	68			

*p >.05

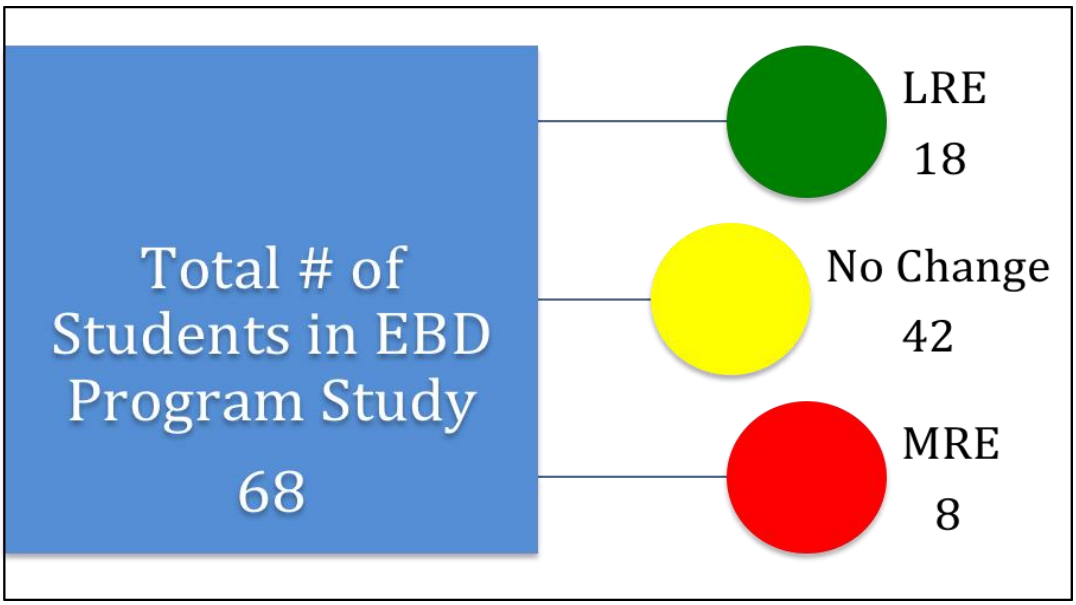


Figure 1. ***Graphical representation of the overall TIERS student movement***

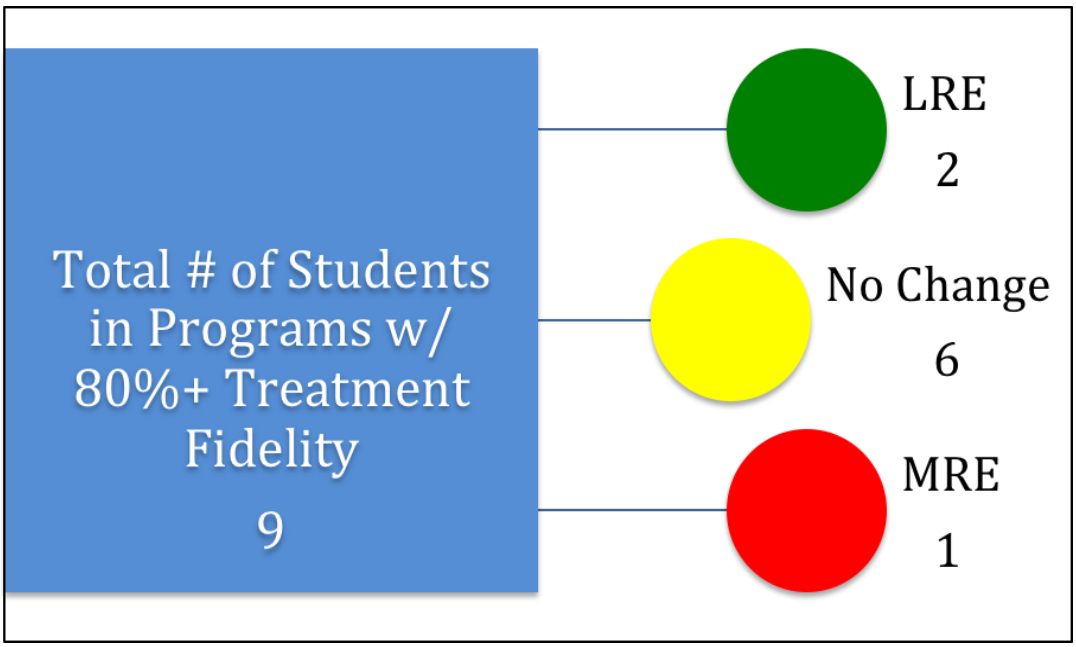


Figure 2. ***Graphical representation of movement in the TIERS programs with ≥ 80% fidelity***

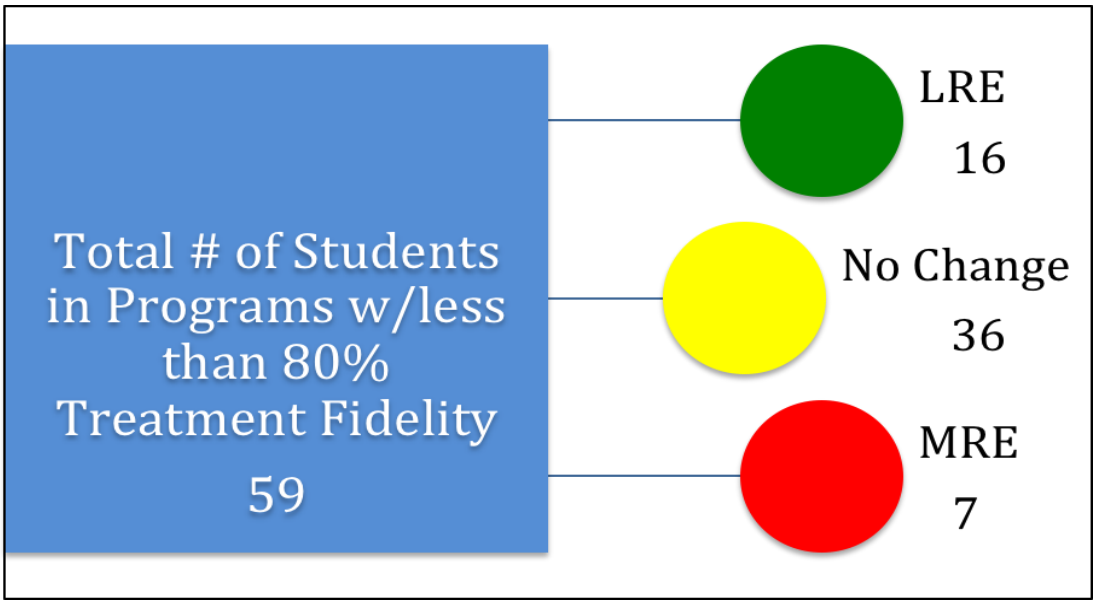


Figure 3. ***Graphical representation of movement in the TIERS programs with < 80% fidelity***

C. Research Question 2: Does exposure to the TIERS model result in a pattern of reductions in the severity of problem behaviors or improvements in social skills among high school students (e.g., anxious, depressive, aggressive, inattentive, social skills deficits) as measured by problem-specific Brief Behavior Rating Scales (BBRS)?

To address this research question, multiple steps were completed. First, this researcher administered brief behavior rating scales (BBRS; See Table 6) on a monthly basis specific to the individual area of concern of 24 different students (16 males, eight females; Refer to Table 7 for further demographic information) spanning three high school programs (ranging from grades nine to 12). These measures were completed by each high school classroom's team (school psychologist, behavior analyst, classroom aides, and teacher; See Appendix). Second, students were grouped according to two criteria: 1) classroom and 2) area of concern. These groupings allowed for not only the examination of individual student growth in a particular area of concern, but also the ability to compare growth across programs. After grouping the subjects in this manner, their progress was graphed over the course of the school year. Included within these graphs is the "Gen Ed Line," an average of scores provided by a general education teacher on each campus (N=3) representative of an average student behavior score in each area. In doing this, one could surmise that if a student were to reach this target score and maintain that progress, he or she has demonstrated readiness for successful participation in a general education classroom. One weakness of this approach is the limited robustness of the overall sample (N=24), especially when categorized by area of concern. Another limitation is the fact that only three general education teachers were polled to derive a score of average student behavior in each problem area. These weaknesses will be discussed further in the limitations section.

1. Classroom Contexts

High school classroom 1 was recognized as the most restrictive placement for students with EBD (Center for Therapeutic Education, Level 2) provided within the examined public school district. As such, this program had a smaller classroom size and adult to pupil ratio, as well as a therapy services provided at a higher dosage than other programs within the district (two hours of individual therapy vs. one). High school classrooms 2 and 3 were recognized as the lesser restrictive program placements for students with EBD (Center for Therapeutic Education Level 1). These programs also had smaller classroom sizes and therapeutic services, though therapeutic services were provided at a smaller dosage (1x/week).

2. Social Skills

Upon examination of the brief behavior ratings of student social skills, it appears that all three classrooms evidenced growth of varying degrees in this area. High school classroom 1 had two students with this problem area, one of whom had joined the class late in the school year. In addition, this classroom had a treatment fidelity rating of 82%. A visual analysis of this graph suggests that student 1 experienced a significant amount of growth (six-point increase) over the course of the school year from baseline (See Figure 4). Despite having attended the program for a much shorter time, student 2 evidenced a growth of four points from baseline. An interesting commonality that emerged between these students (as well as others in the sample) is the evidence of regression between the months of December and January. This is presumably due to the students' lack of exposure to the program over the course of the winter break when schools are closed. Despite the progress

shown by both students (as well as the aforementioned high treatment fidelity of the program), their brief behavior ratings did not reach the general education target of 23.

High school classroom 2 was recognized as the second most restrictive placement for students with EBD on offer within the school district. The students in this class also demonstrated growth in the area of social skills over the course of the school year. This program received a treatment fidelity rating of 61%. Student 3 evidenced a sustained period of growth through the first half of the school year, after which his progress plateaued and slightly declined for the last three months (See Figure 5). Student 4 demonstrated a significant increase in prosocial behaviors from baseline and reached the general education target score of 23. Consequently, this student was transitioned to a less restrictive classroom placement with a greater focus on academic skills remediation as opposed to social-emotional/therapeutic supports.

Similar to the second high school program being studied, high school classroom 3 was also regarded as the second most restrictive placement within the school district. This program received a treatment fidelity rating of 74%. Overall, the students within this program evidenced growth in prosocial behaviors (See Figure 6). Student 5 began with a baseline score of 20 points, increasing to a total of 24 at the last data collection period. Student 6 experienced a greater overall increase, beginning with a score of 16, and increasing to 23. Again, as both students reached the general education target score of 23, discussions took place to transition them into less restrictive classroom placements. However, due to these students' unique educational and emotional needs, they were transitioned to less restrictive classrooms for a portion of their school day (e.g., elective courses, P.E., and so on).

Of note, it did not appear that treatment fidelity had a discernible impact on student outcomes in the area of social skills, a finding that did not confirm this researcher's hypothesis. All six students across the three different programs evidenced similar growth over the course of the school year. However, it also appeared that programs with higher treatment fidelity were less susceptible to students experiencing a plateau in progress.

3. Depressive Behaviors

Upon analysis of the brief behavior ratings in the area of depression, progress was mixed among the three high school programs. It is important to highlight that lower brief behavior rating scores in this area are desirable. High school classroom 1 served two students with depressive behaviors as their main area of concern. Student 7 joined this class in January and evidenced a significant reduction in depressive behaviors that interfered with her learning (e.g., appearing sad, shutting down from schoolwork or related activities, and withdrawing from peers; See Figure 7). This student's BBRS score in the area of depression fell beneath the general education target score of 12, indicating readiness for placement into a less restrictive environment. However, this student asked that she remain in the program in light of her arrival later in the school year. The student also requested continuation due to the relationships and level of support she enjoyed since attending the program. Student 8 evidenced a slight decrease in depressive behaviors from baseline, but also demonstrated a growth pattern with multiple fluctuations. Of note, this student had difficulties with school attendance, which, in turn, likely impacted his ability to benefit from the supports offered in the program and sustain behavioral progress.

High school classroom 2 also served two students with depressive behaviors as their primary area of concern. Over the first half of the school year, student 9 evidenced gradual

reductions in depressive behaviors from baseline (See Figure 8). However, following the winter break, this student's ratings of depressive behaviors increased significantly, indicating that the classroom program was ineffective in meeting this student's unique needs. Furthermore, this student's depressive behaviors reached an intensity that warranted a more restrictive placement by the end of the school year. While student 10 attended the class at the first half of the year, this student's behavior remained below the general education target score of 12. As such, this student was transitioned to a less restrictive classroom placement that focused on career and vocational guidance.

High school classroom 3 served four students suffering from depressive symptoms. All students within this classroom evidenced overall reductions in depressive behaviors from baseline, with two of the four students' behavior ratings falling below the general education target score of 12. Student 11 evidenced a decreasing trend of depressive behaviors from baseline accompanied by one data period of a spike in behaviors in the month of November (See Figure 9). Of note, this spike in depressive behavior occurred when the student was undergoing a change in psychotropic medication. As the student's behavior ratings indicated a readiness for a less restrictive placement, she was provided with increased time in core general education courses, as well as electives. Student 12 evidenced a similar trajectory, and ratings indicated an overall decline in depressive behaviors. As this student's brief behavior ratings fell below the general education threshold score of 12, the IEP team convened and decided on a nearly complete transition to general education. This particular student advocated for two periods in the special day class to continue receiving group and individual counseling. Student 13's trajectory indicated a steady decline in depressive behaviors up until the month of January. While this student reached the threshold score of

12, the improvements were not maintained for a long enough period to warrant a transition to a less restrictive placement. Moreover, a change in the academic program late in the school year was deemed unfeasible by the IEP team, including the student. Thus, this student was to be given more exposure to general education in the following academic year. Student 14 demonstrated a decrease in depressive behaviors with a brief spike in symptomatology in the month of November. Of note, this student voiced her discontent about the change to the TIERS system multiple times in the initial stages of implementation. However, over the course of the school year, she evidenced enough decline in depressive behaviors and an increase in academic productivity to warrant a discussion about increased time spent in general education the following academic year. Common among all students was a brief spike in behaviors during the initial months of TIERS implementation, a sign that suggests that the staff and the students were undergoing a period of adjustment.

Visual analysis of the depressive behavior ratings of the three high school classrooms indicates that higher treatment fidelity is associated with improved outcomes for students with depressive behaviors. Comparing only students who had attended a classroom program for the entire school year, it appears that students in classrooms 1 and 3 (82% and 74% fidelity respectively) were most likely to experience a decrease and/or a stabilization of depressive behaviors as compared to classroom 2 (61% fidelity). Furthermore, by the end of the data collection period, student 9 (high school classroom 3) demonstrated an increase in depressive behaviors from baseline, suggesting that the social-emotional supports offered by that classroom were insufficient.

4. Aggressive Behaviors

Aggressive behaviors were charted for five students across the three classroom programs. Note that lower brief behavior ratings for aggressive behaviors are desirable. Visual analysis yielded mixed results for students with aggressive behaviors. However, it appeared that those programs that achieved higher levels of treatment fidelity experienced a greater likelihood of decreases in student aggression.

High school classroom 1 served two students with aggressive behaviors as their primary area of concern. Both students demonstrated declines in aggressive behavior. However, the time spent in the program made it difficult to draw a firm conclusion about treatment effects (See Figure 10). Student 15 evidenced a minimal decrease in aggressive behaviors over the first four months of the school year. However, his brief behavior rating score remained stable enough that the IEP team recommended his transition to a less restrictive program for students with EBD on a comprehensive high school campus that took place in January. Student 16 was initially placed in high school classroom 2 (See Figure 11) and due to the intensity of her behaviors, she matriculated in the high school classroom 1 program in February of 2014. Student 16 evidenced a sharp decline in aggressive behaviors (14→6) and maintained this throughout the data collection period.

Analysis of aggressive behaviors for students in high school classroom 2 yielded mixed results. As mentioned earlier, students 15 and 16 spent a limited portion of their school year in high school classroom 2. Student 15, who transitioned to classroom 2 after January, was able to maintain the stabilization of aggressive behaviors that he had achieved earlier in the school year in classroom 1. As a result, this student was later given the opportunity to participate in general education elective classes. Student 16 attended classroom 2 for the first five months of the school year. While this student evidenced an

increase in aggressive behaviors through the month of November, these behaviors decreased in the two months that followed. Despite her progress, the student was later transitioned to the more restrictive classroom 1 as a result of a mutual agreement between the student's family and the school-based team. In contrast, students 17 and 18 (who attended classroom 2 for the majority of the school year) evidenced overall increases in aggressive behaviors from baseline. Student 17's aggressive behaviors decreased for several months in the school year; however, following the winter break, the student became increasingly combative and verbally aggressive with peers and school staff alike. As a result, while student 17 was at one point considered for a transition to a less restrictive classroom placement, the IEP team decided he should continue in the special day class. Student 18 transitioned to the program in November of 2013. He also demonstrated decreases in aggressive behaviors in the initial months, but became progressively more physically aggressive and violent by the end of the data collection period. As a result, this student was referred at the end of the academic year to a more restrictive placement in a residential treatment facility for adolescents exhibiting extremely violent behaviors. However, unique to other students, this student was identified as having an intellectual disability. This is important to note, as the interventions embedded within the TIERS classrooms were not developed to adequately address the unique needs of these students. This issue will be discussed further in the discussion section.

High school classroom 3 served only one student with aggressive behaviors as a primary area of concern. Student 19 evidenced a steady decline in aggressive behaviors over the course of the school year, with a slight increase in the last month of data collection. As this student was a high school senior, he was given the opportunity to take part in general

education electives due to his behavioral progress despite not reaching the general education target score of nine.

Comparing student progress in aggressive behavior reduction across the three classrooms, it again appears that greater treatment fidelity is associated with improved student outcomes. Students in classrooms 1 and 3 (82% and 74% fidelity) showed greater decreases in aggressive behaviors and were able to sustain these over time. In contrast, the students in classroom 2 (61% fidelity) who attended the program for the majority of the academic year demonstrated increases in aggressive behavior from baseline.

5. Anxious Behaviors

Anxious behaviors were charted for four students across the three high school classroom programs. Note that lower brief behavior ratings for anxious behaviors are desirable. Once again, a visual analysis suggests that programs with higher treatment integrity saw greater decreases in anxious symptoms.

High school classroom 1 served one student with anxious behaviors as the primary area of concern. Student 20 demonstrated a significant decrease in anxious behaviors from baseline, and briefly reached the general education target score of eight. As a result of this student's improvement in functioning, the IEP team reviewed her placement and looked to provide her with greater inclusion in general education. However, due to the student's unique social-emotional needs, the team decided that she would continue in the program through the following school year and have her placement reviewed again after the first eight weeks.

High school classroom 2 also served one student with anxious behaviors. Note that this student was not present during the baseline implementation phase of TIERS. Over the

course of his enrollment in the program, student 21 demonstrated two months of decreases in anxious behaviors. However, following this period, the student's anxious behaviors increased significantly and coincided with highly inconsistent attendance. However, it should be noted that this student was significantly older than the majority of the students in his class, an aspect of this classroom that he reported to be a major trigger of his anxiety.

High school classroom 3 served two students with anxious behaviors. Both students 22 and 23 demonstrated significant declines in anxious behaviors from baseline. In addition, while both students experienced a slight increase in anxiety after the winter break, both were able to recover and continue their progress up until the final data collection point in April. As a result of his improved school functioning, student 22 was given the opportunity to take general education elective courses at the beginning of the following school year. As student 23 was a senior, the majority of her school day took place outside of the special day class and in the general education environment (with the exception of two class periods in which she received group and individual therapy services).

A visual analysis of student progress in the area of anxious behaviors across the three classrooms yielded similar outcomes to student brief behavior ratings in other areas of concern. Students in classrooms 1 and 3 (82% and 74% fidelity) again outperformed those in classroom 2 (61% fidelity), as they demonstrated greater decreases in anxious behaviors when compared to baseline. Moreover, the student in classroom 2 evidenced an increase in anxious behaviors compared to baseline, a finding that suggests that the program did not adequately address the student's needs.

6. Inattentive Behaviors

Inattentive behaviors were only charted for one student (student 24) in classroom 3. This student evidenced a marked decrease in inattentive behaviors from baseline. While the student experienced a brief spike in inattention during the month of February, it is important to note that this month coincided with a period of medication non-compliance, an issue that will be discussed in greater detail in the discussion section.

Table 6.

Table of BBRS Scales, Score Ranges, and General Education Average Score

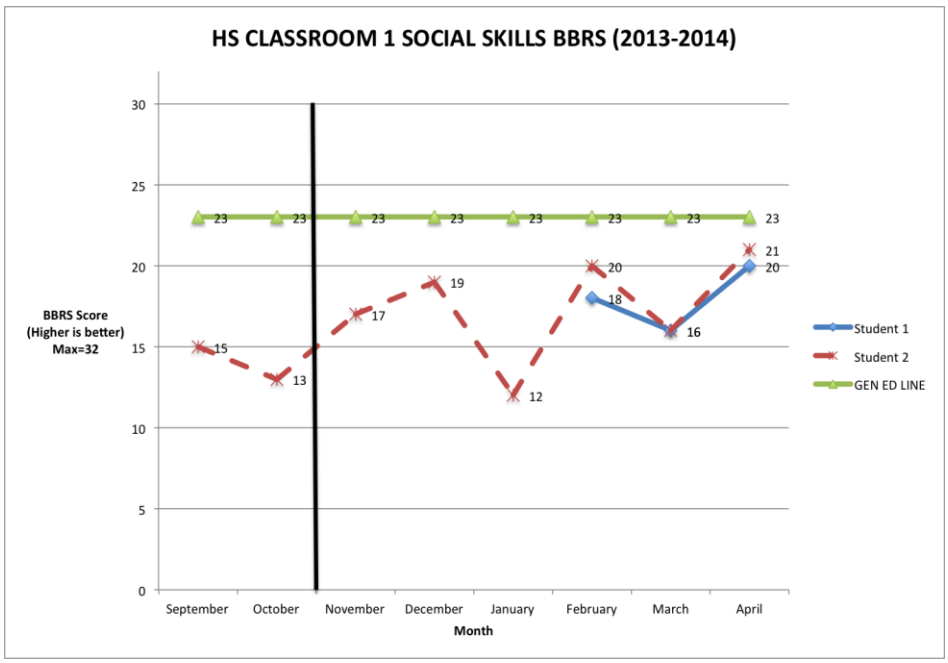
BBRS Scale Name	Range	GE Average Score*
Social Skills	0-32	23
Depressive Behaviors	0-28	12
Aggressive Behaviors	0-32	9
Anxious Behaviors	0-28	8
Inattentive Behaviors	0-24	8

*Corresponds to Gen-Ed Line

Table 7.

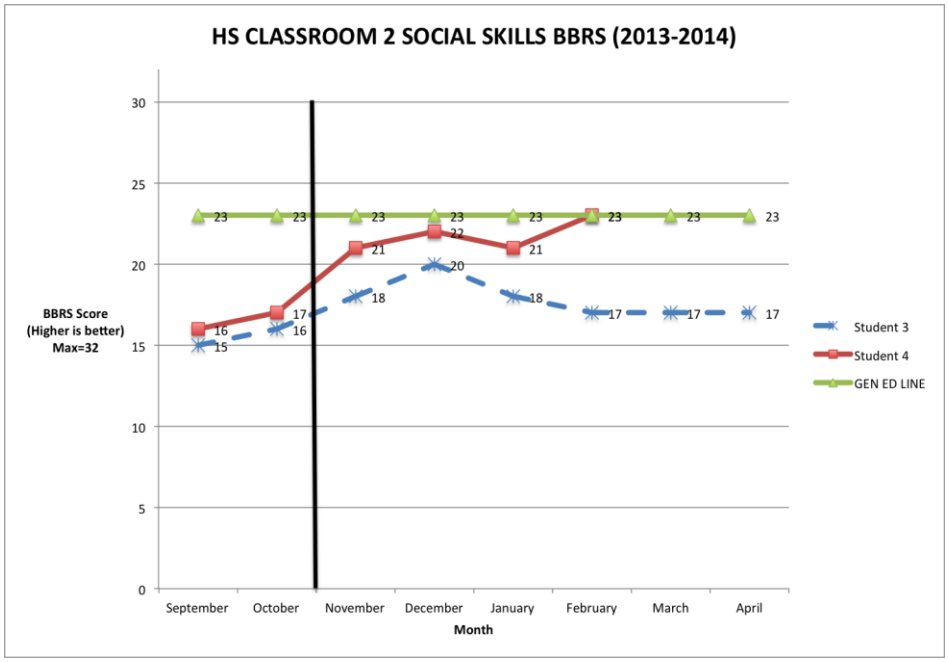
Table of the Demographic Information of High School Students Administered with BBRS

Student	Age	Sex	Ethnicity	Grade	BBRS Scale
1	18	M	Mixed	12th	Social Skills
2	15	M	Latino	10th	Social Skills
3	15	M	Mixed	10th	Social Skills
4	17	M	White	12th	Social Skills
5	16	F	White	11th	Social Skills
6	16	M	Latino	10th	Social Skills
7	16	F	White	10th	Depressive
8	17	M	White	11th	Depressive
9	18	M	White	12th	Depressive
10	19	M	Latino	12th	Depressive
11	17	F	White	12th	Depressive
12	17	M	White	12th	Depressive
13	15	F	White	9th	Depressive
14	17	F	Latina	11th	Depressive
15	15	M	Mixed	10th	Aggressive
16	16	F	Latina	11th	Aggressive
17	14	M	Latino	9th	Aggressive
18	15	M	Mixed	9th	Aggressive
19	18	M	Latino	12th	Aggressive
20	16	F	White	11th	Anxious
21	19	M	Mixed	12th	Anxious
22	15	M	White	9th	Anxious
23	17	F	White	12th	Anxious
24	15	M	White	9th	Inattentive



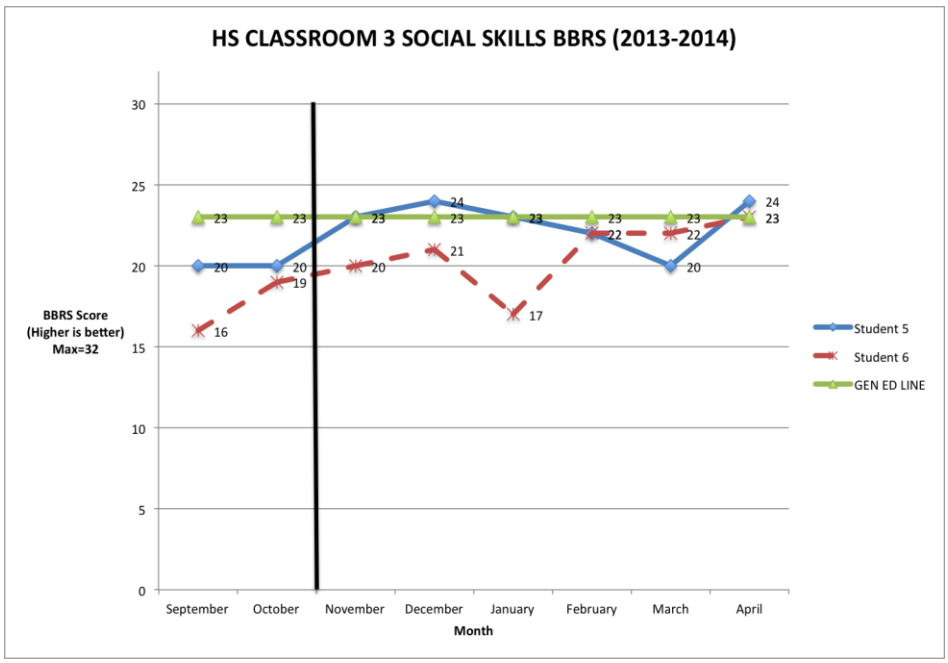
*Classroom 1 Implementation Fidelity= 82%

Figure 4. Graph of high school classroom 1 social skills BBRS progress data (2013–2014)



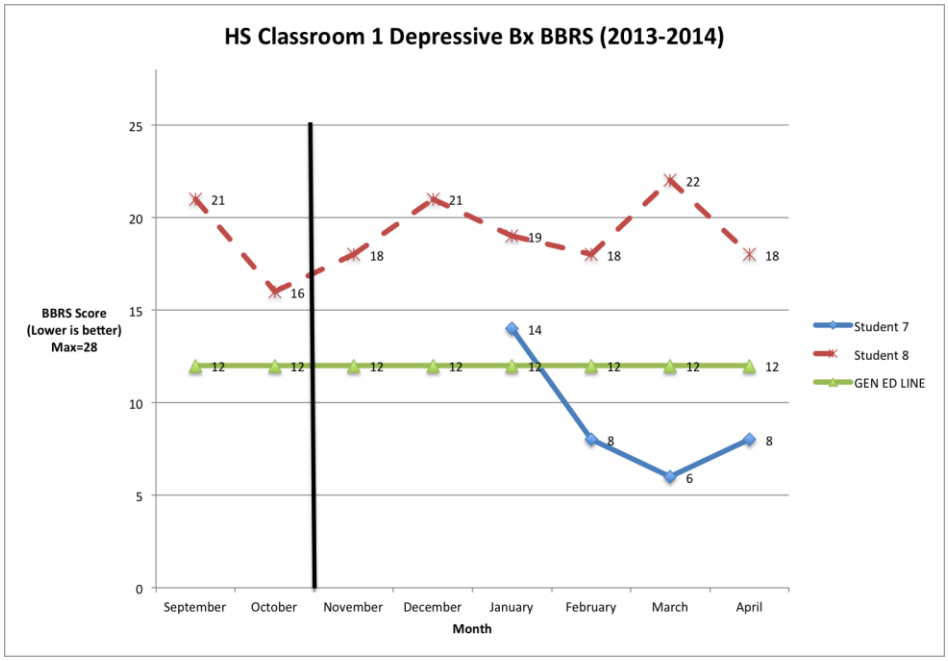
*Classroom 2 Implementation Fidelity= 61%

Figure 5. Graph of high school classroom 2 social skills BBRS progress data (2013–2014)



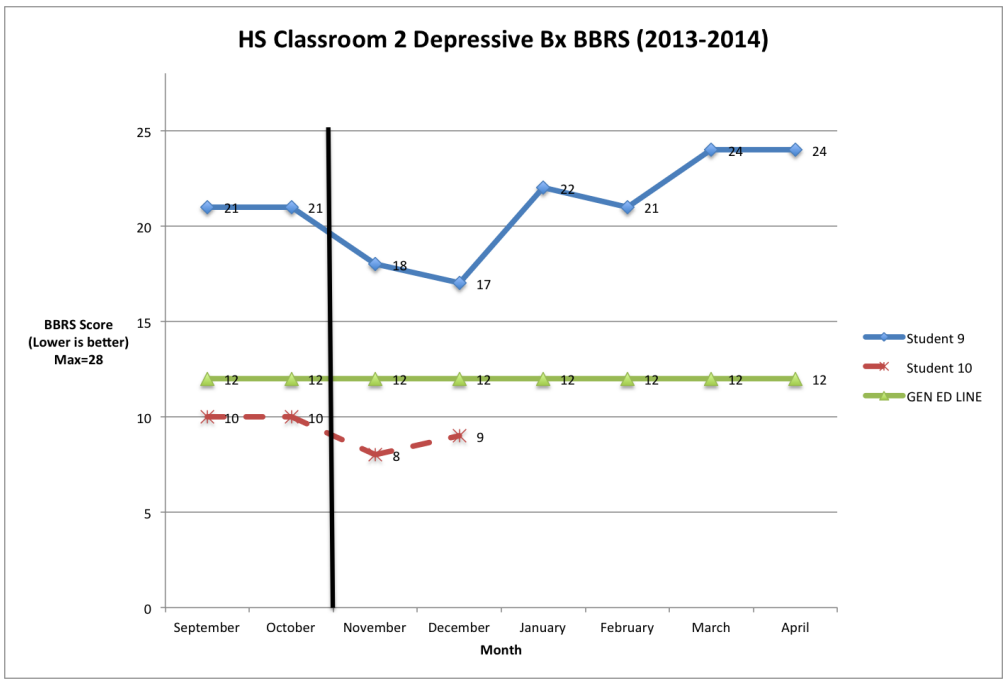
*Classroom 3 Implementation Fidelity= 74%

Figure 6. Graph of high school classroom 3 social skills BBRS progress data (2013–2014)



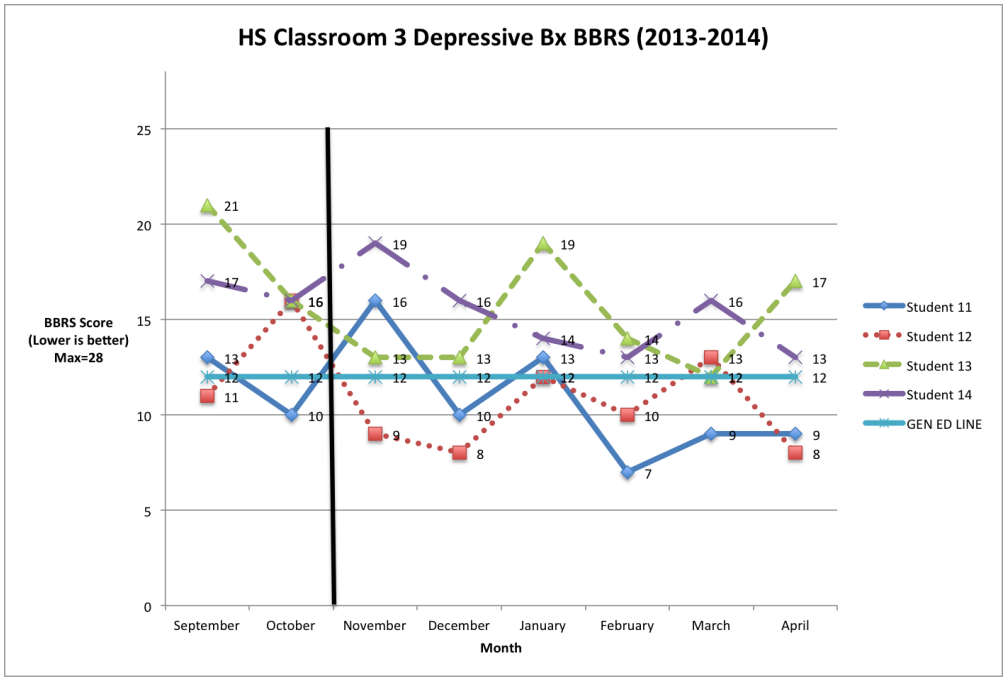
*Classroom 1 Implementation Fidelity= 82%

Figure 7. ***Graph of high school classroom 1 depressive bx BBRS progress data (2013–2014)***



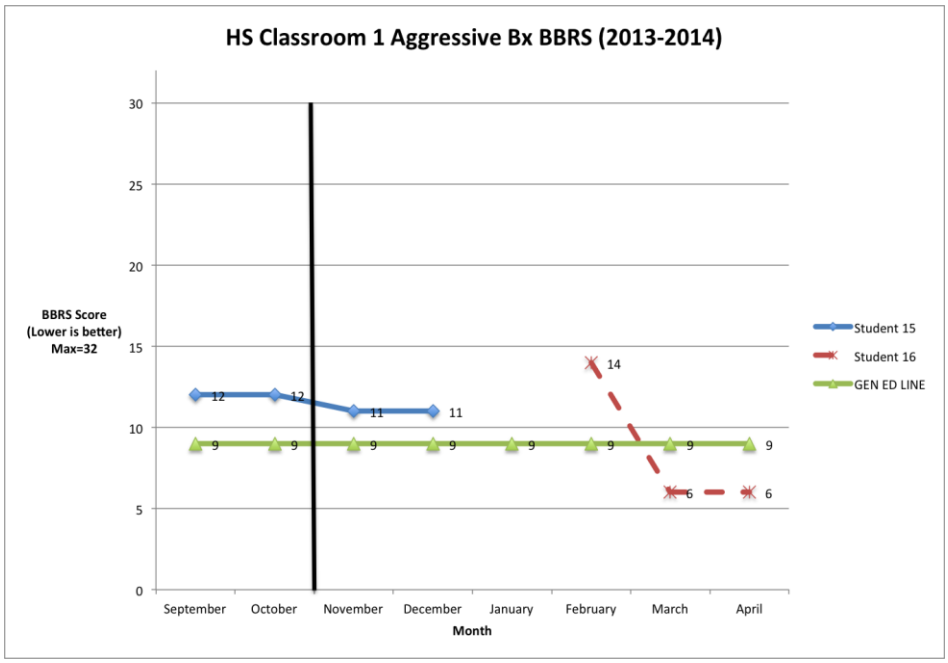
*Classroom 2 Implementation Fidelity= 61%

Figure 8. ***Graph of high school classroom 2 depressive bx BBRS progress data (2013–2014)***



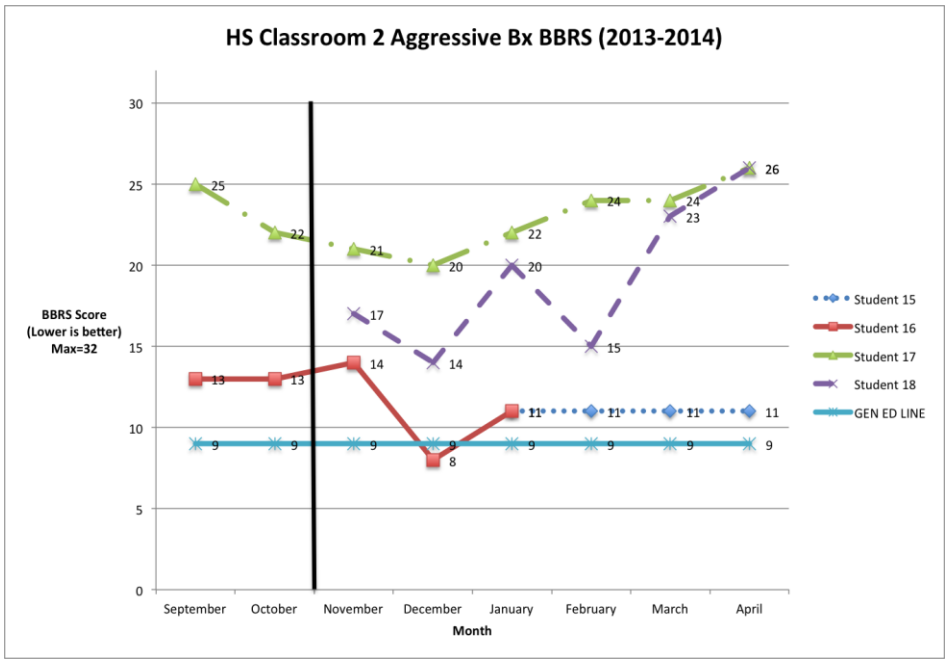
*Classroom 3 Implementation Fidelity= 74%

Figure 9. ***Graph of high school classroom 3 depressive bx BBRS progress data (2013–2014)***



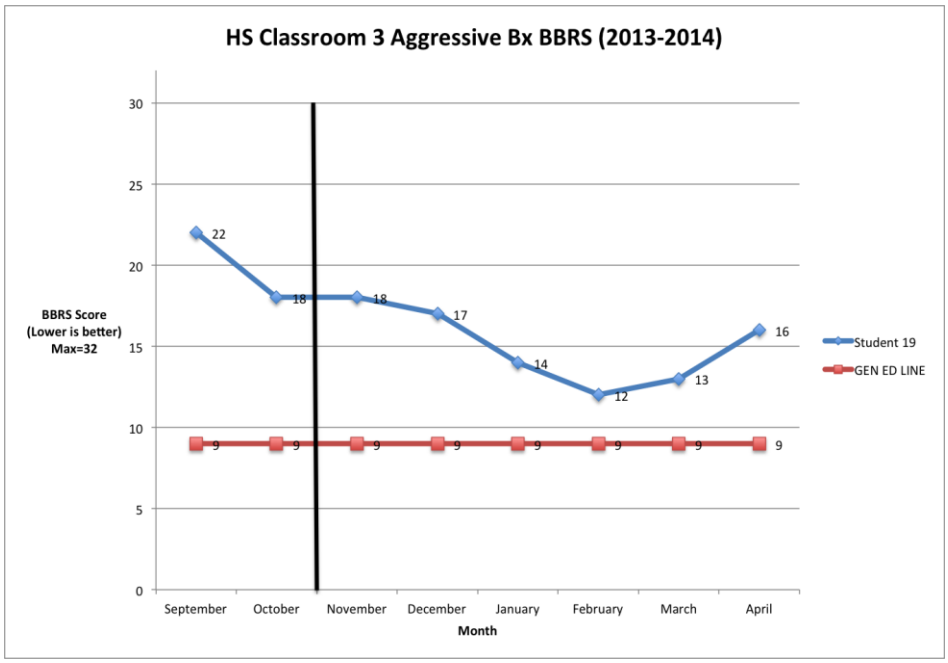
*Classroom 1 Implementation Fidelity= 82%

Figure 10. ***Graph of high school classroom 1 aggressive bx BBRS progress data (2013–2014)***



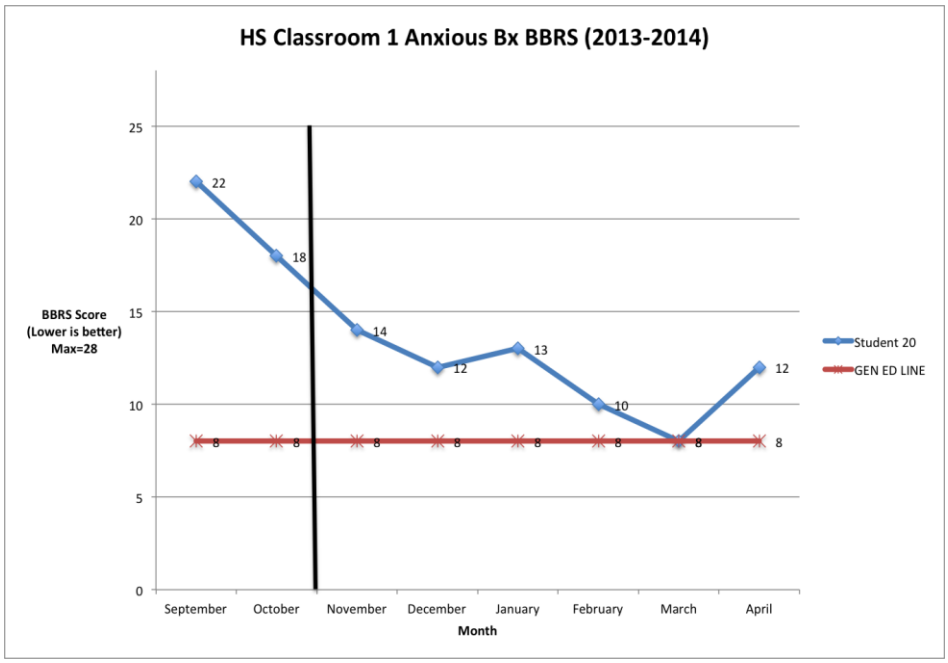
*Classroom 2 Implementation Fidelity= 61%

Figure 11. ***Graph of high school classroom 2 aggressive bx BBRS progress data (2013–2014)***



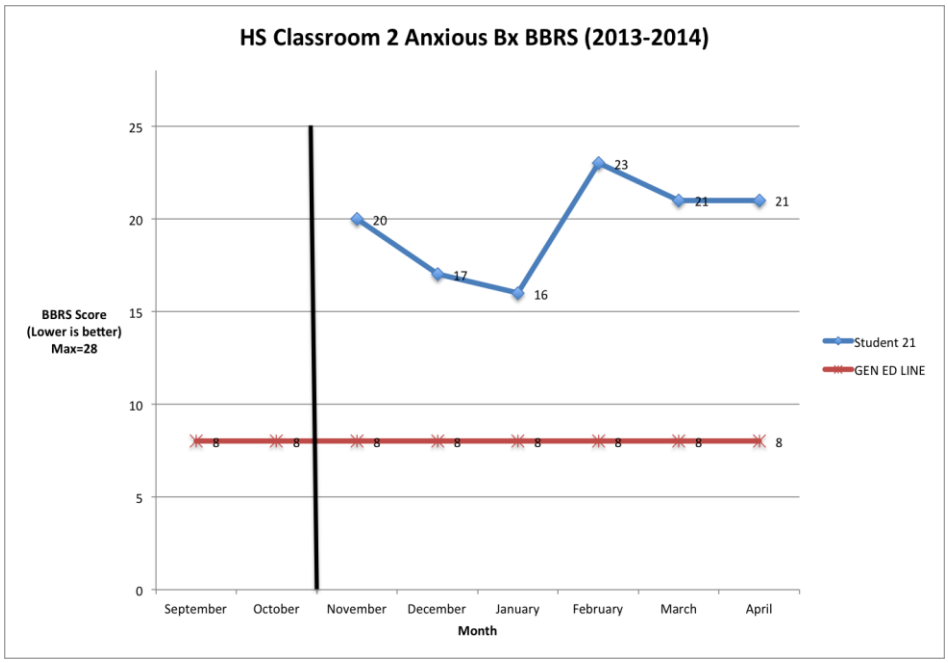
*Classroom 3 Implementation Fidelity= 74%

Figure 12. ***Graph of high school classroom 3 aggressive bx BBRS progress data (2013–2014)***



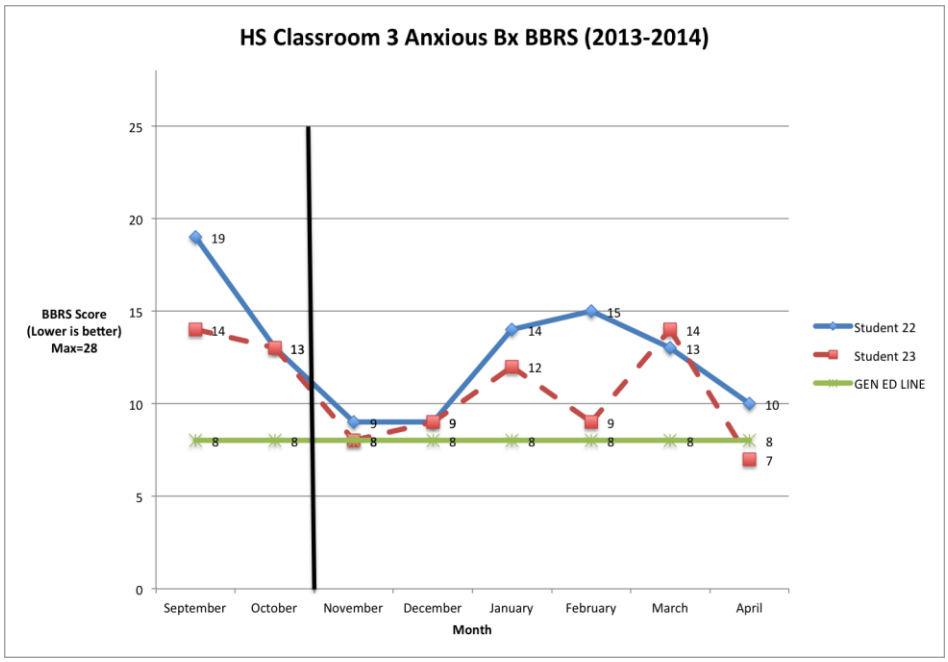
*Classroom 1 Implementation Fidelity= 82%

Figure 13. ***Graph of high school classroom 1 anxious bx BBRS progress data (2013–2014)***



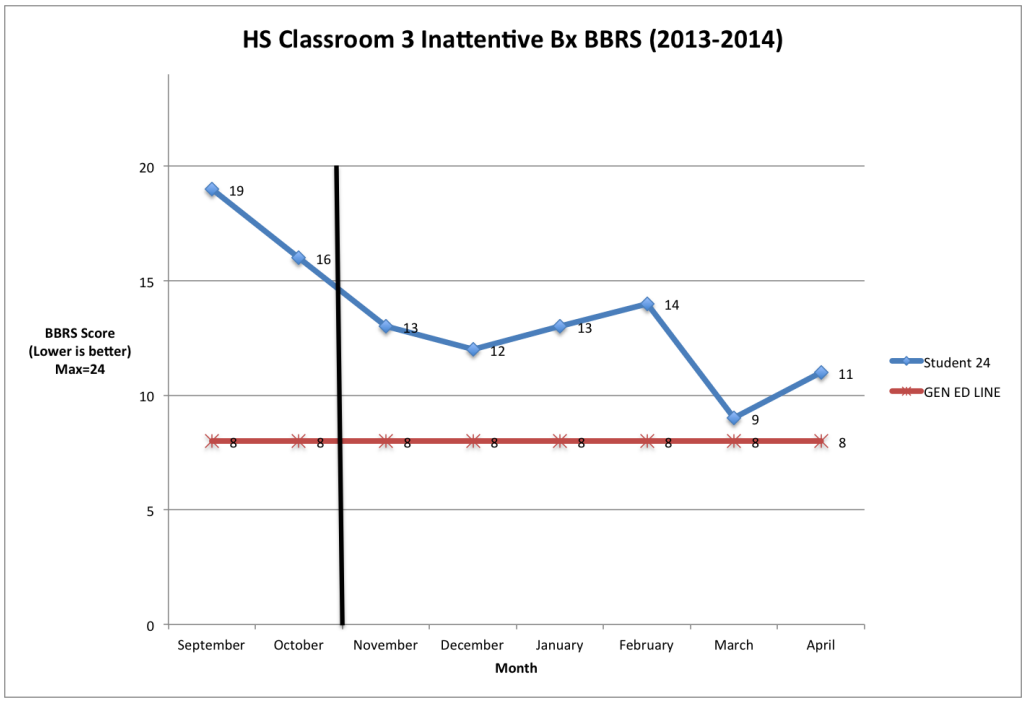
*Classroom 2 Implementation Fidelity= 61%

Figure 14. ***Graph of high school classroom 2 anxious bx BBRS progress data (2013–2014)***



*Classroom 3 Implementation Fidelity= 74%

Figure 15. ***Graph of high school classroom 3 anxious bx BBRS progress data (2013–2014)***



*Classroom 3 Implementation Fidelity= 74%

Figure 16. ***Graph of high school classroom 3 inattentive bx BBRS (2013–2014)***

D. Research Question 3: Are the teacher ratings of the program effectiveness of the TIERS model significantly more favorable over the course of implementation (pre vs. post implementation)?

To address this question, this study utilized a paired samples t-test to compare the teacher ratings of program effectiveness prior to the implementation of TIERS (pre-test) to those collected at the end of the school year (post-test). This was done despite the relatively small sample size of 11 teachers. As discussed in the methods section, the rating form completed by teachers consisted of seven items asking for Likert ratings on a seven-point scale (one to seven; See Appendix). The results of the t-test suggest that the overall teacher ratings of the program effectiveness post-implementation (M=35.55, SD= 9.42) were significantly more favorable compared to pre-implementation (M=31.09, SD=9.81), t(9)=4.12 (p=.00; See Table 8). Paired samples t-tests were also conducted on each of the seven items on the teacher rating form. The results of these t-tests indicated that significant change occurred in the following areas: acceptability of the behavior support system in place (Item 1, p=.01), reasonability of the behavior support process (Item 3, p =.04), extent to which the behavior support system helped in addressing students' problem behavior (Item 4, p=.00), efficacy of the behavior support system (Item 5, p=.01), likability of the behavior support system procedures (Item 6, p=.045), and perception that other staff find the behavior support system acceptable (Item seven, p=0.00).

Table 8.

Descriptive Statistics and T-Test of the Significance of Change in the Teacher Ratings of Program Effectiveness

	Pre		Post		Change Significant?
Item Number	Mean	Std. Dev.	Mean	Std. Dev.	
1	4.45	1.63	5.09	1.58	Yes, p=.01
2	5.18	1.83	5.36	1.50	NS
3	4.64	1.43	5.00	1.48	Yes, p=.04
4	4.55	1.21	5.18	1.25	Yes, p=.00
5	4.45	1.37	5.36	1.12	Yes, p=.01
6	4.36	1.75	5.00	1.48	Yes, p=.045
7	3.45	1.81	4.55	1.69	Yes, p=.00
Total Score	31.09	9.81	35.55	9.42	Yes, p=.00

E. Research Question 4: Is there a significant association between treatment acceptability and treatment implementation fidelity?

Treatment acceptability was measured on a one to seven Likert scale on Item 1 of the teacher survey ("How acceptable do you find the current behavior support system the school uses to manage students with intense social, emotional, and behavior problems?"). A Pearson correlation test was administered to measure the strength of the association between treatment acceptability and treatment implementation fidelity. The results of the correlation test indicate that there is a statistically significant moderate positive correlation between treatment acceptability and implementation fidelity, $r(9)=0.65$ ($R^2=0.42$, p= 0.30). As such, increases in treatment acceptability are predicted to coincide with increases in adherence to the TIERS protocol. This finding is further corroborated when the means of treatment acceptability scores were grouped by the degree of treatment fidelity (See Table 10).

Table 10.

Mean Treatment Acceptability Scores Categorized by the Degree of Treatment Fidelity

%Treatment Fidelity	≥ 80%	79–60%	59% and below
N	2	5	4
Mean Acceptability Score	7(0)	5(1.58)	4.25(1.26)

VI. Discussion

Although programs serving students with Emotional Disturbance have made significant strides since their inception, it is clear that there continue to be multiple areas for future growth. To this end, this study responded to the call of proponents of a public health approach to school-based mental health service delivery that provides a structure to address the needs of all students (Horner et. al, 2014). Despite this goal, there remain several issues specific to working with students with EBD that ought to be addressed in future studies. These concerns include school district staff evaluation practices, placement criteria of students in EBD programs, beliefs and practices surrounding the inclusion of students with special needs, staff training and professional development, and how to directly address burnout and low staff morale.

A. Interpretation of Findings

In this section, results are discussed as related to the four research goals of this study. First, I discuss the findings as to whether the transition to the TIERS model as described by Cook and Browning Wright (2009) promotes greater student movement to the least restrictive environment (LRE) as compared to the previous standard of treatment for students with EBD. Next, I address the effects of exposure to the system of interventions afforded by TIERS on the severity of problem behaviors in high school-aged children (e.g., anxious, depressive, aggressive, inattentive, social skills). Third, I address how the TIERS model affected the teacher ratings of attitudes toward the implementation of the behavior support system. Fourth, I discuss the study's examination of the linkage between treatment acceptability and treatment fidelity. Finally, I discuss the contributions of the study to our understanding of implementation science and EBD programming,

Do TIERS Classrooms Significantly Promote a Greater Student Movement into Less Restrictive Settings Than Treatment as Usual?

The results of the chi-square analysis revealed that the switch to the TIERS model in the 2013–2014 academic year resulted in a significant increase in transitions to less restrictive classroom placements (LRE) as compared to the year prior. Thus, it can be inferred that the package of TIERS interventions acting in concert was responsible for an increase in student movement to LRE. This is in line with this researcher's hypothesis. However, it should again be noted how this analysis was impacted by the researcher's definition of movement toward the least restrictive environment. As discussed earlier in the methods section, "movement into the least restrictive environment" was defined by the following scenarios: a) a full transition from a special day class into general education for 100% of the school day, b) a full transition from a more restrictive special day class (on a separate campus) into a less restrictive special day class (on a comprehensive high school campus), or c) any partial transition to a less restrictive classroom (e.g., one or more classroom periods). As a result of accounting for even partial transitions, the analyses became more sensitive to positive change. However, it is arguable that only a complete transition constitutes movement into the least restrictive environment. This point will be discussed further in the limitations section.

A secondary question associated with this particular research goal was whether or not programs operating at 80% or greater TIERS implementation fidelity evidenced a greater number of transitions to less restrictive placements (LRE) than those that did not. The odds ratio analysis indicated that treatment fidelity was not a significant predictor of increased transitions to LRE, a finding that went against the study's hypothesis. However, there are

other factors at play that should be discussed. First, during the pre-implementation phase of TIERS, EBD programs were told that one of the principal goals of the TIERS model was to increase student movement to LRE. Furthermore, administration had indicated that the metric of student movement would be one of the means by which the classroom programs' efficacy would be assessed. As a result, it is a plausible explanation that this may have played a greater role in student transitions than the degree of implementation fidelity. Consequently, programs that did not achieve 80% or greater treatment fidelity may have been more motivated to promote students into less restrictive classrooms to satisfy this overarching goal.

Does Exposure to the TIERS model Result in a Pattern of Reductions in the Severity of Problem Behaviors or Improvements in Social Skills Among High School Students (e.g., Anxious, Depressive, Aggressive, Inattentive, Social Skills Deficits) as Measured by Problem-Specific Brief Behavior Rating Scales (BBRS)?

One of this study's predictions was that the TIERS model would result in increases in prosocial behavior and decreases in problem behaviors among the 24 high school students who made up the research sample. As discussed earlier, prosocial and problem behaviors were measured using Brief Behavior Rating Scales in the following areas: Social Skills, Depressive Behaviors, Aggressive Behaviors, Anxious Behaviors, and Inattentive Behaviors. Furthermore, these behaviors were measured and compared across three different high school EBD programs using the TIERS model. The first was the most restrictive EBD classroom in the district located apart from the comprehensive high school campus. The other two were EBD programs connected to the main campus of two different high schools.

Analyses across the three aforementioned high school programs indicate that 21 of 24 students (~88%) demonstrated desirable outcomes (either increases in positive behaviors or decreases in problem behaviors; See Figures 4–16) in the 2013–2014 academic year. Furthermore, visual analyses of the individual student graphs yielded multiple themes for consideration. One of the themes that emerged was that students typically experienced a one to two-month period of regression to negative behaviors post-baseline. One interpretation of this theme is that the early stages of implementation of a classroom behavioral program (especially those that involve multi-tiered systems of support) assume that there will be an adjustment phase or "grace period" for both classroom staff and students alike. Anecdotal reports from classroom staff and students shed some light on this topic and warrant further study. For example, many staff members commented that they had initially felt "less confident" in their skills to address classroom behaviors during the first two months of implementation. In turn, this caused them to question themselves when implementing aspects of the program, such as how to respond to students who had become accustomed to the previous classroom behavior management system. Consequently, these staff members reported that students were more likely to defy them and/or question their authority. Students also shared similar struggles in adjusting to the behavioral system. Many reported that they had established behavioral routines that successfully earned them rewards from the past behavioral system. Thus, when these students learned that those expectations had changed, they were more likely to become frustrated. However, the graphs indicate that the majority of students were typically able to adjust to the TIERS system within two to three months and evidence positive behavioral change.

Another theme that emerged was that most students also experienced behavioral regression in the month of January after the schools' closure during winter break. This is best explained by the fact that students had been without the TIERS program structure for two weeks, and that behavioral routines along with an understanding of classroom expectations may have waned without adequate practice. This is in line with the extant literature on Positive Behavioral Supports suggesting that students with emotional and behavioral problems require consistency (Sugai and Horner, 2002).

The other area of focus of this research question was whether or not the degree of TIERS classroom implementation fidelity played a significant role in individual student outcomes. As mentioned earlier, while descriptive statistics were not used due to the relatively small sample size, grouping student data by classroom and problem area yielded promising results. While the area of social skills did not appear to be significantly impacted by treatment fidelity, other brief behavior ratings demonstrated clearer differences among the three classrooms. Depressive, aggressive, and anxious behaviors appeared to be better addressed in classrooms with increased adherence to the TIERS structure. Moreover, the classroom with the lowest treatment fidelity (Classroom 2; 74% fidelity) was the only program among the three that had students move into more restrictive placements. Conversely, classrooms 1 and 3 did not have students move into more restrictive settings and instead saw multiple students become more included with the general education population.

Does the TIERS model Significantly Impact Teaching Staff Attitudes Regarding Implementing Interventions with Fidelity?

Analyses and post TIERS implementation ratings of the classroom behavior management system provided by teachers indicated that teacher attitudes shifted significantly

on multiple levels including: 1) degree of acceptance of the behavior support process, 2) degree of reasonability of the behavior support process, 3) perceived faith in the behavior support process's ability to address student behavior problems, 4) perceived efficacy of the behavior support process, 5) extent to which teachers "like" the behavior support process, and 6) extent to which teachers perceive that other staff members (paraeducators and other support staff) accept the behavior support process.

An area that was not significantly impacted by the TIERS model was the teachers' willingness to implement the behavior support process with fidelity. However, it should be noted that of all survey items, the baseline mean "willingness" scores were higher than those of any other item. This finding merits a discussion about the difference between statistical significance and practical significance. Statistical significance refers to the unlikelihood that mean differences observed in the sample have occurred due to a sampling error. Practical significance examines whether or not the difference is large enough to be of value in a practical sense (Gall, 2001). Though analyses did not reveal a statistically significant difference in willingness to implement the interventions, on a practical level, teachers appeared to be sufficiently motivated to adhere to the treatment protocol. This finding suggests that there are factors at play that impact treatment acceptability not addressed by the survey that warrant further study (e.g., staff climate, pre-existing beliefs about students and educational reform, organizational factors, and so on).

Is There a Significant Association Between Treatment Acceptability and Treatment Fidelity?

It has been argued previously and extensively that treatment acceptability is, or should be related to treatment integrity (Curtis, Hamilton, Moore, & Pisecco, 2014; Nastasi

& Truscott, 2000). Results of the study indicate that there is a significant positive relationship between treatment acceptability and treatment fidelity. This is to say that that as teachers found the TIERS model more acceptable in terms of addressing the needs of students with social, emotional, and behavioral needs, the likelihood that they would follow through with treatment protocol increased as well. This finding contradicted the results of a previous study in this area conducted by Sterling-Turner and Watson (2002), who did not find a significant relationship between treatment acceptability and implementation. However, in another study that examined this relationship as it pertained to the delivery of reading interventions, treatment acceptability was found to have a moderate positive correlation with treatment integrity (Mautone et. al, 2009). Other researchers, such as Chaudoir, Dugan, and Barr (2013), Sanetti and Kratochwill (2007) and Westmaas, Gil-Rivas, and Silver (2007), noted other provider characteristics, such as recognizing a specific need for the intervention, believing it will produce the desired benefits, feeling an increased sense of self-efficacy, and having requisite skills were most likely to predict the implementation of a program at higher levels of dosage. Going forward, these characteristics and their impact on the acceptability and follow through of school-based mental health interventions should be subject to further study.

B. Implications for Practice

1. Contributions to Implementation Science

The collection of treatment integrity data was vital to this study, as this is essential for the internal and external validity of the delivered interventions. Accurate interpretation of TIERS outcome data depends on knowing which components of the intervention were delivered and how well they were executed. Just as negative results can occur if the

components are not delivered with fidelity, positive effects may be due to an innovation that was in fact different from what was prescribed.

As discussed by Durlak and DuPre (2008), "the development of effective interventions is only the first step toward improving the health and well-being of populations. Transferring effective programs into real world settings and maintaining them there is a complicated, long-term process that requires dealing effectively with the successive, complex phases of program diffusion" (p. 327). These phases include how effectively the program's rationale and value are *disseminated* to the local organization (in this case, a Special Education Local Plan Area), whether the program is *adopted* by the organization, how well the program is *implemented* during the trial period, and whether the program is *sustained* over time.

This study contributed to the extant literature on implementation science in multiple ways. First, while the TIERS package of interventions was effective in promoting overall student movement to LRE, statistical analyses did not demonstrate significant differences in movement between programs achieving 80% or greater implementation fidelity and those that did not meet this standard. As discussed earlier, a possible explanation for this finding is that programs may have been motivated to promote students into less restrictive placements given that this was the goal set forth by the administration. As a result, it is plausible that this could happen regardless of whether the TIERS components were implemented with fidelity. Scenarios such as these highlight the importance of being able to account for these factors when conducting implementation research. However, the single-subject case data do suggest differences in student outcomes by degree of program implementation fidelity. High school classrooms 1 and 3 (82% and 74% fidelity, respectively) demonstrated more

improvements in student behavior as compared to baseline and greater periods of sustained growth. Conversely, high school classroom 2 experienced mixed results and consisted of more students who demonstrated behavioral regression over the course of the academic year.

Second, the study demonstrated the link between treatment acceptability and treatment integrity, and moves the discussion forward about how to increase treatment acceptability. Several components of the TIERS model are aimed at improving the provider characteristics mentioned earlier. These components include providers having a shared vision, beliefs, and a team-based/supportive approach (please refer to literature review for a detailed description). However, in spite of these macro-level (or organizational-level) interventions, there remained several obstacles to achieving fidelity.

Durlak and DuPre (2008) emphasize the importance of community level factors in implementation fidelity. Integral to this study are community factors, such as politics, funding, and policy. As described by Bernan and McLaughlin (1976) and Coffey and Horner (2012), school staff pressured by school administration to offer new programs often do not implement them very effectively, possibly because they are not committed to the intervention. Furthermore, this study was conducted amidst similar political pressures, such as reluctance on the part of the school staff to have their classrooms subjected to data collection due to fears about data being used to evaluate staff performance. Consequently, the administration assured the staff that classroom data would be de-identified and in no way used to evaluate individual performance. However, without the ability to determine the degree to which individual staff members are adequately trained and proficient in delivering interventions, it becomes increasingly difficult to measure authentic change. Insufficient funding was also an additional barrier to implementation fidelity, as multiple programs cited

budget constraints as a reason why they could not implement reward strategies, such as Honors Room, effectively, or for the absence of separate spaces for group/individual therapy and Boring Room. Furthermore, each of the various campuses' unofficial social policy also played an important factor in implementation. While some schools were open to the overarching goal of preparing students with emotional and behavioral challenges to move toward full inclusion, others were opposed to the idea and believed that these students were "better off" separated from the main population. Thus, future iterations of TIERS implementation would benefit from staff development for all school personnel, as opposed to only targeting those working in special education.

C. Limitations and Future Directions

As with most preliminary studies**,** while this study is helpful toward advancing the science on implementation and programming for students with Emotional Disturbance, there are several programmatic and methodological limitations that should be taken into consideration. First, one of the principal limitations of the study is that elements of the TIERS intervention were not evaluated in isolation in terms of their impact on student outcomes. Because of this, it is difficult to establish what aspect of TIERS specifically contributed to the improvements or to the worsening of student behaviors, or to the likelihood of students transitioning toward the least restrictive environment.

Another limitation of the study is this researcher's definition of movement to the least restrictive environment. This study regarded movement to LRE as *any* degree of movement to a less restrictive placement. If students did not fully transition to a full school day with less specialized supports, but were given additional class periods or time spent in a class with general education peers, this was counted as movement. However, this interpretation of

movement differed from that of the school administration involved in the study, which believed that only full transitions to less restrictive placements should count as movement to LRE. Despite this incongruity, it was this researcher's judgment that the more inclusive definition of movement was more sensitive to change and, therefore, more appropriate for this research study.

There were multiple limiting considerations in terms of data collection that impacted this study. First, much of the data regarding treatment fidelity was gathered through self-report. As noted by Adams, Soumerai, Lomas, and Ross-Degnan (1999) and Lugtenberg, Burgers, Besters, Han, and Westert (2011), self-report can result in an overestimation of performance. Moreover, the two types of bias that may explain this overestimation are social desirability and interviewer bias. It is hypothesized that program staff may have been influenced by the discomfort of knowing that their behavior may deviate from the social norms of their respective school sites and that reported behavior may become more in line with these norms. Alternatively, interviewer bias, which is highly similar to social desirability bias, occurs when the respondent provides the response that he or she believes the interviewer wants to hear (Roller, 2012; Warwick & Lininger, 1975). As the researcher was also a program consultant for the Special Education Local Plan Area, it is plausible to infer that this may have impacted the validity of the responses.

Second, the relatively small sample size was another limitation of this study. Considering analyses that were run to determine program or teacher level effects (paired samples t-test, correlation), a sample size of 11 was not ideal. One of the consequences of low statistical power was that it reduced the likelihood of detecting a "true" effect. Furthermore, low statistical power negatively impacts the reproducibility/reliability of

results. In spite of this limitation, it is this researcher's opinion that if the study is regarded as exploratory, the process of this level of data collection and analysis was still valuable for future evaluations of the TIERS programs.

A third limitation of this study was the inconsistency (and unreliability) of behavior data entry in the Review 360 behavior database. As mentioned earlier, Review 360 was a software solution intended to aid in the tracking and documentation of student behavioral progress in the 11 classroom programs. Due to the system being implemented mid-year with little training, very few programs were able to use the software as consistently and as accurately as intended. Furthermore, informal polling of teachers and paraeducators revealed a reluctance to move to the electronic system due to time constraints, a self-perceived lack of technical expertise, and technical issues, such as the lack of wireless internet solutions at specific school sites. This impacted the single-case brief behavior rating scale data, as plans were in place for the electronic data to inform the monthly behavior ratings. Any future TIERS-related studies would benefit from examining the teaching staff's beliefs about electronic record keeping and their impact on the use of computerized behavior tracking systems.

Another limitation with regard to data collection was the use of a non-standardized measure of treatment fidelity. This is an area of the research on implementation science that warrants further study. More recently, the work of Bruns, Burchard, Suter, Leverentz-Brady, and Force (2005), led to the creation of the Wraparound Fidelity Index, a measure created and used within the community mental healthcare to assess the degree to which the following protocols were observed: 1) reviewing manuals and program descriptions, 2) reviewing staffing and budget data, 3) reviewing case file data on treatment plans and meeting notes, 4)

compiling data from management information systems data on procedure, 5) observing service processes, 6) staff completing checklists of activities conducted, and 6) interviewing the individuals involved, including youth, family, and provider (Bruns et. al, 2004). If such a model is adapted and applied to the evaluation of the TIERS classrooms, it could potentially provide a more valid measurement of implementation fidelity.

VII. Conclusions

While this researcher acknowledges the aforementioned methodological and logistical limitations, the purpose of this study is to lend insight into the improvement of school-based programming for students with Emotional Disturbance. To this end, the results should be replicated across a larger sample of classrooms and attempt to generalize the results to more diverse settings and samples, as well as provide comparisons to other known EBD programs. The study also made a contribution to the understanding of the process of measuring treatment fidelity and its effects on student outcomes. Nonetheless, there is still more work to be done to further elucidate the complexities of treatment acceptability by school-based providers and its linkage to treatment fidelity.

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Appendix

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Human Subjects Committee
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7/14/2014

VERIFICATION OF ACTION BY THE UCSB HUMAN SUBJECTS COMMITTEE

RE: HUMAN SUBJECTS PROTOCOL SUBMISSION ID 14-0494

TYPE: New

TITLE(S):

A PROCESS AND OUTCOMES EVALUATION OF A SPECIAL EDUCATION PROGRAM FOR STUDENTS WITH EMOTIONAL DISTURBANCE: THE TIERS SYSTEM

INVESTIGATOR(S):

Shane Jimerson

Shahrokh Shahroozi

The above identified project may commence on 7/14/2014. It was exempted on 7/14/2014 and does not expire.

RENEWAL OF PROTOCOLS

If you wish to continue your research beyond the above expiration date, your protocol must be renewed before it expires. To ensure that your research can continue uninterrupted, the following schedule should be followed:

Full Board Review: Submit five weeks before expiration date.
Expedited Review: Submit three weeks before expiration date.
Exemption Review: Does not expire. Resubmit only if changes are made.

All research must cease under this protocol on its expiration date unless you have received notice of renewal from the HSC.

AMENDMENTS/MODIFICATIONS/CHANGES:

Any change in the design, conduct, or key personnel of this research must be approved by the HSC prior to implementation.

UNANTICIPATED PROBLEMS/ADVERSE EVENTS:

If any study subject experiences an unanticipated problem involving risk to subjects or others, and/or a serious adverse event, the HSC must be informed promptly. An e-mail or phone call must be received within seven days. Further reporting requirements will be determined by the HSC at that time.

If you have any questions about the above, please contact the Human Subjects Committee Coordinator at:

805-893-3807

(805) 893-2611 (fax)

hsc@research.ucsb.edu

For more details on this protocol, go to the ORahs website: https://orahs.research.ucsb.edu/,

Progressive Response to Classroom Problem Behavior
PROMPT Method

Teachers are constantly in search of methods to respond to problem behavior when it happens to get the student back on track. The **PROMPT** method is just that—a systematic method of progressively and systematically responding to problem behavior. The aim is to begin with less intrusive and intensive tactics and progressively use more intrusive and intensive tactics to respond to and correct the problem behavior.

Proximity control

Involves actually standing near the student to correct behavior. For many problem behaviors, the first step before getting involved in a verbal interaction with the student should be to stand next to the student or students who are beginning to engage in off-task, disruptive behavior. The teacher or paraprofessionals presence is often enough to correct problem behavior. Proximity control also involves being mobile and moving about the classroom, which requires students to be alert in order to track and pay attention to the speaker. The idea behind proximity control is to "teach like the floor is on fire." This means to not stand in one place too long or one's feet would burn. Rather, the attentive and aware teacher or paraprofessional is moving around the room and scanning for the earliest warning signs of problem behavior. When problem behavior is observed, proximity control is used.

Redirection

Involves actually asking the student to do something. The aim here is to regain instructional control over the student. If the student complies with your request, then the student is now under your instructional control and it stops the inappropriate behavior in an attempt to redirect to appropriate behavior. Examples of redirection tactics include:

Ongoing Monitoring to shape behavior

Involves keeping an eye on the student to catch the student behaving good. Teachers and paraprofessionals often miss opportunities to reinforce and praise appropriate behavior after issuing a redirection or using proximity control. After using either of these tactics, the teacher should pay close attention to the student, and at the first signs of good behavior, the teacher should be ready to reinforce (e.g., give points) and praise the student (e.g., "I really appreciate you getting you book out. Thanks a lot!"). By engaging in ongoing monitoring to shape behavior, you will be able to help establish momentum for on-task, complaint behavior instead of the problem behavior. This is also called 'catch the student behaving good.' When a teacher engages in ongoing monitor of the student to shape their behavior to be better in the class, the student is more likely to alter his behavior from inappropriate to appropriate behavior.

Prompt

Involves providing a direct, explicit, and concise command to the student about what he or she should be doing instead of the problem behavior. Often teachers and/or parents provide commands that are phrased as a question or involve ambiguous language. These commands are often ineffective and do not result in behavior change. An effective command that is delivered as a prompt tells the student precisely the behavior you want him to exhibit instead of the problem behavior. For example, if one observed a student talking out

control and point loss does not occur for RESPONSIBILITY. If requested to return to the original task and the student does NOT comply, then the sequence of 2, 1, 0 DOES apply to RESPECT (of the staff person's request) and RESPONSIBILITY (to perform requested educational task).

- **Example:** Student is very upset about a home event and puts head on desk, not complying with a task requirement. Teacher decides to give him permission to "take a break" or do another activity for some portion of the interval due to recognition of a setting event effecting performance. If teacher determines to request re-engagement and student does not comply, then point loss begins.

Level System

DAILY Level: If the student has earned the criterion (80 to 85% of points) previously determined for the day, then the student has access to honors room (described in other documents) for the following day.

Special Circumstances: If the student is K, 1st , or 2nd grade, earning of honors room occurs by the half day. Monday AM earns for Monday PM, Monday PM earns for Tuesday Am, and so forth.

WEEKLY Level: If the student has earned honors room access for 17 out of 20 days, and the last 7 days were in a row, then the student has arrived at WEEKLY status and is eligible for the weekly school outing in addition to the honors room access. In the classroom, additional reinforcers are available for weekly status students as well, such as first to go to lunch, first choice in the student store, and so forth.

NATURAL Level: If the student maintains weekly status for a minimum of 4 weeks, and team additionally confirms readiness for this level, then Natural Level is attained. No point card is kept, and the student has access to all reinforcers (honors room, weekly outings, additional in-class activity and tangible reinforcers, etc.) If ZERO out behavior occurs, (see other handouts) the student returns to point cards and works to achieve weekly and natural status again.

II. In Class Motivational System: 1. Bonus Point System

Bonus points occur throughout the interval and are essential to address three categories of behaviors:

- **GENERAL POSITIVES:** In order to allow recording of the staff 's use of positive methods to shape behavior within an interval, points are awarded with specific verbal praise for the behavior shown, verbally linking it to SAFE RESPECTFUL and RESPONSIBLE categories of rule following behaviors.

- **TARGETED BEHAVIORS** from an IEP: In order to specifically record that a desired behavior goal to address a specific need occurred within that interval bonus points are awarded and verbally linked to a targeted behavior. Not all behaviors associated with strong social emotional (mental) health can be identified specifically on an IEP.

Therefore, targeted behaviors are limited to two. All other behaviors are likely to be covered by the SAFE RESPECTFUL RESPONSIBLE categories of progress monitoring
    - Note, often specific goals are not able to be shown in every interval. For example, engages peers in conversation. Only in some intervals is this possible.
- **BEHAVIORS RELATED TO SKILL INSTRUCTION**: In order to aid generalization of behaviors taught in social emotional learning lessons and/or in social skills instruction, staff catch the student exhibiting a previously taught behavior within the interval, identify the skill used, referencing the posted skill steps posted in the room, and provides bonus points and verbal praise.

Bonus points are also critical to address two problems that can occur with an interval recording and debriefing procedure:

1. If the student has already met criterion of 80/85% before the end of the last interval, some students will not comply with the rules during the remaining intervals because criterion has already been met. This is corrected by having all points earned beyond the required criterion transfer to additional bonus points. This increases maintenance of desired behaviors.

2. If the student had a ZERO out that cancelled all 9 points in an interval until the three components of correction were completed (tasks in folders, explanation form and letter of apology) he/she will quickly see that though points can be earned in the remaining intervals following completion of the ZERO OUT procedures, there is no possibility of achieving the necessary criterion for honors access the next day. Therefore, all points earned when the student returns to points and levels interval recording transfers to the bonus point structure.

PAYOFF FOR BONUS POINTS

The teacher and staff provide opportunities for the students to cash out bonus points between 2 and 5 days per week at a specified time. Students may purchase small consumables, activities, privileges, small presents to give to family members, and other reinforcers. If the student has not earned honors room for that day, then he/she is unable to cash out points during that period.

II. In class motivational system 2. for GOOD BEHAVIOR GAME team success

Periodically throughout the week the students are divided into teams to compete against each other for special reinforcement that adds desirable outcomes, or removes undesired features at staff discretion (activity access, passes on homework coupons, etc.) This team completion has a strong evidence base behind it and has been shown to further incentivize rule following beh**aviors.**

Fig. 2.1

Emotional and Behavioral Program Rating Form

Please complete the following questionnaire. For each item, please circle the number that best indicates your feelings about the current behavior support process. Behavior support process is defined as the current procedures that are in place to manage and deal with student problem behavior. Please answer each question as honestly as possible. Remember all responses are confidential and you will remain anonymous. This questionnaire is not intended to evaluate you. Rather it is to evaluate the current behavior support system.

1. How acceptable do you find the current behavior support system the school uses to manage students with intense social, emotional and behavior problems?

1	2	3	4	5	6	7
Not at all acceptable			Somewhat acceptable			Very acceptable

2. How willing are you to follow the current behavior support process?

1	2	3	4	5	6	7
Not at all willing			Somewhat willing			Very willing

3. Given your students' behavioral problems, how reasonable did you find the current behavior support process to be?

1	2	3	4	5	6	7
Not at all reasonable			Somewhat reasonable			Very reasonable

4. To what extent do you feel the current behavior support system helps you address your students' behavior problems?

1	2	3	4	5	6	7
Not at all likely			Somewhat likely			Very likely

5. How effective is the current behavior support system?

1	2	3	4	5	6	7
Not at all effective			Somewhat effective			Very effective

6. How much do you like the procedures used in the current behavior support system?

1	2	3	4	5	6	7
Not at all			Somewhat			Very much

7. How acceptable do you think other staff members find the current behavior support system?

1	2	3	4	5	6	7
Not at all Acceptable			Somewhat Acceptable			Very Acceptable

Comments on improving the current behavior support system:

Aggressive/Disruptive Behavior

Brief Behavior Rating Progress Monitoring Scale

Student Name:_____ Rater Name:_____ Date:_____

Circle: Baseline Phase (Tier 1) OR Intervention Phase (Tier 2 or Tier 3)

DIRECTIONS:

- BASELINE PHASE RATINGS: Ratings completed during the Baseline Phase are intended to reflect the student's behavior in the *absence* of an intervention. Simply reflect on the student's behavior as best as you can and circle the response that most accurately captures the frequency of the student's behavior as it relates to each item. Baseline ratings are important to evaluate the student's response to an intervention.
- INTERVENTION PHASE RATINGS: Your ratings during this phase are intended to reflect the student's behavior since the intervention was implemented. It is important to not to let the student's past behaviors or reputation prior to the intervention being implemented influence your ratings. Each rating you completed is intended to represent the student's behavior during the period of time from last rating to this rating.

ITEMS	Never	Rarely	Sometimes	Often	Almost Always
Threatened other students	0	1	2	3	4
Was physically aggressive toward peers	0	1	2	3	4
Bullied other students	0	1	2	3	4
Instigated peers by teasing or saying put downs	0	1	2	3	4
Challenged your or other teachers' authority	0	1	2	3	4
Was reprimanded for bad classroom behavior	0	1	2	3	4
Argued with classmates	0	1	2	3	4
When corrected, argued or became upset	0	1	2	3	4
TOTALS					

Anxious Behaviors

Brief Behavior Rating Progress Monitoring Scale

Student Name:_____ Rater Name:_____ Date:_____

Circle: Baseline Phase (Tier 1) OR Intervention Phase (Tier 2 or Tier 3)

DIRECTIONS:

- BASELINE PHASE RATINGS: Ratings completed during the Baseline Phase are intended to reflect the student's behavior in the *absence* of an intervention. Simply reflect on the student's behavior as best as you can and circle the response that most accurately captures the frequency of the student's behavior as it relates to each item. Baseline ratings are important to evaluate the student's response to an intervention.
- INTERVENTION PHASE RATINGS: Your ratings during this phase are intended to reflect the student's behavior since the intervention was implemented. It is important to not to let the student's past behaviors or reputation prior to the intervention being implemented influence your ratings. Each rating you completed is intended to represent the ***student's behavior during the period of time from last rating to this rating***.

ITEMS	Never	Rarely	Sometimes	Often	Almost Always
Appeared stressed about academic work	0	1	2	3	4
Reluctant to engage in social activities	0	1	2	3	4
Refrained from speaking in class	0	1	2	3	4
Said he or she was sick and/or hurt	0	1	2	3	4
Was sensitive to criticism	0	1	2	3	4
Seemed nervous or timid when in the presence of peers	0	1	2	3	4
Excessively worried about academic performance	0	1	2	3	4

Depressive Behaviors

Brief Behavior Rating Progress Monitoring Scale

Student Name:_____ Rater Name:_____ Date:_____

Circle: Baseline Phase (Tier 1) OR Intervention Phase (Tier 2 or Tier 3)

DIRECTIONS:

- BASELINE PHASE RATINGS: Ratings completed during the Baseline Phase are intended to reflect the student's behavior in the *absence* of an intervention. Simply reflect on the student's behavior as best as you can and circle the response that most accurately captures the frequency of the student's behavior as it relates to each item. Baseline ratings are important to evaluate the student's response to an intervention.
- INTERVENTION PHASE RATINGS: Your ratings during this phase are intended to reflect the student's behavior for this week. It is important to not to let the student's past behaviors from previous weeks or reputation prior to the intervention being implemented influence your ratings. Each rating you completed is intended to represent the ***student's behavior during the period of time from last rating to this rating***.

ITEMS	Never	Rarely	Sometimes	Often	Almost Always
Appeared sad or bummed out	0	1	2	3	4
Seemed cranky, irritable, or agitated	0	1	2	3	4
Was disinterested in school work and other activities	0	1	2	3	4
Appeared tired or worn-out	0	1	2	3	4
Had difficulty following instructions	0	1	2	3	4
Sulked or shut down	0	1	2	3	4
Preferred to be alone during unstructured times (free time, lunch, recess, etc.)	0	1	2	3	4

Inattentive Behaviors

Brief Behavior Rating Progress Monitoring Scale

Student Name:_____ Rater Name:_____ Date:_____

Circle: Baseline Phase (Tier 1) OR Intervention Phase (Tier 2 or Tier 3)

DIRECTIONS:

- BASELINE PHASE RATINGS: Ratings completed during the Baseline Phase are intended to reflect the student's behavior in the *absence* of an intervention. Simply reflect on the student's behavior as best as you can and circle the response that most accurately captures the frequency of the student's behavior as it relates to each item. Baseline ratings are important to evaluate the student's response to an intervention.
- INTERVENTION PHASE RATINGS: Your ratings during this phase are intended to reflect the student's behavior since the intervention was implemented. It is important to not to let the student's past behaviors or reputation prior to the intervention being implemented influence your ratings. Each rating you completed is intended to represent the student's behavior during the period of time from last rating to this rating.

ITEMS	Never	Rarely	Sometimes	Often	Almost Always
Had trouble staying focused until tasks were completed	0	1	2	3	4
Failed to complete assigned work on time	0	1	2	3	4
Was easily distracted	0	1	2	3	4
Needed prompts/reminders to stay on task	0	1	2	3	4
Was caught daydreaming	0	1	2	3	4
Was confused about assignment instructions	0	1	2	3	4

Social Skills

Brief Behavior Rating Progress Monitoring Scale

Student Name:_____ Rater Name:_____ Date:_____

Circle: Baseline Phase (Tier 1) OR Intervention Phase (Tier 2 or Tier 3)

DIRECTIONS:

- BASELINE PHASE RATINGS: Ratings completed during the Baseline Phase are intended to reflect the student's behavior in the *absence* of an intervention. Simply reflect on the student's behavior as best as you can and circle the response that most accurately captures the frequency of the student's behavior as it relates to each item. Baseline ratings are important to evaluate the student's response to an intervention.
- INTERVENTION PHASE RATINGS: Your ratings during this phase are intended to reflect the student's behavior since the intervention was implemented. It is important to not to let the student's past behaviors or reputation prior to the intervention being implemented influence your ratings. Each rating you completed is intended to represent the student's behavior during the period of time from last rating to this rating.

ITEMS	Never	Rarely	Sometimes	Often	Almost Always
Followed classroom rules	0	1	2	3	4
Was sympathetic towards others' feelings	0	1	2	3	4
Complied with adult directions/requests	0	1	2	3	4
Managed frustration appropriately	0	1	2	3	4
Cooperated with classmates	0	1	2	3	4
Requested help appropriately	0	1	2	3	4
Accepted classmates' ideas	0	1	2	3	4
Ignored distractions by classmates	0	1	2	3	4

EBD PROGRAM EVALUATION RUBRIC

School Name: _____ **Date**: _____

Completed by: _____

Ingredient	1—Exploring and Planning	2—Partial implementation	3—Full Implementation	4—Continuously Improving
		Vision, Beliefs, and Goals		
Vision To what extent are the staff aware of and committed to carrying out the overarching RTI vision of the EBD program?	We are in the process of developing a vision and preparing to communicate it with our staff?	We have developed and communicated the vision, but haven't done much to assess buy-in and commitment to carrying out the vision.	We have developed, communicated, and made efforts to obtain buy-in among staff to carry out the vision.	We are developing and implementing procedures for sustaining the support for carrying out the vision.
Beliefs To what extent are staff members' beliefs in alignment with the adoption and implementation of evidence-based practices for students with EBD?	We are planning how to address belief barriers within our school that run counter to the vision and interfere with the implementation of EBP.	We have held discussions with staff about their beliefs and the importance of aligning one's beliefs with evidence-based practices.	We have held discussions about beliefs and challenged staff to confront their beliefs and align them with effective practices. We have obtained staff buy-in.	Given staff's beliefs are on-board, we are now in the process of holding periodic belief check-ins to assess the overall mindset of staff to carry out the vision to meet the social-emotional needs of students with EBD.
Goals To what extent have goals been developed and data collected to monitor goal attainment?	We are in the process of developing site-based goals that are consistent with the vision.	We have developed goals but have not yet started collecting data to evaluate whether goals are being met.	We have developed goals and begun collecting data to evaluate whether goals are being met.	We are in the process of standardizing this process and including additional sources of data to evaluate social, emotional, and academic success.
		Data-Based Decision Making		
Progress Monitoring To what extent are progress monitoring tools selected and used to monitor students' response to interventions?	We have not yet started systematically progress monitoring, but researching tools and planning on starting it in the future.	We have selected progress monitoring tools and begun the process for some students in the EBD program.	We have selected progress monitoring tools and are systematically monitoring all students' progress in response to interventions.	We are developing more efficient procedures for collecting and managing the data and generating graphs for the team meetings.
Teaming To what extent are streamlined problem-solving team meetings held to review data and make decisions?	We have not yet adopted a streamlined teaming process in which multiple students are discussed per meeting and data-based decisions are made.	We have begun implementing a streamlined teaming process in which data-based decisions are made for some of the students receiving in the program, and/or, we are currently only meeting once a month.	We have begun implementing a streamlined teaming process in which data-based decisions are made for all students in the program and meetings are held on a weekly basis.	We are expanding our problem-solving team so student progress can be discussed more frequently. We reflect on our teaming processes to make sure it is operating as planned.
Fidelity Checks To what extent are there periodic fidelity checks to collect data regarding whether the continuum of supports are being implemented	We have not yet begun a process of conducting fidelity checks but would like to start in the future.	We have begun conducting fidelity checks on some of the supports and not frequently enough.	We have begun conducting periodic fidelity checks on most of the supports within the continuum of services and providing informative reports back to the	We are attempting to increase the frequency and quality of the fidelity checks. Our goal is to improve the feedback we provide to staff.

Ingredient	1—Exploring and Planning	2—Partial implementation	3—Full Implementation	4—Continuously Improving
as planned?			staff.	
		Fidelity of Intensified Level 1		
Program-wide PBIS To what extent have 3-5 behavioral expectations been established, posted, regularly taught, and reinforced?	We are in the process of selecting 3-5 behavioral expectations and creating a matrix to post in all settings. Developing a plan for teaching expectations and establishing a reinforcement system.	The 3-5 behavioral expectations have been established, posted, and taught, but ongoing teaching of expectations and a solid reinforcement system are lacking.	The 3-5 behavioral expectations have been established, posted and are taught on a regular basis by all teachers. A reinforcement system, including a school-based currency has been created to reinforce students for exhibiting behavioral expectations and linked to the points and levels system.	Data are collected to examine fidelity of implementation and pinpoint areas for further improving implementation of SW-PBIS. Site-based team meetings several times throughout the year to discuss sustaining SW-PBIS implementation.
Points & Levels System To what extent is a points and levels system developed to provide contingent access and denial to highly preferred activities, privileges, and	We have not yet developed a points and levels system.	A points and levels system has been developed but staff are not consistently using it and/or students aren't interested in earning the points.	The points and levels system is being implemented with fidelity by all staff and students are interested in earning the points in order to access reinforcement.	The points and levels system is continuously being improved to obtain greater student buy-in and facilitate fidelity of implementation.
Proactive Classroom Management To what extent are the 16 proactive classroom management strategies being implemented?	We are planning on holding a training with our staff to go over the 16 PCM strategies.	Some of the PCM strategies have been shared with the staff, but no specific expectations regarding implementation have been developed.	All 16 PCM strategies have been shared with staff and expectations for implementing them has been communicated. Teachers are committed to implementing the 16 PCM strategies.	Ongoing support via coaching, peer assistance, and PLC meetings are being provided to incrementally improve fidelity of implementation. Data are collected to examine the extent to which PCM strategies are being implemented as planned.
Good Behavior Game To what extent is the GBG being implemented as a method to increase academic engagement and decrease disruptive behavior?	We are aware of the impact of the GBG, but are currently in the planning stage of presenting information on it and supporting teachers to use it in the classroom.	We have shared information on the use of the GBG and provide support to teachers who are interested in using it, but currently the GBG is only implemented in some classes.	We have provided information on the GBG and provide support to teachers to implement it and it is currently being implemented school-wide by the majority of teachers.	Resources are being developed for teachers to provide different ways to play the GBG and it is being incorporated into walk-throughs and PLC discussions.
Social-Emotional Learning Curriculum To what extent has an evidence-based SEL curriculum being implemented weekly for ALL students?	We are in the process of researching an SEL program to purchase and implement.	We have purchased an SEL program and it is implemented by some teachers OR is being implemented inconsistently (e.g., not on a weekly basis, not for all students, etc.)	All teachers are implementing an SEL program on a weekly basis for all students.	We are in the process of holding PLC meetings and conducting group walk-throughs to improve instructional delivery of the SEL curriculum.
Positive Relationships To what extent do the adults strive to build positive relationships with all students?	We have not yet held discussions about the importance of positive relationships with all students. We are planning on having this discussion and providing PD on this topic.	We have held discussions about the importance of building positive relationships with all students, but it is apparent that not all staff are bought into the idea.	Staff are committed to building positive relationships with all students, but no data are being collected to examine the extent to which staff have been successful at doing so.	Staff are committed to building positive relationships with all students and data are collected to examine the quality of relationships (e.g., student opinion surveys, randomly interviewing

Ingredient	1—Exploring and Planning	2—Partial implementation	3—Full Implementation	4—Continuously Improving
				students, etc.).
Supporting Students' Physiology to Learn and Behave Well To what extent are their efforts to improve nutritional, exercise, and sleep habits of students and staff?	We understand the importance of working with students to establish healthy physiology that is conducive to learning, but we are in the process of devising how to do this.	We have held discussions with staff about the importance of supporting students' eating, exercise, and sleeping habits, but we have not made	We have made school-wide changes, provided resources, and/or implemented programs to better support students' eating, exercise, and sleeping habits.	We are in the process of making additional changes or providing other resources, and/or programs to address students' physiology.
Progressive System of Responding to Problem Behavior To what extent do staff use a progressive system of responding to behavior that attempts to correct behavior and preserve the relationship with the student?	We do not have a progressive response system in place, but one is highly needed.	We have a progressive response system but it is not consistently implemented and there are problems with it, such as it often escalates students or harms the relationship staff have with certain students.	We have a solid progressive response system that is consistently implemented by staff, helps prevent escalation on the part of the students, and helps repair relationships with students if disciplinary consequences were used.	The progressive response system is continuously being improved to increase its effectiveness and facilitate fidelity of implementation.
Fidelity of Intensified Level 2				
Mentor-Based Support (Check in/Check out) To what extent is the CICO implemented with fidelity?	We have not yet implemented CICO for students at our school, but are planning to do so in the future.	We have begun implementing CICO for some students at our school, but are not implementing it with fidelity.	We have begun implementing CICO for some students at our school and are implementing it with good fidelity.	We attempting to: (1) recruit additional mentors to serve more students; (2) further improve fidelity of implementation; and/or (3) refining materials to increase staff and student buy-in and to make the process run more efficiently.
Behavior Contracts To what extent are behavior contracts implemented with fidelity?	We have not yet implemented BCs for students at our school, but are planning to do so in the future.	We have begun implementing BCs for some students at our school, but are not implementing it with fidelity.	We have begun implementing BCs for some students at our school and are implementing it with good fidelity (e.g., negotiated agreement and daily teacher precorrect/prompting).	We attempting to: (1) implement BCs for more students; (2) further improve fidelity of implementation; and/or (3) refining materials to increase staff and student buy-in and to make the process run more efficiently.
Self-Monitoring To what extent are self-monitoring interventions implemented with fidelity?	We have not yet implemented SM for students at our school, but are planning to do so in the future.	We have begun implementing SM for some students at our school, but are not implementing it with fidelity.	We have begun implementing SM for some students at our school and are implementing it with good fidelity (e.g., self reflect and self-recording behavior on a chart).	We attempting to: (1) implement SM for more students; (2) further improve fidelity of implementation; and/or (3) refining materials to increase staff and student buy-in and to make the process run more efficiently.
School-home communication system To what extent are school-home communication systems implemented with fidelity?	We have not yet implemented SHCS for students at our school, but are planning to do so in the future.	We have begun implementing SHCS for some students at our school, but are not implementing it with fidelity.	We have begun implementing SHCS for some students at our school and are implementing it with good fidelity (e.g., parent training of what to do with the	We attempting to: (1) implement SHCS for more students; (2) further improve fidelity of implementation; and/or (3) refining materials to increase staff and

Ingredient	1—Exploring and Planning	2—Partial implementation	3—Full Implementation	4—Continuously Improving
			information).	parent buy-in and to make the process run more efficiently.
Class Pass Intervention To what extent are school-home communication systems implemented with fidelity?	We have not yet implemented CPI for students at our school, but are planning to do so in the future.	We have begun implementing CPI for some students at our school, but are not implementing it with fidelity.	We have begun implementing CPI for some students at our school and are implementing it with good fidelity (e.g., child can use a pass to take a break but can also hold on to them to exchange for a reinforcer).	We attempting to: (1) implement CPI for more students; (2) further improve fidelity of implementation; and/or (3) refining materials to increase staff and student buy-in and to make the process run more efficiently.
Small group social skills or social-emotional skills training To what extent are small groups SS or SEL groups implemented with fidelity?	We have not yet implemented small groups skills trainings for students with social-emotional deficits, but we are in the process of doing so.	We have begun implementing small groups for some students at our school, but are not implementing it on a consistent basis nor using an evidence-based program.	We have begun implementing small groups for some students at our school on a weekly basis and are using an evidence-based program (e.g., Coping Power, SSIS).	We attempting to: (1) implement small groups for more students; (2) further improve fidelity of implementation; and/or (3) adopting additional evidence-based materials to support implementation.
Fidelity of Intensified Level 3				
Counseling To what extent are evidence-based counseling supports implemented for students who have emotional problems?	We have been trained in evidence-based counseling and are developing a plan to begin implementing it for some Tier 3 students.	We have begun implementing evidence-based counseling for some students who are struggling with managing their emotions, but not on a consistent basis nor all students who could benefit from it.	We have begun implementing evidence-based counseling for some students who are struggling with managing their emotions on a consistent basis.	We are in the process of continuing PD for specialized staff in the area of evidence-based counseling to address a wider range of emotional needs. We are developing better methods of communicating counseling objectives with teachers, administrators, and parents while maintaining confidentiality.
FBA-based BIPs To what extent are FBAs conducted and high quality BIP developed for students with chronic or intense behavior problems?	We have been trained in the evidence-based FBA-BIP process and are developing a plan to begin implementing it for some Tier 3 students.	We have begun implementing the evidence-based FBA-BIP for some students, but it is not being implemented with fidelity or for all students who could benefit from it.	We have begun implementing the evidence-based FBA-BIP process with good fidelity for most students who could benefit from it.	We are in the process of improving the quality of our FBA-BIP meetings and increasing the coordination and communication around implementation.
Parent Support To what extent does the school reach out and provide supports to the parents of Tier 3 students?	We are very aware of the need to provide parent-based supports, but are just in the process of planning what this would entail.	We implement some supports for a few of the parents of Tier 3 students, but do so inconsistently and/or have not adopted an evidence-based approach to doing so.	We implement supports for several of the parents of Tier 3 students and have adopted an evidence-based approach to doing so.	We are in the process of expanding our parent support tool kit to provide additional resources and training to parents.
Tier 3 Capacity To what extent are all students who did not respond well to Tier 2 interventions receiving Tier 3	We have not yet begun implementing Tier 3 interventions for students who did not respond to Tier 2 interventions, but we	We have begun implementing Tier 3 interventions for some of the students who did not respond well to the Tier 2 interventions, but	We are implementing Tier 3 interventions for all the students who did not respond well to the Tier 2 interventions.	We are solidifying roles and responsibilities, as well as expertise, so we can continue to implement Tier 3 interventions

Ingredient	1—Exploring and Planning	2—Partial implementation	3—Full Implementation	4—Continuously Improving
interventions?	preparing to implement them for some students.	there are several other students who need Tier 2 interventions but are not receiving them.		year-after-year for students who do not respond well to Tier 2 interventions.
		Cultural Competence		
Multicultural Awareness To what extent are the staff knowledgeable about the different cultural backgrounds of the students and families they serve?	We have not yet held discussions or shared resources about students' cultural background nor assigned readings or activities to explore issues of cultural awareness. We are in the process of developing a plan.	We have held one or two discussions &/or activities around the cultural backgrounds of our students, but there is more work that needs to be done.	We hold ongoing conversations about students' cultural backgrounds to develop a deep understanding of how culture plays out in school. Staff are aware of multicultural issues of the students they serve.	We are committed to continuously improving our staff's multicultural awareness and emphasizing the importance of it when interpreting behavior and supporting student wellbeing.
Culturally Responsive Approach To what extent do staff emphasize a culturally responsive approach to their practices and decision-making within RTI?	We have not held discussions or shared resources about adopting a culturally responsive approach to practice and decision-making within RTI. This is something we are planning to get to in the future.	We have started to share information about a culturally responsive approach that emphasizes awareness and reflective decision making, as well as the implementation of effective practices for all students, but staff are not consistently using this approach.	Staff are actively aware of the impact of cultural-mismatch and committed to delivering practices and making decisions from a lens of cultural responsiveness.	We are in the process of continuously improving the degree to which decisions are made from a culturally responsive perspective and focusing on what all students need to be successful rather than labeling them or utilizing ineffective practices for students.
Monitoring of Disproportionality To what extent are issues of disproportionality in punitive discipline, sped referral, and restrictive placement monitored within the school?	We do not currently monitor disproportionality within our school, but we are developing the capacity to do so in the future.	We have held one or two data discussions regarding disproportionality and are developing a plan to make it an ongoing process.	We regularly monitor disproportionality data and hold data discussions around this information in order to evaluate our effectiveness or develop solutions to address disproportionality.	We are in the process of incorporating disproportionality monitoring into our school plan for each year and continuing to improve upon the data that are collected and interpreted.

Review360® is a web-based platform designed to facilitate a systematic method for providing predictable environments and specialized supports.

Review360® Behavior Matters

Students with Emotional and Behavioral Disabilities

Implement a comprehensive system of content and tools to support and sustain procedures and interventions with fidelity, accountability, and data.

Students exhibiting the most disruptive behaviors and identified as having Emotional and Behavioral Disabilities (EBD), receive some of their instruction from special education teachers in self-contained settings. However, 80% of these students spend part of their instructional day in inclusionary, general education settings. Effective strategies and training that support inclusive practices should be available for general education teachers and should provide a sustainable system of managing behavior and monitoring student progress.

We know what works with behavior.

Review360® helps to implement what works in a practical and efficient manner.

Best Practice suggests professional development, active and frequent monitoring of behaviors, ongoing support and training for general education teachers, and analyzing and communicating gathered data.

Best Practices Content

- Professional Development Modules designed to provide teachers of students with EBD with specific instruction in six core areas deemed by researchers as essential for improving student behavior.
- Online Professional Development Modules embedded with a learning management system to monitor progress of Module completion.

Implementation Support Materials

- Embedded, downloadable materials such as Behavior Intervention Strategy Steps, Videos, and Templates for collecting progress data help to support the immediate and practical implementation of Best Practices.

Progress Monitoring

- Behavioral management automations through data collection of a points/levels system and inclusion minutes are mirrored to existing systems that are currently being collected by hand.
- Critical incident information is automated including: office referrals, restraints, student health incidents, suspensions, and timeouts.
- Real-time access to data, charts, and reports help gauge progress, assess needs, and ensure an efficient delivery of services.

To learn more about how **Review360®** is helping schools, administrators, and teachers…
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Review360 Behavior Matters

Tools to support a Behavior Solution for Students with Emotional and Behavioral Disabilities:

✓ ***Administrator and Teacher Dashboards*** *that provide easy access to:*

CONTENT

✓ ***Online Classroom Management Professional Development for Teachers of Students with Emotional and Behavioral Disabilities:***

- Structuring classrooms for inclusion in SPED and GenEd settings
- Implementing procedures and routines
- Establishing reinforcements
- Developing positive classroom interactions
- Correcting misbehavior
- Analyzing chronic misbehavior

✓ ***Interactive Behavior Intelligence System***

- Behavior Intervention Strategy Steps

✓ ***Research-Based, Best Practice Strategies for Frequently Identified Behavioral Issues*** *including topics such as:*

- Aggression
- Defiance
- Emotional Outbursts
- Hyperactivity

✓ ***Implementation Support Materials*** *including materials such as:*

- Templates for collecting progress data
- Practical model lesson plans for critical operational and academic procedures
- Sample reinforcement practices
- Case Studies
- Check Lists
- Goal Setting
- Surveys

DATA

✓ ***Progress Monitoring and Automation*** *for:*

- Points/Levels System
- Inclusion Minutes
- Ratings of Objectives
- Strategy Effectiveness Ratings
- Classroom Rules

✓ ***Critical Incident Tracking*** *including:*

- Use of Restraints
- Health Incidents
- Behavior Support
- Office Referrals

✓ ***Progress Reports and Charts Available at District, School, Teacher, and Individual Levels*** *including:*

- Daily and Summative Behavior Reports
- Total Inclusion Opportunities
- Intervention Strategy Effectiveness
- Improvement Analysis (Regression/ Recoupment) for Extended Year Service Determination
- Student Incidents

✓ ***Optional Add-ons***

- CPI Configured System

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