THE RELATIONSHIP OF DISABILITY STATUS ON ATTENDANCE, BEHAVIOR, AND ACHIEVEMENT INDICATORS FOR STUDENTS RECEIVING INTENSIVE SCHOOL-BASED MENTAL HEALTH COUNSELING

By

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Abstract

This causal comparative study investigated the relationship of an identified disability (IDEA declared vs. non-declared) on success outcomes for sixth through twelfth grade at-risk students enrolled in a school-based mental health program. Outcome variables included: selected attendance, behavior, and achievement indicators for students who were enrolled in and received intensive school-based counseling.

Overall, after one year in the program, referrals for violent incidents significantly decreased for both groups of students while lack of respect incidents increased, indicating that staff changes in providing preventative strategies and approaches for working with students may have led staff to "catch" student behaviors at an earlier phase. IDEA declared students also had a significant decrease in suspensions. Although absences increased and instructional days decreased for both groups of students, a few of the non-declared students had more extreme changes. In-depth examination of the data showed that non-declared students, in particular Black and Asian students, had the most negative changes. Achievement data revealed that the majority of IDEA declared and non-declared students failed at pre and continued to fail at post.

This study adds to the limited base of research that on outcomes for students with and without disabilities. As school-based mental health counseling programs, coupled with strengths-based, multi-level counseling approaches expand across schools, it is important that we further the research base to determine what differences exist and what ramifications emerge for students based on disability, mental health problem, or ethnicity. Findings in this study of decreased referrals for severe behaviors for all students, decreased suspensions for IDEA declared students, and more extreme cases of negative outcomes for Asian and Black

students without a disability, should be considered important factors in the continued effort to improve educational success for all students by supporting and promoting positive social emotional development and decreasing student risk factors.

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Introduction

In today's society, the overarching goal of education is to prepare youth to be successful, democratic citizens who will contribute to the nation's economic growth (United States Department of Education, 2010). Despite the initiation of policies that strive to improve the education system and achieve this goal (e.g., No Child Left Behind Act of 2001; Race to the Top, 2009), widespread improvement is still lacking (Abbott, 2013; Guisbond, Neill, & Schaeffer, 2012). In 2009-10, 3.4% of students in public schools in the United States dropped out (Chapman, Laird, Ifill, & Ramani, 2011). According to the National Center for Education Statistics, approximately one in five (22%) incoming high school freshman students do not graduate in four years (Aud et al., 2013).

One consistent variable that places these students at a heightened risk for failure is living in a socially and economically disadvantaged environment. Social and economic environmental factors correlated to academic failure include socioeconomic status, ethnicity, disability, and lack of support from family, community, and school domains (Kominsky, Elliott, & Clever, 2009; Rumberger, 1987; Suh, Suh, & Houston, 2007). A co-occurring problem is that students who live in an economically and socially disadvantaged environment are also at increased risk for mental health problems. According to Howell (2002), one in five low-income children aged 6-17 have mental health problems and approximately half of mental health disorders manifest by the middle of adolescence (Kessler et al., 2007). Mental health problems appear to be related to high school success; up to 14% of students with mental health problems in grades 9-12

receive low passing or failing rates (Wagner et. al, 2003), and around 50% of students with mental health problems drop out of school (Blackorby & Cameto, 2004). Poverty and mental illness can have a detrimental effect on the educational attainment of adolescents as currently at least one in ten children has a mental health issue so serious that it interferes with their functioning at home, school, and with peers (New Freedom Commission on Mental Health 2003).

The possible effects of mental illness and related factors on student success has led to the inclusion of mental health as an important aspect in research that studies ways to holistically prepare youth for achievement in school, and later to be educated, successful participants of society. As defined by the World Health Organization (WHO) mental health is "a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community" (Herrman, Saxena, & Moodie, 2005, p.2). WHOs definition applies directly to education settings where it is known that success requires assistance in all areas of development (i.e., physical, cognitive, behavioral, social, and emotional), including support for basic needs (e.g., physiological, safety, love, esteem, self-actualization (Doll, Spies, & Champion, 2012).

It is especially important that assistance with basic and developmental needs and coping skills be provided and cultivated during the period of adolescence (Bronfenbrenner, 1979; Maslow, 1943), as increasing development of sense of self and identity, abstract reasoning skills, and extensive physical and cognitive growth can lead to increased swings in emotion, anxiety, stress and self-consciousness (Rosso, Young, Femia, & Yurgelun-Todd, 2004). When one or more of these basic or developmental

needs are compromised, such as students raised in socioeconomically disadvantaged environments (high-poverty, lack of resources, fewer employment opportunities as measured by combined education, income, and occupation rates of the community), risk factors emerge that increase the possibility of developing mental and emotional disorders that might eventually result in school failure (Catron & Weiss, 1994). These mental health problems become even more compounded when they co-occur with disabilities supported by the Individual with Disabilities Education Act (IDEA) (e.g., specific learning disabilities, physical disabilities, hearing impairments, intellectual disabilities, autism spectrum disorders) (IDEA, 2004). Research shows that students with pre-existing developmental, cognitive, and physical issues that already require them to receive special education have higher rates of mental health problems such as depression or anxiety (Adams, 2013; Barber, 2011; Einfeld, Ellis, & Emerson, 2011; McMillan & Jarvis, 2013; Strang et al., 2012).

As a result of the high rate of mental health issues and school dropouts, policy initiatives and legislature (e.g., Race to the Top 2009, Substance Abuse and Mental Health Services Administration) and funding for innovative mental health programs have been developed that promote and advocate for the provision of counseling services for youth in grades K-12 (e.g., Elementary and Secondary School Counseling, National Research Council and Institute of Medicine, 2009; New Freedom Commission on Mental Health, 2003; Safe Schools Healthy Students, 2013; U.S. Department of Health, Human Services, 1999). Most of these initiatives advocate for and support programs that are on-site (i.e., counselors are in the school and available to students and families and interventions take place in the school) and that will improve efficiency in providing

services through early identification, use of evidence-based interventions, and support for specific mental health disorders (Greif Green et al., 2013). In many districts (or states), these programs are considered to be a necessary form of support and prevention for students that should be in place by grade 9 to facilitate high-needs students achieving graduation status. Interventions often take on a strengths-based counseling approach wherein counselors serve to build high-needs students' competencies in academic, social emotional, and behavioral domains by focusing on reinforcing and strengthening protective factors identified with each student's home, school, and community environment (Chafouleas & Bray, 2004; Gilman, Huebner & Furlong, 2009; Miller & Nickerson, 2007; Nickerson & Callen, 2013).

Within the strength-based approach, multi-level (or tiered) evidence-based prevention strategies, such as Response to Intervention (RTI) and Positive Behavioral Interventions and Supports (PBIS) are now used widely and are promoted by federal policy and law (Donovon & Cross, 2002; Fletcher et al., 2002; Froiland, 2011; Horner et al., 1990; Horner, Sugai, & Anderson, 2010; Utley & Obiaker, 2012). These programs generally provide preventative services and interventions to students in a tiered approach where the first tier or level is meant for all students (school-wide approaches), the second tier or level is for students who are at-risk and need more targeted interventions, and the third tier or level is for high-needs students who need more intensive interventions and support (Donovon & Cross, 2002; Horner et al., 2010). More in-depth information on these approaches is presented in Chapter 2.

Many of these multi-level programs and evidence of their success have been documented for younger students at the elementary and early middle school levels.

However, the implementation of these programs at the secondary level (i.e., grades 6-12) has only begun to occur recently and there is limited empirical support for their effectiveness. (Duffy, 2007; Duffy & Scala, 2012; Fuchs, Fuchs, & Stecker, 2010; National High School Center, 2010). As a result, there is a lack of research and evidence on the success of these approaches not only for both middle and high school students, but also for sixth-twelfth grade students with disabilities (Fuchs et al., 2010).

Consequently, although research does show that multi-level programs are a promising best practice for preventative, proactive environments and are associated with improved outcomes among high-risk students (Linan-Thompson, Vaughn, Prater, & Cirino, 2006; Woodruff, 2011; Utley & Obiaker, 2012), more research is necessary on the effects of their implementation for students with the highest needs at the secondary level. Specifically, studies are needed that document outcomes for students who come from socially and economically disadvantaged environments and also struggle with mental health problems, noting differences for students who have an IDEA identified disability and students who do not have an IDEA" identified disability (Lewis, Jones, Horner, & Sugai, 2010; Nelson et al., 2009; Sadler & Sugai, 2009).

Purpose of the Study

The purpose of this study was to investigate the relationship of disability status (IDEA declared vs. non-declared) on success outcomes after participation in a school-based mental health program designed for high-needs students in grades 6-12. Outcome variables included attendance, behavior, and achievement indicators for students who are enrolled in and are receiving intensive school-based counseling. In this causal comparative study, all sixth-twelfth grade students served by the program were identified

by the district to be at a Tier two or three level and as a result, in need of in-depth school-based mental health services. Some of these students, identified as IDEA declared, had an identified disability for which they also received special education services under IDEA 2004 that required a written individualized education plan (IEP) (IDEA, 2004). The remaining students, identified as non-declared, were deemed high-needs and served by the program; however, they did not have an identified disability served by IDEA requirements. Specifically, for the purposes of this study, an "IDEA declared" student was one enrolled in the counseling program who had an identified disability and an IEP designed to meet unique education needs; "non-declared students" were those placed in the counseling program who did not qualify for additional special education services or an IEP.

The selected academic outcomes used in this study represent three domains required for a review of program success by the U. S. Department of Education: attendance, behavior, and academic indicators. For this study, attendance indicators included: absences (the number of days the student was not identified as being present in the building), school suspensions (the number of days the student was not in school or did not receive instruction due to a disciplinary action, including in-school and out-of-school suspensions), and instructional days (the number of days the student was present for instruction, excluding in-school suspensions). Behavioral indicators included frequency (i.e., number of) disciplinary referrals in five categories: attendance concerns, disruptive behavior incidents, illegal/unethical misconduct, violent incidents, and lack of respect incidents. Achievement indicators included, where available, the pass-fail indicators

(pass=3,4; fail=1,2) on the New York State English Language Arts and Mathematics Exams taken before and after one year in the mental health program.

Background of the Study

To develop an understanding of the importance of the study, the theory and history of the variables are briefly reviewed in this chapter.

Student needs in education. The United States government continuously seeks ways to improve the nation's health, economy, crime rates, and general society (Lucio, Hunt, & Bornovalova, 2012); much of the related policy, legislation, and funding begins with solving problems in and reforming education. Programs aimed at social and educational reform are based on the philosophy that to be successful in society, a student needs to be successful educationally. Philosophically, U.S. educational success is viewed as dependent on the ability of a student to meet the standards and objectives set by different levels of review, including the government, local school districts, the general classrooms, and then the teachers at each grade level (Goertz, 2001). Research has found, however, that success at each of these levels is not only dependent on what happens in the classroom, but also is greatly affected by a multitude of environmental factors that can combine to contribute to educational success or failure (Dryfoos, 1990; Finn, 2006; Lucio, Rapp-Paglicci, Rowe, 2011; Lucio et al., 2012; Luthar, 1991). The role of environmental factors is theoretically supported by developmental theories that stress ecological systems. Ecological systems theories suggest that the interrelation and interaction between youth and their various environmental systems (e.g., people, objects, and institutions) influences their development (Bronfenbrenner, 1979). When students have positive interconnections in their environment including personal characteristics,

family, school and community contexts, they are more likely to be successful in all areas of life (Aviles, Anderson, & Davila, 2006; Dryfoos, 1994). In today's world, however, there are many youth that could be considered to be at-risk and lacking protective factors[1] provided by family, school, and community organizations that will help them achieve positive social growth needed to transition from childhood to adolescence and to be successful (Murray & Belenko, 2005). Though many risk factors contribute to lack of success in the educational setting, one known to be related to the a lack of student success in education is the pre-existing presence of an identified disability (Einfield et al., 2011; Strang et al., 2012).

At-risk students with an IDEA identified disability. The presence of a disability has been identified as a risk factor to success because traditionally, students with disabilities do not learn at the same rate or level as their same age, general education peers, have increased risk for behavior problems, and have higher incidents of developing significant social deficits than the average student (Aron & Loprest, 2012). Federal laws (e.g., Elementary and Secondary Education Act of 1965, P.L. 89-750; Education of the Handicapped Act of 1975, P.L. 94-142) have been put in place to protect human rights and guarantee the provision of appropriate education as a way to decrease the risks surrounding students with disabilities. These policies and laws first emerged around the 1960s as a concomitant development of the Civil Rights Movement in the United States.

As the education system continued to evolve, it became evident that not all students could academically keep up with the general population of students, and some demonstrated defiance, or had physical impairments that kept them from succeeding in

[1] According the SAMHSA (2013), a protective factor is "a characteristic associated with a lower likelihood of problem outcomes or that reduces the negative impact of a risk factor on problem outcomes."

the standardized ways established for all students; this lack of success further led to increased behavior problems, decreased attendance rates, and lower achievement rates (Aron & Loprest, 2012; Osgood, Foster, & Courtney, 2010). The federal law protecting the right to an education for students with disabilities required states to follow specific guidelines for the education of individuals with disabilities, and subsequently provided funding for states to create and improve services for students with disabilities (Aron & Loprest, 2012; Yell, 2012). The legislation, now referred to as the Individuals with Disabilities Education Act (IDEA) 2004, P.L. 108-446, has 13 disability categories and mandates that students (3-21 years of age) who qualify for special education services receive related services and an IEP that will promote educational success given their individual needs. According to federal law (20.U.S.C. §1402[29]), special education, must be "specially designed instruction, at no cost to parents, to meet the unique needs of a child with a disability, including: 1) instruction conducted in the classroom, in the home, in hospitals, and institutions, and in other settings; and 2) instruction in physical education." For students who are not able to achieve the same educational performance as their nondisabled peers through general education, IDEA mandates that the school provide the opportunity for students to achieve their maximum learning potential. Maximizing each student's learning potential includes the creation of programs that will cultivate educational success by providing specialized behavioral and academic interventions, which capitalize on the individual's strengths and remediates each student's needs in all areas (i.e., academic, cognitive, social emotional, behavioral, etc.) within the least restrictive environment.

At-risk students without an IDEA identified disability. Another population of students that are served by the education system who, although they are not eligible for services under IDEA, still remain at-risk for school failure and need specialized supports and services. These students are, according to the U.S. Census Bureau, identified as "at-risk" if one or more negative factors are present in a student's life and they are unlikely to complete high school (Kominsky et al., 2009). These risk factors include the student's ethnic group, home/family environment, the student's behavior (e.g., ways the individual may cope with an emotionally difficult situation, the form of physical/relational aggression asserted by the student, etc.), the community in which the student lives, and the student's school environment (Atkins et al., 2006; Resnick, Ireland, Borowsky, 2004; SAMSHA, 2013). Several of these risk factors, (e.g., presence of a disability, academic failure, student attendance, and behavior problems) individually and in combination have been shown to threaten a students' level of educational success (Kominsky et al., 2009; Lucio et al., 2011).

Students at risk (IDEA declared and non-declared), education outcomes, and mental health. In the high-needs population including at-risk students with and without identified disabilities, a common thread associated with the risk factors and negative experiences a student has is the manifestation of mental health concerns. Mental health issues for these students are exacerbated from the barriers and risk factors they experience, and co-occur with and impact the increased likelihood that they are absent/truant from school, display behavioral problems at school, and are less likely to demonstrate passing achievement rates on state test scores (Dryfoos, 1990). All of these

factors and outcomes lead to educational failure—both dropout rates and overall lower quality of life for students (DeSocio et al., 2007; Dryfoos, 1990; Sommer, 1985).

Student attendance. A student's truancy or infrequent attendance in school is noted to be a considerable concern for student success (Blackorby & Cameto, 2004; DeSocio et al., 2007). For students to achieve success, they must be in school to receive educational opportunities designed to foster their success. At-risk students with mental health problems may miss as many as 18-22 days of school in a school year, and their suspension rates are three times higher than those of their peers (Blackorby & Cameto, 2004). Research shows that high rates of absences are significantly related to student dropout rates (Dembo & Gulledge, 2009; Rodriguez & Conchas, 2009). High absence rates and eventual dropouts can result in unemployment, crime-related behaviors, increased risk for alcohol and substance abuse, and low socioeconomic status (Reio, Marcus, & Sanders-Reio, 2009).

Student behavior problems. At-risk students, with and without disabilities, can present negative disruptive behaviors in school that can lead to discipline referrals, high rates of absenteeism, and social isolation or negative relationships with peers (Croninger & Lee, 2001). The presence of mental health problems can increase students' risk of engaging in problem behaviors and is associated with aggression in adolescence (Anakwenzi & Zuberi, 2013).

School personnel report that school misbehavior, including inappropriate language, disrespect, breaking school rules and general disorder in the classroom, are more common than extreme violent incidents involving weapons, drugs, or extreme delinquent acts (National Center for Education Statistics, 2004). The accumulation of

misbehavior incidents, however, causes a loss of instructional time due to disciplinary action or chronic truancy and can lead to more significant behavior problems as well as lower achievement rates (McLeod, Uemura, & Rohrman, 2012; Newcomb et al., 2002).

Student achievement. In general, a considerable gap exists between the achievement on standardized exams for at-risk students and students considered not at-risk (National Center for Education Statistics, 2004; Valencia & Suzuki, 2000). Risk factors, including mental health problems, intertwined with attendance and behavior problems can ultimately cause poor achievement in school (Anakwenzi & Zuberi, 2013; Deci, Vallerand, Pelletier, & Ryan, 1991; Roeser, Eccles, & Freedman-Doan, 1999). Research on mental health and its influence on students' achievement performance supports an ecological, multi-faceted perspective of risk factors and their association with achievement; those exhibiting the highest need achieved the lowest outcomes (Luthar & Becker, 2002; Felner et al., 1995).

The resulting problem and solution. Prior solutions to promote educational success for at-risk students, including those with and without disabilities, focused on instruction and pedagogical models that would serve to meet these students' needs (U.S. Department of Education, 1983; Secretary's Commission on Achieving Necessary Skills, 1991); however, social and emotional competencies and the external factors affecting them were not included within these reform practices. As a result, at-risk students with and without disabilities still are in need of support in the area of mental health. The association between at-risk students with and without disabilities, mental health, and educational failure (i.e., as presented by truancy, school behavior problems, and low achievement) has led researchers and policy makers over the course of the last three

decades to push for the reformation of educational practices that include the push for school-based interventions to promote students' resilience (i.e., decreased impact of risk factors by strengthening and increasing protective factors) and subsequently improve their achievement, behavior, and emotional competence to promote educational, and lifelong success (Dryfoos, 1994; Luthar & Becker, 2002).

School-based mental health counseling services. According to a review of research by Weist, Goldstein, Morris and Bryant (2003), less than 5% of students in need of mental health services receive treatment. Factors related to family and community can prevent some at-risk students from receiving the mental health services they need.

Both policy and research arenas recognize the advantages and importance of implementing school-based mental health services for students (Paternite, 2005). According to Atkins, Hoagwood, Kutash and Steidman (2010), schools are one of the more influential aspects of children's environments "by virtue of their long-term influence on children's cognitive and social development" (p. 41). Placing an emphasis on school-based mental health services allows for greater levels of care, an emphasis on coordinated team approaches to providing care, increased capacity to screen for concerns, and more comprehensive student-counselor relationships (Weist, 2009). Consequently, school-based counseling became one specific method used to provide counseling to high-needs at-risk students to ensure they received services.

Research has shown that school-based counseling programs enhance students' social emotional behaviors, and improved educational performance (Durlak, Dymnicki, Taylor, Weissberg, & Schellinger, 2011; Nelson-Field & Goodman, 2011; Rones & Hoagwood, 2000). More specifically, school-based counseling programs that adopt

strengths-based, preventative, comprehensive approaches have been found to positively influence adolescent functioning (National Center for Children and Poverty, 1999; Quanwu, 1994; Ratcliffe & McKernan, 2012). Particular strengths-based preventative models that are used for at-risk students who present mental health and academic problems are centered around multi-tiered or leveled approaches (e.g., PBIS) in which universal school-wide initiatives are established for all students to promote a positive environment that instills positive values and reinforces appropriate behaviors for students (Sugai & Simonsen, 2012). The multi-level approach also includes secondary or targeted supports that are established for students who continue to struggle with demonstrating appropriate behaviors despite the presence of the universal supports. Tertiary or intensive supports are focused on students who need individualized interventions to improve their behavior (Sugai & Simonsen, 2012). Although specific components may vary by model, in general, these approaches include students with disabilities and students without disabilities at any support level depending on the student's behavioral needs. A review of research on these programs indicates those at the universal and target levels are frequently used and more effective approaches that are found to decrease behavior; however, student academic achievement was not analyzed as part of this review (Wilson & Lipsey, 2007).

Many school-based mental health services have designed programs, particularly for tertiary, high-needs levels around a comprehensive approach, often referred to as a wraparound (Eber, Sugai, Smith, & Scott, 2002). The use of a wraparound process approach involves the development of a collaborative team that includes the student and the family, the school personnel, and the system of care providers. Together the team

identifies the specific needs surrounding the student and family within school, familial, social, cultural, behavioral, and psychological domains and aids in the creation and supply of services to help build on the individual's strengths and remediate the student's deficits. (Bruns, Burchard, Suter, Leverentz-Brady & Force, 2004; Eber, Nelson, & Miles, 1997; Eber et al., 2002; VanDenBerg, 2002).

Recently, research indicates that merging a comprehensive and strengths-based preventative system, particularly for students with more significant mental health needs, provides an improved framework for serving students through collaborative efforts that work towards understanding the multitude of contexts that have shaped the student's development and needs (Kazak et al., 2013). Much of the research in this area focuses on site based programs at the school-wide level, or focuses on the highest need students at the tertiary level who have emotional behavioral disorders (Vernberg et al., 2006). McMillan and Jarvis' (2013) review of literature on mental health and students with disabilities indicates that universal programs are generally less effective for students with disabilities. Evidence suggests that targeted programs combined with universal approaches will have a greater impact for students, which indicates the need for the availability of multileveled supports that can be utilized to meet each student's individual needs.

The ongoing problem. Despite research that supports the effectiveness of school-based mental health programs, there is still a need for research that investigates how these programs influence high-needs secondary students, specifically in relation to achievement, attendance, and behaviors (Rones & Hoagwood, 2000). Additionally, there is limited research on the differences in outcomes of school-based mental health

programs at the secondary and tertiary, intensive levels for at-risk students with an identified disability and at-risk students without an identified disability.

Research Questions

Research question 1. Are there significant differences in change pre- to post-participation in a school-based mental health counseling program by status of disability (IDEA declared and non-declared) on attendance indicators as assessed by: a) absences (the number of days the student is not identified as in the building), b) school suspensions (the number of days the student is not in school or receiving instruction due to a disciplinary action), and c) instructional days (the number of days the student was in school excluding in-school suspensions)?

Research question 2. Are there significant differences in change pre- to post-participation in a school-based mental health counseling program by status of disability (IDEA declared and non-declared) on behavioral indicators as assessed by the number of disciplinary referrals related to: a) attendance concerns, b) disruptive behavior incidences, c) illegal/unethical misconduct, d) violent incidents, and e) lack of respect incidents?

Research question 3. Are there significant differences by status of disability (IDEA declared and non-declared) on the end-of-year achievement indicator (where available) as represented pass-fail indicators (i.e., pass=3,4; fail=1,2) on New York State English Language Arts and Mathematics exams taken one year before and at the end of one year of participation in the school-based mental health program?

Research Hypothesis

A review of the literature indicates that site-based counseling is beneficial for students with school-diagnosed mental health issues (Daly et al., 2013; Hoagwood et al.,

2007; McCrary et al., 2012; Solomon et al., 2012; Vidair et al., 2013). These students have been shown, over time, to improve markers of academic success (i.e., an increase in positive attendance markers, and a decrease in behavior problems). A review of the literature for students with an IEP, however, indicates there is less clarity about the success of site-based counseling. For example, in some studies, positive changes were noted, whereas in others, no or limited changes occurred (Chitiyo, Makweche-Chitiyo, Park, Ametepee, & Chitiyo, 2011; Kutash, Duchnowski, & Green, 2011). Only limited research exists that directly compares the status of IDEA declared students and non-declared students served by mental health programs. Based on this literature it was hypothesized that there would be an interaction between IDEA status and change on the selected indicators of attendance, behavior, and achievement. IDEA declared students would experience greater change in behavioral indicators than do non-declared students; IDEA declared students would experience equivalent change in attendance indicators to those of non-declared students; and IDEA declared students would experience lower changes in achievement (pass rates) than do non-declared students.

Assumptions

Research studies operate under the assumption that some concomitant and uncontrolled factors may influence the study and its results. To interpret the data in any study, it is necessary to assume that certain characteristics remain unchanged across participants and settings. This study contains the following assumptions:

- The counselors involved in the intervention were trained in appropriate, evidence-based tools and techniques as part of their training and licensing;

- The referral and assessment process developed surrounding the principles of Response to Intervention and Positive Behavioral Intervention and Supports were completed with fidelity and accuracy based on the knowledge and training of the professional project staff;
- At-risk students were selected based on an assessment process operating in good faith by school professionals according to the procedures developed by the project staff so that the sample of students in this study is representative of a high-needs population with considerable mental health needs;
- Participation was voluntary after referral was made and parental consent was obtained by the school to provide the school-based counseling intervention services to the student;
- Risk factors such as drug use, disability, unstable family homes, low academic performance, lack of a social support network, inappropriate family monitoring would significantly contribute to a student's progression into tier three needs; and
- Data submitted by counselors and school staff measured as criterion variables are assumed to be provided accurately and without subjective influence.

Limitations

All research studies contain certain characteristics that potentially limit the interpretation of the study, as well as the replicability and generalizability to other groups and contexts. The following study was conducted with the subsequent limitations:

- The school used in this study is a part of an urban, high-needs school district with a needs-to-resources ratio above that of suburban schools;

- The data provided by the school district did not indicate whether students labeled as having a disability had a disability under IDEA or under Section 504 of the Rehabilitation Act of 1973; therefore, it cannot be determined if students with a 504 Plan were listed under the general population or labeled as a student with a disability;
- The depth of parental involvement in participants' lives is generally unknown and can only be discussed as anecdotal based on information provided through counselor interviews;
- The length of the study was one year of participation in the school-based mental health program and is therefore dependent on conditions for students that occurred during that one year time period. It was recognized that a one year time period may not be a sufficient length of time to provide significant results for an intervention for students with significant mental health needs;
- Some of the participants in the larger program left school, moved, or withdrew prematurely from the study for reasons unknown to the researcher. To eliminate the potential for missing data that could cause skewed results, only cases with complete datasets were used in the statistical analysis;
- The study intervention only used a treatment group; a comparison group was not available; and
- The intervention was not provided by the researcher, only archival data records were available.

Delimitations

Delimitations are factors that narrow the scope and define the boundaries of a study. The delimitations are controlled in the development of the study. This study has the following delimitations:

- An archival dataset was used for this study that was comprised of 230 students, grades 6-12 in a high-needs, urban school district in Northeastern United States; therefore, the sample was not random and findings cannot be generalized to a larger population;
- The dependent variables were measured using school academic and behavioral data provided by the school district during part of a larger program evaluation in 2008-2012;
- Grade 6-8 New York State English Language Arts and Math exams were used for achievement indicators; therefore, of the 230 students in the sample, 122 students were included in the achievement outcome analysis; and
- Student achievement data from grades 9-12 were not used for this study; achievement comparisons could not be made for students who were in the program during grade 9 as there were no standardized state exams to compare from grades 8-9 and there was not a sufficient number of high school students (grades 9-12) who had taken regents exams to compare pre to post.

Definition of terms

Definitions of terms provide the operational meaning as used in the study and facilitate the reader to understand and interpret the information. The following terms are used:

- *Adolescent*—an individual between 13-18 years of age said to be transitioning from childhood to adulthood.
- *At-risk youth*—students in danger of failing out of school based on their characteristics and certain factors surrounding their lives. Generally at-risk youth most often includes disabled youth, youth from ethnic minority groups, youth with low socioeconomic status (SES), and those with poor performance in school.
- *High-needs school*—a school where at least 50% of the students are eligible for free or reduced price lunch (i.e., high-poverty).
- *IDEA*—Individuals with Disabilities Education Act of 2004; a law that ensures children 3-21 with a disability will receive services.
- *Individualized Education Plan (IEP)*—as required by IDEA, individualized education plans are developed by the committee on special education for students with disabilities to provide a written document that states what the student needs to achieve, specific annual goals for the student, related services the student needs to receive, and any special education services they need to help them succeed.
- *Mental health*—As defined by the World Health Organization, mental health is "a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community" (Herrman et al., 2005, p. 2).

- *Positive Behavioral Intervention and Supports (PBIS)*—a preventative approach used that operates on a multi-level system to reduce problem behaviors on a school-wide and individual level.
- *Response to Intervention*—a preventative approach used with students that operates on a multi-tiered system by assessing students and providing interventions to maximize academic achievement and minimize behavioral problems. Generally three tiers are established, Tier 1, Tier 2 and Tier 3; student academic and/or behavioral needs increase as the tiers get higher.
- *School-based mental health counseling*—Therapeutic interventions provided in the school setting using individual, group, family, or consultative sessions.
- *VADIR*—Violent and Disruptive Incident Reporting. Schools documentation of incidents that occurred during a school year.
- *Wraparound approach*—system of care and services provided to a student that is planned and executed through collaborative relationships and support networks between community agencies, schools, families, and the student.

Summary

This chapter presented the importance of the study, including background information. Presented in the following chapters is in-depth information about the study. A review of prior research and literature related to the topic are presented in Chapter 2. The research methods and procedures used to conduct the study are presented in Chapter 3; results and statistical analyses used to analyze the data are presented in Chapter 4. Finally, conclusions and implications of the present study for theory, research, and

practice on mental health support for students with IDEA declared and non-declared students are discussed in Chapter 5.

Chapter 2

Literature Review

The purpose of this chapter is to review literature relevant to at-risk students with and without an IDEA identified disability and the literature pertaining to mental health needs and school-based mental health programs designed to help promote educational success for students. To develop an understanding of at-risk students with and without identified IDEA-defined disabilities, as well as the need for school-based counseling, this study first presents a brief overview of the goals of education in the United States and current concern about not meeting those goals. Next, the review presents an overview of developmental theories and the background of the term "at-risk" to help explain the multiple factors at play in a child's life that can affect educational success. The review then moves on to explain the risk factors for students with and without an IDEA identified disability and the possible relationships between the risk factors that can influence success in education. A brief overview of school-based approaches that have been developed to meet students' mental health needs and decrease risk factors is provided, followed by a summary of findings from the empirical research base on school-based mental health counseling for students. Finally, the need for further research is presented, along with how this study helps extend the current research.

Background

Students' educational success is, at its core, based on student achievement; that is, on their reaching and meeting the standards and objectives set for them in terms of academics and skill development. The driving force and predominant goal behind education in the U.S. is to further the nation's economy so that the U.S. would maintain

its position as a top competitor internationally with products, innovations, and ideas. To accomplish this, students must attain necessary skills and knowledge during their educational careers that they can bring to the workforce.

This goal continues to drive educational programs and efforts to reform programs to better prepare our youth for success not only in school, but also in their future professional lives. There is fear, however, that education is failing to meet these goals and that students are not leaving their secondary education programs prepared for the workforce (Abbott, 2013; Guisbond et al., 2012; U.S. Department of Education, 2011). Some students are not even completing educational careers and fail or drop out before they graduate (Aud et al., 2013). The crux of the problem is that numerous factors can affect an individual student's success, and in combination with all students success or failure, can affect schools' success, which ultimately can affect the success of the U.S. society as a whole. To determine what these factors are, developmental systems theories emerged that consider the importance of the interplay between the multiple levels of systems in a child's life that affect development. One of the most well-known theories in child development is Bronfenbrenner's (1977; 1979) ecological systems theory.

Ecological Systems Theory

According to Bronfenbrenner's (1977; 1979) ecological systems theory, there are four environmental systems: microsystems, mesosystems, exosystems, and macrosystems. These environmental systems include factors concerning family, school, community, neighborhood, and peers that interact with a child's genetic predisposition and physiological influences to affect development. The microsystem refers to the child's immediate physical environment and relationships the child has with family and

caregivers in the home and community. It is how these groups interact, and how they interact with a child's genetic and physiological traits, that will influence the child. The mesosystem refers to the connection of the parts of the microsystem; the more positive the connection, the more positive the child's growth and development. The exosystem refers to individuals and places within the community, with which the child may not directly interact, but which ultimately play a role in the child's development, such as parent workplace, extended family, and the neighborhood (Bronfenbrenner, 1979). The macrosystem refers to the most abstract level of influence for the child and includes entities such as the national government, cultural values, and the economy.

Ultimately, the more positive the interactions are between and within the systems, the more positive the child's development, and the greater the likelihood for success in education and in life. Any factor related to an individual can be thought of as grounded in this ecological systems theory (Bronfenbrenner, 1977; 1979); factors that are thought to influence children negatively are referred to as risk factors, and factors that are believed to promote positive development are considered protective factors.

A risk factor is generally defined as anything that can increase the likelihood of the onset, digression, or maintenance of a problem condition or outcome such as school failure or unemployment (Coie, Lochman, Terry, & Hyman, 1992; Fraser, Kirby, & Smokowski, 2004). In terms of risk factors, it is not just the act of participating in risky behaviors that defines these factors, but also the intertwining and connections between all conditions and contexts surrounding an individual: individual, school, peer, neighborhood, community, and family (Atkins et al., 2006). A more recent developmental systems theory, phenomenological variant ecological systems (Spencer,

Dupree, & Hartmann, 1997), builds on Bronfenbrenner's theory and supports the idea that individuals have both risk and protective factors based on the systems that make up their lives, as well as their own individual physiological factors. How these factors link together determines or fosters either resiliency and success or failure in any aspect of an individual's life (Spencer et al., 1997). Students with risk factors that, in combination with physiological factors, can contribute to their educational failure are often referred to as "at-risk."

At-Risk Students

The concept of at-risk students is not a recent development in education (Bloom, 1964); however it became a more heightened concern in the United States around 30 years ago in relation to the nation's economic outlook (U.S. Department of Education, 1983). In 1983, a report from the U.S. Department of Education first introduced the term in its documentation of the entire U.S. nation's risk of societal and economic failure based on educational performance. After the introduction of the term "at risk" in the U.S., subsequent studies increasingly focused on educational failure for students and what characteristics or factors would identify students as "at-risk" (Malnarich, 2005; McCabe, 2003; National Center for Education Statistics, 1992; Walsh, 2003).

In 1992, the National Center for Education Statistics provided a general definition for an "at-risk" student, "a student who is likely to fail at school … [i.e.,] typically seen as dropping out of school before high school graduation" (p. 2). From the considerable research on the characteristics of at-risk students, there is general consensus that the following factors contribute to an individual's at-risk status: mental health concerns, minority status, low socioeconomic status, disability status (physical, intellectual, and

emotional), single-parent families, lack of parental involvement, and neighborhood/school/community (Chen & Kaufman, 1997; Kominsky et al., 2009; Lucio et al., 2011; Malnarich, 2005; McCabe, 2000; Walsh, 2003).

Students with these factors are at increased risk for overall school failure, grade retention, behavioral problems, attendance concerns, and transiency in the education setting. An important aspect of risk factors, supported by developmental systems theories, is that often, risk factors are comorbid or interconnect with additional risk factors (Spencer et al., 1997). The students in this study represent two groups of at-risk students who exhibit comorbid risk factors. Members of one group disabilities identified through IDEA in addition to mental health problems, and the other group of students had mental health problems, but no IDEA disability. All of the students had one or more additional risk factors related to living in poverty, being members of ethnic minorities, or attending a high-risk school district. The distinction between at-risk students with an IDEA disability and at-risk students without an IDEA disability is needed to gain an understanding of the similarities and differences between the two groups, as well as the different supports that have emerged to encourage their success.

At-Risk Students with IDEA Disabilities

For the purposes of this study, at-risk students with IDEA disabilities are defined as students who have one or more documented disabilities as defined under the Individuals with Disabilities Education Act of 2004 (IDEA) that are the basis of their mental health problems, or that coexist with their mental health problems, and may also have one or more of the risk factors discussed above.

Students with disabilities and the history of supports. Historically, when students did not succeed according to the standards set for them (i.e., demonstrating behavioral/social, academic, physical problems) they generally were taken out of the classroom and placed in separate special classes or institutions (U.S. Department of Education, 2011). The development of intelligence tests and the belief that these tests demonstrated ability also led to the increased placement of students with intellectual, physical disabilities, visual, or hearing impairments, out of the general education setting (McGrew & Evans, 2004). Until the Civil Rights Movement, students with such disabilities were generally confined to these settings or did not attend school at all.

The question of whether separate education is appropriate for students with disabilities emerged with the U.S. Supreme Court case of Brown v. Board of Education of Topeka (1954) in which the court found that the idea of "separate but equal" has no place public education for any student; however, conditions were slow to improve. According to a report by the U.S. Department of Education (2011), in 1970, only one in five students with disabilities in the U.S. were educated in schools, and there were laws in many states excluding students with intellectual, visual, hearing, or emotional disabilities from schools. In 1965, the first federal law protecting students with disabilities was passed, the Education for all Handicapped Children Act (P.L. 89-10), which provided federal funding to states to establish and improve programs for students with disabilities.

The Education for all Handicapped Children Act of 1965 was amended in 1975 (P.L.94-142) to state that every child with a disability the right to be given a free and appropriate public education. Public law 94-142 protected the rights of children with disabilities and their families, assisted states in providing education for all children with

disabilities, and provided provisions to assess and assure the effectiveness of the aforementioned efforts (U.S. Department of Education, 2011). In 1986, the law was amended to mandate programs and services be provided to children at birth who required special or related services.

In 1990, the law was renamed the Individuals with Disabilities Education Act (IDEA). It was amended again in 1997 to provide funding for states to develop and disseminate models of appropriate programs and services. IDEA (1997) also mandated the development of individualized family service plans for children from birth through age three, and individualized education plans for students ages three through 21, both of which serve as official documentation of written documents outlining the student's needs (U.S. Department of Education, 2011).

According to IDEA, there are 13 disability categories under which students may be identified and receive specialized educational services designed to meet their individual needs. The disability categories include intellectual disability, deafness, hearing impairment, visually impairment, specific learning disabilities, emotional behavioral disorders, deaf-blindness, physical impairments, other health impairments, autism spectrum disorders, speech or language impairments, multiple disabilities, and traumatic brain injury.

In 2004, IDEA was revised to include the use of a preventive model for the identification of students with learning disabilities, as well as the addition of procedural safeguards for parents. IDEA is continuously being examined, as is the implementation and dissemination of services for students with disabilities, to ensure their education

meets their individual needs; however, even with appropriate supports in place, disability status can be considered a risk factor for students.

Disability as a risk factor. Students with disabilities are naturally at a higher risk for educational failure than students without disabilities (Harvey, 2001; Kemp, 2006); a 2011 report from NCES indicated that in 2009, students with disabilities had a school dropout rate twice that of their nondisabled peers (Chapman et al., 2011). Research indicates it is not necessarily the disability itself that is a risk factor; rather secondary effects can cause risk or promote resilience in children with one or more disabilities (Zipper & Simeonsson, 2004). For example, certain factors can counteract, contribute to, or exacerbate the disability positively or negatively, in turn influencing educational success or failure of students with disabilities (Zipper & Simeonsson, 2004).

Secondary effects can be related to low expectations, lack of needed supports from school and/or family, mental health concerns, low socioeconomic status, and ethnic minority status (Wagner et al., 2003; Zipper & Simeonsson, 2004). For students with disabilities, the co-existence of multiple factors often heightens the overall risk of school failure.

Disability and mental health problems. In the 1980s, a study by Wolman, Bruininks, and Thurlow (1989) found that students with disabilities were generally at a higher risk for school failure than students without disabilities; students with learning disabilities or emotional behavioral disorders were at an even greater risk than students with other disabilities. Additional investigation revealed that students who were identified later in age, received fewer specialized services, or repeated a grade were more likely to experience educational failure than those identified earlier or those who received

more services (Lehr, Johnson, Bremer, Cosio, & Thompson, 2004; Wolman et al., 1989; Zigmond & Thornton, 1985). Mental health concerns appear to be a considerable factor in the at-risk status of students with disabilities, especially for students with emotional behavioral disorders, who have the highest dropout rate amongst all the disability categories. Many also are at-risk for placement in the juvenile justice system (Wagner et al., 2003). An in-depth discussion of mental health overall and mental health as a risk factor is presented later on in this chapter.

Students' disabilities and co-occurring risk factors can influence success in school, or lack thereof; consequently, educators continue to focus on development of special education supports for students with identified disabilities. There is another population of students, however, who are not eligible for special education or modifications/ accommodations based on an IDEA disability, yet they remain at-risk for school failure.

At-Risk Students without IDEA Disabilities

For the purposes of this study, at-risk students without IDEA disabilities are those who meet the requirements of the "at-risk" definition, with the exclusion of disability, including those who possess one or more of the risk factors previously mentioned in Chapter One that influence mental health problems, or who have co-occurring mental health problems. These risk factors, grouped into socioeconomic and minority status, family, and school and community, are discussed in more detail below.

Socioeconomic & minority status. Numerous research studies have shown that students of low socioeconomic status and/or from an ethnic minority are at a heightened risk for school failure (Alexander, Entwisle, & Dauber, 1993; Bloom, 1964; Jencks &

Mayer, 1990; Zill, Moore, Smith, Stief, & Coiro, 1995). Prior to discussing ethnic minority status as a risk factor, it is essential to discuss low socioeconomic status as a risk factor since ethnic minorities are disproportionately represented in populations with low socioeconomic status. Socioeconomic status is generally measured by a combination of economic (i.e., income), educational, and occupational status (Bradley & Corwyn, 2002). According to Fraser et al. (2004), low socioeconomic status is a risk factor not just for educational failure, but also for health problems, mental health concerns, problem behavior, disability, child abuse, and social maladjustment. Research has shown that students with low SES either do not graduate from school or, if they do graduate, complete high school with low grades and/or test scores below the success cutoff (Chapman et al., 2011; Palardy, 2013; Rumberger, 1987); a study from NCES found that over 24% of low socioeconomic status students did not graduate from high school, and over 50% only passed marginally (Finn, 2006).

More often than not, risk factors are related to one another; each on its own is a risk factor, but often they co-occur. Students with an ethnic minority background, particularly African American and Hispanic, are disproportionately represented in the low socioeconomic population, and also are noted to be at increased risk of school failure (Rumberger, 1987; Bowers, Sprott, & Taff, 2012; Christle, Jolivette, & Nelson, 2007).

Family. The role of family in a student's life also has been found to affect a student's educational success and healthy social emotional development. Although studies suggest there is variability among family risk factors as predictors of educational achievement, certain risk factors continue to remain at the forefront of research as having the potential to impact students' education (Bowers et al., 2012). Level of parent

education, lack of parental involvement in the student's schooling, family conflict, single-parent families, and/or abuse/neglect within families are noted risk factors that can contribute to a student's educational failure, resulting in higher dropout rates and grade retention (Barnard, 2004; Fan & Chen, 2001).

School/community setting. Another risk factor found to impact children's educational success or failure is the school and community setting itself (Atkins et al., 2006; Resnick et al., 2004). Links have been found between children's lack of participation in extracurricular activities, community and school location (i.e., urban, suburban, rural), and/or peer influence and educational success. Students have a higher potential for educational failure if they live in urban communities where poverty levels are higher, crime rates tend to be higher, and there are higher rates of substance use (Randolph, Fraser, & Orthner, 2004). The influence of peers who exhibit risky behaviors and antisocial attitudes and also have risk factors in their own lives can become a risk factor for children, as can the lack of support from a school and the individual child's participation in school activities (Haynie & Osgood, 2005).

Support for at-risk students. Since the realization that a considerable number of students were not meeting the educational standards set by society efforts have been made through legislation, funding, and research to increase the success of at-risk students (e.g., Elementary and Secondary Education Act of 1965; latest reauthorization of No Child Left Behind Act of 2001; Race to the Top, 2010). Although much of the focus has been on instructional reform, the realization that social emotional wellness plays a role in student success has led to efforts in reforming mental health. These efforts focused on the development of social emotional wellness and promotion of protective factors at the

individual, family, and community levels for at-risk students who face adverse factors that increase the probability for educational failure.

Mental Health as a Risk Factor

Mental health is a risk factor for students and their educational outcomes, and often co-occurs with any number of the previously discussed risk factors (Dryfoos, 1990; Sommer, 1985). Areas where mental health problems are most prevalent include social, interpersonal, or family problems. A study by Foster et al. (2005), reported that gender also can play a role in the mental health problems exhibited by students. Males predominantly had mental health problems related to aggression and disruptive behavior, as well as behavior problems related to neurological disorders (e.g., attention-deficit hyperactivity disorder, ADHD), and females predominantly had mental health problems related to anxiety and stress, and adjustment issues at all age levels. Depression and substance abuse were reported more frequently for both males and females as grade level increased (Foster et al., 2005). According to the Center for Disease Control's 2014 report on mental health (Perou et al., 2013), the most common mental concerns for adolescents are depression, anxiety, ADHD, behavioral disorders (conduct disorder, oppositional defiant disorder), and autism spectrum disorders. In addition, the same report revealed findings that for children aged 3-17, the most prevalent mental health problem was ADHD, and the number of children with mental health problems increased with age. Mental illness/disorder can often go undiagnosed, however, and there remains a large number of individuals, children in particular, who are in need of mental health services, but do not receive treatment (Weist, 2009). Mental health is noted to be a considerable risk factor for dropping out of school (Newcomb et al., 2002) as nearly half of all

students with mental health problems drop out of school (Wagner, Newman, Cameto, Garza, & Levine, 2005). To investigate this further, it is important to note the distinctions between terms used to discuss mental health and the terms used for the remainder of this literature review and study.

Mental health problems: An illness, disorder, disability? Often in research and publications regarding mental health, the terms "mental illness," "disorder," "mental health problems," and "disability" are used interchangeably. Mental health, as previously defined, is "a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community" (Herrman et al., 2005, p.2). According to the Diagnostic and Statistical Manual of Mental Disorders, 5th edition (DSM-V), a mental disorder is:

> "… a syndrome characterized by clinically significant disturbance in an individual's cognition, emotion regulation, or behavior that reflects a dysfunction in the psychological, biological, or developmental processes underlying mental functioning. Mental disorders are usually associated with significant distress in social, occupational, or other important activities. An expectable or culturally approved response to a common stressor or loss, such as the death of a loved one, is not a mental disorder. Socially deviant behavior (e.g., political, religious, or sexual) and conflicts that are primarily between the individual and society are not mental disorders unless the deviance or conflict results from a dysfunction in the individual, as described above" (American Psychiatric Association, 2013).

The terms "mental disorder" and "mental illness" are often used interchangeably; frequently a mental illness/disorder is documented as a disability. For example, according to IDEA, the DSM-V criteria for a mental disorder can fit the criteria for IDEA's disability, emotional disturbance (i.e., emotional behavioral disorder), and potentially for other disability categories in IDEA; however, this depends on the assessment of each individual student. A student with a mental illness/disorder is not always identified as having an emotional behavioral disorder, or any disability under IDEA, and therefore is not always considered to have a disability in terms of receiving educational services, but may be considered to have a disability in terms of another law. This is important to note because the research on mental health does not always define the terms clearly or make clear cut distinctions between mental illness/disorder, mental health problems, and disability.

The current study adopts Keyes' (2002; 2005) approach to defining mental health problems and mental illness to explain the term "mental health problems," which is used throughout this study. According to Keyes (2005), mental health and mental illness are hypothesized to be on dual continua where the "complete state" of mental health is defined as the presence of optimal mental health and simultaneous absence of mental illness. At the highest level on the mental health continuum (see Figure 1), an individual is free from mental illness and functions positively socially, psychologically, and emotionally (Keyes, 2002; 2005). According to Keyes (2002; 2005), individuals can have complete positive mental health (referred to as *flourishing*) or negative mental health (referred to as *languishing*) and those that fit neither of the first two categories are referred to as being in *moderate mental health*. Keyes' research indicates that individuals

considered *languishing*, have issues in social, psychological and emotional well-being, but do not necessarily have a mental illness. Mental illness exists in its own continuum, intersecting the continuum of mental health (see Figure 1). Therefore, an individual with or without mental illness also will be considered *flourishing, moderate*, or *languishing* in mental health status. It should be noted that more individuals with mental illness fall within the *languishing* status (Keyes, 2002).

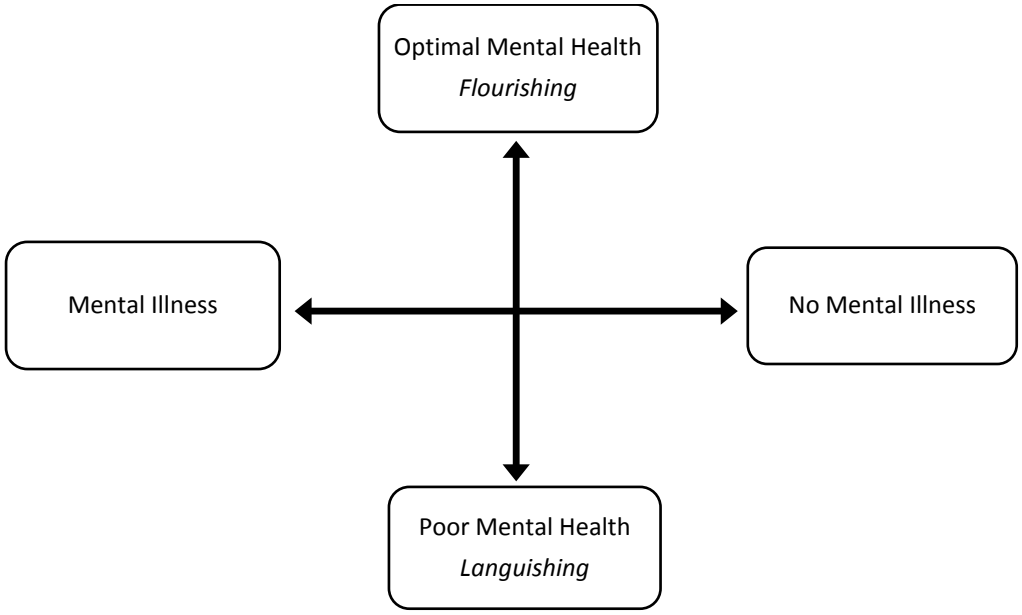

Figure 1. Dual Continua of Mental Health & Mental Illness.

In sum, populations with mental health problems can include individuals with and without a mental illness. The remainder of this literature review and subsequent study discusses information in relation to students having "mental health problems," encompassing all students (with or without an identified IDEA disability) that are considered mentally unhealthy (i.e., languishing) or considered to have a mental illness who are in need of mental health services.

Mental Health Support

The realization that at-risk students need support of varying levels based on their individual needs to be successful in their educational careers led to a push for the development of positive mental health and promotion of protective factors concerning the social and emotional well-being of students. In the last four decades, federal reports and legislation have been created to protect and provide support to at-risk students with mental health problems. In 1989, the Mental Health America Report of the Invisible Children project documented the over-institutionalization and overall neglect of children with emotional disorders that led to the focus on the level and nature of mental health problems and the effectiveness of services for youth. A decade later, in 1999, Mental Health Report of the Surgeon General (U.S. Department of Health) was issued which led to mandated mental health screening and treatment programs. The main efforts have centered on cross-system collaboration for youth with mental illness. Although recent laws, such as the No Child Left Behind Act in 2001 and Race to the Top in 2010, focus more on improving academic outcomes, some research and legislation has focused on the need for mental health support.

The New Freedom Commission on Mental Health's report (2003) focused on emphasizing the severity and consequences of mental health problems for the nation, and the importance of creating a system for providing mental health care with evidence-based practices to promote recovery. The commission reported recommendations, based on research. The following are some of the recommendations documented in the report: 1) school mental health programs should be improved and expanded, 2) multi-agency collaboration efforts should develop transition-to-work services for students with

emotional behavior disorders, 3) training and research funds should be used to train teachers, related services professionals and parents to recognize signs of mental illness, make appropriate referrals for assessment, and implement evidence-based interventions, and 4) screening and collaborative partnerships should be improved to promote research on factors contributing to recovery from mental illness (New Freedom Commission on Mental Health). In addition, the Substance Abuse and Mental Health Services Administration (SAMSHA) developed the *Federal Mental Health Action Agenda* in 2005, which was specifically related to addressing children's needs by implementing early intervention approaches (e.g., approaches for early screening assessment and interventions addressing risk and protective factors) for at-risk students and developing sound services for children with mental health problems. The Elementary and Secondary School Counseling Program grant, initiated in 2002 and authorized under NCLB, allowed schools to apply for federal funds to help implement mental health programs that would reduce mental health counselor/student ratio, subsequently decrease behavioral referrals, and ultimately lead to increased graduate rates. These national reports, coupled with research conducted to demonstrate the need for mental health support for at-risk students, have advocated for providing collaborative support in a comprehensive system of care for students, bringing schools, churches, law enforcement agencies and professionals together and facilitating students' access to mental health services (Anakwenze & Zuberi, 2013; Foster et al., 2005). This collaborative approach is grounded in the notion that services are planned for students at the school and there is on-site, school-based mental health counseling available to students for ease of access, greater efficiency in delivering services, and a preventative focus to inhibit increased risk.

School-Based Mental Health Programs

At the most basic level, school-based mental health services include any program or intervention implemented in a school setting to improve students' functioning in social, emotional, and behavioral domains (Rones & Hoagwood, 2000). Based on the research and national reform efforts noting mental health as a risk factor for educational failure, the ultimate goal of school-based mental health counseling programs is generally to integrate mental health support with academic support, improving outcomes in both areas.

Traditionally, mental health services provided in schools were limited in nature, and were often restricted to students with mental health related disabilities in special education (Weist et al., 2003; Weist, 2009). Now, schools that use school-based mental health programs are moving toward a focus on improved access to mental health services for all students relating to social emotional outcomes, achievement outcomes, attendance outcomes, and behavior outcomes (Daly et al., 2014; Hoagwood et al., 2007).

Research suggests that overall, outcomes of students involved in school-based mental health counseling programs are positive in relation to improved social and emotional indicators (Durlak et al., 2011; Hussey & Guo, 2003; Nabors & Reynolds, 2000, Nelson-Field & Goodman, 2011). A review of the main approaches to school-based mental health programs reveals that approaches adopt terms related to multi-tier systems that generally include universal, secondary and tertiary levels of prevention for students, using a strengths-based approach to interventions. In a meta-analysis conducted by Rones and Hoagwood (2000), results indicated that among 47 studies reviewed that provided services for students in one of the levels, the most effective services were

universal services that provided comprehensive school-based mental health interventions for multiple student needs. Rones and Hoagwood (2000) advocated for additional research concerning school-based mental health services to focus on students with severe levels of emotional behavioral disorders (for all grade levels of students, but especially at the high school level), the implementation process for increased replicability, and outcomes assessment of school-based mental health programs focused on student achievement, attendance, and school-related behavior.

The use of evidence-based practices to establish and implement school-based mental health programs is the focus of recent research; however, one issue that is continually discussed is the difficulty of implementing, replicating, and establishing practices related to procedures, interventions, funding, and specific strategies (Cooper, 2008). Many of these questions persist because there is no method for providing school-based mental health services that is easily generalizable. This makes it difficult to determine the quality, let alone the effectiveness, of the services in school-based mental health programs since there is much variability between programs, even if the models or approaches that are adopted are the same (Atkins et al., 2010; Cooper, 2008; Hoagwood & Erwin, 1997).

Forms of School-Based Mental Health Programs

Two multi-tier approaches to school-based mental health are referred to as 1) Positive Behavioral Intervention and Supports (PBIS) and 2) the Interconnected Systems Framework (ISF) or Expanded School-based mental health (ESMH) (Atkins et al., 2010; Kutash, Duchnowski, & Lynn, 2006). Following is an overview of each approach, as well as findings of research that examined these approaches.

Positive Behavioral Interventions & Supports (PBIS)

The PBIS model is defined by the Office of Special Education Programs Technical Assistance Center on PBIS as the "application of a behaviorally-based systems approach to enhance the capacity of schools, families, and communities to design effective environments that improve the link between research-validated practices and the environments in which teaching and learning occurs" (www.pbis.org). This approach interconnects and facilitates positive mental health across the school, aligning with ecological systems theory (Atkins et al., 2010; Lewis & Sugai, 1999). The following definitions are provided for implementing primary, secondary, and tertiary systems of prevention in which interventions increase in intensity as the levels increase (Atkins et al., 2010; Kutash et al., 2006):

- *Universal or School-wide Interventions* (considered the primary level) are a proactive approach to creating positive school environments and stopping inappropriate behaviors across the school population before they escalate into more severe problems. This generally consists of the creation of school-wide rules and positive reinforcement for the whole school and includes 80-90% of the school population;
- *Selective/Targeted Interventions* is the next, "secondary" level used for students who need more than the universal strategies (approximately 5-10% of the school population), but whose needs are not severe enough for intensive support. Typically small group interventions are used with these students deemed at-risk for future problem behaviors.

• *Intensive Individualized Interventions,* or the "tertiary" level is used for students who exhibit severe and chronic problem behaviors and who need direct, individualized services (approximately 1-5% of students in a school). Typically a student-based team of personnel comes together to create a functional behavioral assessment to determine the reason behind a student's behaviors and to develop, implement, and monitor a behavioral intervention plan.

Response To Intervention (RTI) also is mentioned within PBIS in this literature review because they are interrelated and PBIS can be established and implemented within an RTI framework in a school.

Response to Intervention (RTI)

RTI is a framework used as a school-wide approach to providing evidence-based practices and instruction to students; its main focus is to reduce the number of inappropriate referrals and identifications of students with learning disabilities. Along with high quality instruction, the use of ongoing student assessment is one of the key components, as are parent involvement and tiered instruction and support (Atkins et al., 2010; Rtinetwork.org). Similar to PBIS, three tiers is the most common structure of the RTI framework, in which Tier One is the universal level where all students are served through high quality classroom instruction and universal screening to determine which students need extra academic help or behavioral support. Tier Two follows the PBIS approach, with targeted interventions provided to small groups of students who were deemed "at-risk" in Tier One. In Tier Three, students who show no improvement from Tier One or Two instruction receive intense interventions on an individual basis, based on their individual needs.

Although researchers and practitioners advocate for the integration of PBIS with RTI initiatives grounded in ecological systems theory, the reality is that there are few models of schools implementing both of these systems at all three levels and for all age groups (Atkins et al., 2010; Lyon, Borntrager, Nakamura, & Higa-McMillan, 2013; Pullmann, Bruns, Daly, & Sander, 2013). As a result, more research needs to be conducted to ensure its effectiveness (Fuchs & Deschler, 2007). Figure 2 below illustrates the commonalities and dual relationship between RTI and PBIS.

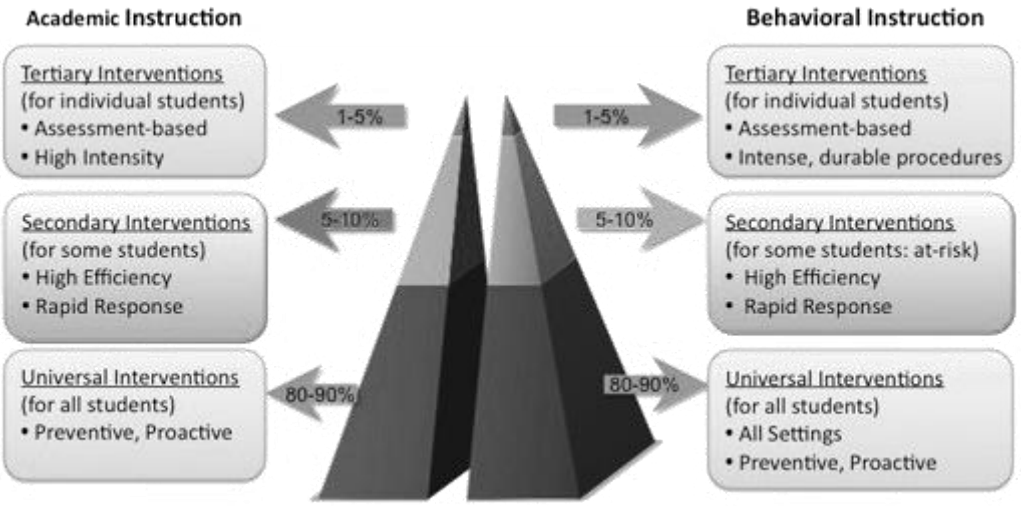

Figure 2. RTI and PBIS from www.PBIS.org

PBIS, RTI, and students with disabilities. PBIS is the only approach to behavior method specifically noted under federal law (i.e., IDEA 2004). Although IDEA 2004 does not require schools to use PBIS, the law does require schools to consider use of this approach for students whose behavior impedes their learning (20 U.S.C. 1414(d)(3)(B)(i)).

In relation to RTI and special education, although RTI is not required by federal law per se, "the use of a process based on the child's response to scientific, research-based intervention" (34 CFR 300.8(c)(10)) is required by IDEA, as revised in 2006, for

the identification of students with specific learning disabilities. Therefore, while several different multi-tiered options and names have been developed for use in this regard, many states do use the RTI framework, including the state documented in this study.

The multi-tier system of PBIS and RTI is designed so that students with disabilities can be included at any level; where students are placed depends on the problem behaviors and academic issues that are exhibited, and more importantly, the school's adoption of PBIS and RTI.

Interconnected Systems Framework/Expanded School-Based Mental Health (ISF/ESMH)

The Interconnected Systems Framework and Expanded School-based Mental Health (ISF/ESMH) approaches are comprised of a continuum of three levels: a universal level of prevention systems, a secondary level for at-risk individuals referred to as early intervention systems, and systems of care for individuals with severe and chronic problems (Adelman & Taylor, 2006; Kutash et al., 2006; Weist & Murray, 2007). The ISF/ESMH framework encompasses partnership and collaboration between schools, community agencies and programs working toward a continuum of the promotion, prevention, intervention, and treatment of mental health using evidence-based practices for students in general and special education (Flaherty & Osher, 2003; Weist, Evans, & Lever, 2003; Weist et al., 2009). At the tertiary level, service providers (e.g., schools, health care, specialty mental health care, juvenile justice, child protection, and substance abuse settings) collaborate across the school and community to coordinate and provide intensive services including crisis intervention, long-term therapy, residential treatment and overall services tailored specifically to the child and family (Kratochwill et al., 2012;

Kutash et al., 2006). It is also at the most intense level that a wraparound approach is often used to guide the system of care in serving the child and family; that is, developing individual care plans for students that are child- and family-centered and are strengths-based (Kutash et al., 2006; Weist, 2009). Research findings have shown that overall, ISF/ESMH models have increased student access to mental health care, improved outreach for students with less apparent concerns, improved early problem identification, and resulted in the use of more ecological and comprehensive programs (Evans, Lanberg, & Williams, 2003; Nabors & Reynolds, 2000; Rones & Hoagwood, 2000; Weist, Myers, Hastings, Ghurman, & Han, 1999).

More recently, there is documented support for the merging of models (ISF/ESMH, PBIS, and RTI, etc.) to provide a more comprehensive approach to providing evidence-based practices to improve school-based mental health and subsequent student outcomes related to behavior and academics (Eber, Weist, & Barrett, 2013; Lyon et al., 2014). The lack of agreement on what approaches specifically seem to be the most effective and how to achieve fidelity of implementation, and the general dearth of research in the area of school-based mental health programs, call for additional research on school-based mental health programming as a whole. Furthermore, there is a need to examine the research on school-based mental health counseling for at-risk students without an IDEA disability and for at-risk students with an IDEA disability to determine what outcomes have been examined for these students and what has been found thus far.

Research Findings on School-based Mental Health Programs

In determining what constitutes educational failure for students with mental health problems, three key types of outcomes data are frequently examined to demonstrate the success of students: attendance, behavior/social emotional, and achievement data (Baker, Sigmon, & Nuget, 2001; National Center for Education Statistics, 1992). Consistent findings have shown that social and behavior problems that manifest early predict later challenges for students academically and socially (Burt & Roisman 2010; Moilanen, Shaw, & Maxwell, 2010). Much of the earlier research on school-based mental health programs focused on social and emotional outcomes for student participants, even though academic improvement was often a key goal for programs (Hoagwood et al., 2007).

Overall, research has found positive effects of school-based mental health programs for students' behavior/mental health and/or academic data (Rones & Hoagwood, 2000; Hoagwood et al., 2007; Vidair et al., 2013). Although the investigation of school-based mental health on both academic and behavioral outcomes is growing, there is still a considerable lack of research in this area (Vidair et al., 2013).

In a meta-analysis on school-wide PBIS by Solomon and colleagues (2012), results showed favorable trends for PBIS when examining 20 studies using single-case R^2 effect sizes.[2] Outcome measures included discipline referrals/problem behavior, suspensions, academic (reading/math), and attendance. For example, of the various outcome measures across the 20 studies, eight were considered to have a medium effect (these outcomes were behavior-based); the remainder had a low to medium-low effect

[2]Solomon et al. report, as recommended by Parker et al. (2005), the effectiveness for the analyses were evaluated by using quartiles as benchmarks (e.g., 1st quartile equal to R^2 =.35, 2nd quartile equal to R^2=.65, and 3rd quartile equal to R^2=.90).

(these outcomes included behavior and academic outcomes). Variability across the subcategories of outcome measures was not analyzed. The studies included in this meta-analysis were from elementary and middle school settings and only looked at the universal level; the authors specifically noted the difficulty in finding studies from high school settings while searching the literature, as well as the necessity for further research on outcomes in secondary and tertiary levels. Solomon et al. (2012) found that PBIS had a higher mean effect in middle school than in the elementary schools; however, the difference was not significant.

In a review of studies on program interventions that focused on both mental health and academic functioning and improvement, but that were not necessarily considered PBIS, 37.5% of the included studies (24 out of 65) tested effects of programs on both academic and mental health outcomes; 40% examined mental health outcomes only (Hoagwood et al., 2007). To be selected for review, Hoagwood and colleagues required studies to use a longitudinal design with random assignments or quasi-experimental comparison, to have been published from 1990-2006, and to have implemented interventions in public schools; out of 2,000 studies, 64 met the criteria. Dependent variables included mental health (self, teacher, or parent reported measures of social competence, aggression or problem behaviors) and educational progress (grades, attendance, reading/math scores, special education placement) and functioning (attendance and suspensions). Of the studies that included both mental health and academic outcomes (n=24), 15 had significantly positive academic and mental health outcomes and eight had significantly positive mental health outcomes only (one had no positive outcomes). Elementary aged students were targeted in 17 of the studies with

positive outcomes; six of the studies focused on middle school students, and one study on high school students.

Two additional reviews of research on school-based mental health programs investigating social emotional and academic outcomes found that approximately 80-90% of studies revealed significantly positive effects on academic outcomes (Becker, Brandt, Stephan, & Chorpita, 2014; Vidair et al., 2013). Vidair et al. (2013) followed the same criteria as Hoagwood et al. (2007), with the exception of a change in dates for the studies searched (2006-2012) and found 47 studies that met the criteria; 23 of which reported mental health (e.g., broadly defined as behavioral issues, impaired functioning, emotional problems, attendance) and academic (e.g., attendance, grades, achievement tests, teacher reports) related outcomes. Of the 23 studies, one pertained to high school students only, with the remaining targeting elementary through middle school students or specific grades within elementary and/or middle school. Sixty-two percent of the studies focused on universal levels of prevention; 38% used selective/targeted interventions. Over half of the studies reported using a primarily ethnic minority sample of Black and/or Hispanic students. Interventions or programs included training and support in relation to social emotional well-being, preventing/reducing anxiety, and preventing/reducing problem behaviors. The majority of the studies reviewed used standardized tests and teacher reports as outcome measures. Approximately 90% of the studies investigating both mental health and academic outcomes had some type of significant positive impact, and most were universal in scope.

Becker et al. (2014) conducted a review of randomized control trials that examined at least one mental health and one academic outcome for students with mental

health problems who received selected or indicated prevention/interventions (universal studies were excluded). Of the 592 articles, 85 articles from 1966-2011 were found that met the criteria; however, only 42% of the articles concerned services and interventions provided in a school setting. Ultimately, though a potential benefit to the programs was discovered, Becker et al. stressed the importance of including multiple types of outcome measures to demonstrate the effectiveness of school-based mental health programs.

The dearth of research on school-based mental health programs in middle and high school settings led to the decision to include in this chapter's review of research for students with and without an IDEA disability to include studies that looked at entire districts, high school students only, and middle and high school students. Different variables were investigated across the studies; often some form of mental health or social emotional variable was examined as part of an intervention, achievement (i.e., test scores) was looked at, office discipline referrals or problem behaviors (or improvements in behaviors) were collected, and/or attendance or suspensions were recorded. Depending on the study, attendance was considered its own variable, or was treated as an academic or behavioral outcome, as were suspension data.

Often, the studies used a longitudinal design, and some investigated outcomes at both the individual and school level. Much of the research, however, examined the effects of school-based mental health programs on more variables distal variables to the intervention, such as high school dropout, overall out-of-school suspension, and state test scores as achievement indicators, sometimes at the school level; research has called for the use of multiple educational outcomes measures (i.e., distal and proximal measures) to ensure the impact of the program is being revealed as comprehensively as possible

(Becker et al., 2014). The wide array of variables that were used as dependent variables across the studies also demonstrates the variability and lack of generalization across studies.

School-Based Mental Health for At-Risk Students without an IDEA Disability

As previously mentioned, much of the research published on school-based mental health examines universal approaches for all students; targeted intervention studies are more often focused on students with emotional behavioral disorders, rather than on a wide variety of at-risk students needing support. Very few of the studies found specifically indicated that students were receiving special education services or had a diagnosed IDEA-defined disability; that is, many of the studies included students with mental disorders defined by the Diagnostic and Statistical Manual of Mental Disorders. Those studies that investigated outcomes for students with or without identified disorders or disability did not compare results between students with and without identified disorders or disabilities. Therefore, this section includes a review of recent literature on students who do not have an IDEA disability, but may have a mental disorder, and the mental health services they receive.

A recent study on two school-based mental health programs examined effects of the programs city-wide across three years on school absence (i.e., mean number of absences per month), suspensions (i.e., monthly number of in-school and out-of-school), and grade promotion (i.e., moving to the next grade level) for individual students and schools participating in the study (Kang-yi, Mandell, & Hadley, 2013). In one program, students received group counseling; in the other, students received support from a one-on-one aide in the classroom. The sample included 197 schools, and students aged 6-17

years who were from low-income families. Approximately 75% of the students were male members of ethnic minorities; the majority of students were Black. Less than 5% of students in the sample had a school-coded disability. This study did document the difference in IEP status of students prior to and after participation in the programs.

Overall, an improvement was indicated in the identification and provision of necessary services for at-risk students in need, as the percentage of students with an IEP increased from approximately 3% of students to 53% of students at the end of the study; however, results for these students specifically are not discussed. Results showed out-of-school suspensions significantly decreased and in-school suspensions significantly increased; however the authors indicate this may be based on confounding variables (i.e., a change in district policy to decrease out-of-school suspensions). Promotion to the next grade level significantly increased for students in the program after participation in the program. Students who had a diagnosed mental disorder other than ADHD were less likely to be promoted to the next grade level. At the school level, monthly absences significantly increased after participation in the program; however at the individual level, days absent per month decreased. This study is limited, however, in that there was no random assignment of participants. It is generalizable only to similar schools with similar demographics.

Another study investigated the impact of school-wide PBIS in two high-poverty school districts on schools' buy-in of PBIS, benefits of professional development and training on PBIS, and suspension rates for students with behavioral problems and problem behaviors school-wide (McCrary, Lechtenberger, & Wang, 2012). The majority of students were Hispanic, and grades 4-12 were represented. Training was provided by

project staff, and the three levels of PBIS were implemented. In the first district, one middle and one high school participated, and teachers spent time in the hallways between classes to check in with students as an intervention; positive behaviors were reinforced with tickets that could be cashed in for prizes. In addition, a tutorial and a study hall program were implemented to provide assistance on assignments and coursework for students who were not passing or were missing assignments. As a result, tardiness decreased and fewer discipline referrals were reported. Ultimately there was a 59% drop in office referrals for out-of-class placement. In relation to academic improvement, student failure rates decreased by 71% for the school year in which the program was implemented. In the second district, an elementary and middle school participated, in which students and staff were taught PBIS school-wide rules. Researchers reported a considerable decrease in in-school suspension referrals (from 497 to 59), as well as decreases in out-of-school suspensions and expulsions. Significance levels of changes were not reported for any of the outcomes. No data was provided on disability or mental health status of students.

Research conducted by DeSocio and colleagues (2007), supports the need for school-based mental health interventions for students to reduce attendance problems. In relation to levels of support, this study's program a targeted intervention; students received mentoring and afterschool tutoring, as well as enrollment in the school-based mental health center. The student population consisted of 37 students from multiple ethnicities (87% minority students and 13% White students) 65% were eligible for free or reduced-price lunch, and 50% generally repeated ninth grade (DeSocio et al., 2007). Student mentors encouraged engagement in school and provided tutoring, and a school-

based coordinator contacted families to encourage their support and create plans for increased attendance. Screenings were provided to students in the school-based mental health center, which included services from a psychiatric nurse. DeSocio et al. (2007) found that students in the intervention had significantly higher attendance than the control students and were significantly more likely to stay in school and complete the year. No significant difference was found for academics.

Daly et al. (2014) evaluated the effects of school-based mental health services on academic (standardized test scores in math and reading) and behavior outcomes (number of suspensions and attendance rates) across three years. Only elementary and middle school students were included in this study; disability status/IEP was not discussed. Nearly all students in the study were eligible for free or reduced-price lunch, and 96% were members of ethnic minorities (86% were African American or Hispanic). In this study, a licensed mental health professional from an external agency provided on-site school-based services, treatment consultation to school staff, and care coordination with families and students. Students were referred for, and received, therapy at least weekly in individual, family, or group sessions. Data analyses did not reveal any statistically significant differences between students in the school-based mental health program and the control group on behavioral or academic outcomes.

School-Based Mental Health for Students with an IDEA Disability

The search for studies investigating the effects of school-based mental health programs for students with an IDEA disability resulted in even fewer findings; however, much of the research found in this area included students with identified emotional and behavioral disorders. The inclusion of students with an IDEA disability not related to

mental health was nearly nonexistent in the research base. In one study conducted by Pastor and Reuben (2009), parents of students in three categories—those in special education for disabilities non-mental health related, those in special education for mental health problems, and those not in special education—participated in a survey on the characteristics, placement, and mental health service of their children. Pastor and Reuben (2009) found that among students with serious mental health difficulties, students were less likely to have received recent mental health services if they were in special education for non-mental health problems (60% received services) or were not in special education (53% received services) than were students who were in special education for mental health problems (87% received services). Furthermore, students in special education for non-mental health problems were four times more likely to have serious emotional and behavioral difficulties than students not in special education, but were just as likely to lack mental health services. Although the study has limitations (e.g., some problems identified as 'minor' by parents could have significant consequences on the mental well-being of a child, the survey measure itself and its reliability and validity, etc.), these findings support the idea that further study is needed to determine the benefits of mental health programs for at-risk students in special education (i.e., students who have an IDEA disability), with mental health or non-mental health disabilities, and at-risk students in general education who have mental health problems (i.e., students who do not have an IDEA disability).

Chitiyo and associates (2011) conducted a small meta-analysis to examine the effect of PBIS individual interventions on academic achievement and behavioral indicators for students with disabilities. Although students were not of high school age, it

is still an important study to include, since it is a meta-analysis in an area of research that is considerably small. Based on the size of the analysis, it is difficult to make inferences; however, there is a considerable dearth of research in the area of PBIS and academic outcomes, particularly for students with disabilities, and this provides preliminary findings. A total of five studies were examined and included students in elementary and middle school settings, aged 7-14 years, although not all participants had a diagnosed disability. Categories of disability included ADHD (not an IDEA identified disability, but can be categorized under "Other Health Impairments" in IDEA), developmental disorders, autism spectrum disorders, emotional and behavioral disorders, and then "at-risk" students (not defined in the study).

Chitiyo et al. reported, as recommended by Scruggs and Mastropieri (1987), the effectiveness for the analyses were evaluated by using the percent of non-overlapping data (PND) points for academic and behavioral outcomes separately, where "very effective" interventions had PND scores above 90%, "effective" had scores 70-90%, 50-70% were "questionable effectiveness," and less than 50% was considered an "ineffective intervention." Effective interventions (e.g., teaching students techniques for self-monitoring or managing behavior) were found for students with emotional or behavioral disorders, ADHD, and those considered at-risk. Questionable intervention effects were found for academic achievement. The highest mean percentage of non-overlapping data points was found for at-risk students, indicating the intervention was effective for them, which supports the necessity of prevention strategies and individual interventions before behaviors escalate.

Kutash et al. (2011) investigated the effects of four school-based mental health programs on the academic and social emotional functioning of students with emotional behavioral disorder who received special education services and had an IEP. All programs predominantly served male students. Students' grade levels ranged from kindergarten through grade 12. Of the four programs, program "Wraparound" provided a wraparound approach integrated across community and school agencies, with treatment planning occurring in the school. Program "Push-in" used a district-operated model, in which therapy was provided by mental health providers and special education teachers in the classroom. Program "Pull-out 1" was district-operated with a mental health clinic agency contract, and included a pull-out program for students. Program "Pull-out 2" also was a pull-out program that was district operated with mental health clinics and county agencies.

Programs "Wraparound" and "Push-In" included predominantly White students; programs "Pull-out 1" and "Pull-out 2" were included predominantly Black and Hispanic students. Overall, students improved in emotional functioning and in their functional impairment. Specifically, medium to large effects were found for improved emotional functioning for students in program "Wraparound" and program "Pull-out 2"; medium to large effects were found for improvements with regard to functional impairments for students in program "Wraparound" and program "Pull-out 1." There were inconsistent outcomes for academic achievement; however, different measures were used for two of the four programs. Students showed some improvement in program "Wraparound" and "Push-in" (small to medium effects); however, the measure for academic achievement in program "Wraparound" was parent-reported child performance, and reliability cannot be

determined. No program was considered to be highly effective for school outcomes. Programs "Pull-out 1" and "Pull-out 2" used the same measure (school reported data), and data analyses revealed a decrease (small to medium effect) in achievement.

Attendance measures, collected by parents for programs "Wraparound" and "Push-in" and the schools for programs "Pull-out 1" and "Pull-out 2," revealed programs "Wraparound" and "Push-in" had higher attendance rates for students than did programs "Pull-out 1" and "Pull-out 2." Kutash et al. (2011) indicate that their findings support previous findings that few interventions have been dually effective in both mental health and academic domains. The limitations in data collection and instrument reliability and validity described above make it difficult to generalize findings, but support the need for further research.

Research needs to be conducted for further documentation and examination of education and mental health/behavioral outcomes of students with specific disabilities, as well as students without disabilities who exhibit mental health problems (Kutash et al., 2011). The purpose of this study is to investigate the difference between at-risk middle and high school students with and without IDEA disabilities after one year of participating in the tertiary level of a school-based mental health counseling program and their outcomes in achievement, behavior, and attendance.

Summary

A review of the literature relevant to at-risk students with and without IDEA identified disabilities, mental health needs, and school-based mental health programs designed to help promote educational success was presented in this chapter. An overview of concerns in education, developmental theories, and the background of the term "at-

risk" were discussed to provide explanation for the multiple factors at play in a child's life that can affect educational success. The review then explained risk factors for students with and without IDEA identified disability and the possible relationships between risk factors that can have an influence on educations success. A brief overview of school-based approaches that have been developed to meet students' mental health needs and decrease risk factors was discussed, followed by a summary of findings from empirical research on school-based mental health counseling for students.

Chapter 3

Methods

Purpose of the Study

The purpose of this study was to investigate the relationship of an identified disability (IDEA declared vs. non-declared) on success outcomes after participation in a school-based mental health program designed for high-needs students in grades 6-12. Outcome variables included attendance, behavior, and achievement indicators for students who were enrolled in and were receiving intensive school-based counseling. In this causal comparative study, all sixth-twelfth grade students served by the program were identified by the district to be at an RTI/PBIS Tier 2 or 3 status and as a result, in need of in-depth, school-based mental health services. Some of these students, identified as IDEA declared, had an identified disability for which they also received special education services under IDEA 2004 that required a written Individualized Education Plan (IEP) (IDEA, 2004). The remaining students, identified as non-declared, were deemed high-needs and served by the program; however, they did not have an identified disability served by IDEA requirements.

Academic outcomes represented three domains required for review of program success by the U.S. Department of Education Strategic Plan (2011): attendance, behavior, and achievement indicators. For this study, attendance indicators included: absences (the number of days the student was not identified as in the building), school suspensions (the number of days the student was not in school or did not receive instruction due to a disciplinary action), and instructional days (the number of days the student was in school excluding in-school suspensions). Behavioral indicators included frequency (i.e., number

of) disciplinary referrals in five categories: attendance concerns, disruptive behavior incidences, violent incidents, illegal/unethical conduct, and lack of respect related incidents. Achievement indicators included, where available, pass-fail indicators (i.e., pass=3.4; fail=1,2) on grade 6-8 New York State English Language Arts and Mathematics Exams taken one year before and at the end of one year of participation in the school-based mental health program by students who were in grades 6-8 at the time of the post test.

Sample

The target dataset used in this study was archival in nature; it was derived as part of a larger evaluation of a Safe Schools Healthy Students grant[3] serving students at an urban high-needs school district. All students received on-site mental health counseling services, and were deemed by counselors to be at an RTI/PBIS Tier 2 or Tier 3 status. The supporting dataset utilized for this study included district reported demographics, Violent and Disruptive Incident Reporting (VADIR) data, attendance data, and New York State English Language Arts and Mathematics exam data. These datasets were integrated to form a master file such that students were included in this study if: 1) they were enrolled in grades 6-12, 2) participated in the on-site mental health counseling program for one year, and 3) had complete sets of demographic, attendance, and behavior data. A second integrated set was compiled of those students who had participated in the counseling program and also had taken the grade 6-8 New York State English Language Arts and/or Mathematics exams pre- and post-participation (i.e., the year before and at the end of the year they participated).

[3] United States Education Department, Safe Schools Healthy Students grant, funding number Q184L070060.

Student demographics. Descriptive statistics representing the sample of students in this study, as well as the students in the high school for comparison purposes, are presented in Tables 1 and 2. A total of 230 students compile the basic study sample. Of all of the participants, 32% (*n*=74) were identified as students with a declared disability who were eligible to receive services under IDEA. The remaining 156 students were non-declared, grant-served high-needs students enrolled in general education classes and were not eligible to receive services under IDEA funding.

Overall demographics were reflective of characteristics of students at-risk of educational failure (Chen & Kaufman, 1997; Kominsky et al., 2009; Lucio et al., 2011; Malnarich, 2005; McCabe, 2003; NCES, 1992; Walsh, 2003). The students were predominantly high-poverty (70%) and presented a minority ethnic classification (65%); 56% were female and 1% had limited English proficiency, all characteristics indicative or potential at-risk status. When the data is examined by IDEA declared disability, IDEA declared students differed slightly from non-declared students; the majority of IDEA declared students were male (61%), approximately 51% were white, and 49% presented minority status (see Figures 3 and 4). By comparison, the majority of non-declared students were female (64%) and 56% were of minority status. The majority (63%) of both non-declared and IDEA declared students were enrolled in grades 7-9.

Table 1

Participant Characteristics

	IDEA declared *n*=74		Non-declared *n*=156		All students *n*=230		District HS *n*= 2738	
Demographic	*n*	%	*n*	%	*n*	%	*n*	%
Gender								
Female	29	39	99	64	128	56	1373	50
Male	45	61	57	37	102	44	1365	49
Ethnicity								
White	38	51	68	44	106	35	911	33
Black	23	31	58	37	81	46	907	33
Hispanic	13	18	21	13	34	15	410	15
Asian	0	0	9	6	9	4	500	18
Other*	0	0	0	0	0	0	10	<1
LEP**								
No	73	99	154	99	227	99	2635	96
Yes	1	1	2	1	3	1	103	4
Poverty								
Yes	55	74	105	67	160	70	1728	63
No	19	26	51	33	70	30	1010	36
SWD***								
No	0	0	156	100	156	68	2297	84
Yes	74	100	0	0	74	32	441	16

* Other=American Indian, Alaskan Native, Pacific Islander, or Multiracial
** LEP=Limited English Proficiency
*** SWD=Students with disabilities

Table 2

Participant Grade Levels

	IDEA declared *n*=74		Non-declared *n*=156		All students *n*=230		District grades 6-12 *n*= 4998	
Grade level	*n*	%	*n*	%	*n*	%	*n*	%
6	9	12	8	5	17	7	735	15
7	11	15	45	29	56	24	789	16
8	16	22	33	21	49	21	693	14
9	17	23	24	15	41	18	804	16
10	5	7	18	12	23	10	721	14
11	10	13	16	10	26	11	618	12
12	6	8	12	8	18	8	638	13

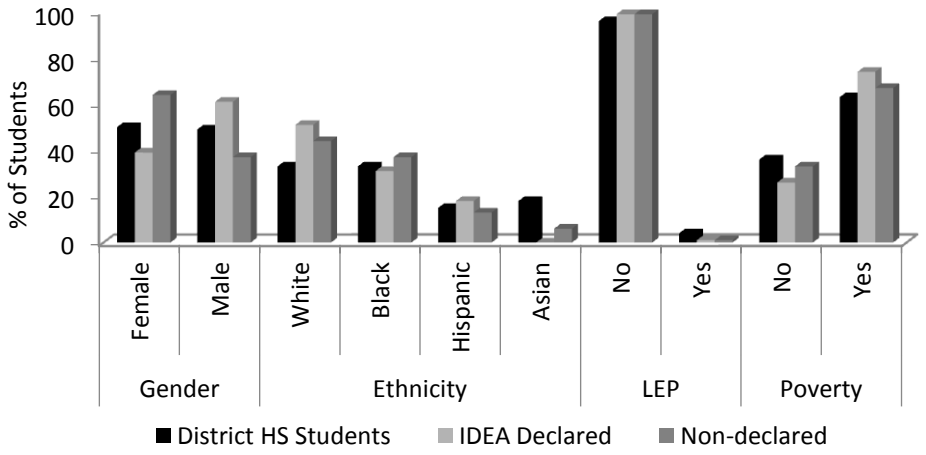

Figure 3. Bar chart comparing demographics across the district's high school population and the sample of IDEA declared and non-declared students.

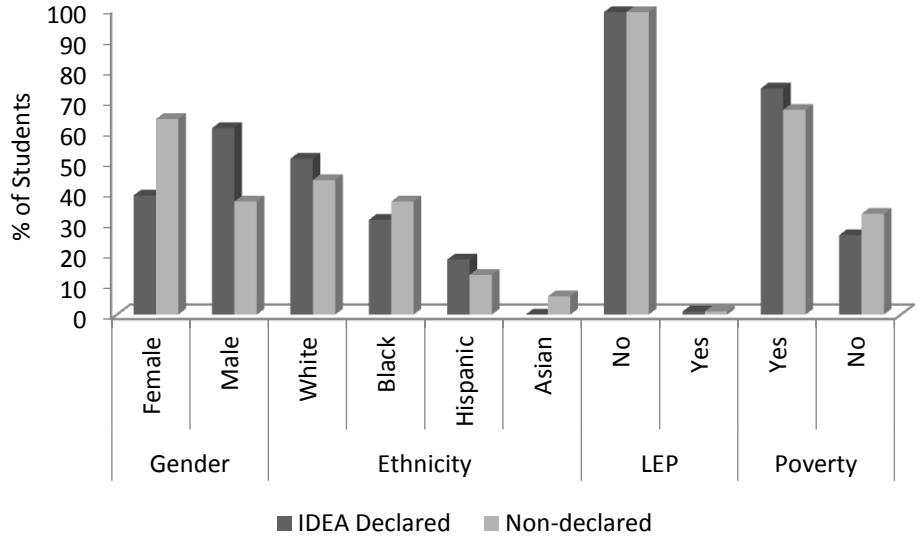

Figure 4. Bar chart of demographics comparing IDEA declared and non-declared students

Measures

Five constructs were utilized for this study. Following is a summary of each variable, how it was assessed or documented, and current evidence of measurement integrity.

IDEA declared status. IDEA status served as the major independent variable. IDEA status was obtained via a review of archival district databases. Two levels were used for this study following federal law regarding what is defined and used for reporting purposes as a disability requiring special education or supporting services (IDEA 2004). IDEA declared students were those who have an identified disability as defined by IDEA; non-declared students were those who do not meet this definition. Those students with an IEP were coded as a 1, those without were coded as a 2. Validity of the presence or absence of IEP status is assumed due to regulations and definitions embedded within federal law. These data were checked by the district on an annual basis, or as is required by law, for accuracy; validity of designation follows federal law.

Attendance. The construct of attendance consisted of three variables for this study: absences, out-of-school suspensions, and instructional days.

Absences. For the purposes of this study, absences were operationally defined as the number of days a student did not attend school, as reported by classroom teachers and placed into the official district attendance record in a daily attendance count by class period. In the high school utilized in this study, attendance was taken daily, for each designated period of the day. A student was considered absent, illegally or legally, for one day if the student was marked as absent for three periods on the same day. All of the attendance data by class period was then combined into a daily count at the end of each school week. Attendance data counts by days were obtained from the district as an archival database, representing attendance data for the first year they received counseling services. Students had to have data in each category of attendance to be included in the study. Attendance data were reported using four category codes: 'A'—legally absent, 'I'—illegally absent, 'O'—out-of-school suspension, 'S'—in school suspension, and 'SSS'—strict supervised study. According to the district, a legal absence was one in which the student had a note or document explaining their absence. An illegal absence was one in which the student was not in school and no legal excuse was provided. An out-of-school suspension was an absence due to a formal suspension of the student that mandated they remain out of school for the duration of their suspension. In-school suspension referred to an attendance marker in which the student was in-school, but was suspended and was not attending their normal academic classes. Strict Supervised Study was a form of in-school suspension where the student was placed in a study hall or received tutoring for part of the day.

The actual number used for absences in the study was the combined total number of absences counted as a full day that included the total number of legal absences, illegal absences, and out-of-school suspensions a student had for the first academic year they received counseling and the year prior. To ensure reliability and validity of data, the district utilized a standard definition provided to all schools in the district on the recording and reporting of attendance.

School suspensions. For the purposes of this study, school suspensions were operationally defined as the number of days a student did not attend school or receive instruction due to a suspension, as reported by the building attendance officer. The number of school suspensions was reported by day by the district; the number used for school suspensions in this study was the total number of out-of-school suspension days and in-school suspension days each student had the year prior to and at the end of one year of participation in a school-based mental health counseling program obtained from the district archival database. To ensure reliability and validity of data, the district utilized a standard definition provided to all schools on the recording and reporting of suspensions.

Instructional days. For the purposes of this study, instructional days were operationally defined as the number of days a student was present in school and received academic instruction. This number was comprised of the total number of days a student was in school and excluded the number of days a student was legally and illegally absent, the number of days a student had out-of-school suspensions, and the number of days a student had in-school suspensions and strict supervised study. The number of instructional days was obtained from the first academic year each student received

counseling services and the year prior from an archived district dataset. To ensure reliability and validity of data, the district utilizes a standard definition provided to all schools in the district on the recording and reporting of attendance; reliability of the definition the researcher adopted for the research study is established as it is included as a measure of attendance in federal and state-funded grant reports.[4] See Table 3 for a summary of the defined attendance indicators.

Table 3

Attendance Categories

Categories	Definition
Absences	Combined total number of absences counted as a full day, including total number of: -legal absences -illegal absences -out-of-school suspensions
Suspensions	Combined total number of out-of-school suspension days and in-school suspension days
Instructional Days	Combined total number of days a student was in school, excluding: -the number of days a student was legally and illegally absent -the number of days a student had out-of-school suspensions -the number of days a student had in-school suspensions and strict supervised study

Behavior problems. The construct of behavior problems consisted of five variables for this study: disruptive behavior incidents, attendance concerns, illegal/unethical misconduct, violent incidents, and lack of respect related incidents. The

[4] Project number Q184L070060

reliability and validity for the combination of categories is established based on reporting methods used in federal and state-funded program reports (see Table 4).

Disruptive behavior incidents. For the purposes of this study, disruptive behavior incidents were operationally defined as the number of disruptive behavior-related referrals a student had that school staff in the district documented in a database each time a referral was made. A student was documented as displaying disruptive behavior using one of the codes supplied by the VADIR (Violent and Disruptive Incident Reporting) system, including student use of disrespectful/obscene language, demonstration of a lack of respect, misbehaving on school property, displaying insubordination, taking multiple lunches, and inappropriately using a cell phone. The total number of referrals a student had in each of these code names was obtained from the district as an archival database, representing data from the year prior to and the year that services were provided. These data were combined into one number in the overarching category of disruptive incidents by the researcher. Formal reliability and validity were assumed based on state and federal reporting requirements and guidelines that are provided to each school district for guidance in collecting and reporting the VADIR data to ensure consistency across schools. The reliability and validity for the combination of categories was established based on reporting methods used in federal and state-funded program reports.[5]

Attendance concerns. For the purposes of this study, attendance concerns, one indicator for behavior problems, are operationally defined as the number of attendance-related referrals a student had, as documented by school staff in the district database each time a referral was made. A student was coded as displaying attendance-related behaviors by the school staff using one of the referral codes supplied by the VADIR system,

[5] Project number Q184L070060

including referrals for being truant, cutting or repeatedly cutting class, being late to class, leaving early from class without permission, and not showing up for detention. The total number of referrals a student had in each code name was obtained from the district as an archival database, representing data from one year prior to (i.e., pre) and at the end of one year (i.e., post) of participation in the school-based mental health program. These data were combined into the overarching category of attendance concerns by the researcher. Formal reliability and validity were assumed based on state and federal reporting requirements and guidelines that were provided to each school district for guidance in collecting and reporting VADIR data to ensure consistency. The reliability and validity for the combination of categories was established based on reporting methods used in federal and state-funded program reports.

Illegal/unethical misconduct. For the purposes of this study, illegal/unethical misconduct are operationally defined as the number of illegal/unethical related referrals a student had as documented by school staff in the district database each time a referral was made. A student was coded as engaging in illegal/unethical activity using a referral code supplied by the VADIR system including referrals for minor altercations (i.e., fighting), forging passes, smoking, assault, possessing a weapon, and drug use. The total number of referrals a student had in each of these codes was obtained from the district as an archival database representing data from the first year a student participated in the school-based counseling program and the year prior. These data were combined into the overarching category of illegal/unethical misconduct by the researcher. Formal reliability and validity were assumed based on state and federal reporting requirements and guidelines that were provided to each school district for guidance in collecting and reporting the data to ensure

consistency. The reliability and validity for the combination of categories was established based on reporting methods used in federal and state-funded program reports.

Violent incidents. For the purposes of this study, violent incidents were operationally defined as the number of violent incident related referrals a student had as documented by school staff in the district database each time a referral was made. A student was coded as engaging in a violent activity using a referral code supplied by the VADIR system, including referrals for minor altercations and fighting. The total number of referrals a student had in each of these codes was obtained from the district as an archival database representing data from the year prior to and the year that students received mental health services. These data were combined into the overarching category of violent incidents by the researcher. Formal reliability and validity were assumed based on state and federal reporting requirements and guidelines that were provided to each school district for guidance in collecting and reporting the data to ensure consistency. The reliability and validity for the combination of categories was established based on reporting methods used in federal and state-funded program reports.

Lack of respect related incidents. For the purposes of this study, lack of respect related incidents were operationally defined as the number of referrals related to a "lack of respect" that a student had as documented by school staff in the district database each time a referral was made. A student was coded as engaging in lack of respect incidents using a referral code supplied by the VADIR system including referrals for lack of respect, verbal confrontation, and false alarms. The total number of referrals a student had for each of these codes was obtained from the district as an archival database representing data from the year prior to and the year that students received mental health

services. These data were combined into the overarching category of lack of respect related incidents by the researcher. Formal reliability and validity were assumed based on state and federal reporting requirements and guidelines that were provided to each school district for guidance in collecting and reporting the data to ensure consistency. The reliability and validity for the combination of categories was established based on reporting methods used in federal and state-funded program reports. See Table 4 for a summary of the VADIR categories and subsequent referral codes for each.

Table 4

VADIR Categories

Categories	Referral Codes/Definition
Disruptive Behavior Incidents	Disrespectful/obscene language Inappropriate cell phone use Insubordination Misbehavior on school property Multiple lunches
Attendance Concerns	Cutting class Late to class Leaving early, no permission No show for detention Repeatedly cutting class Truant
Illegal/Unethical Misconduct	Assault with physical injury Drug use Forging passes Possession of a weapon Smoking
Violent Incidents	Minor altercation/fighting
Lack of Respect Related Incidents	Lack of respect Verbal confrontation False alarm

Achievement. The construct of achievement reflects passing scores on the grade 6-8 New York State English Language Arts and Mathematics standardized assessments comprised of multiple choice (MC) and constructed response (CR) items. For the purposes of this study, achievement was operationally defined as the percent of students passing and failing (i.e., pass=3, 4; fail=1, 2) on state exams. In this study, students were considered to be passing, with no intervention needed, if they received a 3 or a 4 based on the scoring system determined by the state (CBT/McGraw-Hill, 2011). According to the New York State Department of Education, a student is considered "proficient" in English Language Arts or Mathematics if they receive a 3 on the exam (see Table 5 below for an outline of each score and its interpretation.

Table 5

New York State English Language Arts and Mathematics Exam Score Interpretation

New York State English Language Arts & Mathematics Results	
Level 4	Student is above proficiency, excels, in the learning standards for grade level
Level 3	Student is proficient in the learning standards for grade level
Level 2	Student is partially proficient in the learning standards for grade level
Level 1	Student is well below proficient in the learning standards for grade level

The pass-fail percentages for students on the state exams were obtained from individual 6th-8th grade student scores on the state test received from the district as an archival database representing state test data from sixth-eighth grade students (where available) from one year prior to and at the end of the year that mental health services were provided. According to technical reports from 2011, content validity was established by item review committees consisting of New York State educators with content and grade-level expertise and confirmed through independent evaluation

(CTB/McGraw-Hill, 2011). Reliability (using Cronbach's alpha, ranged from .90-.92 for English Language Arts and .90-.94 for mathematics) was demonstrated by the high internal consistency of the tests (CTB/McGraw-Hill, 2011). In addition, high reliability in the scoring process of the constructed response items is demonstrated using Cronbach's alpha (ranged from .79-.82 for English Language Arts and .75-.88 for mathematics) between the subsets of the items (CTB/McGraw-Hill, 2011).

Research Design

The major research design utilized in this study was ex post facto causal comparative in nature. The independent or grouping variable was IDEA status (declared or non-declared) as determined and reported by the school district. The dependent variables consisted of three constructs of academic success (attendance, behavior, and achievement). For the three constructs, a mixed model (e.g., pre-post pre-existing group) design was utilized. The main independent variable was IDEA status (declared, non-declared) the second independent variable was time of assessment (pre, post). For attendance, the dependent construct consisted of three related variables, absences, out-of-school suspensions, and instructional days. For behavior, the dependent construct consisted of five related variables, attendance concerns, disruptive behavior incidences, lack of respect related incidents, violent incidents and illegal/unethical activity). For achievement, the dependent construct consisted of student scores on the New York State English Language Arts and Mathematics tests. See Figure 5 for a visual representation of the research design.

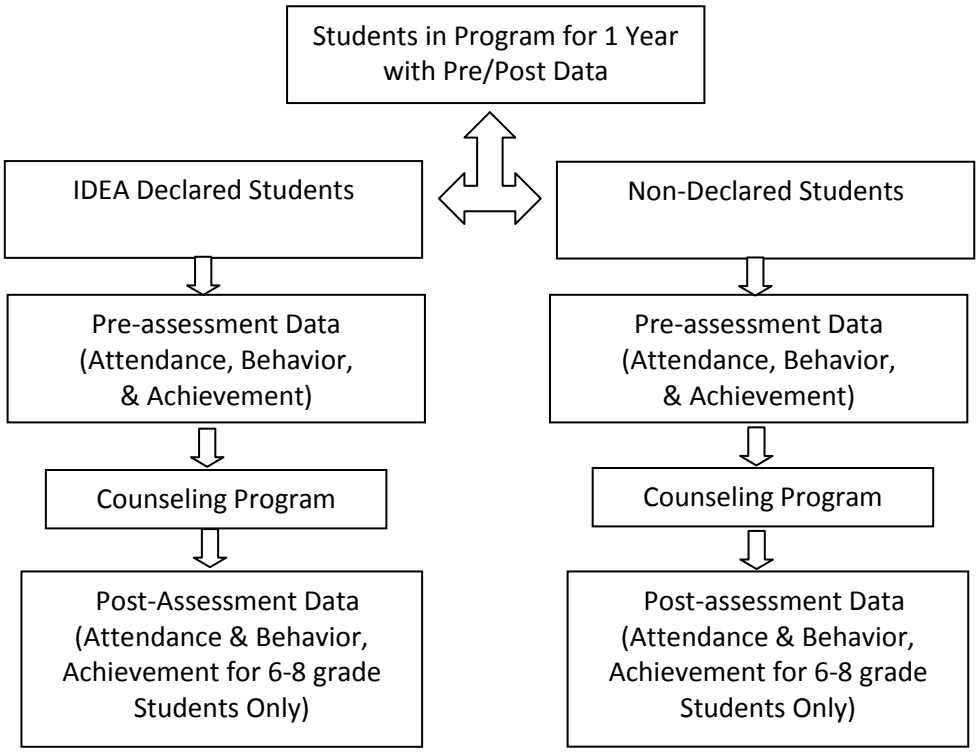

Figure 5. Research Design.

Because the database consists of an archival dataset, the study was post hoc in nature. The selection and assignment of students to the program was not under the control of the researcher. In addition, students entering the program already, by law, had or did not have a designated IEP. The use of this design and database limited the study in generalizability to other settings and assumed that the delivery of program was conducted with fidelity. The researcher was not involved in the delivery of the program, thus removing researcher bias.

Procedures

The ex post facto program. This study served as an expansion of a larger investigation of a Safe Schools Healthy Students grant[6]. Funds for this program were provided to a small urban, high-needs school district in the Northeast United States to

[6] United States Education Department, Safe Schools Healthy Students grant, funding number Q184L070060.

develop and implement a violence prevention system and enhance social emotional development services by expanding after school, parent development, and counseling programs using a preventive approach that included professional training and aimed to utilize a wraparound approach to include parents and community groups. The counseling program used for this study was one component of the larger program and was based on a multi-tiered model to focus on both academic and behavioral needs of the highest need students. As part of the larger project, students were referred to what the district considered Tier 2 and Tier 3 intensive counseling services at one point during the grant period (2008-2012). Students were assigned to a counselor and received counseling services; student data were used for students who completed one year of school-based mental health counseling services.

The ex post facto research study. This study used an archival dataset from 2008-2012 that was collected at the middle and high school level each academic year as part of a larger evaluation. The archival datasets were provided to the researcher in 2014 and a clean dataset was developed that contained the archival information on student demographics, attendance, discipline referrals, and achievement that were analyzed for this study. The data were analyzed using multiple univariate analysis of variance.

Summary

This chapter outlined the methodology, population, data measures, research design and variables, the proposed procedure of the study, as well as the anticipated statistical methods that were used to analyze the data. In addition, insight into the reliability and validity of the data measures and research process was documented.

Chapter 4

Results

This chapter presents the results of the data analyses performed in this study. The dataset and treatment of missing data are briefly addressed, followed by an explanation of the data analyses conducted for each research question and the subsequent findings. The chapter concludes with a summary of the overall findings.

Final Dataset

The target dataset for this study was an archived dataset, derived as part of a larger evaluation of a Safe Schools Healthy Students grant[7] serving students at an urban high-needs school district. All students received on-site mental health counseling services, and were deemed by counselors to be at an RTI/PBIS Tier 2 or Tier 3 status. The supporting dataset utilized for this study included district reported demographics, Violent and Disruptive Incident Reporting (VADIR) data, attendance data, and grade 6-8 New York State English Language Arts and Mathematics exam data. These datasets were integrated to form a master file such that students were included in this study if: 1) they were enrolled in grades 6-12, 2) participated in the on-site mental health counseling program for one year, and 3) had complete sets of demographic, attendance, and behavior data. Based on this, a total of 230 students were part of this study. A second integrated set was compiled of those students who had participated in the counseling program and also had taken the grade 6-8 New York State English Language Arts and/or Mathematics exams pre- and post-participation (i.e., the year before and at the end of the year they participated).

[7] United States Education Department, Safe Schools Healthy Students grant, funding number Q184L070060.

Analysis

A series of analyses were used to investigate the results for this study for research questions one and two. Statistical approaches included mixed model univariate analysis of variance, tests of variance, and descriptive examination of means and proportions for smaller or more in-depth analysis. Descriptive analyses were used to examine research question three.

Research question 1. *Are there significant differences in change pre- to post-participation in a school-based mental health counseling program by status of disability (IDEA declared and non-declared) on attendance indicators as assessed by: a) absences (the number of days the student was not identified as in the building), b) school suspensions (the number of days the student was not in school or receiving instruction due to a disciplinary action), and c) instructional days (the number of days the student was in school excluding in-school suspensions)?* To determine if there was a significant difference in change pre to post by IDEA status (declared and non-declared) on attendance indicators, a series of two by two mixed model analyses of variance were used to analyze the data.

Absences. To determine if there was a significant difference in change pre to post on mean number of absences by IDEA status (declared and non-declared), a two by two mixed model analysis of variance was used to initiate the analysis. The fixed categorical nonrepeated independent variable was IDEA status with two levels (declared and non-declared); the fixed categorical repeated independent variable was time of assessment (pre—one year prior to participation in the counseling program; post—at the end of one year of participation in the counseling program). The continuous random dependent

variable was number of recorded absences (i.e., the number of days the student was not identified as in the building as reported by classroom teachers and placed into the official district attendance record in a daily attendance count by class period). In the district utilized in this study, attendance was taken daily, for each designated period of the day. A student was considered absent, illegally or legally, for one day if the student was marked as absent for three periods on the same day (teachers were responsible for taking attendance at the start of each class and homeroom). The assumption of independence was met through the sampling design since each sample (i.e., IDEA declared and non-declared students) included students with a demographic characteristic (IDEA declared disability vs. no disability) that immediately excluded them from being in the other group. Examination of residual plots revealed normality and linearity might be issues; data were positively skewed, indicating the presence of potential outliers. The assumption of homogeneity, tested using Box's M Test (F=5.95; df=3, 480,735; p<.05), also was significant, indicating differences in variability amongst the measures. Presented in Table 6 is a summary of the means and standard deviations of the absences across time; a summary of the ANOVA is documented in Table 7.

Table 6

Means and Standard Deviations of Absences by IDEA Status and Time

Group	*n*	Pre $\bar{x}$ *(sd)*	Post $\bar{x}$ *(sd)*
IDEA Declared	74	25.04 (27.69)	30.72 (25.08)
Non-declared	156	20.09 (19.71)	29.00 (28.19)

Examination of Table 7 indicates there was no significant interaction between time in the program and IDEA status (F=0.851; df=1,228; p>.05), nor for IDEA status

(F=1.183; df=1,228; p>.05). A significant main effect was found for time (F=17.31; df=1,228; p<.05). Examination of pre and post data indicated that student absences (i.e., the number of days a student was not in school) significantly increased in number at the end of one year of participation in the school-based mental health program. As shown in Figure 6, the average number of absences or days not in school for all students before entering the program ($\bar{x}$ =21.68) was significantly lower than the average number of absences for all students after one year of participation in the program ($\bar{x}$ =29.55).

Table 7

Analysis of Variance for Absences (# of Days not in School) based on Levels of Time

Source	*SS*	*df*	*MS*	*F*
IDEA Status	1115.48	1	115.48	1.183
Error	214925.18	228	942.65	
Time	5339.09	1	5339.09	17.31*
Time* IDEA Status	262.56	1	262.56	.851
Error	70325.48	228	308.45	

*p<.05

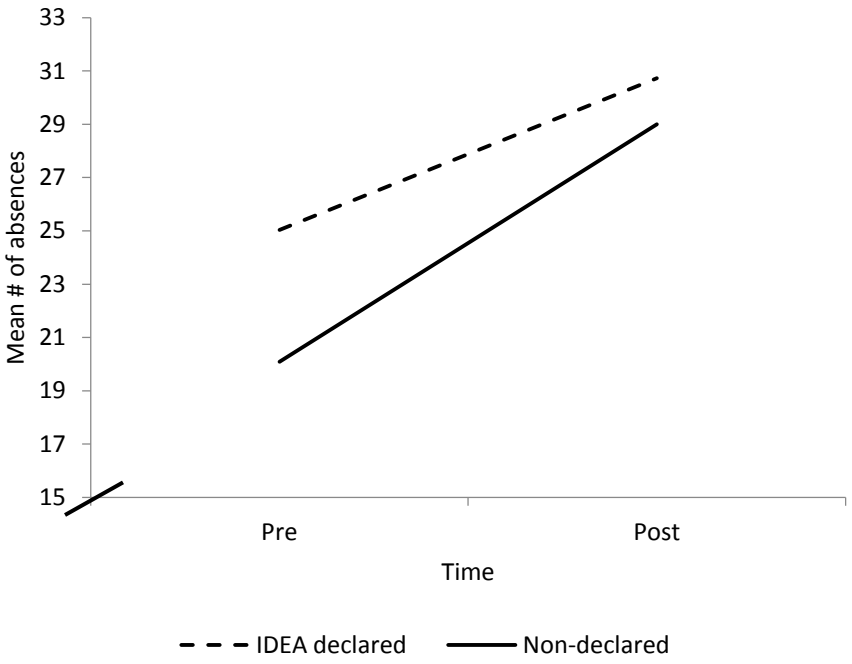

Figure 6. Graph of means for IDEA status and time on absences.

Because of the potential violations of assumptions, post hoc t-tests were conducted comparing change in number of absences for the selected groups of non-declared students and IDEA declared students. As shown in Figures 7 and 8, there was a significant difference in absences pre to post for non-declared students (t_{155}=-4.59, p<.001, an increase of +9 days absent), but no significant difference was found pre to post for IDEA declared students (t_{73}=-1.87, p>.05, an increase of +6 days absent).

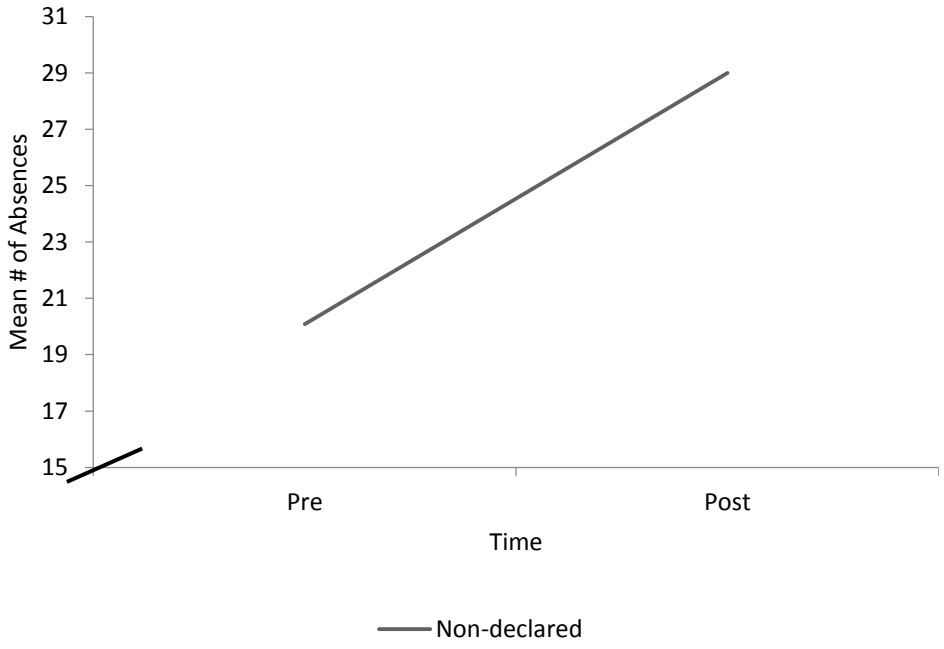

Figure 7. Graph of means for non-declared students and time on absences.

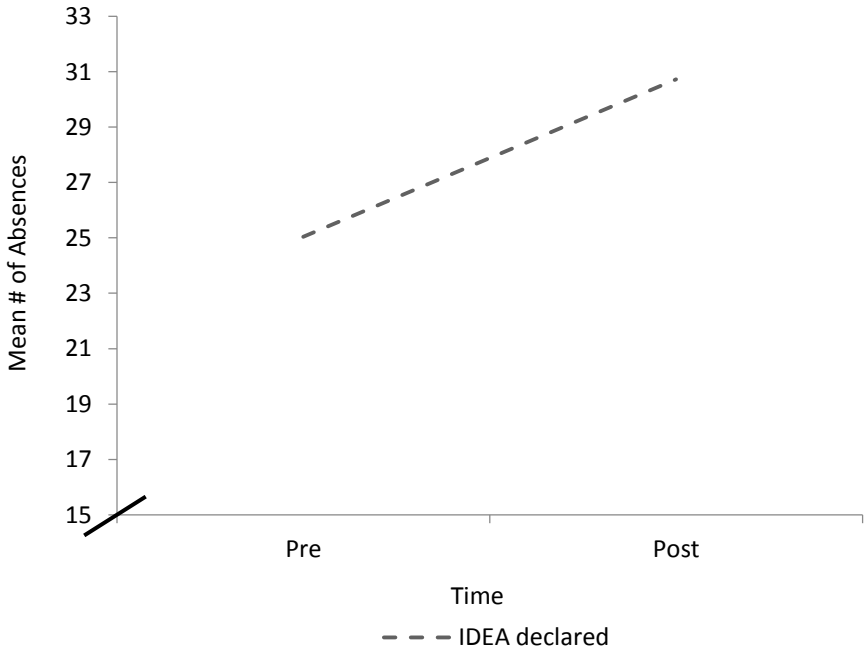

Figure 8. Graph of means for IDEA declared students and time on absences.

Post hoc tests for variance also were conducted to determine if there was a significant difference in the post variance for absences for IDEA declared and non-

declared students, as well as to check for significant difference in variance pre to post for IDEA declared and non-declared students. There was a significant difference between the variance of absences pre to post for IDEA declared students (t_{72}=0.98, p<.05), as well as non-declared students (t_{154}=5.37, p<.05). The data revealed that the variance in days absent significantly increased from pre to post for non-declared students, indicating a growing range in students' absences. Further examination showed that 102 of the 156 student absences increased from pre to post, but with a varied range of increase of 1-100 absences. Fifty-six non-declared students' absences increased by 10 or more (e.g., two weeks of instruction). Conversely, 54 non-declared students' absences decreased pre to post by anywhere from 1-87 days. Nineteen non-declared students' absences decreased by 10 or more days (e.g., gaining two weeks of instruction).

The variance of absences had a reverse pattern for IDEA declared students. Although the average number for absences increased, they experienced a significant decrease in the variability of their absences pre to post. This reverse pattern indicates that although some students may have had extreme increases in absences, other students had fewer absences, decreasing the overall range in absences after participation in the program. A closer look at the data revealed 47 of the 74 IDEA declared students' number of absences increased pre to post; while 27 students absences decreased or remained the same. Of the 47 students whose absences were greater, the increase in absences ranged from 1-100 absences; of these, 24 of the students absences increased by 10 or more. Of the 27 students whose absences maintained or decreased pre to post, three students maintained their number of absences with 24 students decreasing in absences ranging from 1-93 days; of these, 11 students' absences decreased by 10 or more days. It should

be noted that there was no significant difference in post variance by IDEA status (F=0.792; df=73,155; p>.05).

Suspensions. To determine if there was a significant change on mean number of suspensions pre- to post-participation in the counseling program by IDEA status (declared and non-declared), a two by two mixed model analysis of variance was used for initial analysis of the data. The fixed categorical nonrepeated independent variable was IDEA status with two levels (declared and non-declared); the fixed categorical repeated independent variable was time of assessment (pre—one year prior to participation in the counseling program; post—at the end of one year of participation in the counseling program). The continuous random dependent variable was suspensions (i.e., the number of days the student was not in school and did not receive instruction due to a disciplinary action). The assumption of independence was met through the sampling design since each sample (i.e., IDEA declared and non-declared students) included students with a demographic characteristic (IDEA declared disability vs. no disability) that immediately excluded them from being in the other group. Examination of residual plots revealed normality and linearity might be issues; data were positively skewed, indicating the presence of possible outliers. The assumption of homogeneity, tested using Box's M Test (F=22.70; df=3, 480,735; p<.05), was significant, indicating differences in variability amongst the measures. Presented in Table 8 is a summary of the means and standard deviations of suspensions (i.e., the number of days the student was not in school and did not receive instruction due to a disciplinary action) across time; a summary of the ANOVA is documented in Table 9.

Table 8

Means and Standard Deviations of Suspensions by Levels of Time

Group	*n*	Pre $\bar{x}$ *(sd)*	Post $\bar{x}$ *(sd)*
IDEA Declared	74	6.42 (9.84)	5.55 (8.41)
Non-declared	156	5.18 (9.97)	9.46 (21.03)

Table 9

Analysis of Variance for Suspensions based on Levels of Time

Source	*SS*	*df*	*MS*	*F*
IDEA Status	178.64	1	178.64	.67
Error	61225.92	228	268.54	
Time	293.05	1	293.05	1.91
Time* IDEA Status	664.80	1	664.80	4.33*
Error	34982.12	228	153.43	

*$p<.05$

Examination of Table 9 indicates there was a significant interaction on number of suspensions by time and IDEA status (F=4.33; df=1,228; $p<.05$). Examination of the interaction indicated that the average number of suspensions for IDEA declared students decreased after one year of participation in the program (pre $\bar{x}$ =6.42; post $\bar{x}$ =5.55); that is, IDEA declared students gained nearly one day of instruction due to decreased suspensions. Non-declared students, whose average number of suspensions increased from pre-program participation ($\bar{x}$ =5.18) to post ($\bar{x}$ =9.46), lost an additional four days of instruction due to increased suspensions. Figures 9 and 10 provide a visual representation of the changes in means for suspensions.

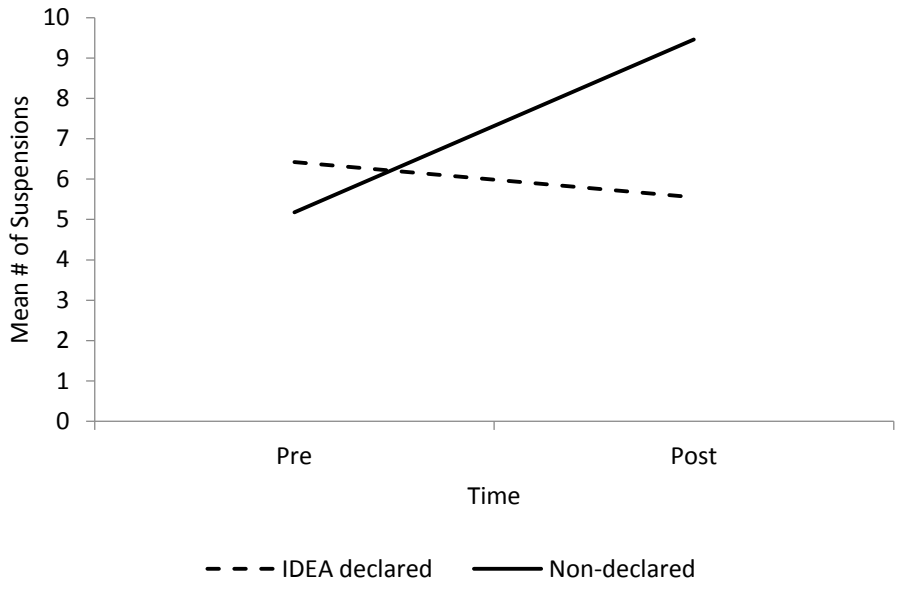

Figure 9. Graph of means for IDEA status and time on number of suspensions.

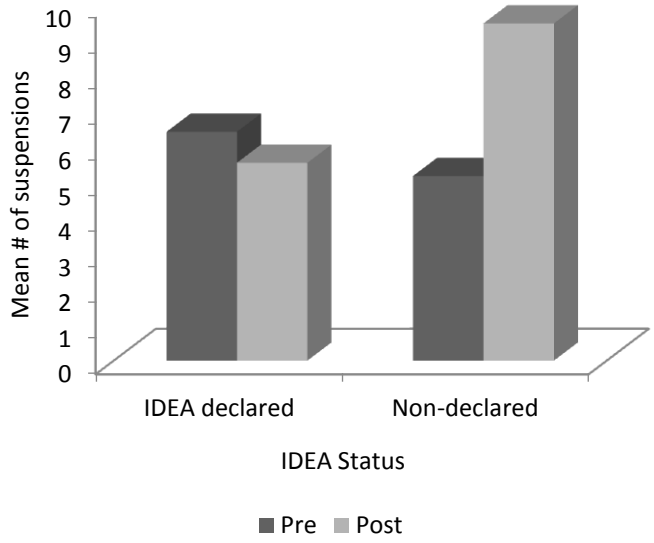

Figure 10. Bar chart of means number of suspensions by IDEA status.

The tests of assumptions and the standard deviations pre to post for both IDEA declared and non-declared students indicated there was potential for extreme incidents of increases or decreases in suspensions for some students. Due to the potential for outliers, a post hoc test for changes in the variance of the number of suspensions for IDEA

declared students was conducted and found to be significant (t_{73}=0.91, p<.05). The variability decreased over time (pre s.d.=9.84, post s.d.=8.40) showing the format of a more cohesive pattern with fewer suspensions and less variability in suspensions. Suspension variance for non-declared students pre to post also was significant (t_{154}=-10.73, p<.001), but yielded an opposite pattern, an increase in variance. Non-declared students had a pre standard deviation of 9.97 and post of 21.03 indicating a pattern of more suspensions for fewer students. There was no significant difference in post variance by IDEA status (F=0.160; df=73,155; p>.05).

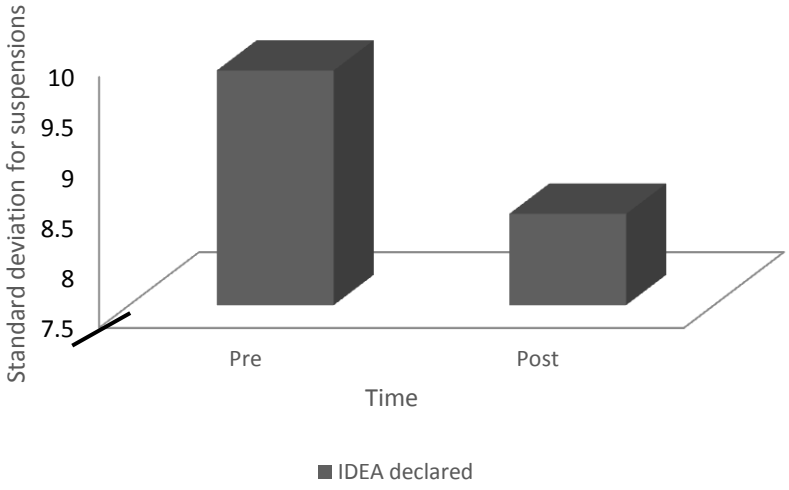

Figure 11. Bar chart of variance in number of suspensions for IDEA declared students.

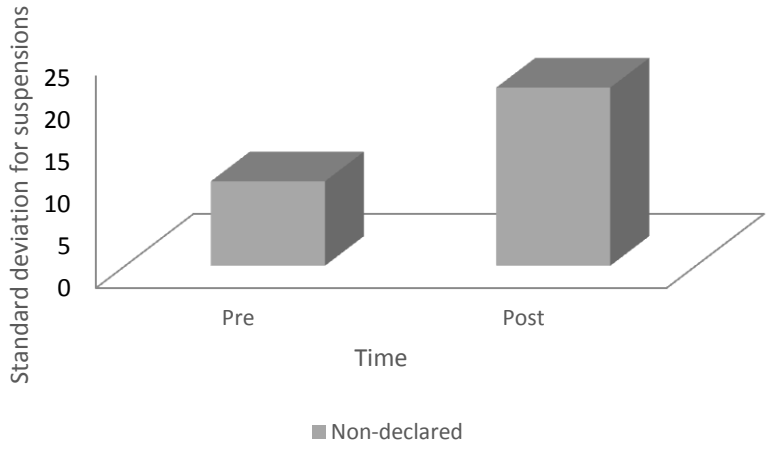

Figure 12. Bar chart of variance in number of suspensions for non-declared students.

Further examination of the data points showed that 48 of the IDEA declared students decreased or maintained suspensions pre to post and 26 increased in suspensions. Of the non-declared students, 65 had increased suspensions; 20 students increased by 10 or more suspensions at post, with several students having an increase of 45 or more suspensions at post and two students with an increase of 100+ suspensions at post. Ninety-one non-declared students decreased or maintained at post. This reveals great variability across the students, especially since more students decreased or maintained at post for both IDEA declared and non-declared; because of the large range of increased suspensions for non-declared the mean was larger at post.

Instructional days. To determine if there was a significant change on number of instructional days from pre to post after one year of participation in a counseling program by IDEA status (declared and non-declared), a two by two mixed model analysis of variance was used as the initial analysis of the data. The fixed categorical nonrepeated independent variable was IDEA status with two levels (declared and non-declared); the second fixed categorical repeated independent variable was time of assessment (pre—one

year prior to participation in the counseling program; post—at the end of one year of participation in the counseling program). The continuous random dependent variable was number of instructional days. Instructional days was comprised of the total number of days a student was in school and excludes the number of days a student was legally and illegally absent, the number of days a student had out-of-school suspensions, and the number of days a student had in-school suspensions and strict supervised study. The number of instructional days was obtained at the end of the first academic year each student received counseling services and for the year prior. The assumption of independence was met through the sampling design since each sample (i.e., IDEA declared and non-declared students) included students with a demographic characteristic (IDEA declared disability vs. no disability) that immediately excluded them from being in the other group. Examination of residual plots revealed normality and linearity might be issues; data were negatively skewed, indicating the presence of potential outliers. The assumption of homogeneity, tested using Box's M Test (F=5.20; df=3, 480,735; p<.05), also was significant, indicating differences in variability amongst the measures. Presented in Table 10 is a summary of the means and standard deviations of the instructional days across all levels of time; a summary of the ANOVA is documented in Table 11.

Table 10

Means and Standard Deviations of Number of Instructional Days by Levels of Time

Group	*n*	Pre $\bar{x}$ *(sd)*	Post $\bar{x}$ *(sd)*
IDEA Declared	74	148.54 (16.17)	143.73 (14.53)
Non-declared	156	154.73 (12.76)	141.53 (18.91)

Table 11

Analysis of Variance for mean number of Instructional Days based on Levels of Time

Source	*SS*	*df*	*MS*	*F*
IDEA Status	123.87	1	123.87	.34
Error	83713.16	228	367.16	
Time	2510.44	1	2510.44	18.21*
Time* IDEA Status	544.12	1	544.12	3.95*
Error	31425.86	228	137.83	

*$p<.05$

Examination of Table 11 indicates a significant interaction between IDEA status and time in the program (F=3.95; df=1,228; $p<.05$) for number of students' instructional days. Examination of the interaction of time by IDEA status indicated that the average number of instructional days decreased for IDEA declared students (pre $\bar{x}$ =148.54; post $\bar{x}$ =143.73, a loss of five days) and for non-declared students (pre $\bar{x}$ =154.53; post $\bar{x}$ =141.53, a loss of 13 days). IDEA declared students had six fewer days of instruction than did non-declared students prior to entering the program (IDEA pre=148.54; non-declared pre=154.73). Although both groups lost instructional days by the end of one year, the IDEA declared group lost only five days while the non-declared group lost 13 days and ended up having two fewer days of instruction than IDEA declared students.

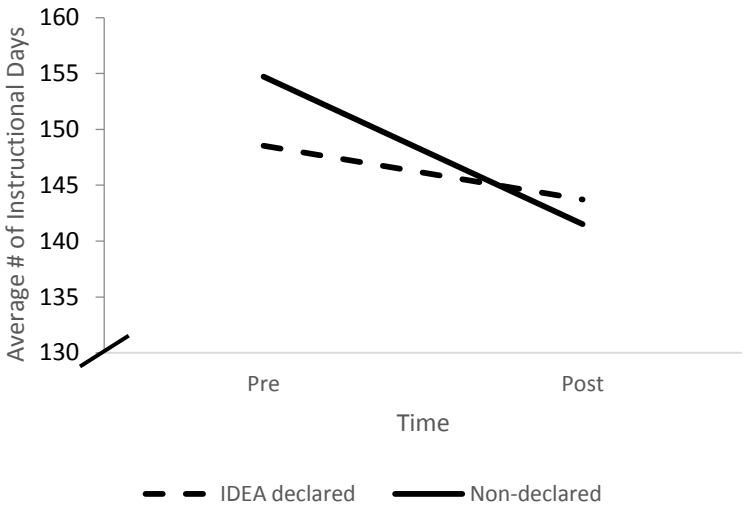

Figure 13. Graph of means for IDEA status and time on number of instructional days.

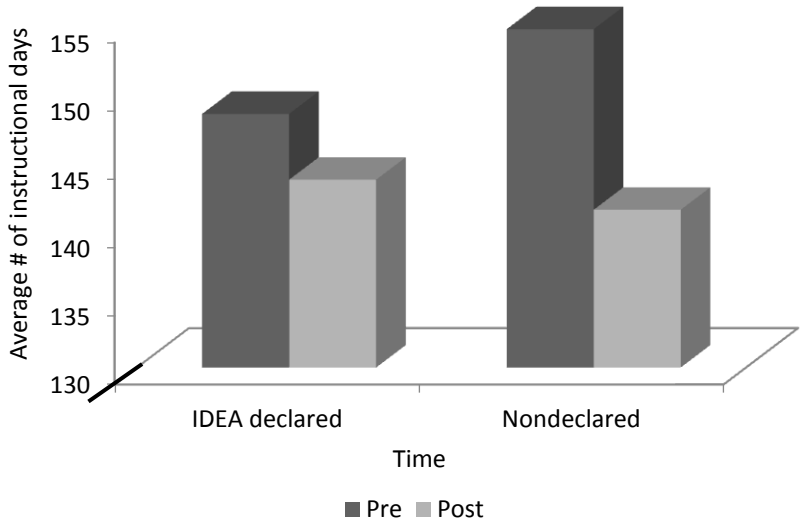

Figure 14. Bar chart of means for IDEA status and time on number of instructional days.

Because of potential violations of assumptions, a post hoc test comparing the post number of instructional days for non-declared students with those of IDEA declared students was not significant ($t(182)=.537$, $p>.05$). At the beginning of the program non-declared students had more instructional days than did IDEA declared students (non-declared pre $\bar{x}=154.73$; IDEA declared pre $\bar{x}=148.54$). At the end of one year of the

program non-declared students no longer had different number of instructional days than did IDEA declared students (non-declared post=141.53, IDEA declared post=143.73). Differences were not significant between IDEA declared and non-declared students pre ($t(118)=-1.61$, $p>.05$) or post ($t(182)=.54$, $p>.05$). Furthermore, as shown in Figure 15, there was a significant difference in instructional days pre to post for non-declared students ($t(155)=5.39$, $p<.001$; pre $\bar{x}$ =154.73, post $\bar{x}$ =141.53). No significant difference was found pre to post for IDEA declared students ($t(73)=1.46$, $p>.05$; pre $\bar{x}$ =148.54, post $\bar{x}$ =143.73).

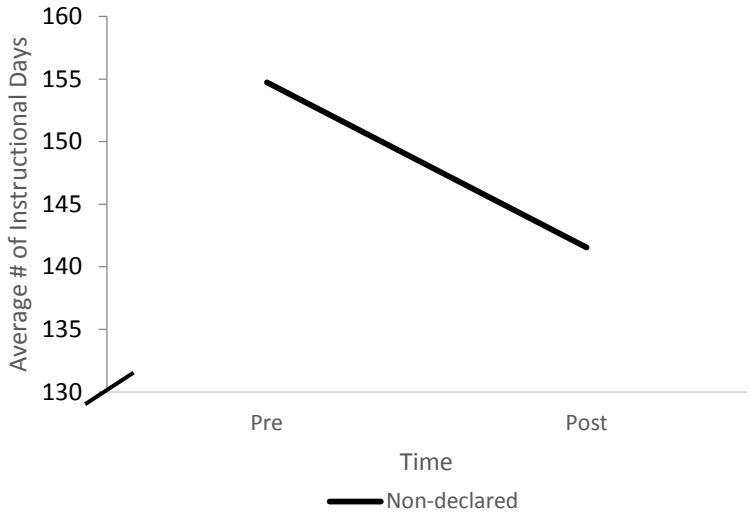

Figure 15. Graph of pre-post instructional days for non-declared students.

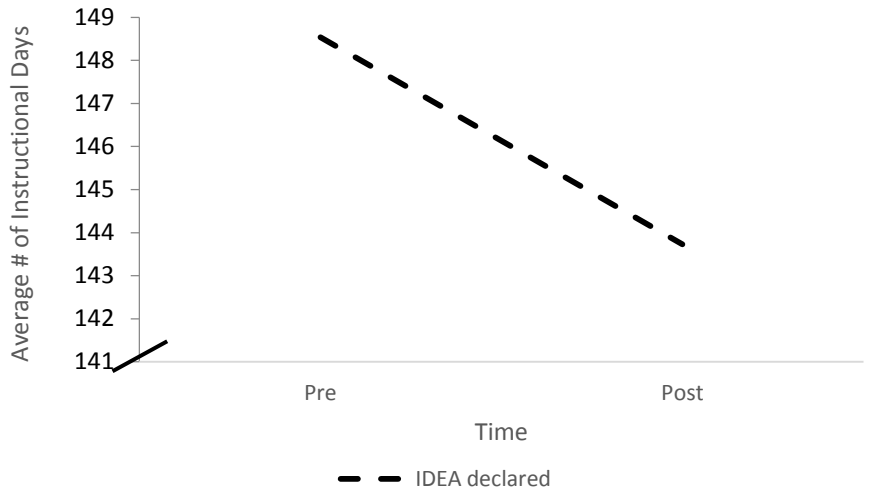

Figure 16. Graph of pre-post instructional days for IDEA declared students.

Due to the potential for outliers, as represented by the tests of assumptions, post hoc tests for variance were conducted. These tests revealed that there was a significant difference between the variance of instructional days pre to post for IDEA declared students (t_{73}=1.03, p<.05; pre variance=16.17, post variance=14.53), a decrease of two days of instruction. There was also a significant difference in variance pre to post for non-declared students (t_{154}=-5.71, p<.05; pre variance=12.76, post variance=18.91), an increase of six days of variability in instruction. There was no significant difference in post variance by IDEA status (F=0.590; df=73,155; p>.05).

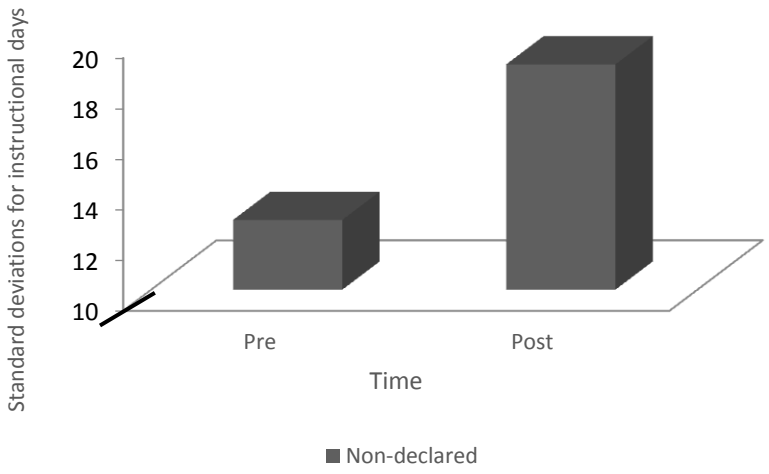

Figure 17. Bar chart of pre-post standard deviations for instructional days for non-declared students.

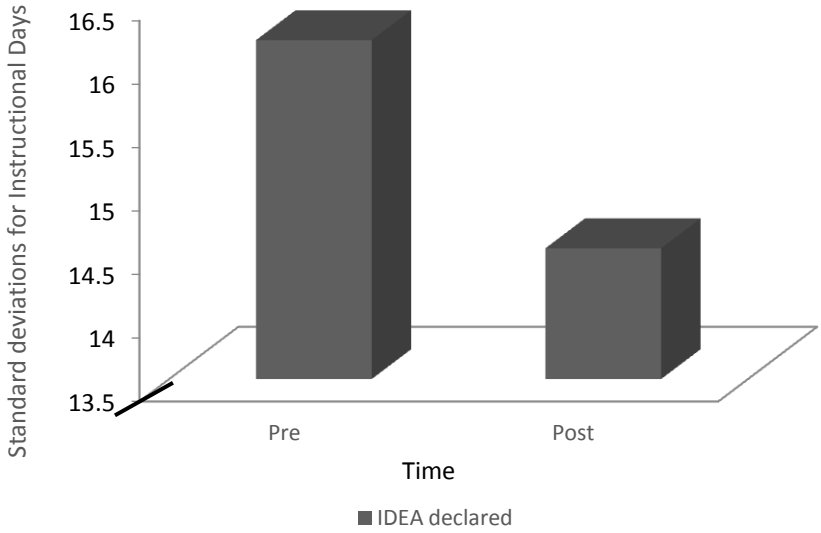

Figure 18. Bar chart for standard deviations of pre-post instructional days for IDEA declared students.

Summary of attendance indicators. Overall, student absences increased and instructional days decreased for both IDEA declared and non-declared students. IDEA declared students had decreased suspensions; non-declared students' suspensions

increased pre to post. Variability decreased for all attendance indicators for IDEA declared students and increased for all non-declared students pre to post (see Table 12).

Table 12

Summary of Pre-Post Change by Attendance Indicators

	Pre-Post Change			
Attendance Indicators	IDEA declared	Non-declared	Comparison of Post	After involvement in the program
Absences	$\bar{x}$ → ← s.d.	$\bar{x}$ → s.d. →	IDEA>Non	• Absences increased • A few non-declared students had an extreme increase
Suspensions	←$\bar{x}$ ← s.d.	$\bar{x}$ → s.d. →	Non>IDEA	• IDEA declared had fewer suspensions • Non-declared had more suspensions; a few had extreme increases
Instructional Days[8]	←$\bar{x}$ ← s.d.	←$\bar{x}$ s.d. →	IDEA>Non	• Instructional days decreased • Non-declared had more extreme increases • Overall, IDEA declared had fewer days of instruction and more absences, but less suspensions

Examination of individual data points across the variables revealed that 100 of the 156 non-declared students had a decrease in instructional days as did 37 of the 74 IDEA declared students. Of the 100 non-declared students, 55% also had an increase in suspensions; 45% decreased or maintained suspensions pre to post. Of the 37 IDEA declared students, 54% had an increase in suspensions; 46% decreased or maintained their number of suspensions. These percentages indicate that more than one-half of the students who received less documented instruction after one year in the mental health program had an increase in suspensions; the majority of these students from both non-declared and IDEA declared groups also had increased absences. The increase in

[8] Decrease is a negative outcome.

absences and suspension and decrease in instructional time suggests that, in general, both absences and suspensions contributed to the decrease in instructional days. Although the differences between in-school suspensions and out-of-school suspensions cannot be determined from the data provided, examination of behavioral referrals might contribute to an explanation for the increase in absences, but decreased suspensions for IDEA declared students and increased suspensions for non-declared students.

Research question 2. *Are there significant differences in change pre- to post-participation in a school-based mental health counseling program by status of disability (IDEA declared and non-declared) on behavioral indicators as assessed by the number of disciplinary referrals related to: a) attendance concerns, b) disruptive behavior incidents, c) illegal/unethical misconduct, d) violent incidents, and e) lack of respect incidents)?* To determine if there was a significant difference in change pre to post by IDEA status (declared and non-declared) on mean behavioral indicators (e.g., number of disciplinary referrals related to disruptive behavior incidences, attendance concerns, and illegal/unethical misconduct), a series of two by two mixed model analyses of variance were used to initiate an analysis of the data.

Attendance concerns. To determine if there was a significant difference by IDEA status (declared and non-declared) in change pre to post on the number of attendance concern referrals, a two by two mixed model analysis of variance was used to initiate analysis of the data. The fixed categorical non-repeated independent variable was IDEA status with two levels (declared and non-declared); the fixed categorical repeated independent variable was time of assessment (pre—one year prior to participation in the counseling program; post—at the end of one year of participation in the counseling

program). The dependent behavioral problems construct was number of attendance concerns (i.e., the total number of attendance related referrals) for each student from one year prior to participating in the counseling program and from the end of the academic year the student participated in the counseling program. The assumption of independence was met through the sampling design since each sample (i.e., IDEA declared and non-declared students) included students with a demographic characteristic (IDEA declared disability vs. no disability) that immediately excluded them from being in the other group. Examination of residual plots revealed normality and linearity might be issues; data were positively skewed, indicating the presence of potential outliers. The assumption of homogeneity, tested using Box's M Test (F=14.16; df=3, 480,735; p<.05), also was significant, indicating differences in variability amongst the measures. Presented in Table 13 is a summary of the means and standard deviations of the referrals for attendance concerns across all levels of time; a summary of the ANOVA is documented in Table 14.

Table 13

Means and Standard Deviations of Attendance Concerns by Levels of Time

Group	*n*	Pre $\bar{x}$ *(sd)*	Post $\bar{x}$ *(sd)*
IDEA Declared	74	2.03 (4.40)	3.14 (5.53)
Non-declared	156	1.26 (2.61)	2.13 (3.63)

Table 14

Analysis of Variance for Attendance Concerns based on Levels of Time

Source	*SS*	*df*	*MS*	*F*
IDEA Status	79.29	1	79.29	3.86
Error	4686.29	228	20.56	
Time	98.38	1	98.38	10.88*
Time* IDEA Status	1.40	1	1.40	.16
Error	2061.29	228	9.04	

*$p<.05$

Examination of Table 14 indicates there was no significant interaction between time in the program and IDEA status (F=.16; df=1,228; $p>.05$) on the number of student referrals for attendance incidents nor was IDEA status (F=3.86; df=1,228; $p>.05$). A significant main effect was found for time on the number of attendance incidents (F=10.88; df=1,228; $p<.05$). Examination of pre and post data indicated that referrals for attendance concern increased after one year of participating in the school-based mental health program. As shown in Figure 19, the average number of attendance concerns for IDEA declared students (pre $\bar{x}$ =2.03; post $\bar{x}$ =3.14, +1.11 change) increased as did that of non-declared students (pre $\bar{x}$ =1.26; post $\bar{x}$ =2.13, +.87 change).

In both pre- and post-settings non-declared students had fewer referrals for attendance concerns than did IDEA declared students. Post hoc tests indicated there was no significant difference between the two groups pre and post (t_{104}=1.43, $p>.05$).

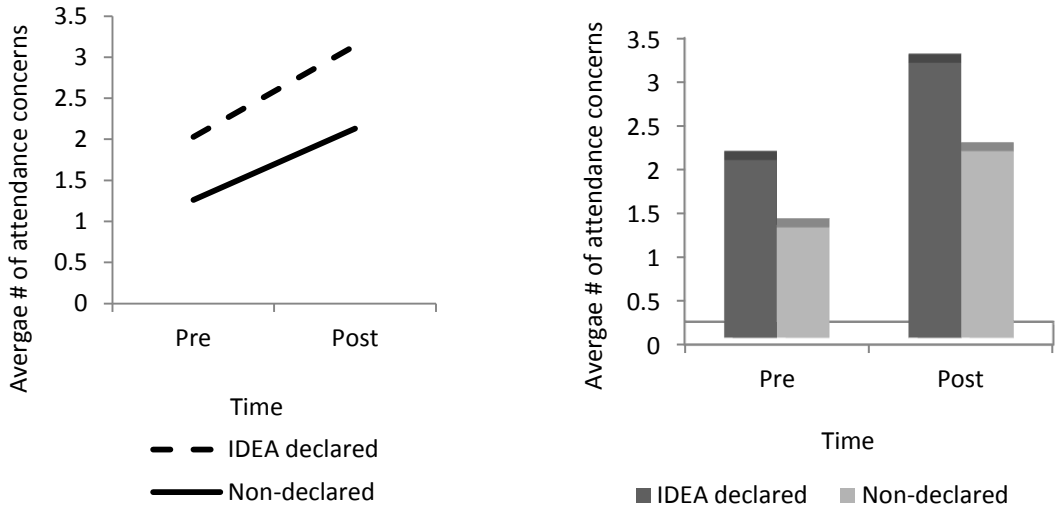

Figure 19. Two visual variations of means for IDEA status and time on number of attendance incidents.

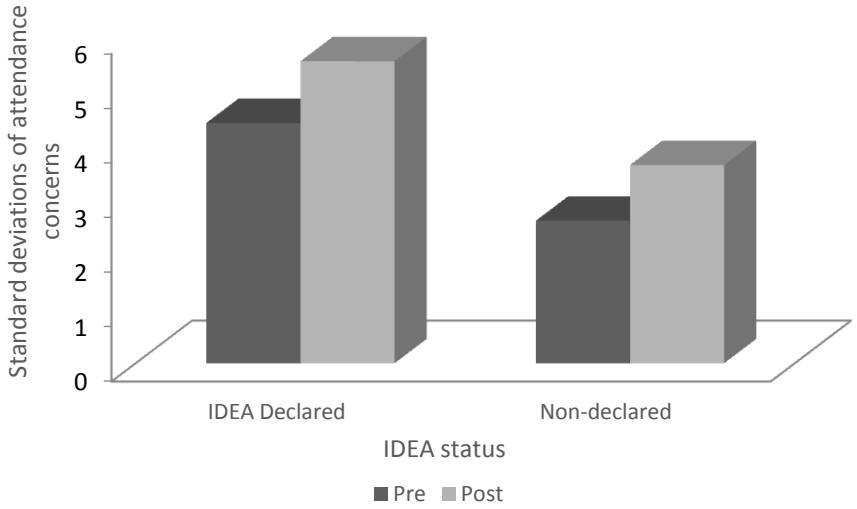

Figure 20. Bar chart of standard deviations of pre-post attendance concerns by IDEA status.

Because of the potential violation of assumptions, post hoc tests for variance were conducted. These tests revealed that there was a significant difference between the variance of attendance concerns pre to post for IDEA declared students (t_{73}=-2.23, p<.05), as well as non-declared students (t_{154}=-4.39, p<.05). For both groups, the variance increased from pre-program participation (IDEA declared pre s.d.=4.40, post

s.d.=5.53; non-declared pre s.d.=2.61, post s.d.=3.63). There was no significant difference in post variance by IDEA status (F=0.01; df=73,155; p>.05).

Examination of the individual data points revealed these increases in student referrals for attendance concerns correspond to the increases in absences for students. This co-occurring increase indicates a growing awareness and subsequent reaction to the problem by the school staff (e.g., teachers, counselors, paraprofessionals) who wrote the referrals. It is important to note, however, that despite what appears to be co-occurring increases in attendance concern referrals and increases in absences, this was not always consist for all students (e.g., not all students who had increased absences had increased referral for absences). This may be the result of other extraneous factors that play a role in who received attendance referrals (i.e., possible external home life factors that prevented students from coming to school that influenced school staff referral for attendance concerns; individual staff policies on who should be referred and when, etc.).

Disruptive behavior incidents. To determine if there was a significant difference in change on the number of disruptive behavior incidents pre to post by IDEA status (declared and non-declared), a two by two mixed model analysis of variance was used to initiate the analysis. The fixed categorical non-repeated independent variable was IDEA status with two levels (declared and non-declared); the fixed categorical repeated independent variable was time of assessment (pre—one year prior to participation in the counseling program; post—at the end of one year of participation in the counseling program). The continuous dependent variable was number of referrals for disruptive behavior incidents. The assumption of independence was met through the sampling design since each sample (i.e., IDEA declared and non-declared students) included

students with a demographic characteristic (IDEA declared disability vs. no disability) that immediately excluded them from being in the other group. Examination of residual plots revealed normality and linearity might be issues; data were positively skewed, indicating the presence of potential outliers. The assumption of homogeneity, tested using Box's M Test (F=5.20; df=3, 480,735; p<.05), also was significant, indicating differences in variability amongst the measures. Presented in Table 15 is a summary of the means and standard deviations of the disruptive incidents across all levels of time; a summary of the ANOVA is documented in Table 16.

Table 15

Means and Standard Deviations of Disruptive Incidents by Levels of Time

Group	*n*	Pre $\bar{x}$ *(sd)*	Post $\bar{x}$ *(sd)*
IDEA Declared	74	5.62 (7.30)	6.70 (9.41)
Non-declared	156	4.19 (7.50)	4.92 (7.60)

Table 16

Analysis of Variance for Disruptive Incidents based on Levels of Time

Source	*SS*	*df*	*MS*	*F*
IDEA Status	258.42	1	258.42	2.86
Error	20608.07	228	90.39	
Time	82.38	1	82.38	2.55
Time* IDEA Status	3.08	1	3.08	.10
Error	7372.10	228	32.33	

Examination of Table 16 indicates there was no significant interaction between time in the program and IDEA status (F=.10; df=1,228; p>.05) on the number of student

referrals for disruptive incidents. In addition, neither time (F=2.55; df=1,228; p>.05) nor IDEA status (F=2.86; df=1,228; p>.05) were significant main effects, as depicted in Figure 21. Referrals for disruptive incidents did not significantly change after one year of participation in the school-based mental health program for IDEA declared ($\bar{x}$ =5.62 pre to $\bar{x}$ =6.70 post) and non-declared students ($\bar{x}$ =4.19 pre to $\bar{x}$ =4.92 post). Also, as shown in Figure 21, the average number of disruptive incidents for non-declared students was lower than the average number of disruptive incidents for IDEA declared students both before and after one year of program participation (difference of 1.43 referrals pre; 1.78 referrals post); however, these differences are not significantly different.

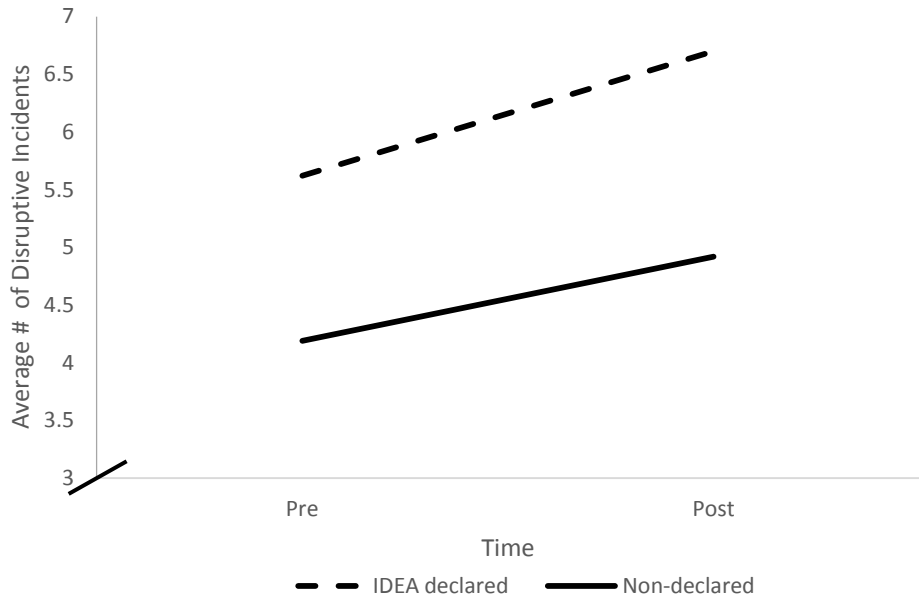

Figure 21. Graph of means for IDEA status and time on number of disruptive behavior incidents.

Post hoc tests for variance indicated there was no significant difference between the variance of disruptive behavior referrals pre to post for IDEA declared students (t_{73}=-0.03, p>.05), nor was there for non-declared students (t_{154}=-0.19, p>.05). There was, however, a significant difference in post variance by IDEA status (F=1.53; df=73,155;

p>.05). IDEA declared students increased the variability of number of behavioral referrals (pre s.d.=7.30; post s.d.=9.40). In-depth examination of individual data points shows that overall, the standard deviations for IDEA declared and non-declared were larger than the means both pre- and post-participation in the program (see Table 9). Data from pre-program show that 80% (n=59) IDEA declared students and 87% (n=136) of non-declared students had between 0-10 disruptive incident referrals. Post data indicate that 73% (n=54; a decrease of 7%) of IDEA declared students and 91% (n=142; an increase of 4%) of non-declared students had between 0-10 disruptive incident referrals. These data indicate that more IDEA students had lower numbers of behavior referrals over time with a few having an increased number, while the distribution for non-declared students remained approximately the same or increased slightly. More specifically, the referrals for IDEA declared students ranged from 0-68 while that of non-declared ranged from 0-38, illustrating the extremity of some of the student cases.

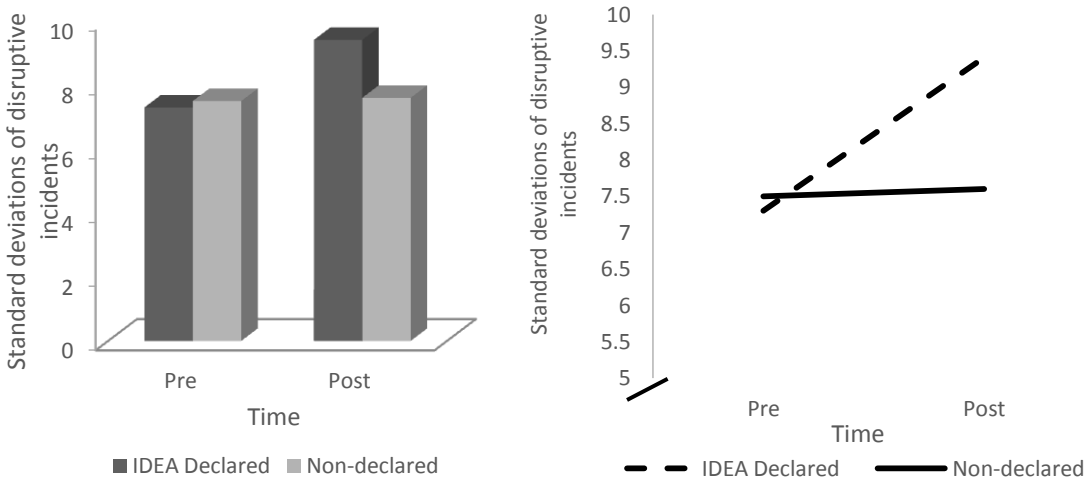

Figure 22. Two visual variations depicting the difference in post variance by IDEA status.

Illegal/unethical misconduct. To determine if there was a significant difference in change on the number of illegal/unethical misconduct incidents pre to post by IDEA status (declared and non-declared), a two by two mixed model analysis of variance was used initiate analysis of the data. The fixed categorical non-repeated independent variable was IDEA status with two levels (declared and non-declared); the fixed categorical repeated independent variable was time of assessment (pre—one year prior to participation in the counseling program; post—at the end of one year of participation in the counseling program). The continuous dependent variable was number of referrals for illegal/unethical misconduct. The assumption of independence was met through the sampling design since each sample (i.e., IDEA declared and non-declared students) included students with a demographic characteristic (IDEA declared disability vs. no disability) that immediately excluded them from being in the other group. Examination of residual plots revealed normality and linearity might be issues; data were positively skewed. The assumption of homogeneity, tested using Box's M Test (F=6.39; df=3, 480,735; p<.05), was significant, indicating differences in variability amongst the measures. Presented in Table 17 is a summary of the means and standard deviations of the illegal/unethical incidents across all levels of time; a summary of the ANOVA is documented in Table 18.

Table 17

Means and Standard Deviations of Illegal/Unethical Misconduct Incidents by Levels of Time

Group	*n*	Pre $\bar{x}$ *(sd)*	Post $\bar{x}$ *(sd)*
IDEA Declared	74	04 (.20)	.04 (.20)
Non-declared	156	.03 (.18)	.07 (.30)

Table 18

Analysis of Variance for Illegal/Unethical Misconduct Incidents based on Levels of Time

Source	*SS*	*df*	*MS*	*F*
IDEA Status	.01	1	.01	.19
Error	13.94	228	.06	
Time	.04	1	.04	.79
Time* IDEA Status	.04	1	.04	.79
Error	10.89	228	.05	

Examination of Table 18 indicates there was no significant interaction between time in the program and IDEA status (F=.79; df=1,228; p>.05) on the number of student referrals for illegal/unethical misconduct incidents. In addition, neither time (F=.79; df=1,228; p>.05) nor IDEA status (F=.19; df=1,228; p>.05) yielded significant main effects. Further examination of the data (see Figure 23) indicated that referrals for illegal/unethical misconduct incidents for non-declared students increased after one year of participating in the school-based mental health program for non-declared students (pre $\bar{x}$ =.03; post $\bar{x}$ =.07), but stayed constant for IDEA declared students (pre and post $\bar{x}$ =.04). Only 4% (n=3) of IDEA declared students had illegal/unethical misconduct

referrals pre and post; however, the three students with these indicators were different from pre to post. Although the number of non-declared students with illegal/unethical misconduct referrals increased pre (n=5) to post (n=9), the percentage was about the same at approximately 6%. Only two of the students who had pre-illegal/unethical misconduct referrals also had post illegal/unethical referrals.

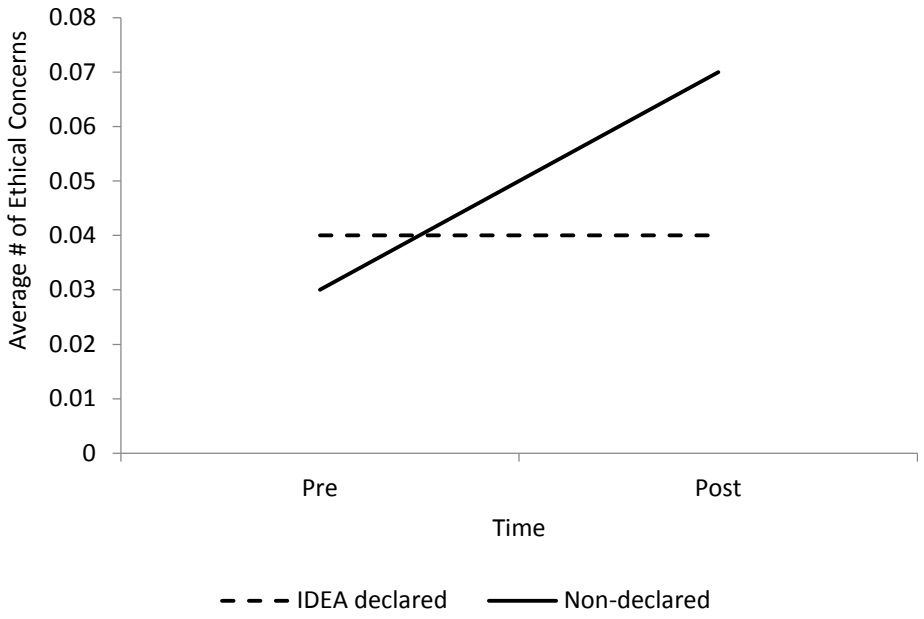

Figure 23. Graph of means for IDEA status and time on number of illegal/unethical misconduct incidents.

Post hoc t-tests for variance indicated there was a significant difference between the variance of referrals for illegal/unethical behavior for non-declared students (t_{154}=-7.5, *df*=73,155, p<.05). Standard deviations for non-declared students were greater at post, indicating increased variability (pre s.d.=.18; post s.d.=.30). There was no significant difference in post variance by IDEA status (F=0.44; *df*=73,155; p>.05). Variability stayed the same pre to post (pre s.d.=.20; post s.d. =.20).

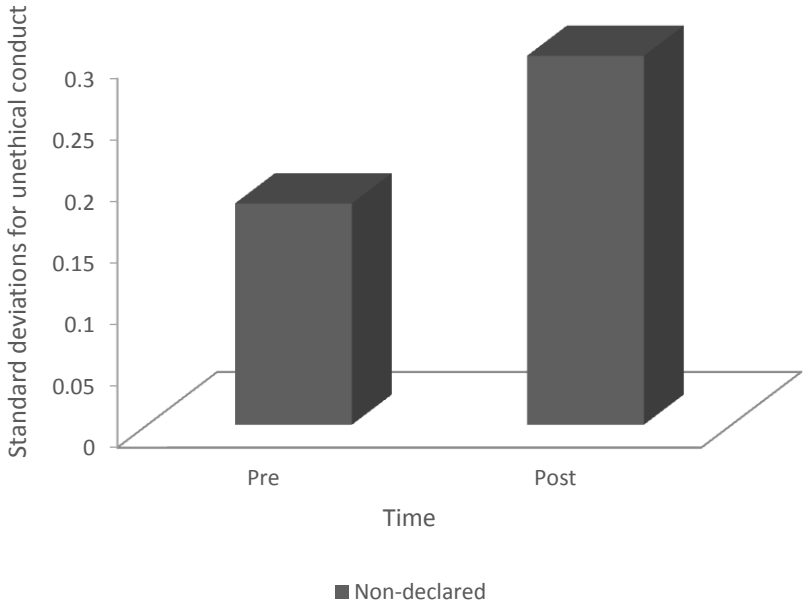

Figure 24. Bar chart of standard deviations for illegal/unethical misconduct referrals for non-declared students.

Violent incidents. To determine if there was a significant difference in change on the number of referrals for violent incidents pre to post by IDEA status (declared and non-declared), a two by two mixed model analysis of variance was used to initiate analysis of the data. The fixed categorical non-repeated independent variable was IDEA status with two levels (declared and non-declared); the fixed categorical repeated independent variable was time of assessment (pre—one year prior to participation in the counseling program; post—at the end of one year of participation in the counseling program). The continuous dependent variable was number of referrals for violent incidents. The assumption of independence was met through the sampling design since each sample (i.e., IDEA declared and non-declared students) included students with a demographic characteristic (IDEA declared disability vs. no disability) that immediately excluded them from being in the other group. Examination of residual plots revealed

normality and linearity might be issues; data were positively skewed. The assumption of homogeneity, tested using Box's M Test (F=61.19; df=3, 480,735; p<.05), also was significant, indicating differences in variability amongst the measures. Presented in Table 19 is a summary of the means and standard deviations of the violent incidents referrals across all levels of time; a summary of the ANOVA is documented in Table 20.

Table 19

Means and Standard Deviations of Violent Incidents by Levels of Time

Group	*n*	Pre $\bar{x}$ *(sd)*	Post $\bar{x}$ *(sd)*
IDEA Declared	74	.14 (.58)	.04 (.26)
Non-declared	156	.05 (.32)	.04 (.08)

Table 20

Analysis of Variance for Violent Incidents Based on Levels of Time

Source	*SS*	*df*	*MS*	*F*
IDEA Status	1.35	1	1.35	13.79
Error	22.60	228	.10	
Time	.49	1	.49	4.73*
Time* IDEA Status	.06	1	.06	.60
Error	23.51	228	.10	

*p<.05

Examination of Table 20 indicates there was no significant interaction between time in the program and IDEA status (F=.60; df=1,228; p>.05) on violent incidents nor by IDEA status (F=13.79; df=1,228; p>.05). Change over time, however, was significant (F=4.73; df=1,228; p<.05) in relation to the average number of referrals for violent

incidents. The number of violent incidents decreased overtime; the decreases were for IDEA declared students (pre $\bar{x}$ =.14; post $\bar{x}$ =.04, change of +.10) and non-declared students (pre $\bar{x}$ =.05; post $\bar{x}$ =.04, change +.01) after one year of participation in the program. Examination of individual data points indicated potential change effects. Of the five IDEA declared students who had referrals for violent incident at pre, none had any documented violent incidents post. Only two IDEA declared students had documented referrals for violent incidents post. None of the five non-declared students who had referrals for violent incidents at pre had documented violence related referrals at post. Only one non-declared student had a referral for a violent incident at post.

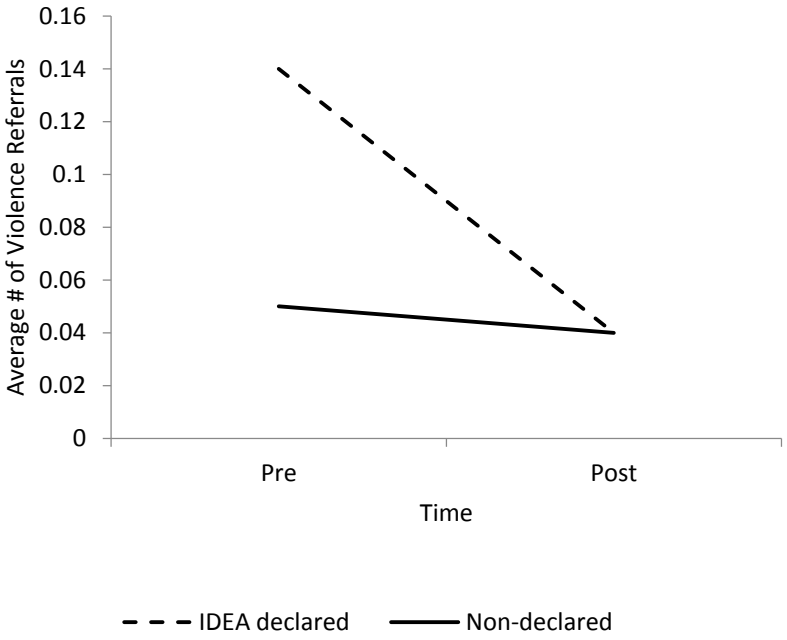

Figure 25. Graph of means for IDEA status and time on average number of violent incidents.

A post hoc t-test comparing the difference in number of violence related referrals pre to post indicated there was no significant difference pre to post in violence related referrals pre to post for non-declared students (t_{155}=1.71, p>.05) nor for IDEA declared students (t_{73}=1.26, p>.05.).

A post hoc test comparing the post variance of violence related referrals between non-declared students and IDEA declared students was significant (F=11.33; df=73,155; p<.05, IDEA declared post s.d.=.26; non-declared post s.d.=.08). There also was a significant difference between the variance of violent incident referrals pre to post for IDEA declared students (t_{72}=7.44, p<.05) and for non-declared (t_{154}=24, p<.05). Variability decreased from pre to post for both IDEA declared (pre s.d.=.58; post s.d.=.26, change of .32) and non-declared students (pre s.d.=.32; post s.d.=.08, change of .24).

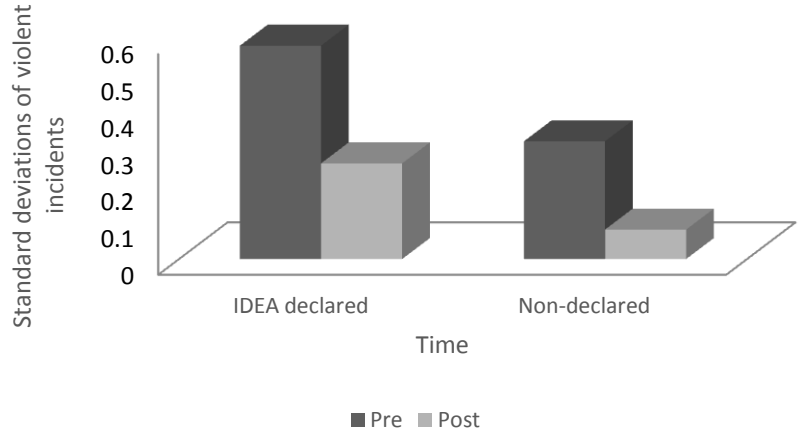

Figure 26. Bar chart depicting the difference in variance by IDEA status and time.

Lack of respect incidents. To determine if there was a significant difference in change pre to post on the number of referrals related to lack of respect by IDEA status (declared and non-declared), a two by two mixed model analysis of variance was used to initiate analysis of the data. The fixed categorical non-repeated independent variable was IDEA status with two levels (declared and non-declared); the fixed categorical repeated independent variable was time of assessment (pre—one year prior to participation in the counseling program; post—at the end of one year of participation in the counseling

program). The continuous dependent construct of behavioral problems was number of referrals for lack of respect. The assumption of independence was met through the sampling design since each sample (i.e., IDEA declared and non-declared students) included students with a demographic characteristic (IDEA declared disability vs. no disability) that immediately excluded them from being in the other group. Examination of residual plots indicated normality and linearity might be issues; data were positively skewed, indicating the presence of potential outliers. The assumption of homogeneity, tested using Box's M Test (F=10.50; df=3, 480,735; p<.05), also was significant, indicating differences in variability amongst the measures. Presented in Table 21 is a summary of the means and standard deviations of the lack of respect incidents across all levels of time; a summary of the ANOVA is documented in Table 22.

Table 21

Means and Standard Deviations of Lack of Respect Incidents by Levels of Time

Group	*n*	Pre $\bar{x}$ *(sd)*	Post $\bar{x}$ *(sd)*
IDEA Declared	74	.97 (1.56)	1.04 (2.50)
Non-declared	156	.65 (1.98)	.72 (1.72)

Table 22

Analysis of Variance for Lack of Respect Incidents based on Levels of Time

Source	*SS*	*df*	*MS*	*F*
IDEA Status	10.33	1	10.33	62.83
Error	1043.71	228	4.58	
Time	.44	1	.44	.15
Time* IDEA Status	.00	1	.00	.00
Error	664.01	228	2.91	

Examination of Table 22 indicates there was no significant interaction between time in the program and IDEA status (F=.00; df=1,228; p>.05) on the number of student referrals for showing a lack of respect. In addition, neither time (F=.15; df=1,228; p>.05) nor IDEA status (F=62.83; df=1,228; p>.05) presented significant main effects. Examination of pre and post data (see Figure 27) indicated that the mean number of referrals for lack of respect was always greater for IDEA declared students and that both groups had equivalent slight increases (non-declared pre $\bar{x}$ =.65 and post $\bar{x}$ =.72, a change of .07; IDEA declared students pre $\bar{x}$ =.97 and post $\bar{x}$ =1.04, a change of .07). More in-depth review of data points indicate that for both groups, students whose number of lack of respect referrals increased by five or more at post had one or no lack of respect referrals before the program. This increase indicates the possibility that participation in the program may have had an impact by changing staff behavior—that is, staff acted preventatively for more minor issues related to demonstrating a lack of respect before problems escalated to a more severe level (i.e., violence or illegal/unethical).

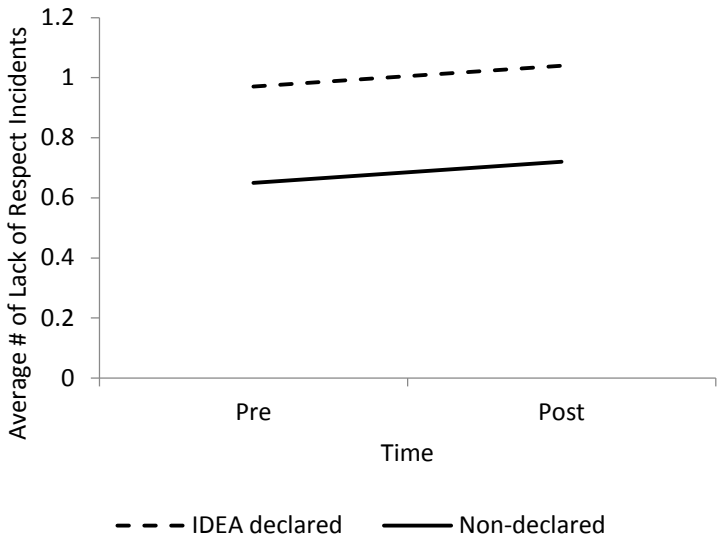

Figure 27. Graph of means for IDEA status and time on average number of lack of respect incidents.

Post hoc tests of variance indicated there was a significant difference between the variance of referrals for lack of respect for non-declared students (t_{154}=1.88, p<.05), as well as for IDEA declared students (t_{154}=-4.15, p<.05). Non-declared students (pre s.d.=1.98; post s.d.=1.72) had decreased variability in the number of referrals for lack of respect, indicating that although the average increased, some students had more extreme decreases in referrals creating a smaller range in the minimum and maximum number of referrals for non-declared students. IDEA declared students (pre s.d.=1.56; post s.d.=2.50) had increased variability in the number of referrals for lack of respect, indicating there were more cases or more extreme cases of increased referrals for some students. There was a significant difference in post variance by IDEA status (F=2.11; df=73,155; p>.05), as IDEA declared students (post s.d.=2.50) had greater variability at post than non-declared (post s.d.=1.72).

Summary of behavioral indicators. A summary of the results of the findings for behavioral indicators is presented in Table 23. Findings for attendance indicators are also included for comparative use.

Table 23

Summary of Pre-Post Change by Attendance and Behavioral Indicators

	Pre-Post Change			
	IDEA declared	Non-declared	Comparison of Post	After involvement in the program
Attendance				
Absences	$\bar{x}$ → ← s.d.	$\bar{x}$ → s.d. →	IDEA>Non	• Absences increased • A few non-declared students had an extreme increase
Suspensions	←$\bar{x}$ ← s.d.	$\bar{x}$ → s.d. →	Non>IDEA	• IDEA had fewer suspensions • Non-declared had more suspensions; a few had extreme increases
Instructional Days[9]	←$\bar{x}$ ← s.d.	←$\bar{x}$ s.d. →	IDEA>Non	• Instructional days decreased • Non-declared had more extreme increases • Overall, IDEA had fewer days of instruction and more absences, but less suspensions
Behavior				
Attendance Concerns	$\bar{x}$ → s.d. →	$\bar{x}$ → s.d. →	IDEA>Non	• Both had more attendance concerns • Both have a few students who had an extreme increase • Matches with absences and instructional days • Overall, IDEA had more
Disruptive Incidents	$\bar{x}$ → s.d. →	$\bar{x}$ → s.d. →	IDEA>Non	• Both had more disruptive incidents • Both had a few students who had an extreme increase • Overall IDEA had more disruptive incidents • Matches suspension data
Illegal/unethical Misconduct	=$\bar{x}$ =s.d	$\bar{x}$ → s.d. →	Non>IDEA	• Very few students • Non-declared had more and more of a range in incidents

[9] Decrease is a negative outcome.

	Pre-Post Change			
	IDEA declared	Non-declared	Comparison of Post	After involvement in the program
Violent Incidents	←$\bar{x}$ ← s.d.	←$\bar{x}$ ← s.d.	Non=IDEA	• Very few students • Both groups had fewer incidents and fewer extremes • IDEA matches with suspension data • Non-declared does not match with suspension data
Lack of Respect	$\bar{x}$ → s.d. →	$\bar{x}$ → ← s.d.	IDEA>Non	• More overall, opposite of violence and illegal/unethical=early catch • IDEA had more than non-declared

Overall, students' behavioral referrals increased after one year of participation in the counseling program. More serious offenses, such as violent incidents significantly decreased, whereas less serious offenses such as attendance referrals and lack of respect referrals increased, indicating the possibility of a positive impact of utilizing preventative tactics when working with students (e.g., more positive behavior techniques) before more serious offenses could occur. The increase in attendance referrals corresponded to the increases in absences and decreases in instructional days pre to post (see Table 23). Referrals for more typical behavioral incidents such as disruptive incidents increased, particularly for IDEA declared students. In addition, the standard deviations for both IDEA declared and non-declared students were significantly higher than the corresponding means, indicating there was high variability in students' referrals. It is important to note, that aside from disruptive incident referrals, one-half or more of the students in each group did not have any documented referrals related to attendance, lack of respect incidents, illegal/unethical misconduct or violence at pre or post. This may indicate that the predominant concern for these students participating in the school-based mental health program was attendance.

Research question 3. *Are there significant differences by status of disability (IDEA declared and non-declared) on the end-of- year achievement (where available) as*

represented by pass-fail indicators (i.e., pass=3,4; fail=1,2) on grade 6-8 New York State English Language Arts and Mathematics exams taken one year before and at the end of one year of participation in the school-based mental health program?

To determine if there was a difference by IDEA status (declared and non-declared) on the end of year achievement indicator as represented by the student level scores (i.e., 1 through 4) on New York State Mathematics and English Language Arts exams taken before and after participation in the counseling program, descriptive analyses were conducted examining overall student outcomes on New York State Mathematics and English Language Arts exams compared to IDEA declared student outcomes and non-declared student outcomes. The sample sizes were not sufficient for inferential tests; hence descriptive analyses were conducted to examine the data. Student achievement data from grades 9-12 were not used for this study; achievement comparisons could not be made for students who were in the program during grade 9 as there were no standardized state exams to compare from grades 8-9 and there was not a sufficient number of high school students (grades 9-12) who had taken regents exams to compare pre to post.

New York State Mathematics outcomes. A total of 110 students (48%) of the 230 students in the target group had both pre and post scores on state math tests. Of these, 30 were IDEA declared (i.e., 41% of the 74) and 80 were non-declared (51% of 156). When further re-categorized by level of test scores the sample size no longer supported parametric inferential testing, hence data were examined for potential descriptive trends (e.g., IDEA declared had five students who passed pre and two who passed at post; non-declared has 33 who passed at pre and 29 who passed at post).

As shown in Table 24, of the 110 students who took both New York State Mathematics exams, more students failed than passed at pre (failed 65%, n=72) and at post (failed 72%, n=79). The majority of the IDEA declared students failed at pre (83%, n=25) as did 59% (n=47) of non-declared. At post, only 7% (n=2) of IDEA declared students passed the math exam, a decrease of 10%; 36% (n=29) of non-declared students passed, a decrease of 5%.

Table 24

Student Outcomes on New York State Mathematics Exams Pre and Post

		NYS Math Pre		NYS Math Post	
	n	n	% Passing	n	% Passing
All Students	110	38	35%	31	28%
IDEA Declared	30	5	17%	2	7%
Non-declared	80	33	41%	29	36%

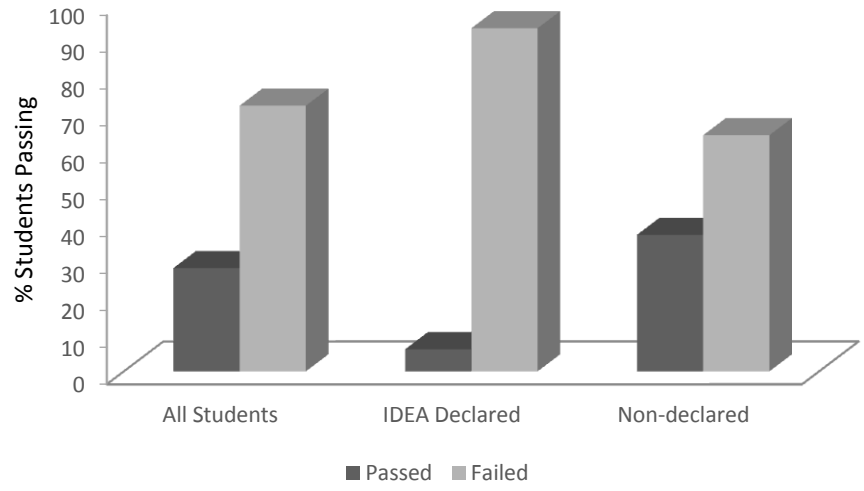

Figure 28. Bar chart of post student pass/fail rates New York State Mathematics exams.

Further examination of the data show that 13% of the IDEA declared students who passed at pre failed at post. Only two students passed at post; one who had failed at

pre and one who passed at pre (see Table 24). Nearly one-quarter (23%, n=18) of the non-declared students passed at both pre and post; 14%, n=11 who failed at pre passed at post test (see Table 25).

Table 25

Student Outcomes on New York State Mathematics Exam by Pre and Post Pass Rates

		PP		FP		PF		FF	
	n	n	%	n	%	n	%	n	%
All Students	110	19	17%	12	11%	19	17%	60	55%
IDEA Declared	30	1	3%	1	3%	4	13%	24	80%
Non-declared	80	18	23%	11	14%	15	19%	36	45%

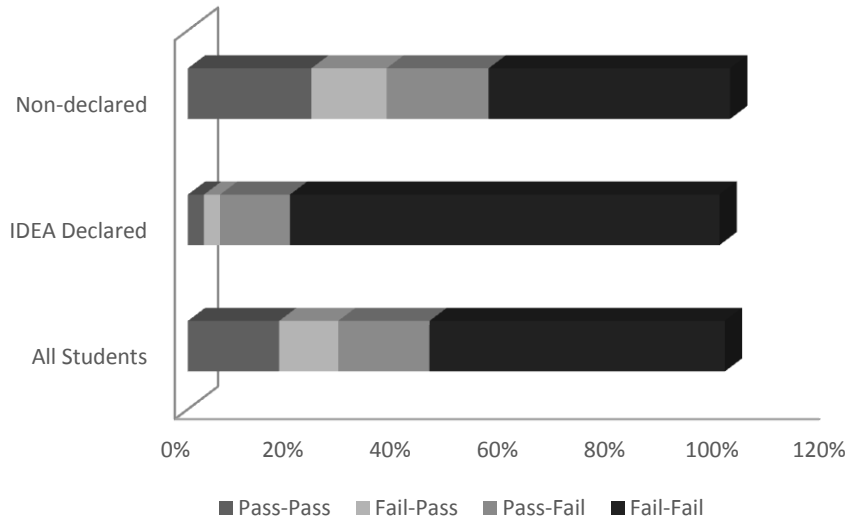

Figure 29. Bar chart of student change in outcomes on New York State Mathematics exam by pass-fail rates.

New York State English Language Arts outcomes. As shown in Table 26, of all the students (n=107) who took the New York State English Language Arts exam, more students failed than passed at pre (failed 67%, n=72; passed 33%, n=35) and at post (failed 73%, n=78; passed 27%, n=29). Nearly all of the IDEA declared students failed at pre (97%, n=31) and at post (94%, n=30); however, two students passed at post compared

to only one passing at pre. The pass/fail rate for non-declared students widened at post, similar to the New York State Mathematics performance, where 36% (n=27) of students passed and 65% (n=48) of students failed compared to the 45% (n=34) passing and 55% (n=41) failing at pre.

Table 26

Student Outcomes on New York State English Language Arts Exams Pre and Post

		NYS ELA Pre		NYS ELA Post	
	n	n	% Passing	n	% Passing
All Students	107	35	33%	29	27%
IDEA Declared	32	1	3%	2	6%
Non-declared	75	34	45%	27	36%

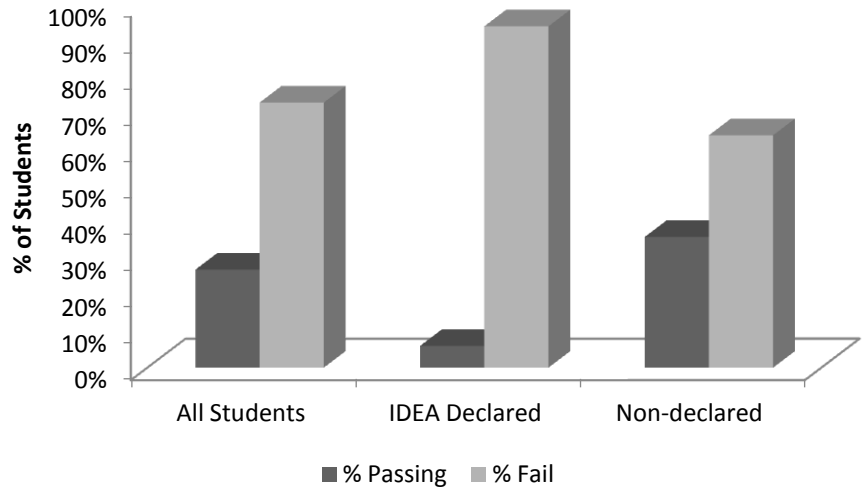

Figure 30. Bar chart of post student pass-fail rates on New York State English Language Arts exam.

Further examination of the data show that the one IDEA declared student who passed at pre did not fail at post; one student who failed passed and one student maintained a passing score from pre to post (See Table 26). One-quarter (25%, n=19) of

the non-declared students passed at both pre and post; 11% (n=8) who failed at pre passed at post test (see Table 27).

Table 27

All Student Outcomes on New York State English Language Arts Exam by Pre and Post Pass Rates

		PP		FP		PF		FF	
	n	n	%	n	%	n	%	n	%
All Students	107	20	19%	9	8%	15	14%	63	59%
IDEA Declared	32	1	3%	1	3%	0	0%	30	94%
Non-declared	75	19	25%	8	11%	15	20%	33	44%

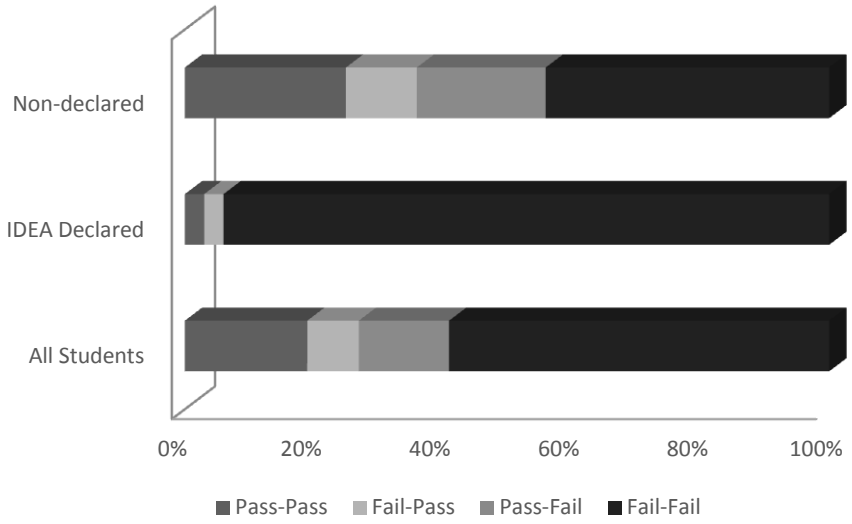

Figure 31. Bar chart of student change in outcomes on New York State English Language Arts exam pass-fail rates.

Summary of achievement indicators. There were no major differences in student achievement scores by IDEA status. The percentage of students failing increased from pre to post for both groups; however, nearly all of the IDEA declared students failed at both pre and post for the English Language Arts and Mathematics exams. There were 20 students (one IDEA declared) who passed the New York State English Language Arts

exam pre and post and 19 (one IDEA declared) who passed the New York State Mathematics exam pre and post. A total of 9 students (one IDEA declared) failed, but then passed the New York State English Language Arts exam at post, and 12 students (one IDEA declared) failed, but then passed the New York State Mathematics exam. Comparison of pre to post attendance indicators and behavioral indicators to achievement (in particular students who failed then passed) show that of the students who failed and then passed on either or both of the New York State English Language Arts and Mathematics exams (n=19), 7 improved in attendance or suspensions indicators; however, because of the limited number of students taking the exams it is not possible to determine whether achievement indicators may have been influenced by attendance or behavioral indicators. A summary of results for attendance, behavior and achievement indicators for IDEA declared and non-declared students is presented in Table 28.

Table 28

Summary of Pre-Post Change by Attendance, Behavioral, and Achievement Indicators

	Pre-Post Change			
	IDEA declared	Non-declared	Comparison of Post	After involvement in the program
Attendance				
Absences	$\bar{x}$ → ← s.d.	$\bar{x}$ → s.d. →	IDEA>Non	• Absences increased • A few non-declared students had an extreme increase
Suspensions	←$\bar{x}$ ← s.d.	$\bar{x}$ → s.d. →	Non>IDEA	• IDEA had fewer suspensions • Non-declared had more suspensions; a few had extreme increases
Instructional Days[10]	←$\bar{x}$ ← s.d.	←$\bar{x}$ s.d. →	IDEA>Non	• Instructional days decreased • Non-declared had more extreme increases • Overall, IDEA had fewer days of instruction and more absences, but less suspensions

[10] Decrease is a negative outcome.

	Pre-Post Change			
	IDEA declared	Non-declared	Comparison of Post	After involvement in the program
Behavior				
Attendance Concerns	$\bar{x}$ → s.d. →	$\bar{x}$ → s.d. →	IDEA>Non	• Both had more attendance concerns • Both had a few students who had an extreme increase • Matches with absences and instructional days • Overall, IDEA had more
Disruptive Incidents	$\bar{x}$ → s.d. →	$\bar{x}$ → s.d. →	IDEA>Non	• Both had more disruptive incidents • Both had a few students who had an extreme increase • Overall IDEA had more disruptive incidents • Matches suspension data
Illegal/unethical Misconduct	=$\bar{x}$ =s.d	$\bar{x}$ → s.d. →	Non>IDEA	• Very few students • Non-declared had more and more of a range in incident
Violent Incidents	←$\bar{x}$ ← s.d.	←$\bar{x}$ ← s.d.	Non=IDEA	• Very few students • Both groups had fewer incidents and fewer extremes • IDEA matches with suspension data • Non-declared does not match with suspension data
Lack of Respect	$\bar{x}$ → s.d. →	$\bar{x}$ → ← s.d.	IDEA>Non	• More overall, opposite of violence and illegal/unethical=early catch • IDEA had more than non-declared
Achievement				
New York State English Language Arts	% Pass→	←% Pass	IDEA<Non	• % of IDEA students passing increased; very small n (from 1 to 2 students) • Overall, the % passing decreased pre to post • Higher % of non-declared students passed than IDEA declared
New York State Mathematics	←% Pass	←% Pass	IDEA<Non	• Overall, the % passing decreased pre to post • Higher % of non-declared students passed than IDEA declared

Role of Concomitant Variables: Gender & Ethnicity

Overall, IDEA declared students tended to have greater attendance, behavior, and achievement concerns than non-declared students before participation in the mental health program. There was, however, a greater discrepancy pre to post for non-declared

students' attendance, behavior, and achievement concerns after one year of participation in the program, as a few students tended to have extreme negative changes at post. A secondary analysis was conducted to determine if there were any significant differences in outcomes by gender or ethnicity.

Research question 1: Attendance. Males (pre $\bar{x}$ =5.98, post $\bar{x}$ =15.51) in the non-declared group had a much greater increase in suspensions than did non-declared females (pre $\bar{x}$ =4.90, post $\bar{x}$ =5.98) (see Figure 32). The data (see Table 29 and Figure 33) indicated that the average number of suspensions increased considerably for non-declared students of minority status (Asian pre $\bar{x}$ =2.56, post $\bar{x}$ =22.89; Black pre $\bar{x}$ =11.83, post $\bar{x}$ =19.71; Hispanic pre $\bar{x}$ =8.48, post $\bar{x}$ =20.29).

Examination of the data indicated that, although nothing was significant, Asian students in the non-declared group experienced some of the greatest increases in negative outcomes for suspensions.

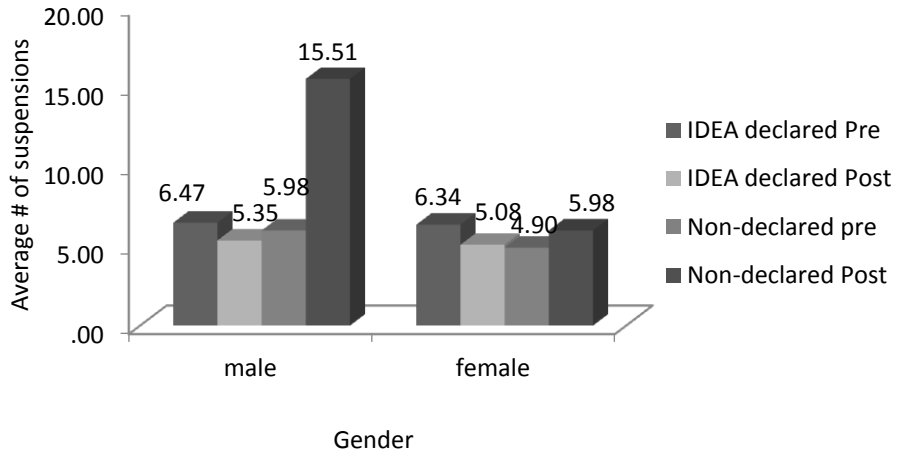

Figure 32. Bar chart of suspensions by IDEA status and gender.

Table 29

Means and Standard Deviations of Suspensions by Levels of Time, IDEA Status, and Ethnicity

		IDEA Declared		Non-declared	
		Pre	Post	Pre	Post
Asian	$\bar{x}$	0	0	2.56	22.89
	sd	0	0	3.21	43.44
	n	0	0	9	9
Black	$\bar{x}$	7.39	8.04	7.03	9.97
	sd	8.92	11.42	11.83	19.71
	n	23	23	58	58
Hispanic	$\bar{x}$	7.31	6.31	8.48	20.29
	sd	8.82	8.86	8.51	31.93
	n	13	13	21	21
White	$\bar{x}$	5.53	3.79	2.93	3.91
	sd	10.81	5.43	8.7	8.42
	n	38	38	68	68

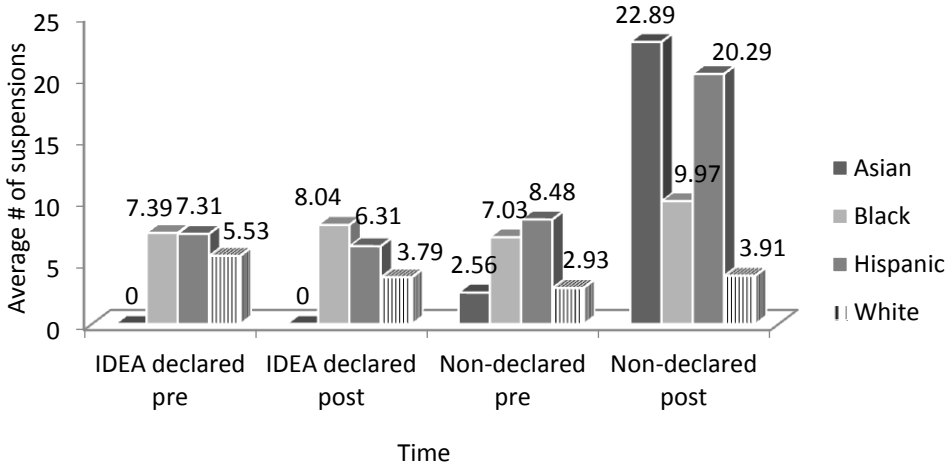

Figure 33. Bar chart of suspensions by IDEA status and ethnicity.

Further examination of the data by ethnicity indicated that all students experienced considerable increases in their number of absences from school. Some of the greatest differences were observed for Asian (pre $\bar{x}$ =13.56, post $\bar{x}$ =21.22), Black (pre $\bar{x}$

=16.67, post $\bar{x}$ =26.33), and White (pre $\bar{x}$ =22.09, post $\bar{x}$ =32.07) non-declared students. Data revealed that, although nothing was significant, Asian students in the non-declared group experienced some of the greatest increases in negative outcomes for absences, as they did for suspensions.

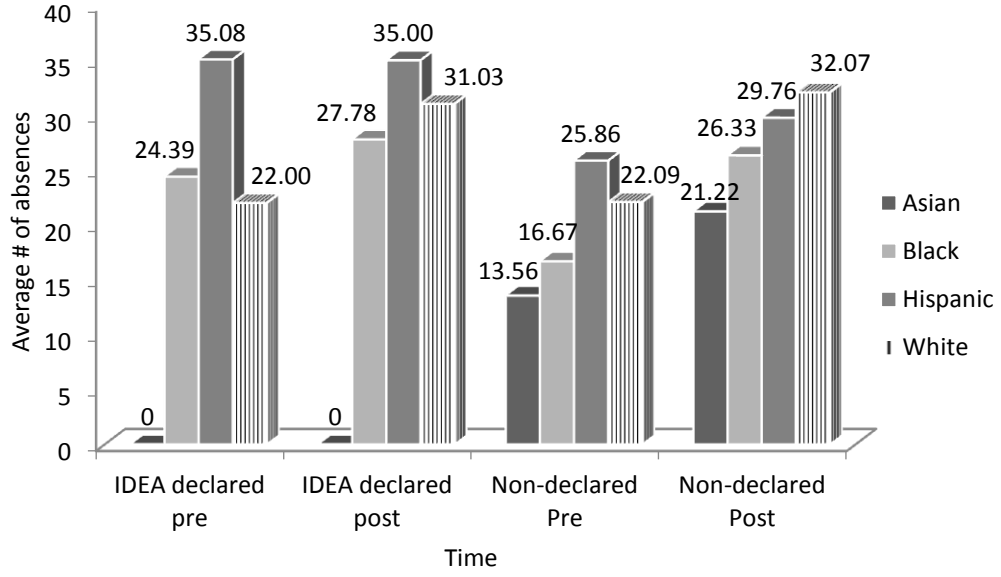

Figure 34. Bar chart of absences by IDEA status and ethnicity.

Research question 2: Behavior. Examination of Figure 35 with the graph of absences by IDEA status and ethnicity (see Figure 34) demonstrates that school staff are responding to the increased absences by documenting attendance concerns to be worked on with students. In particular, Figure 34 shows that IDEA declared Hispanic students had the highest average number of absences pre and post across any other ethnicity, but the average number of absences was maintained around 35. The attendance concerns graph indicates staff noted the high number of absences and reacted by referring students for attendance concerns. In addition, non-declared Asian, Black, and White students' absences all considerably increased pre to post; this increase also was noted by staff as

the number of attendance concern referrals considerably increased for these students. An examination of the data indicated that, although nothing was significant, Asian students in the non-declared group experienced some of the greatest increases in negative outcomes for attendance concerns.

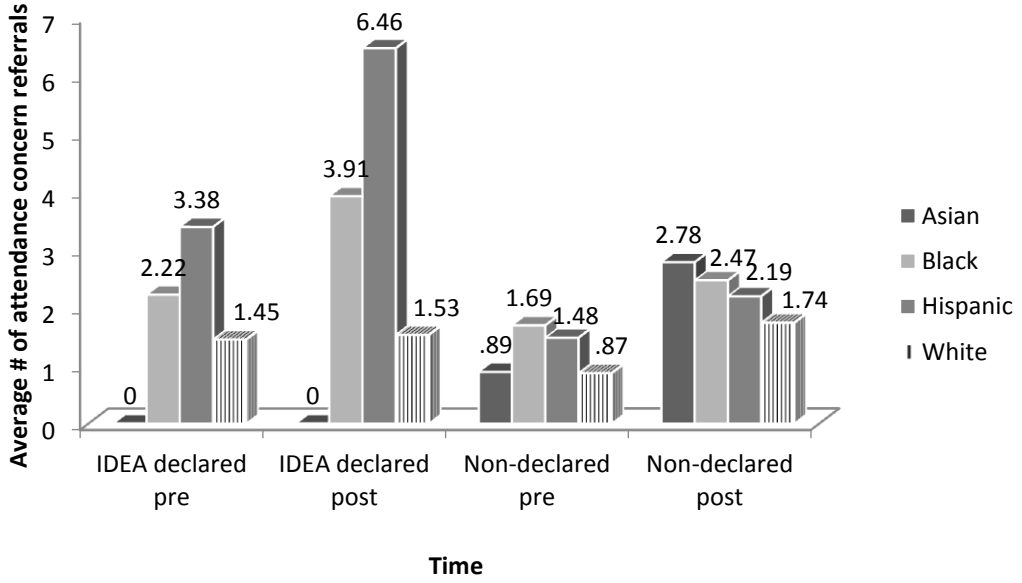

Figure 35. Bar chart of attendance concerns by IDEA status and ethnicity.

Research question 3: Achievement. There are no major differences in outcomes by gender or ethnicity for achievement as the majority of students failed. Students from each gender and ethnicity category had students who passed and failed. A summary of attendance, behavior, and achievement results and concomitant variable comparisons is presented in Table 30.

Table 30

Summary of Pre-Post Change by Attendance, Behavioral, and Achievement Indicators and Concomitant Variables

	Pre-Post Change			
	IDEA declared	Non-declared	Comparison of post	Overall after involvement in the program
Attendance				
Absences	$\bar{x}$ → ← s.d.	$\bar{x}$ → s.d. →	IDEA>Non	• Absences increased • A few non-declared students had an extreme increase
Asian	N/A	$\bar{x}$ → s.d. →	N/A	• Non-declared Asian students had extreme increases
Black	$\bar{x}$ → ← s.d	$\bar{x}$ → s.d. →	IDEA>Non	• Increases overall • A few non-declared had an extreme increase
Hispanic	= $\bar{x}$ ← s.d.	$\bar{x}$ → ← s.d.	IDEA>Non	• Non-declared Hispanic students had more absences • Overall IDEA Hispanic students had more than non-declared
White	$\bar{x}$ → s.d. →	$\bar{x}$ → s.d. →	Non>IDEA	• Increases for all White students • Overall non-declared White students had more
Suspensions	←$\bar{x}$ ← s.d.	$\bar{x}$ → s.d. →	Non>IDEA	• IDEA had fewer suspensions • Non-declared had more suspensions; a few had extreme increases
Asian	N/A	$\bar{x}$ → s.d. →	N/A	• Non-declared Asian students had extreme increases
Black	$\bar{x}$ → s.d. →	$\bar{x}$ → s.d. →	Non>IDEA	• Black students suspensions increased • Non-declared Black students had more suspensions than IDEA declared
Hispanic	←$\bar{x}$ = s.d.	$\bar{x}$ → s.d. →	Non>IDEA	• IDEA Hispanic students had fewer suspensions than non-declared
White	←$\bar{x}$ ← s.d.	$\bar{x}$ → ← s.d.	Non>IDEA	• IDEA White students had fewer suspensions than non-declared

	Pre-Post Change			
	IDEA declared	Non-declared	Comparison of post	Overall after involvement in the program
Male	←$\bar{x}$ s.d. →	$\bar{x}$ → s.d. →	Non>IDEA	• Overall non-declared males had more suspensions
Female	←$\bar{x}$ ← s.d	$\bar{x}$ → s.d. →	Non>IDEA	• Overall non-declared females had more suspensions
Instructional Days[11]	←$\bar{x}$ ← s.d.	←$\bar{x}$ s.d. →	IDEA>Non	• Instructional days decreased • Non-declared had more extreme increases • Overall, IDEA had fewer days of instruction and more absences, but less suspensions
Behavior				
Attendance Concerns	$\bar{x}$ → s.d. →	$\bar{x}$ → s.d. →	IDEA>Non	• Both have more attendance concerns • Both have a few students who had an extreme increase • Matches with absences and instructional days • Overall, IDEA had more
Asian	N/A	$\bar{x}$ → s.d. →	N/A	• Non-declared Asian students had extreme increases
Black	$\bar{x}$ → s.d. →	$\bar{x}$ → s.d. →	IDEA>Non	• Black students attendance concern referrals increased • IDEA Black students had more attendance referrals than non-declared
Hispanic	$\bar{x}$ → s.d. →	$\bar{x}$ → s.d. →	IDEA>Non	• Hispanic students attendance concern referrals increased • IDEA Hispanic students had more attendance referrals than non-declared
White	$\bar{x}$ → ← s.d.	$\bar{x}$ → s.d. →	Non>IDEA	• Non-declared White students had more than IDEA declared • A few non-declared had more extreme increases

[11] Decrease is a negative outcome.

	Pre-Post Change			
	IDEA declared	Non-declared	Comparison of post	Overall after involvement in the program
Disruptive Incidents	$\bar{x}$ → s.d. →	$\bar{x}$ → s.d. →	IDEA>Non	• Both had more disruptive incidents • Both had a few students who had an extreme increase • Overall IDEA had more disruptive incidents • Matches suspension data
Illegal/unethical Misconduct	=$\bar{x}$ =s.d	$\bar{x}$ → s.d. →	Non>IDEA	• Very few students • Non-declared had more and more of a range in incidents • Non-declared had more than IDEA
Violent Incidents	←$\bar{x}$ ← s.d.	←$\bar{x}$ ← s.d.	Non=IDEA	• Very few students • Both groups had fewer incidents and fewer extremes • IDEA matches with suspension data • Non-declared does not match with suspension data
Lack of Respect	$\bar{x}$ → s.d. →	$\bar{x}$ → ← s.d.	IDEA>Non	• More overall, opposite of violence and illegal/unethical=early catch • IDEA has more than non-declared
Achievement				
New York State English Language Arts	% Pass→	←% Pass	IDEA<Non	• % of IDEA students passing increased; very small n (from 1 to 2 students • Overall, the % passing decreased pre to post • Higher % of non-declared students passed than IDEA declared
New York State Mathematics	←% Pass	←% Pass	IDEA<Non	• Overall, the % passing decreased pre to post • Higher % of non-declared students passed than IDEA declared

Summary

Research question 1: Attendance. A significant difference was found in change pre to post by IDEA status on average number of suspensions and days students were present for instruction; there was no significant difference by IDEA status on the number

of absences. IDEA declared students suspension rates significantly decreased after one year of participation in the program; non-declared students significantly increased.

The number of instructional days (i.e., the number of days students were present for instruction, excluding in-school suspensions) significantly decreased for both IDEA declared and non-declared students. Prior to the start of the program, IDEA declared students had a lower number of instructional days (148.54) compared to non-declared students (154.73); however, non-declared students number of instructional days decreased by approximately 6% after one year while IDEA declared students decreased by about 3%.

There was no significant difference in change pre to post by IDEA status on student absences; however, there was a significant increase in the number of student absences after one year of participation in the mental health program. The average number of absences for non-declared students increased by 9 absences and the average number of absences for IDEA declared students increased by approximately 5 absences. IDEA declared students had a higher number of absences ($\bar{x}$ =25.04) prior to the start of the program than non-declared students ($\bar{x}$ =20.09).

Research question 2: Behavior. There was no significant difference in change pre to post by IDEA status (declared and non-declared) on mean behavioral indicators (e.g., number of disciplinary referrals related to disruptive behavior incidences, attendance concerns, and illegal/unethical misconduct). There were no significant differences for illegal/unethical referrals or attendance concern referrals by IDEA status; however, there was a significant increase in attendance concerns from pre to post for both groups of students.

Disruptive incidents increased for both groups of students, but not significantly. In addition, there was no significant change for violent incident referrals by IDEA status; however, there was a significant decrease in violence referrals from pre to post for both groups (IDEA declared students decreased from an average of .14 to .04 and non-declared students decreased from .05 to .04). Lack of respect incidents, though not significantly different, slightly increased for both groups.

Research question 3: Achievement. The majority of students (IDEA declared and non-declared) who took the New York State Mathematics exam failed than passed at pre (IDEA declared failed=83%; non-declared failed=59%) and at post (IDEA declared failed=93%; non-declared failed=failed 64%). Further examination of the data show that 13% of the IDEA declared students who passed at pre failed at post. Only two students passed at post; one who had failed at pre and one who passed at pre. Nearly one-quarter (23%) of the non-declared students passed at both pre and post; 14% who failed at pre passed at post-test.

More students failed than passed the New York State English Language Arts exam at pre (failed 67%; passed 33%) and at post (failed 73%; passed 27%). Nearly all of the IDEA declared students failed at pre (97%) and at post (94%); however, two students passed at post compared to only one passing at pre. One IDEA declared student who failed at pre, passed at post and one student maintained a passing score from pre to post. The pass/fail rate for non-declared students widened at post, similar to the New York State Mathematics performance; 36% of students passed and 64% of students failed compared to the 41% passing and 59% failing at pre. One-quarter (25%) of the non-declared students passed at both pre and post; 11% who failed at pre passed at post test.

This chapter addressed research questions in this study relating to the relationship of IDEA status on outcome variables assessed pre and post one year of participation a school-based mental health counseling program. Outcome variables related to attendance, behavior and achievement indicators for students enrolled in a school-based counseling program for one year. The ramifications of the findings, as well as future recommendations for theory, research, and practice are discussed in the next chapter.

Chapter 5

Conclusions & Implications

The purpose of this study was to add to the existing literature on outcomes of students, grades 6-12, in school-based mental health programs by investigating the relationship of a school reported disability as identified by IDEA status (i.e., declared vs. non-declared) on academic outcomes represented by selected attendance, behavior, and achievement indicators. Students who received the school-based counseling were part of a larger study examining the promotion and implementation of positive social emotional development for students across the school district, as well as approaches to establishing a violence free environment. All students served by the school-based counseling program were identified by the district as in need of in-depth site based mental health services; some of these students, identified as IDEA declared, also had an identified disability for which they also received special education services and required a written individualized evaluation plan (IEP). Non-declared students were those placed in the program after district review deemed them as high-needs, but they did not have an identified disability that met IDEA qualifications. This chapter summarizes the main findings of the study and discusses them in relation to current literature. In addition, the chapter presents recommendations for future and current theory, practice, and research.

Attendance Indicators

Attendance is an important factor related to school success and is often used as an outcome measure for school-based mental health counseling research. Attendance indicators for this study included: absences (the number of days the student is not identified as in the building), suspensions (the number of days the student is not in

academic instruction due to a disciplinary action, this included both in-school and out-of-school suspensions), and instructional days (the number of days the student is in school excluding in-school suspensions). The results indicate there was a significant change pre to post by IDEA status on average number of suspensions and students' number of instructional days. IDEA declared students' suspension rates significantly decreased after one year of participation in the program; non-declared students significantly increased. Further examination of the data indicated that the average number of suspensions increased considerably for non-declared students of minority status (Asian pre $\bar{x}$ =2.56, post $\bar{x}$ =22.89; Black pre $\bar{x}$ =11.83, post $\bar{x}$ =19.71; Hispanic pre $\bar{x}$ =8.48, post $\bar{x}$ =20.29) as well as shifts to larger variability for non-declared students pre to post.

Number of instructional days (i.e., the number of days students received instruction, excluding in-school suspensions) significantly decreased for both IDEA declared and non-declared students. Prior to the start of the program, IDEA declared students had a lower average number of instructional days ($\bar{x}$ =148.54) compared to non-declared students ($\bar{x}$ =154.73) (compared to 180 days of complete attendance); non-declared students instructional days further decreased by approximately 6% (approximately 13 days) after one year while IDEA declared students had a further decrease by about 3% (approximately 5 days). Overall, these students are missing seven to eight weeks of classroom instruction, which is an important factor when considering academic performance. Students' attendance in school, receiving instruction and support is important in influencing academic skill development. They cannot learn the skills they need to be successful if they are not receiving instruction.

There was a significant increase in the number of student absences for all students after one year of participation in the mental health program, but on average, there was no significant change pre to post by IDEA status. The average number of absences for non-declared students increased by 9 absences and the average number of absences for IDEA declared students increased by approximately 5 absences. IDEA declared student had a higher number of absences ($\bar{x}$ =25.04) prior to the start of the program than non-declared students ($\bar{x}$ =20.09). The averages at the end of the program were 30.72 (IDEA declared) and 29.00 (non-declared). The significant increase in number of student absences may relate to time in the program and be a function of the first year of participation in the program. For example, students may have been absent for reasons related to not wanting to attend the counseling intervention, or as is seen often in the implementation of interventions, there is a spike in negative outcomes the first year that decreases the following year of implementation. This study only investigated one year in a program. Prior research, specifically with this population, found that time in the program was a positive factor in student attendance with subsequent decreases noted when participation in the program lasted for two or more years (Newman, Morris Deyoe, Clure, Henderson, & Murphy, 2012).

Overall, this study has contributed to the literature on attendance issues by expanding and enhancing previous findings. Prior research studies that included attendance as an outcome measure for students participating in a school-based mental health program have shown mixed findings across different attendance indicators (Becker et al., 2013; Kang-yi et al., 2013; Vidair et al., 2014). For students without declared disabilities, some studies indicated slight improvement in the number of suspensions for

students, but no significant changes (Daly et al., 2014; McCrary et al., 2012) whereas other studies found that out-of-school suspensions significantly decreased, but in-school suspensions significantly increased (Kang-yi et al., 2013). Furthermore, in previous studies only limited data were available on attendance outcomes specifically for students with an identified disability who participated in a school-based mental health program. This study extends these findings. More specifically, suspension findings do not align with previous findings for non-declared students; a significant increase in suspensions for non-declared was found while a significant decrease in suspensions for IDEA declared students was noted. Furthermore, this study found that there was a significant increase in absences pre to post program while change in attendance was not significant in previous research. As noted earlier, in-depth analysis of the data indicated major changes or shifts related to a select group of students who may be categorized by ethnicity.

Behavioral Indicators

Because of its known relationship to engagement in learning (Hoagwood et al., 2007; Solomon et al., 2012; Vidair et al., 2013), behavioral outcomes for students with mental health concerns also has been a variable of interest in determining the potential success of school-based interventions; therefore, another purpose of this study was to determine whether behavioral indicators significantly changed by IDEA status after one year in a school-based mental health program. Multiple behavioral indicators were used in this study, and included frequency (e.g., number of) disciplinary referrals for: attendance concerns, disruptive behavior incidents, illegal/unethical misconduct, violent incidents, and lack of respect incidents. Results from this study indicated there was no significant difference for any pre-post changes in behavioral indicators by IDEA status.

There was a significant increase in referrals for attendance concerns pre to post for both groups of students; this may be reflective of the increase in absences and decrease in instructional days found in the first research question on student attendance. There was a significant decrease in violence referrals from pre to post for both groups (IDEA declared students decreased from an average of .14 to .04 and non-declared students decreased from .05 to .04) that may indicate mental health counseling services were being provided preventatively, thereby reducing more serious behavior problems. For more minor incidents, considered "lack of respect" incidents, there was no significant difference, but the numbers did slightly increase for both groups, further indicating the possibility of "catching" students early in preventative referrals. This might be reflective of teacher awareness of the counseling program and trainings that may have been provided; however, this information was not available to the researcher.

This study adds to the literature on changes in behavior outcomes for students after participation in a school-based mental health counseling program by supporting and enhancing some of the previous findings. This study expanded on the literature by providing findings that distinguish between IDEA declared and non-declared students. This study also adds to the literature by providing behavior findings at a more distal level (i.e., school referrals) rather than specific intervention outcome measures (e.g., questionnaires or counselor records of interventions) or suspension indicators. The findings in this research study are consistent with other studies that used school reported behavioral referrals (e.g., Flay, Allred, & Ordway, 2001; Hawkins, Catalano, Kosterman, Abbott, & Hill, 1999) and found that more serious behavior incidents (i.e., violence related) significantly decreased for all students. Although this research indicates that

school-based mental health programs reveal positive effects for students behavior and mental health, research studies that include behavioral indicators as outcome measures for participation in school-based mental health counseling programs have found these indicators to be difficult to generalize, as there is high variability across what constitutes "behavior" (Daly et al., 2014; DeSocio et al., 2007; Kutash et al. 2011; McCrary et al., 2012), noting the need for multiple measures (Solomon et al., 2012).

The findings from this study noted no significant difference in behavior by IDEA status, further enhancing scientific knowledge on differences in student outcomes by IDEA status. This study, however, is not consistent with those of Kutash et al. (2011) who found positive effects of program participation on emotional functioning and functional impairment (i.e., behavior) for students with disabilities. The measures used in Kutash et al., however, included behavioral questionnaires completed by parents, while this study used federal and state mandated school collected data on behavioral referrals. The variation in measures is an important factor to consider in the difference between findings of these studies and other research (e.g., Daly et al., 2014; Kang-yi et al., 2013), in which behavior indicators were attendance or suspension related data. These variations in measures make it difficult to replicate and generalize findings across contexts and settings. This study's use of school reported aggregated data are more easily replicated and generalized.

Achievement Indicators

The need to encompass both social and emotional development strategies, as well as students' risk factors across school, community, and family levels, with academic skill-based strategy development when striving to increase achievement is now

commonly incorporated into reform practices (e.g., Race to the Top, 2010; No Child Left Behind, 2001; New Freedom Commission on Mental Health, 2003). The ultimate goal of any of these programs, however, is to increase student achievement. The final purpose of this study, therefore, was to determine if there were any significant differences by status of disability (IDEA declared and non-declared) on the end of year achievement indicator (where available) as represented pass-fail indicators (i.e., pass=3,4; fail=1,2) on New York State English Language Arts and Mathematics exams taken one year before and at the end of one year of participation in the school-based mental health program.

The findings in this study, although limited by the sample size of students who had pre-post sixth-eighth grade NYS test data, indicated that within both IDEA declared and non-declared groups, a few students did shift from failing at pre to passing at post, and some students did maintain a passing rate from pre to post. The majority of students, however, failed at pre and again at post for both New York State English Language Arts and Mathematics exams. Not only were no major differences found for either group pre to post, but more students failed at post than at pre. This study's finding of no major differences pre to post in student pass-fail rates are consistent with preliminary research conducted by Campisi (2010), who found no significant improvement in standardized test scores for general education or special education students; overall scores for both groups receiving treatment decreased pre to post. Findings also supported research from Anthony and Sebian (2011) who documented a decrease in student scores (data were not provided by IDEA status) on standardized reading and math exams after participation in a school-based mental health program; however, in their study, analysis of quarterly reading and math assessment benchmarks demonstrated a positive impact in academic progress for

students grades 1-8. Findings from Anthony and Sebian suggest the importance of examining more proximal measures of progress in addition to distal measures (i.e., yearly state exams) to obtain a more robust measure related to impact. Although mental health services are primarily concerned with providing skills and strategies for students to deal with behavioral issues, the common thought is that this will subsequently impact academics. It may be premature to expect extreme changes in achievement after one year, indicating perhaps more proximal measures would be beneficial. These indicators, however, are more difficult to assess in relation to accountability unless assessments that are proven valid and reliable are used so careful selection of assessments should occur.

It should be noted that findings from this study are limited, in that only students who took the grade 6-8 New York State English Language Arts and Mathematics exams were included and that not all students with identified disabilities were included. Using more proximal measures may be a better indicator of success or change for students with non-declared and declared IDEA status at the high school level, as well as students with IDEA declared disabilities, particularly if they are not required to take the state exams.

Recommendations for Theory, Research, and Practice

Based on the findings of this study, a series of recommendations are provided. More specifically, the following recommendations for theory and future research and practice related to IDEA declared and non-declared at-risk students in school-based mental health counseling programs are proposed.

Recommendations for Future Theory Development

This study focused on the developmental nature of the student and the preventative approaches that are implemented to foster healthy social emotional

development that will ultimately encourage student educational success. The following are theories that are supported by this study and subsequent recommendations and implications for future theory development and use.

Ecological systems theory. This study supports ecological systems theory and phenomenological variant ecological systems theory and reinforces the need to consider multiple factors in students' lives that may contribute to mental health issues and subsequent academic concerns. It was found that the majority of students in this study (IDEA declared and non-declared) had multiple risk factors that are related to ethnicity and socioeconomic status, as well as additional factors in the students' lives that were influencing or hindering the efforts of the school-based mental health program. It is recommended, therefore, that ecological systems theory be used to further delineate the multiple roles of the systems in a child's life and what has the most impact on a student's success, particularly when a preventative counseling program is implemented for mental health concerns.

Strengths-based, multi-level counseling. Strengths-based, multi-level counseling theory indicates that using preventative measures, grounded in positive behavioral techniques in which intervention intensity increases with students level of need, are effective in increasing students' resilience and promoting positive outcomes for students' success. In this study, it was found that more serious behavior incidents decreased for both IDEA declared and non-declared students after one year of participation in a school-based counseling, and less serious behavior incidents (i.e., referrals for lack of respect) increased. Based on these findings, it is recommended that future theory further examine the incremental changes that can occur from level to level

and consider the appropriate length of time interventions are needed to constitute a shift in level.

Wraparound approach. Another theory that is often intertwined with strength-based multi-level counseling theory is the wraparound theory or approach, that advocates for a team of individuals from agencies across the community to collaborate and design goals and coordinate services centered around individual students and their families. These theories encompass strategies for all students, IDEA declared or non-declared; however, often, the wraparound approach is implemented at the highest level of need, which historically tends to be for students with disabilities, more specifically for students with severe emotional behavioral disorders.

For IDEA declared and non-declared students in this study, absences increased and instructional days decreased, while less serious behavioral referrals increased after one year of participation in a school-based mental health counseling program. In this study, all students, IDEA declared and non-declared were at high risk for failure. Within this scenario, however, IDEA declared negative outcomes were generally higher than non-declared, but non-declared students had greater increases from pre to post and some with more extreme shifts toward the negative. This finding supports use of the wraparound theory; children with identified disabilities in a school district are receiving multiple services based on the law and theory of special education. These services need to be coordinated for maximum effect. Though not identical to wraparound theory, the theory behind special education services indicates that when a student is identified with a disability, multiple individuals from the family, school, and community come together to collaborate and work to utilize the students' strengths and build skills necessary to

improve their areas of need. This theory is very much aligned with wraparound theory. The wraparound theory promotes positive social emotional development within and across multiple systems of a student's life, and therefore, is also well-aligned with ecological systems theory. Findings suggest that additional wraparound theory development is needed to examine what constitutes the characteristics, processes, and provision of wraparound services for those with a disability, all students in an at-risk district, and students at the most severe level of need. Future theory development also is needed on the benefits of wraparound theory as it merges with strengths-based counseling for all students with mental health concerns deemed at high risk for failure, regardless of disability status or tier level.

Summary of recommendations for theory development. The findings of this study led to several suggestions for future theory development. The importance of understanding the multiple factors that intertwine with various systems in students' lives and how those factors influence development is established as ecological systems theory. Further theory development is needed to explore the impact of multiple risk factors in student success, including an investigation of which factors are the most influential in students' educational success or failure (e.g., mental health, counseling intervention, and location of the intervention, continuity in support across systems, socioeconomic status, or ethnicity).

Strengths-based, multi-level counseling theory indicates that positive behavioral reinforcement and preventative interventions implemented for students at varying levels depending on their needs are beneficial in supporting student social emotional outcomes. Future theory development should focus on immediate and long-term outcome changes,

and consider, as part of the theory, time in interventions that students at each level may need to demonstrate change. In addition, further theory development should focus on explaining the need for implementation of a wraparound approach at a school or systems level, and what factors are needed before it is deemed necessary, to better understand and identify the factors that benefit all students, not just those with the most intensive needs.

Recommendations for Future Research

Recommendations for future research are grounded in the recommendations for future and current theory. The following are recommendations for future research supported by this study.

Multivariable research on outcomes by disability and/or at-risk status. This study supports the need for additional concurrent assessment of multivariable research on outcomes for students with identified disabilities and at-risk students without declared disabilities in need of school-based mental health counseling. This includes studies that view these students as similar in that they are all at-risk, but also that differentiate at-risk with and without disability.

This study adds to McMillan and Jarvis' (2013) call for more research as found in their review of literature indicating that the combination of targeted programs with universal approaches in schools will have a greater impact for students with disabilities. This study also indicated that the target onsite mental health counseling, with preliminary school-wide PBIS initiatives, showed some specific improvements for students with identified disabilities (i.e., suspensions and violence) and students without disabilities (i.e., violence). Specific improvements in suspensions and violence may be indicative of the basis of the larger program that implemented the onsite, school-based mental health

counseling program since two of the primary desired outcomes were to decrease violence and behavioral referrals for suspensions. The findings of this study also supports Hoagwood and colleagues' (2007) call for more rigorous research to be conducted that should include multiple outcome measures in areas of attendance, behavior, and achievement (e.g., proximal and distal measures, school reported data, questionnaires, including quantitative and qualitative) to produce more comprehensive results, and concurrently clarify the constructs of academic, attendance, and behavioral success.

Detailed information on school-based mental health counseling. Future research should include more information on process as well as the outcome of the school-based mental health counseling, including the interventions utilized for students and the school's level of PBIS implementation (i.e., high, medium, low), as well as measured outcomes for students at all levels of PBIS. Having a record of the IDEA declared students' disabilities also would help to differentiate between outcomes for students with different types of disabilities, the types of services they receive, and allow for more in depth analysis. The inclusion of these elements as concomitant or interactive variables in future research will ensure more knowledge generation and development on serving high-needs students.

Outcomes by IDEA status, ethnicity, and mental health issues. A concentrated effort on conducting more research examining differences in outcomes by IDEA status, including type of IDEA disability, and differentiating between different mental health issues for students also will help inform policy, disability identification, referral practices, and preventative measures to utilize as intervention guides before mental health problems escalate. In addition, based on the differences in student outcomes by ethnicity, it will be

beneficial to conduct more research on differences in outcomes by IDEA status and ethnicity to determine whether additional studies show that minority students who are non-declared typically have more extreme negative outcomes, and if they do, why? If that outcome occurs, future research should examine if findings align with identification practices and issues in special education such as 1) the underrepresentation of certain minority groups (i.e., Asian students), 2) under-identification of students of a specific ethnicity (i.e., Black students) by schools that are under pressure to not over identify so ultimately, some students are not being identified who should be, or 3) the need to provide all students in high-risk districts, regardless of disability status, with an integrative and collaborative framework of care from "cradle to career" grounded in a wraparound approach.

Disability, labeling and culture. The idea that the range in the number of negative outcomes narrower for students with IDEA declared disabilities, brings into question labeling in general. Future research should focus on examining the following questions: 1) is it necessary to identify any student at high-risk with a disability to ensure they receive the services they need? Or, 2) is it the label that prevents some families from having students identified and they remain in the non-declared population, not receiving the intensive services they need, and therefore, widening the range of negative behavior outcomes? The question of labeling and culture also emerges, indicating ultimately whether there are instances where students should be identified, but are not because of cultural beliefs and/or labeling stigmas. Therefore, these students ultimately do not receive services they need for success because the intensity of the services are typically in place for students with disabilities. In addition, future research should consider the

benefits of developing and providing education opportunities within the communities to ensure that there is a mechanism of support in place for families to come together and understand the benefits of services and identification for students in need.

Summary of recommendations for future research. Overall, the recommendations for future research center on the necessity for concurrent, multivariable research studies that use comprehensive measures (e.g., proximal and distal measures and mixed methods) in areas of behavior and academics, to determine success for students in a school-based mental health counseling program. In addition, detailed information about the counseling programs and interventions that will promote replication and high fidelity are important research elements to focus on, especially in clarifying the constructs of the outcomes (e.g., attendance, behavior, and academic achievement). Further, it is recommended that the research base be expanded to explore outcomes by IDEA status of students, by IDEA status and ethnicity, as well as by specific mental health issues that will further examine the aspect of labeling and culture and their impact on student identification and their subsequent impact on student success.

Recommendations for Future Practice

Findings from this study help to inform certain key elements of practice. The following are recommendations for future practice.

Time. An important factor to consider for future practice is time in the program. In many areas all student outcomes shifted more negatively on key indicators after one year; however, these were inherent or long-term risk factors for students. It would more than likely take a substantial amount of time to promote protective factors and establish resilience for students to overcome the barriers against them (Lyon et al., 2013).

Reconsideration of disciplinary referral practices. Another important factor that schools should focus on is to change the referral practices ingrained within the schools. Often, the first reaction in schools is to provide students who misbehave with suspensions that result in students not receiving instruction, and therefore do not help achievement. Research indicates that more proactive, intervention-type approaches to working with students by providing consequences for students that relate to learning skills and management strategies for behavior improvement can result in improved behavior, rather than writing a student a referral for suspensions (Fenning et al., 2012). According to Fenning and colleagues (2012), schools should consider altering discipline policies for alternatives to traditional suspension and consider evidence-based options to replace, in particular, out-of-school suspensions.

Early prevention funding and continuity of service and counselor. This study also supports the need for early prevention counseling and services for students noting the need to prevent problems before they escalate and allow more proactive services to begin (Greif Green et al., 2013). Generally, early childhood education receives less funding and investment than other levels of education (Lopes, 2005). There should, therefore, be a demand for additional funding for preventative programs at the early childhood level to facilitate needs assessment at the family level, subsequently focusing on family-related risk factors and parent involvement, and collaboration across community and educational agencies to promote positive social emotional development and equip children with the social emotional skills and character building qualities they need to be successful in school (Maag & Katsiyannis, 2010).

Multi-level, strengths-based, wraparound services. Future practice should incorporate a strengths-based wraparound approach where evidence-based practices are utilized for student interventions and services are focused on participation from the student and the parents, as well as collaboration across counselors, community agencies, administrators, and teachers to ensure replication and follow through with behavioral and academic interventions (Fishman & Nickerson, 2015; Nickerson & Fishman, 2013), since the open communication across these individuals can ensure for consistency in implementing strategies that can further instill and create success for students. Working with community human services agencies to provide family support mechanisms would support the wraparound approach and provide an effective way to integrate the community and schools, as well as to provide family support groups to help overcome any stigma or cultural adversity to identification. Implementation of multi-level evidence based prevention strategies through a strengths-based approach needs to be in place in practice and in research to address these student risk factors as early as possible (Gilman, Huebner, & Furlong, 2009; Miller & Nickerson, 2007; Fletcher et al., 2002). Because mental health programs that are fully implemented with a more programmatic approach based on theory tend to be more effective in improving student outcomes (Whiston & Quinby, 2009), this needs to be more widely implemented, and greater fidelity of implementation should occur. Most important to implementing programs with high fidelity is to ensure that improvements are made in record keeping and data collection within and across all individuals working with students that may be provided via training or professional development, or even in higher education settings for pre-service educational professionals.

Summary of recommendations for future practice. Findings from this study support the need for long-term participation in a school-based mental health program, especially for older children (e.g. age 12-18), in efforts to reduce risk factors that students have had from a young age. This, in turn, promotes the recommendation for additional funding and continued implementation of early prevention and intervention efforts for young students who exhibit multiple risk factors in order to positively influence social emotional development and educational success from a young age. It is also recommended that disciplinary policies be reconsidered and revised to ensure that there is more time for students in the learning environment. Finally, it is recommended that schools and communities unite to provide strengths-based, multi-level services for students grounded in a wraparound approach that focuses on the needs of each family and student from cradle to career for all at-risk students.

Summary

This study investigated the relationship of an identified disability (IDEA declared vs. non-declared) on success outcomes for students enrolled in a school-based mental health program. Outcome variables included attendance, behavior, and achievement indicators for students who were enrolled in and received intensive school-based counseling.

Analyses indicated that, overall, IDEA declared students had a greater number of absences, and subsequently a fewer number of instructional days than did non-declared students. IDEA declared students had significantly decreased suspensions; non-declared had increased suspensions. Although absences increased and instructional days decreased for both groups of students, a few of the non-declared students had more extreme

changes. In-depth examination of the data showed that non-declared students, in particular Black and Asian students, had the most negative changes.

Student behavior referrals for attendance concerns reflected the attendance indicators; attendance concerns increased for both groups of students. In addition, IDEA students had more documented disruptive incidents than did non-declared at post program; however, non-declared students had more serious incidents of illegal/unethical behavior referrals than did IDEA declared students. Referrals for violent incidents significantly decreased for both groups of students while lack of respect incidents increased, indicating that staff changes in providing preventative strategies and approaches for working with students may have led them to "catch" student behaviors at an earlier phase.

Though limited in analysis, achievement indicators revealed that IDEA declared students tend to have a lower passing rate in both New York State English Language Arts and Mathematics exams than did non-declared students. The majority of students, IDEA declared and non-declared failed at pre and continued to fail at post. The variable of time spent in a program may be a factor that should be taken into consideration when studying achievement.

Findings from this study indicate the need for more research on the relationship of disability status on outcomes for students in school-based mental health counseling programs. This study adds to the limited base of research that has examined outcomes for students with disabilities and students without, and represents some of the first findings in this distinct area. As school-based mental health counseling programs, coupled with strengths-based, multi-level counseling approaches expands across schools, it is

important that we further the research base to determine what differences exist and what ramifications emerge for students based on disability, mental health problem, or ethnicity. The decreased referrals for severe behaviors for all students, the decrease in suspensions for IDEA declared students, and the more extreme cases of negative outcomes for Asian and Black students without a disability found in this study, should be considered as important factors in the continued effort to improve educational success for all students by supporting and promoting positive social emotional development and decreasing student risk factors.

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