2016-03-01

Evaluating the Effects of *Strong Teens* on High School Student Levels of Internalizing Symptoms and Resilience

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A dissertation submitted to the faculty of
Brigham Young University
in partial fulfillment of the requirements for the degree of

Doctor of Philosophy

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March 2016

ABSTRACT

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Many adults suffering from mental health problems often report that the onset of these concerns began in adolescence, highlighting the importance of identifying and treating mental health concerns from an early age. In high schools, some students are identified as having externalizing or internalizing disorders. The majority of these students, especially those with internalizing symptoms, go untreated. One potential reason may be that limited school resources are used to correct behavior problems, leaving those with internalizing disorders to silently suffer, which often exacerbates the issues. Recent research suggests many individuals have high levels of resilience which can be taught, and which positively contributes to mental health. Social emotional learning (SEL) is one approach to teaching resilience. In this study we implemented an SEL program called *Strong Teens* at the high school level. The high school identified students with internalizing symptoms and provided them with this curriculum, intended to reduce those symptoms. We used a time series design to evaluate changes in internalizing symptoms (e.g., depression, anxiety, and withdrawal) and resilience. Results indicated that with the implementation of the *Strong Teens* curriculum, student levels of internalizing symptoms decreased from pretest to posttest, according to self-report. Teacher reports did not indicate any significant change in internalizing symptoms or resilience. This study supports the findings of the *Strong Teens* curriculum as a generalizable program which significantly reduces internalizing symptoms.

Keywords: internalizing symptoms, resilience, *Strong Teens*, high school

ACKNOWLEDGEMENTS

As I am nearing the conclusion of my dissertation research, I want to extend heart-felt gratitude to the many wonderful people who have offered support, advisement, encouragement, resources, time, and energy to this project. Without these strong contributions, this project would not have been possible.

From the beginning of this project, Dr. Paul Caldarella has supported me and pushed me. I initially became interested in this project when Paul presented his work during one of my other courses. His infectious energy, excitement, and passion for working with school populations deeply connected with me. I cannot thank him enough for the positive encouragement that he gave me while I stumbled up the learning curve of a doctoral dissertation. His support, editing, counsel, encouragement, and professionalism have truly been instrumental.

I also want to acknowledge the incredible efforts of the Timpview High School personnel, who spent months organizing, planning, and running the *Strong Teens* program in their school. Dr. Todd McKee, the principal at Timpview, met with us regularly for over a year in order to design and carry out this study and help the students of his school. His willingness to explore helpful resources and courageously adopt the *Strong Teens* program into his school created an incredible working environment. Lori Rich, a counselor at Timpview, spent countless hours as a liaison between the school and the researchers. Her love for the students and her intense competence was obvious as she individually met with each student before the study, coordinated the teaching efforts, gathered data throughout the study, and tied up all of the study's odds and ends. Lori's efforts were pivotal in the completion of this study.

I want to thank the teachers, school counselors, social workers, and students at Timpview High School, who each had a part to play in this study. I hope that this experience offered helpful

resources, skills, and experiences that will benefit each of these individuals in their various capacities. I also want to thank the members of my dissertation committee who have offered their time and energy towards this project. By offering their feedback and support, they have helped me work towards competence and professionalism.

Finally, I want to thank my sweet and supportive wife who helped me push through and complete this project. When the work seemed overwhelming, she was always there to help me take the next step.

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Chapter One:

Introduction

For many students, high school can be a positive experience, where strong friendships are made, goals can be pursued, and where the last years of adolescence are lived out. However, for many in this age group, these high school years can be very difficult. While some students seem to have many positive mental health factors, there are many adolescent individuals who, along with their academic demands, have a number of negative mental health factors that affect both their academic success and their social and emotional abilities. Some negative mental health factors that adolescent individuals may experience include poverty, neglect, abuse, family discord, frequent relocation, and parental psychopathology (Doll & Lyon, 1998). Doll and Lyon (1998) continue by saying that children who are exposed to risk factors such as these are often "unable as adults to earn a living, form healthy families, or contribute in useful ways to their communities (p. 348)."

Many of the mental health problems with which individuals struggle throughout their lives begin in adolescence and early adulthood (McGorry, Purcell, Goldstone, & Amminger, 2011). The Centers for Disease Control and Prevention (CDC; 2013) report that between 13–20% of youth experience serious mental health concerns and research regarding mental health concerns among youth in the United States shows that the incidence of these issues over the last 25 years is increasing (Collishaw, Maughan, Goodman, & Pickles, 2004). To examine the lasting impact of developing mental health disorders during adolescence, Kessler et al. (1997) studied the prevalence of mental health disorders among adults. Data from the National Comorbidity Survey (NCS) of mental illness indicated that about one in four adults had a mental disorder in the 12 months leading to the administration of the survey. This statistic increased to about one in three eight years later in a repeated survey (Kessler, Chiu, Demler, & Walters, 2005). This

indicates that the prevalence of reported mental health disorders is increasing for this population. Data collected from these and other surveys revealed that approximately half of all the adults with mental disorders reported that the onset of these disorders occurred during adolescence (Kessler et al., 2005).

O'Connell, Boat, and Warner (2009) noted that mental, emotional, and behavioral disorders in young people are a public health concern for several reasons. First, these disorders cause distress to individuals suffering from these mental disorders, as well their families. Second, these disorders limit the ability of youth to reach typical goals for social and educational achievement (e.g., positive relationships, successful academic performance; Zins, 2004). Third, they increase the risk of further psychopathology, functional impairment, and suboptimal functioning later in life. Finally, they impose heavy costs to society because: (a) the resultant need for extra care, (b) the social disruption that they can cause, and (c) the risk that affected young people will underperform as adults in regard to becoming self-sustaining and contributing members of society. The Centers for Disease Control and Prevention (2013) estimates the cost of mental disorders among youth at $247 billion each year. As the incidence of mental health issues continues to increase among children and adolescents, the cost for addressing these concerns will likely continue to rise.

The effects of increased mental health concerns among adolescents are clearly a national concern, but also a concern for public high schools, private schools, and other organizations charged with helping adolescents make the transition to becoming functional adults. The public health costs associated with neglecting adolescents' emotional needs constitutes a need to identify adolescents who are struggling with mental disorders, or who are at risk for a mental disorder at a young age, and provide effective treatment and useful resources that can reduce the

number of individuals who continue into adulthood untreated. One program that has shown promise in helping address issues related to adolescent mental health is *Strong Teens* (Merrell, Carrizales, Feuerborn, Gueldner, & Tran, 2007). This SEL curriculum may be particularly beneficial because of its ability to be implemented with few demands on school personnel (e.g., time, money), while still showing evidence of positive social and emotional results (see Chapter 2).

Research Purpose

The purpose of this present study was to evaluate the effectiveness of the *Strong Teens* SEL curriculum among adolescent students with increased levels of internalizing symptoms in a high school setting. In this study, the *Strong Teens* curriculum was administered as a specific (Tier 2) intervention to 28 adolescents once a week. The study evaluated the effectiveness of the *Strong Teens* curriculum through a time-series design. The goal of this study was to address the following research questions:

1. Does the implementation of the *Strong Teens* SEL curriculum decrease internalizing symptoms in adolescent students in a high school setting, as measured by teacher and student ratings?
2. Does the implementation of the *Strong Teens* SEL curriculum increase social-emotional resilience in adolescents with internalizing symptoms in a high school setting, as measured by teacher and student ratings?
3. Are teachers able to implement the *Strong Teens* curriculum with fidelity?
4. Do teachers perceive the implementation of *Strong Teens* as socially valid for adolescent students with internalizing symptoms in high school settings?

5. Do high school students with internalizing symptoms perceive the implementation of *Strong Teens* as socially valid?

Chapter Two:

Literature Review

Mental Health Risk Factors

Many risk factors combine to negatively affect adolescent mental health. Aneshensel and Sucoff (1996) studied neighborhoods differing in socio-economic status, education level, race, and ethnicity. They concluded that areas of concentrated poverty foster social isolation which, in turn, fosters higher school attrition rates, adolescent pregnancy and childbearing, and other factors (e.g., high drug presence, graffiti) that can negatively affect adolescent mental health. Risk factors contributing to decreased family cohesion (e.g., inconsistent parent work hours, limited time spent with children, less parental support) also negatively affect mental health (Dockery, Li, & Kendall, 2009; Zimmerman, Ramirez-Valles, Zapert, & Maton, 2000). In addition, stress, including posttraumatic stress disorder, post-resettlement stressors, and acculturative stressors have been shown to negatively affect adolescent mental health (Ellis, MacDonald, Lincoln, & Cabral, 2008). These, and other, external factors play a role in the development of mental disorders, while internal, biological factors also contribute to the development of mental health concerns.

Adolescents experience dramatic developmental changes physically, socially, and cognitively during puberty, in addition to increased time spent with peers, novel school environments, and new social hierarchies (Collins & Laursen, 2004; Susman & Rogol, 2004; Young, Caldarella, Richardson, & Young, 2012). Because these developmental changes are often difficult for adolescents to traverse, scholars have established that adolescence is often a period where mental health concerns become more prevalent (McGorry et al., 2011). Mental health challenges are especially prevalent in females, who show higher levels of internalizing symptoms throughout adolescence (Loeber, Burke, Lahey, Winters, & Zera, 2000). By

identifying contributing factors of adolescent mental health issues, researchers, psychologists, school counselors and others can develop appropriate interventions to help prevent and treat such concerns. For the purposes of this study, we will be primarily examining how these risk factors manifest themselves in high school settings and how educators can address these issues using preventative measures to promote resilience, rather than solely relying on reactionary interventions (e.g., disciplinary office referrals, punitive discipline strategies implemented in the classroom).

Resilience

In addition to addressing risk factors that affect adolescent mental health, it is also important to highlight factors, such as resilience, that contribute positively to adolescent functioning. Research examining the construct of resilience began in the 1970's as researchers studied mental health concerns such as schizophrenia, autism, and developmental issues (e.g., premature birth or trauma) and noticed the variations in mental health among individuals with common risk factors. The construct of resiliency became an interest for researchers as instances of unexpectedly positive adaptation or recovery were shown to be present in youth after they experienced various mental health risk factors (Masten, 2007). While various operational definitions have emerged in recent decades which attempt to conceptualize this phenomenon, recent research defines resilience as reduced vulnerability to environmental risk experiences, the overcoming of a stress or adversity, or a relatively good outcome despite risk experiences (Rutter, 2012). Others define it as, "the capacity of a dynamic system to withstand or recover from significant threats to its stability, viability or development" (Masten, 2011, p. 494). Rutter (2012) claims that resilience is an interactive concept that has to be inferred from individual variations in outcomes among individuals who have experienced major stress or adversity. The

discovery of this positive mental health factor has led to continued research into what facilitates resilience. The research on resilience, and the factors promoting resiliency, is particularly relevant to this present study as we seek to examine the efficacy of a preventive intervention. Preventative measures may assist in developing resiliency among teenagers, which in turn may reduce the prevalence of mental health concerns among this age group. Resilience development may be especially beneficial for adolescents with elevated levels of internalizing symptoms, as adolescents with internalizing symptoms may not always actively seek out assistance.

Current findings have identified several factors that increase resilience. After conducting extensive research on the concept of resilience, Alvord and Grados (2005) highlight six protective factors that are shown to enhance resilience among children: (a) proactive orientation, or having a realistic positive sense of self, (b) self-regulation, (c) proactive parenting, (d) healthy connections and attachments with family and friends, (e) achievement and involvement in school, including developing special talents, and (f) community involvement and support (e.g. adult role models, teams, religious and spiritual organizations). Other research has found that implementing stress-prevention and stress-management interventions among college students promoted resilience and reduced psychological symptoms, including depression, negative affect, and perceived stress (Steinhardt & Dolbier, 2008). These results indicate that implementing programs designed to increase resilience may be a practical way that psychologists, researchers, and educators can facilitate resilience among at risk populations, thus improving their abilities to cope with other negative stressors in their lives.

Mental health professionals in a variety of settings have addressed resilience and mental health concerns, using different approaches, based on the needs of their setting. Treatments to

help adolescents address their mental health concerns have developed primarily from two models: the medical model and the educational model.

Medical Model and Educational Model

In the medical model, successful treatment of mental health concerns is based on the reduction or elimination of an underlying disorder with the goal to achieve mental health (Antaramian, Huebner, Hills, & Valois, 2010; Merrell & Gueldner, 2010). In other words, individuals are diagnosed with a specific disorder based on the presence of certain symptoms. If, through interventions (e.g., pharmaceutical drugs, therapies), these symptoms are reduced or eliminated, then the individual's treatment is considered successful.

However, Belfer (2008) argued that one of the many challenges facing researchers is the inadequacy of diagnostic generalizations to adolescent populations. He claims that there is a failure to appreciate that diagnostic categories are constructs derived from the informed opinion of clinicians and researchers. These categories lack the integration of meaningful cultural perspectives and, for children, do not adequately consider a host of developmental issues. Others note that one result of the division of psychopathology, using the medical model, has been comorbidity, or the manifestation of two or more disorders or syndromes in an individual (Seligman & Ollendick, 1998). Comorbidity is highly prevalent in youth (Biederman, Newcorn, & Sprich, 1991; Merikangas, et al., 2010), suggesting that the current diagnostic systems may not accurately reflect how the various disorders realistically present in adolescents. In fact, comorbidity seems to be the rule rather than exception. The literature is rich with studies indicating the comorbid relationships between ADHD, conduct disorder, oppositional defiant disorder, learning difficulties, mood disorders, depressive symptoms, and anxiety disorders (Klassen, Katzman, & Chokka, 2010; Rutherford, Quinn, & Mathur, 2004). This suggests that

the medical model may not offer an accurate representation of mental illness and, while it may be helpful for treating specific symptoms, it does not necessarily treat underlying issues.

In contrast to the medical model, schools typically implement an educational model as the driving system for treating mental health concerns among adolescents. The educational model is concerned more with how youth function, externally and internally, particularly in the school setting (Anderson, Houser, & Howland, 2010). This emphasis is reflected in the model's classification of Emotional and Behavioral Disorders (EBD). An EBD is a condition exhibiting one or more of the following characteristics over a long period of time and to a marked degree that adversely affects educational performance: (a) an inability to learn that cannot be explained by intellectual, sensory, or health factors; (b) and inability to build or maintain satisfactory interpersonal relationships with peers and teachers; (c) inappropriate types of behavior or feelings under normal circumstances; (d) a general pervasive mood of unhappiness or depression; or (e) a tendency to develop physical symptoms or fears associated with personal or school problems (Wehby, Lane, & Falk, 2003). Using the educational model, adolescents with mental health concerns would be diagnosed with an EBD, thus providing them with access to help and resources aimed at helping them improve their functioning within the school system.

While the educational model appears to be a more pragmatic approach to adolescent mental health, this system too has limitations. Only about 1% of students are diagnosed with EBD, while research shows that 13-20% of students are suffering from serious mental health issues (CDC, 2013). This discrepancy suggests that a large number of students with mental health issues are not receiving any additional help from their school. The societal consequences of adolescents not receiving treatment are far reaching, as research has suggested that those with EBD who do not receive adequate treatment are not only at risk for school failure, but also at

increased risk for serious health problems and behavioral issues later in life, including substance abuse, truancy, delinquency, and adult crime (McLeod, Horwood, & Fergusson, 2016; Riosa, Preyde, & Porto, 2015; Robins & Ratcliff, 1978-1979; Wagner, 1995).

Wagner and colleagues (2005) evaluated the outcomes for students diagnosed with EBD. They found that 51% of these students drop out of school, which is the highest dropout rate for any disability category. This population also has lower grades and fails more classes that any other disability group. In addition, there is a disproportionate representation of EBD among children of color. This disproportion among children of color may be influenced by an educational system that has been, historically, influenced by societal trends such as racism, segregation, and ethnocentrism (Blanchett, 2006; Cochran-Smith, 2000). Another factor may be academic tracking in school, which may create deficit-oriented, victim blaming approaches to service delivery and may lead to the stigmatization of individuals who are poor, have mental illnesses, or are parents of children with EBD (Rutherford et al., 2004). Such problems demand the implementation of improved screening methods, since the current methods are not identifying the large majority of individuals who are at risk. In addition, the development and application of more evidence-based programs may help schools comprehensively address student mental health issues as well as address the complex and varying needs of students with or at risk for EBD. Some of these varying needs are evident in the behavior of students with internalizing or externalizing disorders.

Internalizing and Externalizing Disorders

Researchers organize EBD into the two broad categories of externalizing disorders and internalizing disorders. Adolescents who have externalizing disorders are considered to be at increased risk for aggressive behavior, including being in a physical fight, carrying a weapon to

school, or exhibiting other aggressive or violent behaviors (O'Connell, Boat, & Warner, 2009). Externalizing problems are characterized by behaviors that are harmful and disruptive to others (Zahn–Waxler, Klimes–Dougan, & Slattery, 2000). A few common externalizing disorders include Conduct Disorder, Oppositional Defiant Disorder (ODD), and Attention-Deficit/Hyperactivity Disorder (ADHD). ODD is characterized by repeated patterns of negative, defiant, disobedient, and hostile behavior towards adults (Loeber et al., 2000). Characteristics that are often seen in adolescents with conduct disorders include aggression (e.g., bullying, threatening, intimidating others, physical fights, using a weapon, being physically cruel to people or animals), destruction of property, deceitfulness, theft, serious violation of rules (e.g., running away) (Loeber, et al., 2000). Finally, adolescents with ADHD are functionally described as inattentive, impulsive, and hyperactive (Whalen & Henker, 1998). In the school setting, each of these disorders can be disruptive or harmful to classmates, teachers, and students themselves. Disruption by youth with these types of behavior patterns often create immediate classroom issues that need to be resolved, thus directing much of the valuable time and resources of school counselors, social workers, educators and administrators towards reacting to these incidents.

In contrast, internalizing disorders are characterized by the propensity to express distress inwardly or privately. Common internalizing disorders include mood disorders (e.g., Major Depressive Disorder and Persistent Depressive Disorder/Dysthymia) and anxiety disorders (e.g., Generalized Anxiety Disorder, Separation Anxiety Disorder, phobias, Obsessive-Compulsive Disorder; Cosgrove et al., 2011). Adolescent internalizing disorders are associated with a range of psychosocial difficulties. Several of the common symptoms of internalizing disorder include impaired personal relationships, poor school performance, and lower global functioning (Natarajan, 2013). In addition, adolescents with internalizing disorders have been linked to more

serious symptomatic behaviors that are often associated with emotional disturbances. Specifically, adolescents with internalizing disorders display increased substance abuse and suicidal behavior (Colman, Wadsworth, Croudace, & Jones, 2007). Merrell and Gueldner (2010) stated that internalizing disorders may occur when individuals attempt to control or regulate their internal emotional and cognitive states in a manner that is maladaptive or otherwise ineffective. School leaders can, therefore, help those with internalizing disorders by implementing programs focused on addressing these maladaptive thought patterns and teaching social and emotional skills, helping students to reduce their internalizing symptoms and develop skills that promote positive social and emotional skills, such as resilience.

Addressing EBD in Schools

In order to help students improve their academic functioning, schools often focus their attention and resources on student behavior that directly influence school functioning (Connor, 1994). However, this often leaves important issues such as emotional and social concerns to be dealt with by families, school counselors, or psychologists, rather than being addressed in classrooms. In many secondary schools, mental health professionals (e.g., school counselors, school psychologists, social workers) do not have enough time to individually address all of the emotional concerns of students. Instead, these individuals primarily respond to the behavior of individuals with externalizing disorders, because the very nature of these disorders are disruptive to school functioning and must be addressed (Gresham & Kern, 2004). Research shows that schools often use external, punitive, and temporary consequences in response to problematic behaviors, such as suspensions, expulsions, and even transfers to specialized schools (Osher, Bear, Sprague, & Doyle, 2010). Youth who direct negative behaviors at teachers, students, property, etc., are often given office disciplinary referrals (ODRs). The negative behavior, which

is consistent with externalizing disorders, includes aggression, violence, classroom disruption, vandalism, defiant behavior, etc. When these instances occur, school counselors and administration need to react to the situation and correct disruptive behavior, temporarily responding to the needs of those with externalizing disorders. While these responses may promote temporary compliance, they do not provide long-term solutions. Unfortunately, while schools are addressing the needs of these externalizing students, students with internalizing disorders are silently suffering.

Over the last several decades, there have been many far-reaching national education policies that have been passed in congress, including No Child Left Behind (NCLB), calling for increased accountability for student academic performance. These, and other policies, have resulted in school administrators focusing primarily on students' academic achievements, leaving issues of mental health and social and emotional wellness to become secondary or afterthoughts (Merrell et al., 2010). Merrell and Gueldner (2010) argued that while efforts to implement school programs aimed at addressing emotional issues may seem to take the focus away from academics, research shows that these type of programs can, and often do, have a positive effect on academic performance (e.g., Durlak et al., 2011; Owens, Stevenson, Hadwin, & Norgate, 2012). They continued by stating that there is a need for consistent and ever-evolving preventative programs, which include those focused on social and emotional learning. Students come to school to learn about science, mathematics, languages, etc., but there is very little explicit teaching about emotional regulation, social dynamics, or basic mental health concerns. It may not be that the lack of education in these areas is a direct result of national policies like NCLB, but these policies do put added pressure on educators to focus their time and attention on academic achievement.

Despite the ever-increasing pressure to produce positive academic results, many schools have started to implement programs focused on classroom, behavioral, and social-emotional changes in an attempt to improve students' long-term mental health and positive school functioning (Osher et al., 2010). This has led to the emergence of additional systems, programs, and interventions aimed at addressing the needs of those with both externalizing and internalizing disorders. Two approaches that are proving effective and gaining more popularity are school-wide positive behavior support (SWPBS) and social emotional learning (SEL).

SWPBS and SEL

Turnbull and colleagues (2002) stated that the purpose of SWPBS is to create school environments that focus on preventing and reducing disruptive or inappropriate behavior while promoting and supporting academic achievement and prosocial development for all students. SWPBS systems teach rules and expectations to students and reinforce students for following them (Osher et al., 2010). This approach provides a framework that was developed using research and integration from the fields of applied behavior analysis, special education, and school psychology. The aims of SWPBS are to develop positive interventions based in environmental support systems to serve all students in a school (Young et al., 2012). These SWPBS programs focus on the external behavior of students and work to improve it, assuming that it will correct maladaptive internal functioning and mental health concerns as well. However, there may be additional help needed, which focuses primarily on the internal functioning, as Merrell (2010) stated, "An emerging area where there is a significant opportunity to link prevention science to school-based interventions is social and emotional learning" (p. 55).

SEL programs are designed to address the social and emotional needs of students. "Essentially, SEL is how we learn the basic skills needed to work effectively with other people,

manage our own emotional concerns, and be effective in our lives" (Merrell, 2010, p. 55). SEL programs do not supersede SWPBS programs, nor are they a subcategory. These two types of programs are aimed at different aspects of student functioning. SWPBS programs are focused on managing student behavior, while SEL programs help develop student assets that foster self-discipline and emotional awareness (Osher et al., 2010). This may create a positive reciprocal effect when both of these systems are used together. SEL programs help treat students with EBDs by helping them learn how to understand emotional responses, modify their thought processes, and solve day-to-day problems in the context of positive discipline management (Merrell et al., 2010). According to Merrell and Gueldner (2010), SEL programs are not stand-alone programs, but rather one of four essential components for effective approaches to adolescent mental health in schools: (a) SEL, (b) SWPBS, (c) effective academic instruction, and (d) a caring and nurturing school environment.

SEL programs are designed to be preventative in nature, meaning that students may avoid developing mental health issues by learning and applying the skills taught, thereby fostering resilience. SEL programs teach children and adolescents social and emotional skills and provide insight into their emotional needs (Merrell et al., 2010). SEL is a framework aimed at supporting the positive social, emotional, and academic development of children and adolescents in school settings. The areas of focus for SEL are social competency training, positive youth development, violence prevention, primary prevention, and the promotion of mental health (McKown, Gumbiner, Russo, & Lipton, 2009; Weissberg & O'Brien, 2004). It is important for schools to be aware of the social and emotional needs of their students and implement programs, including SEL, aimed at addressing the needs of their students. The benefits of implementing an SEL program within the framework of a PBS model, has potential to assist children socially,

behaviorally, emotionally, and academically. These results would be beneficial for students and school administrators, particularly when paired with school-wide screening. SWPBS and SEL programs have historically been implemented using the framework of the three-tier approach.

Three-Tier Approach

Many educators are using SWPBS and SEL programs with a three-tier approach to identify and meet the needs of students (Kalberg, Lane, & Menzies, 2010). This allows educators to implement prevention plans or interventions that can be adapted to meet individual student needs (Benedict, Horner, & Squires, 2007; Betters-Bubon, 2013; Young et al., 2012). This comprehensive approach can provide a range of services so that students with varied needs can be given appropriate interventions that are most effective for them.

The three-tier approach works from the empirically supported assumption that about 80-90% of students will respond to generalized interventions (Tier 1). Approximately 15% of students who do not respond to generalized interventions will require additional support (Tier 2). The remaining students who do not respond to either Tier 1 or Tier 2 interventions will require more intense, longer, and more individualized interventions (Tier 3). Young et al., (2012) remind educators that developing a tiered approach that provides a continuum of services is not a simple, straightforward task. Rather, it requires ongoing collaboration and team effort to plan and coordinate services. These tiers are not isolated programs, but rather permeable levels that students will move through as interventions are adapted to meet their changing needs.

Tier 1. Tier 1 interventions are sometimes called universal interventions or primary prevention (Young et al., 2012). These interventions include effective core curricular strategies, which focus on preventing problems before they occur. Any intervention that targets entire

school populations is considered a Tier 1 intervention. Also, there are no student eligibility requirements or selection criteria.

There are many goals that a school may have when implementing a Tier 1 intervention, such as creating positive, clear, and specific behavioral expectations for an entire school. Students who work to meet high behavioral expectations are less likely to exhibit inappropriate behaviors and know what behavior is expected of them (Young et al., 2012). When setting expectations for students, it is important to make these expectations explicit. Many educators assume that students will naturally or intuitively know what is expected of them, but it is important to clearly teach the behaviors that are expected and then to consistently reinforce them. Consistency can be facilitated by posting rules in classrooms or throughout the school as reminders for both teachers and students. In addition, it is essential to reinforce students who meet established expectations. Students who manage their own behavior by making appropriate corrections can be considered as functioning within a Tier 1 level (Young et al., 2012).

Goals and aims of Tier 1 interventions can also address issues such as suicide prevention, school-wide social skill instruction, or cohort and grade specific curriculum to address more specific needs. Other goals can consist of making the school an effective, proactive, caring environment. School educators can discuss the specific needs of their school and establish Tier 1 interventions, focusing on prevention and early intervention.

Tier 2. While Tier 1 interventions tend to address the needs of the majority of a student population, about 15% of students may not respond to these generalized interventions (Merrell et al., 2010). This population may require Tier 2 interventions, which are more intensive and individualized interventions for individuals with heightened levels of social-emotional risk, or who show early warning signs of mental health concerns (Merrell et al., 2010; Young et al.,

2012). Tier 2 interventions go beyond those of Tier 1 interventions, in that they do not solely focus on prevention and early intervention. Rather, Tier 2 interventions are targeted specifically at a small percentage of the student body that exhibit inappropriate school behavior (Young et al., 2012). This behavior could include disruptive behavior, noncompliance, persistent anxiety or depression, or talking out of turn. Students who exhibit these behaviors and require a teacher or administrator to help manage their behavior, as opposed to demonstrating appropriate self-corrective behavior, need Tier 2, or Tier 3 supports (Young et al., 2012).

Tier 2 interventions can be administered to students in small group settings (Merrell et al., 2010), as well as part of classroom curriculum (Young, et al., 2012). These settings have been shown to help address the needs of individuals with similar risk factors in preventing the onset of emotional or behavioral disorders. Merrell and Gueldner (2010) suggest several strategies for assisting students at Tier 2. These include (a) providing additional opportunities for practice of newly acquired skills, (b) providing additional opportunities to "show off" newly mastered skills in typical school settings, (c) giving immediate feedback on skill and concept acquisition, (d) providing higher levels of reinforcement for demonstrating appropriate skills, and (e) increasing the amount of prompting or reminding for when to use skills. Others suggestions for what to focus on in Tier 2 include (a) social skills instruction, (b) goal setting, (c) social and emotional learning, (d) service learning, (e) mentoring, and (f) administrator teaching in response to office referrals (Young et al., 2010). Appropriate settings for Tier 2 interventions, as well as specific goals, should be planned, implemented, and regularly evaluated by teams of educators.

Tier 3. When efforts at the Tier 1 and Tier 2 levels prove insufficient for students, Tier 3, or individual interventions, may be necessary. Students who require Tier 3 interventions

generally demonstrate persistent externalizing or internalizing behaviors. Tier 3 interventions primarily differ from Tier 2 interventions in the intensity of the services that are required and the need for these students to receive individual interventions, rather than small-group interventions. This may be especially necessary in instances of severe learning or behavioral deficits. The primary goal of Tier 3 interventions is to help students move towards Tier 2 or even Tier 1 interventions. However, students may need long-term interventions at Tier 3, and in some extreme instances, students may require services outside of the school setting to address mental health concerns (Young et al., 2010).

Screening

Successful implementation of SWPBS and SEL programs in schools requires effective universal screening measures to identify at risk students (Young et al., 2012). Without adequate screening methods and measures, school administrators may not be able to accurately identify and assess the needs of their students. This results in many students silently enduring mental health disorders throughout school without ever getting diagnosed with EBD. Universal screening tools are important, because they assist educators in proactively identifying students with mental health concerns and behavior problems. This, in turn, allows educators to provide appropriate interventions and teach adaptive behaviors before problematic behaviors get worse and become ingrained in these individuals (Forness et al., 2000). Early screening helps identify mental health concerns in adolescents, which can be used to develop interventions, preventing these students from developing serious disorders later in life (Forness et al., 2000; Young, et al. 2012).

Screening would seem to be especially critical when looking for students with internalizing disorders, because the nature of the disorder is not usually disruptive to school

functioning, thus making internalizing disorders easy to overlook. However, it stands to reason that by having parents, teachers, and students complete screening measures, many of these disorders may become apparent and appropriate help can be provided.

School-wide programs that seek to target students with EBD and provide appropriate interventions or programs need an effective way to screen for these students. Effective screening helps to identify and address potential issues before they become so extensive and maladaptive that they are difficult and expensive to remediate (Young et al., 2012). Since many adolescents have high levels of comorbidity, it is important to use appropriate screening tools to correctly identify the needs of these individuals.

The three-tier system, which is used in SWPBS to help screen and meet the needs of students with mental health concerns, gives educators a framework that can assist them in decision-making. Research suggests that school-wide, systematic screening procedures should be done at least annually to increase the chances of identifying those with internalizing and externalizing symptoms (Walker, Cheney, Stage, & Blum, 2005). Identifying the mental health needs of the student population in a school can be difficult, especially if decisions about where to allocate resources is based primarily on student academic performance or ODR's. Rather than relying exclusively on these sources of information, educators can use proactive screeners to identify students with less overt risk factors, such as social withdrawal, anxiety, depression, and other internalizing symptoms. Proactive screeners can be completed by administrators, teachers, parents, and students. Using multiple screeners to assess student functioning would improve the chances of finding students with internalizing symptoms and other mental health concerns. With this additional information, educators can make decisions more effectively and comprehensively.

In this study, we used the three-tiered approach to guide our research. Screening with this three-tiered framework can help educators know how to present the SEL programs to the different groups of students based on their various needs. The SEL program that evaluated in this study is called *Strong Teens* and was implemented at a Tier 2 level.

Strong Teens

Strong Teens (Merrell et al., 2007) is a social and emotional learning curriculum, which targets individuals between ages 14-18. It is a 12-lesson program intended for use with high school students—those in Grades 9–12 (Merrell, 2010). Strong Teens aims to increase resilience in students by fostering social and emotional competence. Additionally, this curriculum is focused on teaching students social and emotional skills that can help them manage the complexity of a changing biology, new academic demands (e.g., increased pressure on homework and grades, post-high school education planning), and an increasingly complicated social world (Merrell et al., 2007). Adolescents with internalizing symptoms and emotional distress may be particularly benefited by the social and emotional skills found within the *Strong Teens* curriculum.

Each of the 12 lessons takes approximately 50 minutes to teach. The program is designed to take 12 weeks, which allows one lesson to be taught each week. It is not intended as a comprehensive program for behavior support. Rather, it was designed to enhance and support academic skills, as well as work seamlessly within an established instructional program (Merrell et al., 2007). *Strong Teens* is best implemented at the universal level (Tier 1) and the selected level (Tier 2). The use of the *Strong Teens* program is not intended to as an appropriate, stand-alone intervention for all high-risk students. Rather, this program's use, with the indicated populations, should be only in adjunct with a comprehensive treatment program (Merrell, 2010).

This program helps teach skills that address the five pathways to wellness, which include: 1) forming wholesome early attachments, 2) acquiring age-appropriate competencies, 3) having exposure to settings that favor wellness outcomes, 4) having the empowering sense of being in control of one's fate, and 5) coping effectively with stress. Each of these pathways can help students to prevent the development of certain mental health issues as well as promote social and emotional wellness and resilience (Cowen, 1994; Merrell et al., 2007).

There are many potentially practical and efficacious benefits for using *Strong Teens*. For instance, *Strong Teens* is a low-cost, low-technology program, which requires few resources. It can be implemented in a variety of settings within the education system and educators can learn and teach this curriculum without being a licensed mental health professional and with minimal training. It was also developed with time feasibility and ease of implementation as high priorities Additionally, it can be taught in a self-contained manner within a specific environment and does not requires expensive school or community resources, nor does it require heavy parental involvement (Merrell et al., 2007). Another benefit of using the *Strong Teens* curriculum is its clarity regarding treatment fidelity. Each lesson comes with a checklist of important topics to cover, questions to ask, and other details that allow for consistency in the implementation of the program across contexts.

Strong Teens Research

Several studies have been conducted using the various SEL programs created by Dr. Merrell and colleagues (e.g., *Strong Start, Strong Kids, Strong Teens*). However, limited research has been done specifically with high school students. Studies, led by Dr. Merrell, implemented these programs at their respective grade levels. These were conducted at the elementary, junior high, and high school levels, using within groups, pre-post treatment designs. The research

results from these and other studies (Castro-Olivo, 2014; Isava, 2006; Merrell, Juskelis, Tran, & Buchanan, 2008; Olivo, 2007) show that:

> Participation in [these programs] consistently results in significant and meaningful increases in students' knowledge of curriculum-related concepts: emotional knowledge and management strategies, problem-solving skills, coping strategies, self-management skills, cognitive change techniques to enhance optimism and reduce negative thinking errors, and the ability to set goals and plan for positive behavior change. (Merrell, 2010, p. 67)

The improvement that is being demonstrated in students with internalizing disorders will help school educators move forward more confidently with *Strong Teens*. However, the study in high school used a limited sample of 14 students (Merrell, Juskelis, Tran, & Buchanan, 2008). While the study's results showed statistically significant improvement for student with internalizing symptoms, there is still a need for more research to be done in additional high schools with larger sample sizes.

Other studies that have been conducted using the *Strong Teens* program include a culturally adapted implementation called *Jóvenes Fuertes,* measuring social-emotional outcomes as well as academic outcomes for Latino immigrant adolescents (Olivo, 2007). Outcomes from this study showed increases in students' knowledge of healthy social–emotional behavior, effective cultural and linguistic adaptation for Latino students, and a potential preventive effect on reducing acculturative stress and increasing sense of school belonging (Merrell, 2010; Olivo, 2007). It is valuable to have a curriculum that is flexible enough to benefit students from a variety of racial, cultural, or family backgrounds.

Another study using *Strong Teens* was conducted in a residential treatment facility (Isava, 2006). This study used a treatment–control group design, teaching the curriculum to adolescents with severe social-emotional concerns. This study found increases in students' knowledge of healthy social–emotional behavior, reductions in self-reported internalizing symptoms, increases in teacher-reported social competence, strong treatment fidelity, strong social validity, and increases in parent-reported social competence (Isava, 2006; Merrell, 2010). Clearly, research continues to show the effectiveness of *Strong Teen* across a number of contexts. As more research is conducted, it will be important to explore an increased variety of contexts, as well as get more specificity from the data by repeating studies or improving past studies.

One area of weakness in the literature is the effect of *Strong Teens* when implemented with public high school populations. While preliminary research has been done in the area, there is a need for additional studies. Merrell, et al., (2008) used a sample size of 14 high school aged students and other studies have tested the effectiveness of *Strong Teens* in other settings (Isava, 2006; Olivo, 2007). However, a study of the *Strong Teens* curriculum, as a Tier 2 intervention within the context of a public high school, with a larger sample size is needed. This present study is intended to examine the efficacy of the Strong Teens curriculum when implemented by school personnel as a Tier 2 intervention within the context of a public high school.

Chapter Three:

Methods

Setting

The school that served as the site for this study was located in Provo, Utah. School staff adopted the *Strong Teens* program for their school and decided to implement the program at the Tier 2 level, which would provide students with additional resources, compared to generalized interventions. In addition, the school decided to take ownership of the following aspects of the study: (a) screening for students with internalizing symptoms, (b) teaching the *Strong Teens* curriculum, (c) obtaining consent from parents and students, (d) and collecting data. The total population of the school was approximately 1,920 students, comprised of Hispanic/Latino (21%), American Indian (1%), Asian/Pacific Islander (6%), Hawaiian Native/Pacific Islander (2%), African American/Black (1%), and White (69%) students. Also, 41% of the students who attend this high school are eligible for a reduced-price lunch program.

Participants

Student screening. The screening process that the school leaders implemented used a multi-step process. During a faculty meeting, all teachers were responsible to complete the first step, which required completing *Stage 1* of the Systematic Screening for Behavior Disorders (SSBD; Walker & Severson, 1992) form. *Stage 1* of the SSBD required teachers to nominate students with internalizing and externalizing behaviors. The SSBD form instructed the teachers to engage in the following steps: (a) carefully study the definitions and examples of externalizing and internalizing behavior concerns that are listed; (b) select an externalizing and an internalizing student group from the students in your classes; (c) rank order each of the students on each of your externalizing and internalizing lists.

The SSBD form defines internalizing behavior as follows: Internalizing refers to all behavior problems that are directed inwardly (i.e., away from the external social environment) and that represent problems with self. Internalizing behavior problems are often self-imposed and frequently involve behavioral deficits and patterns of social avoidance. Non-examples of internalizing behavior problems would be all forms of social behavior that demonstrate social involvement with peers and facilitate normal or expected social development. The form also includes a list of example behaviors that would fit the criteria and another list of example behaviors that would not meet criteria.

The SSBD has been standardized and normed with an elementary population and has shown evidence of concurrent validity of the SSBD *Stage 1* in secondary schools (Caldarella, Young, Richardson, Young, & Young, 2008; Walker & Severson, 1992). SSBD test–retest reliability for *Stage 1* showed rankings of internalizing behavior as .72 and externalizing behavior as .79, while inter-rater agreement (Spearman ρ) on the internalizing and externalizing dimensions of *Stage 1* ranged from .82 to .94 (see Walker & Severson, 1992; see appendix I).

It stands to reason that teachers would be better able to recognize signs of internalizing disorders after having worked with the students for several weeks, thus screening was conducted in the second semester of the school year. After identifying at-risk students, teachers rank ordered the students on the externalizing and internalizing lists, thus completing step one of the screening process.

The second step of the screening process required the use of the Social Skills Improvement System (SSIS; Gresham & Elliott, 2007). The SSIS internalizing subscale is composed of 7-items, while the externalizing subscale is composed of 12-items. All items are based on a four-point Likert scale, which asks the teacher to respond to how true a statement is

of the student (never, seldom, often, always). The items measured various symptoms of internalizing disorders that the teacher perceived in the student (e.g., withdraws from others, gets easily embarrassed, acts lonely, says bad things about self, etc.).

The teachers who listed and rank ordered the students in step one of the screening process then identified the top three students from their lists (most severe) and completed the SSIS internalizing and externalizing sections for each of these students. Each SSIS form required the teacher to answer a total of 19 questions. Students with scores above 13 were considered to have above average levels of internalizing symptoms. Any student found to be at risk for internalizing disorder was offered the opportunity to participate in the study.

Due to the relatively recent development of PBIS and SEL programs, there are no validated screening tools that have been designed specifically for high schools. We consulted with experts in the field to determine whether the outlined screening model would be appropriate for our study and received feedback that this method would be acceptable (H. M. Walker, personal communication, December 05, 2013).

Through this screening process, the school was able to compile a list of all teacher recommendations and deliver this to the school's behavior team. This team made some additional recommendations of students to participate in the study. Parents and students who were not initially identified via screening were informed about the *Strong Teens* program and given the opportunity to participate if the student self-identified as having internalizing concerns. We expected this screening process to identify approximately 100 students and that about 50 would agree to participate in the study, based on screening procedures conducted by the high school during the previous school year. However, only 46 students were identified as meeting criteria for the study. Of these students, 28 consented to participate in the study and continued

until its completion. The other 18 students did not complete the curriculum due to disinterest, family relocation, or lack of parental consent, among other reasons. The demographic information of the participants was as follows: males (54%), females (46%), Caucasian (64%), Hispanic (32%), Asian/Pacific Islander (4%), freshmen (25%), sophomores (37%), juniors (28%), and seniors (10%).

Consent process. Before the identified students took part in the study, the students and their parents were informed that their student had been selected for the study. Parents were contacted by school counselors via phone and email, and asked for their consent regarding whether they would allow their child to be taught the *Strong Teens* curriculum. In addition, the students themselves were individually invited to consult with a school counselor and asked whether they were willing to participate. For students who received parental consent and gave their personal assent, they were selected as research participants and were asked to attend the 50 minute, *Strong Teens* lesson each week.

***Strong Teens* teachers.** The *Strong Teens* teachers were volunteers, consisting of school counselors, social workers, and other personnel. There were five teachers spread out between the three *Strong Teens* classes. The class for seniors and juniors was co-taught by two female school counselors. These teachers would coordinate lesson plans, frequently teaching lessons together, and occasionally teaching individually. The sophomore class was taught by two school social workers. One teacher was a male school counselor, and the other teacher was a female, employed as a social worker within the school. These teachers co-taught the majority of the lessons, but would occasionally teach alone if the other teacher was unable to teach. The freshman class was taught by a male, social worker who was an affiliate of the high school. He was the primary teacher for this class throughout the course.

Independent Variable

The independent variable, *Strong Teens*, is a curriculum that consists of 12 lessons that are designed for maximum impact on cognitive, affective, and social functioning within a relatively brief period of time (Merrell et al., 2007). The 12 lessons found in *Strong Teens* are:

Lesson 1: About *Strong Teens*: Emotional Strength Training – This lesson is a general overview of the individual lesson and the curriculum that will be provided to the students. It sets expectations for both the students and the teachers and teaches critical terms including, *emotion, self-esteem, depression,* and *anxiety*.

Lessons 2 and 3: Understanding your Emotions – These lessons teach emotional vocabulary, awareness, and resilience to students. They are intended to help students identify their own emotions and learn positive ways to respond to them in order to develop positive relationships throughout their lives.

Lesson 4: Dealing with Anger – In this lesson students are taught about the nature of anger and how it affects everybody. Students are taught about negative ways to respond to anger including inappropriate behavior, arguments, fights, depression, and severe frustration. They are also taught steps on how to identify anger and then actively choosing how to respond.

Lesson 5: Understanding Other People's Emotions – This lesson shifts the focus from the students' own emotions to the emotions of other people. By learning to perceive others' emotions accurately, students can more effectively resolve conflict and gain greater insight into their own experiences.

Lessons 6 and 7: Clear Thinking – This lesson teaches students strategies to identify negative and maladaptive thinking patterns and common thinking errors. In addition, it teaches

techniques for dispelling irrational negative thoughts and replacing them with more realistic and constructive cognitions.

Lesson 8: The Power of Positive Thinking – This lesson teaches students more strategies to offset negative thinking styles, and to use an optimistic style of approaching problems. By looking at when, where, or to whom to attribute ownership or blame also encourages students to accept credit for their successes.

Lesson 9: Solving People Problems – In this lesson, students are taught to solve interpersonal problems and deal with conflicts effectively and without violence. While the lesson is predominantly organized to address conflicts with peers, the application of deal-making, compromising, discussion, and brainstorming are presented in other situations as well.

Lesson 10: Letting Go of Stress – This lesson focuses on how to identify stressors. It also teaches students cognitive and behavioral strategies for managing stress, anxiety, and worries. A few relaxation techniques are taught to the students, which have been proven to be effective with many people as well as to generate their own ways of coping with stress.

Lesson 11: Behavior Change: Setting Goals and Staying Active – This lesson teaches students basic steps for setting and achieving realistic goals, and strategies for increasing positive and appropriate activities. Students engaged in positive activities where they contribute and feel a sense of community are less likely to suffer depression or low self-esteem.

Lesson 12: Finishing Up! - The final lesson in the manual is a review of the major concepts in the *Strong Teens* curriculum.

Dependent Variables

There were two measures that were implemented during this study. The SSIS was used to measure internalizing symptoms and the SEARS was used to measure resilience. These measures

were administered multiple times prior to the introduction of the independent variable and multiple times after, in order to observe any changes in these constructs.

SSIS. The Social Skills Improvement System (SSIS) was developed using a social/behavioral theoretical framework. It is a multi-rater measure, which allows teachers, students, and parents to rate students on the frequency or importance of various positive behaviors. In addition, it is designed to assist in the screening and diagnostic classification of students ages 8 – 18 (Gresham & Elliott, 2008). The SSIS includes three domains of student functioning: Social Skills, Problem Behaviors, and Academic Competency. For the purposes and scope of this study, we included only the Internalizing subscale that falls within the domain of Problem Behaviors. For the student forms, raw scores between 1 and 13 are considered to be in the "average" range, while score above 13 are considered "above average" for levels of internalizing symptoms. For the teacher forms, raw scores between 0 – 7 are considered to be in the "average" range, while score above 8 are considered "above average" for levels of internalizing symptoms.

The SSIS developers normed their instrument based on the U.S. population estimates for sex, race/ethnicity, SES, and geographic region (Gresham & Elliot, 2007). Norms for the student form were derived from 800 students (300 students' ages fell between 13-18), and norms for the teacher form came from 950 teachers (200 students' ages fell between 13-18). The content for the internalizing items are based on diagnostic features and criteria specified in the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV-TR; APA, 2000). The internal consistency reliability for the student form (ages 13-18) on the internalizing subscale had an alpha coefficient of .88, while the teacher form had a .90. The test-retest reliability for the student form (ages 8-18) had an alpha coefficient of .67 (.82 for teachers). The internalizing subscale on the student

form had a .88 correlation with Problem Behaviors (.76 for teachers). The convergent validity of the SSIS student internalizing subscale was demonstrated by a .76 correlation to the BASC-2 student Internalizing Problems composite (.62 for teachers).

SEARS. The other form that teachers and students completed was the Social-Emotional Assets and Resilience Scales short forms (SEARS; Merrell, 2011). The SEARS is designed to be a strength-based measurement, assessing for social-emotional competency and resilience in children and adolescents between the ages of 5-18 (Merrell, 2011). The SEARS-A and SEARS-T short forms (ages 13-18) consist of 12 questions, measured on a four-point Likert scale (never, sometimes, often, and always). The teachers are given a statement and are asked to what degree it describes the student (e.g., People think she/he is fun to be with, Is comfortable talking to many different people, Can identify errors in the way he/she thinks about things). Students have similar statements on their forms that they use to rate themselves (e.g., I stay in control when I get angry, I make friends easily, I make good decisions, I know how to identify and change my negative thoughts, etc.). On the SEARS-A short form (student self-report form) the normed data specifies raw scores above 17 as "average to high functioning" levels of resilience. Students with scores at or below 17 are considered "at-risk," while students with scores below 13 are considered to be at "high risk" in terms of resilience. On the SEARS-T short form (teacher-report form) the normed data specifies raw scores above 13 as "average to high functioning" levels of resilience. Students with scores at or below 13 are considered "at-risk," while students with scores below 8 are considered to be at "high risk" in terms of resilience.

Norms for the SEARS-A included 1,727 adolescents (ages 13-18) from across the U.S. with an ethnic/racial distribution of approximately 55% Caucasian, 18% African American, 15% Hispanic, and 12% other. Norms for the SEARS-T included 1,400 teachers from across the U.S.

with an ethnic distribution of approximately 58% Caucasian, 20% African American, 14% Hispanic, and 8% other. The internal consistency reliability of the SEARS-A short form was .82 (.93 for teachers). The test-retest reliability for students was .84 at two-weeks, .81 at four-weeks, and .80 at six-weeks (.90 at two-weeks for teachers). The SEARS-A short form had a .94 correlation with the SEARS-A (.98 for SEARS-T short form with SEARS-T). The convergent validity of the SEARS-A short form with to the Social Skills Rating System was .64 (.79 with the SEARS-T; Merrell, 2011).

Treatment Fidelity and Social Validity

In order to observe the integrity with which the S*trong Teens* program was implemented, a research assistant observed 33% of the *Strong Teens* lessons taught and completed a treatment fidelity checklist (see Appendix A), which was adapted from previous studies of the *Strong Kids* SEL series (e.g., Kramer, Caldarella, Christensen, & Shatzer, 2010; Kramer, Caldarella, Young, Fischer, & Warren, 2014). This research assistant regularly met with the primary researcher to receive training for the *Strong Teens* program and fidelity checklists prior to their observations.

Prior to the implementation of the study, *Strong Teens* teachers were given a 1-hour orientation and training on the program. During this meeting, the teachers became familiar with the different lessons, the lesson outlines, and the course materials. The researchers provided this training to ensure that the *Strong Teens* curriculum was taught with integrity between the various classes. While a more extensive training may have been ideal, it is unlikely that schools implementing this curriculum would get access to such training, therefore it was thought that a brief training would better reflect future training models in public school settings.

At the conclusion of the intervention, students and teachers also completed social validity questionnaires (see Appendix B) regarding their views concerning the use of *Strong Teens* in the

high school setting, as done by other researchers who have examined the *Strong Kids* program (Kramer et al., 2010; Kramer et al., 2014). The social validity questionnaire consists of a 27-item survey where group leaders and students rated the usefulness and effectiveness of the *Strong Teens* curriculum when taught to high school students with increased levels of internalizing symptoms. The ratings were gathered using a five-point Likert scale (strongly disagree, disagree, neutral, agree, and strongly agree). In addition to these questions, there were several open-ended questions that group leaders and students could use to provide feedback regarding the implementation of the curriculum.

Research Design

We conducted the study using a time-series design (Gall, Gall, & Borg, 2007). This was done by measuring internalizing symptoms (SSIS) and resilience (SEARS) at four different times throughout the study. Specifically, we had teachers and students complete measures at: (a) Pretest 1, taken three weeks before the implementation of the program, (b) Pretest 2, taken on the same week that the curriculum began, (c) Posttest 1, taken at the conclusion of the 12-week curriculum, and (d) Posttest 2, taken three weeks after the conclusion of the curriculum.

A time-series design was selected, because of its adaptability to the school's needs. The school agreed to implement the study, but they did not want a control group that did not receive the potential benefits of the curriculum. In addition, the schedule and structures of the school would not allow for the curriculum to be taught multiple times during the school year, ruling out the possibility of a waitlist control design. By using a time-series design, following a single-group model, the participants served as controls against themselves allowing all students to have access to the curriculum in a timely manner.

Gall et al. (2007) noted that studies that cannot use a control group can follow a one-group pretest-posttest design. This would require a single pretest, which measures the dependent variable, the implementation of the intervention, and then a posttest measuring any change in the dependent variable. We added an additional pretest and posttest to strengthen the study and reduce the threats to validity (e.g., history, maturation).

Procedures

This study was conducted in a public high school, where the *Strong Teens* curriculum was offered to students, ages 15-18, with internalizing symptoms. The aforementioned screening process was conducted by the school administrators to identify students with internalizing disorders. All students who were identified were invited to take part in the *Strong Teens* study and participate in the 50 minute lessons that were offered each week. After parents and students were informed about the details of the study and the *Strong Teens* curriculum, their consent and assent were obtained. Through this process, 28 students began and completed the *Strong Teens* curriculum.

Based on the grade level in which students were enrolled in school (Senior/Junior, Sophomores, Freshmen), students were assigned to one of the three classes that were designated for the *Strong Teens* study. Each of the classes consisted of 10-12 students. The groups were each taught by school counselors or social workers from the high school. Prior to implementing the *Strong Teens* curriculum, teachers received instruction on social and emotional learning in general, and received approximately one hour of training, specifically for the *Strong Teens* curriculum. An overview of the lesson topics, format, and instructional methods, were also provided by the researchers. The following figure outlines the timeline for the study:

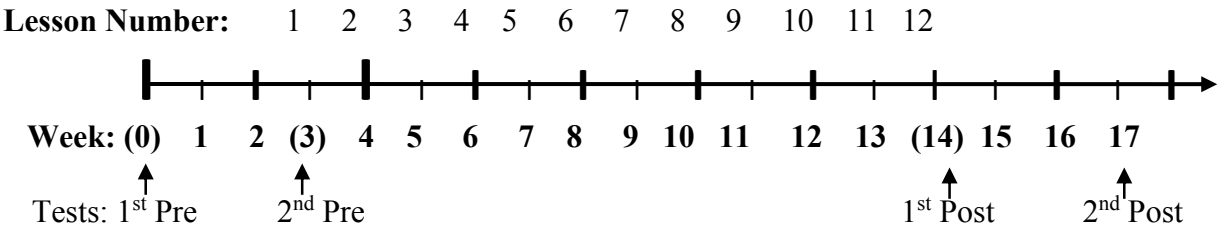

Figure 1. Timeline for study.

Teachers who participated in the study, by rating student participants, were compensated with $20 after the completion of the study. Students who participated in the study received a pizza party for participation in the program after the second post-test.

Data Analysis

The data from the pretests and posttests were analyzed and compared using repeated measures ANOVA statistical techniques. The repeated measures ANOVA analysis was used to compare the within and between group differences among students in regards to each dependent variable at each respective measurement point (Coolidge, 2012). Effect sizes were calculated using Cohen's *d*. The level for statistical significance is set at $p < .05$.

The social validity questionnaires were evaluated through the use of descriptive statistics. The responses were collectively assessed based upon question type, level of agreeability, procedures, and outcomes. Further, responses from teacher open-ended questions were examined qualitatively for common patterns, constructs, and any themes that emerged using an interpretational analysis, which involves segmenting the database, developing categories, coding segments, grouping category segments, and drawing conclusions (Gall, Gall, & Borg, 2007).

Chapter Four:

Results

This study evaluated the effects of a social and emotional learning curriculum, *Strong Teens,* on high school students' levels of internalizing symptoms and resilience. Table 1 contains descriptive data on all measures across pretest and posttest scores. Pairwise comparisons indicated that there were not statistically significant differences found between pretest 1 and pretest 2 on the SSIS from student rating (p = .640) or teacher ratings (p = .679). Similarly, no significant differences were found between pretest 1 and pretest 2 on the SEARS from student ratings (p = .510) or teacher ratings (p = .838). This suggests that student levels of internalizing symptoms and resilience were consistent over time, prior to the start of the *Strong Teens* program. At pretest 1, this sample of students had a mean score of 12 on internalizing symptoms on the SSIS self-rating, indicating that students initially fell on the high end of the average range for levels of internalizing symptoms (1-13 = average), rather than being at-risk for internalizing disorder. At pretest 2, the mean score for these students was 11.96, which was not significantly different from pretest 1. These scores indicate that the students, as a group, had moderate levels of internalizing symptoms before the introduction of the *Strong Teens* curriculum.

Table 1

Means and Standard Deviations across Time and Measures

Pretests:	Time 1		Time 2		Posttests:	Time 3		Time 4	
Measure	*M*	*SD*	*M*	*SD*		*M*	*SD*	*M*	*SD*
SSIS SR	12.00	6.97	11.96	7.02		8.97	6.04	9.48	5.46
SSIS TR	8.55	3.56	7.31	4.26		7.41	4.90	7.21	4.42
SEARS SR	19.26	5.55	19.43	5.50		21.62	5.70	21.45	5.27
SEARS TR	17.55	5.25	16.04	5.70		17.52	7.77	19.03	8.31

Note. SSIS SR = Social Skills Improvement System Student Rating; SSIS TR = Social Skills Improvement System Teacher Rating; SEARS SR = Social-Emotional Assets and Resilience Scale Student Rating; SEARS TR = Social-Emotional Assets and Resilience Scale Teacher Rating.

The first research question evaluated whether the implementation of the *Strong Teens* curriculum affected levels of internalizing symptoms in adolescent students in a high school setting, as measured by teacher and student ratings. An analysis of the student reports showed a significant effect on student self-reported levels of internalizing symptoms after participation in the *Strong Teens* program, F (3, 60) = 4.032, p = .001. Pairwise comparisons were conducted to determine where the significant differences resided among the four different test times throughout the program. Students reported a significant decrease in internalizing symptoms when comparing pretest time 2 to both posttest time 3 (p = .031; d = 0.457) and time 4 (p = .025; d = .394). There was also a trend toward significance when comparing pretest time 1 to both posttest time 3 (p = .079; d = .465) and time 4 (p = .081; d = .403). In contrast, teacher reports of student's internalizing symptoms did not reveal any significant changes over time from pretest scores to posttest scores (p > .05 in all instances).

The next research question explored how participation in the *Strong Teens* program affected the students' levels of resilience, according to teacher rating and self-report. Analysis indicates that, while levels of resilience did not improve enough to be considered significant, there is a trend toward a statistically significant increase of resilience based on student report (F = 2.450; p = .072). Teachers, however, do not report any significant differences for resilience over time following implementation of the *Strong Teens* curriculum (F = .688; p = .564). Pairwise comparisons showed trends toward statistically significant differences on student reports between pretest time 2 and posttest time 4 (p = .056; d = -0.375). These pairwise comparisons between pretest time 1 and posttests time 3 (p = .138; d = -0.420) and time 4 (p = .081; d = -0.349) also show a general trend toward significance.

Treatment Fidelity

The third research question explored whether *Strong Teens* teachers could implement the program in a high school setting with integrity, as measured by fidelity checklists. Both quantitative and qualitative data was collected.

Twelve of the thirty-six lessons were observed, totaling 33% of all lessons taught. Summaries of the treatment fidelity checklists revealed that 87% of the lesson components were fully completed, while an additional 6% were partially completed. Analysis of the fidelity checklists showed that *Strong Teens* teachers would occasionally omit the review of past lessons or the summary of current lessons. In regards to the lesson components that were omitted, *Strong Teens* teachers cited a lack of time as the primary reason for the omissions. Lessons averaged approximately 42 minutes.

Social Validity

The final research questions focused on the social validity of *Strong Teens,* from the perspective of the teachers and the participants. At the conclusion of the program, each participant and *Strong Teens* teacher was asked to complete a social validity questionnaire, which asked questions related to the goals, procedures, and outcomes of the program. Tables 1-3 reflect the combined responses of the teachers, while tables 4-6 reflect the combined responses of the students.

In regards to the goals of the program, the *Strong Teens* teachers were nearly unanimous in their support. The only area in which teachers showed variance in their opinions was in regards to whether regular teachers could feasibly teach SEL knowledge and skills. Half of the respondents agreed that it is feasible and the remaining respondents were equally divided between disagreement and neutrality.

Table 2

Strong Teens Program Goals – Teacher Responses

Goals	Disagree	Neutral	Agree
Students' social and emotional concerns are great enough to warrant use of a curriculum such as *Strong Teens*.	0%	0%	100%
A student's level of social and emotional competence is important to their academic success.	0%	0%	100%
It is important that social and emotional knowledge and skills are taught in a school setting.	0%	0%	100%
I feel that I have the necessary skills/training to help students with social and emotional difficulties.	0%	0%	100%
I am confident in my ability to implement *Strong Teens*.	0%	0%	100%
It is feasible for a regular education teacher to teach social and emotional knowledge and skills.	25%	25%	50%

In regards to the procedures of the program, the *Strong Teens* teachers were, again, strongly in agreement. Teachers seemed to feel that the structure of the program was appropriate and acceptable for the purposes of administering the *Strong Teens* program. However, teachers were evenly divided in their level agreement for the appropriateness of the length of the lessons. These teachers had made comments to research personnel suggesting that the length of the lessons was not adequate for the limited time they had to teach the lessons. Since this program is designed to be taught in 50-minute segments, it is possible that some *Strong Teens* teachers felt that there was not enough time for the complete curriculum to be taught.

Table 3

Strong Teens Program Procedures – Teacher Responses

Procedures	Disagree	Neutral	Agree
The materials provided (manual, pictures, handouts) were sufficient to teach the curriculum.	0%	0%	100%
The materials needed for *Strong Teens* were easy to access.	0%	0%	100%
I found that *Strong Teens* was easy to teach.	0%	0%	100%
The teaching procedure of the program was consistent with my regular teaching procedures.	0%	25%	75%
It was reasonable to teach the curriculum as it was designed.	0%	25%	75%
I was able to reinforce the skills taught in the *Strong Teens* lessons during other classroom activities.	0%	25%	75%
The time taken to deliver the weekly lessons was acceptable.	0%	50%	50%
The length of the lessons was appropriate for my students.	50%	0%	50%
I felt that the curriculum manual alone provided sufficient training to teach the lessons.	0%	50%	50%
The preparation time required to teach the lessons was acceptable.	0%	50%	50%

Strong Teens teachers largely agreed that the outcomes of this program were positive. The only disagreement was with the statement that their students were excited or actively participated in lessons. This seemed to suggest that while some of these teachers felt the level of student excitement was low, the program itself was valuable and the students were perceived to have liked the lessons and learned from them.

Table 4

Strong Teens Program Outcomes – Teacher Responses

Outcomes	Disagree	Neutral	Agree
I was satisfied with the social and emotional skills demonstrated by my students during the course of the curriculum.	0%	0%	100%
Strong Teens was a good way to help prevent students' social and emotional problems.	0%	0%	100%
I feel my students learned important skills from *Strong Teens.*	0%	0%	100%
I enjoyed teaching *Strong Teens.*	0%	0%	100%
Most teachers would find *Strong Teens* suitable for improving social and emotional competence.	0%	0%	100%
I would recommend the use of *Strong Teens* to other teachers.	0%	0%	100%
Students demonstrated a transfer of knowledge and skills from the lessons to other school situations.	0%	25%	75%
I feel my students use the skills learned from *Strong Teens.*	0%	25%	75%
My students liked *Strong Teens*	0%	25%	75%
I would like to implement *Strong Teens* again.	0%	25%	75%
Students were interested in or excited for the lessons and showed active participation in them.	50%	25%	25%

Student responses for the program goals indicated that the students saw the need for social and emotional competence and knowledge in their high school setting. However, there were mixed views about the necessity of personally participating in the *Strong Teens* curriculum. Some students agreed the program was appropriate for their needs (38%) while the majority of the respondents indicated that they were neutral in their opinion (46%), and some (15%)

indicated that the program was inappropriate for their needs. There were similarly mixed results in students' perceptions that they could implement the *Strong Teens* principles in their lives or navigate their personal social and emotional difficulties.

Table 5

Strong Teens Program Goals – Student Responses

Goals	Disagree	Neutral	Agree
A student's level of social and emotional competence is important to their academic success.	0%	12%	88%
It is important that social and emotional knowledge and skills are taught in a school setting.	0%	27%	73%
I feel that I have the necessary skills/training to navigate personal social and emotional difficulties.	12%	27%	61%
It is feasible for a regular education teacher to teach social and emotional knowledge and skills.	12%	34%	54%
I am confident in my ability to implement *Strong Teens* principles.	15%	42%	42%
The Strong Teens curriculum was appropriate for my needs.	15%	46%	38%

The large majority of the students were either in agreement or neutral about the appropriateness of how this curriculum was presented to them. Most students felt that the materials provided were appropriate and easy to access, and that the curriculum was easy to learn. Although some students indicated that the time taken to deliver the lessons was not acceptable. A few students gave responses in the open-ended section that indicate that they felt the program could have been more relevant. One student requested that the curriculum be "less repetitive and a little more relevant." However, another student suggested that "the curriculum was good for the lessons being taught."

Table 6

Strong Teens Program Procedures – Student Responses

Procedures	Disagree	Neutral	Agree
The materials needed for *Strong Teens* were easy to access.	4%	15%	80%
It was reasonable to teach the curriculum as it was designed.	0%	25%	75%
The time taken to deliver the weekly lessons was acceptable.	15%	12%	73%
I found that *Strong Teens* was easy to learn.	4%	19%	73%
The length of the lessons was appropriate for high school students.	0%	27%	73%
The preparation by the teacher for each lesson was acceptable.	4%	27%	69%
The materials provided (manual, pictures, handouts) were sufficient to teach the curriculum.	8%	30%	61%
I felt that the curriculum provided sufficient content for each lesson.	4%	38%	57%
I was able to use the skills taught in the *Strong Teens* lessons during other classroom activities.	4%	42%	54%

Student views regarding the outcomes of the program seemed to convey more variety of opinion than either the goals or procedures sections, though the majority of the responses were still in agreement with positive outcomes. Sixty-nine percent of students indicated that they were satisfied with the skills that they learned during the course of the curriculum and 61% agreed that they liked *Strong Teens*. However, similar to teacher responses, over 50% of students either disagreed or were neutral in their opinion that students were excited or actively participated in the lessons.

Table 7

Strong Teens Program Outcomes – Student Responses

Outcomes	Disagree	Neutral	Agree
I was satisfied with the social and emotional skills that I learned during the course of the curriculum.	8%	23%	69%
I liked *Strong Teens*	4%	34%	61%
Strong Teens was a good way to help prevent students' social and emotional problems.	15%	27%	57%
I feel that I learned important skills from *Strong Teens*.	15%	27%	57%
I feel that I use the skills that I learned from *Strong Teens*.	8%	38%	54%
Most students would find *Strong Teens* helpful for improving social and emotional competence.	12%	34%	54%
I would enjoy doing *Strong Teens* again.	30%	15%	54%
I enjoyed learning the *Strong Teens* curriculum.	12%	34%	54%
I can transfer the knowledge and skills from the lessons to other school situations.	9%	30%	50%
I would recommend the use of *Strong Teens* to other students.	19%	30%	50%
Students were interested in or excited for the lessons and showed active participation in them.	19%	42%	38%

Qualitative Data

The open-ended questions at the end of the social validity survey allowed participants to provide feedback regarding their experience in this study. Students and *Strong Teens* teachers were asked what problems they had with the implementation of the curriculum. Most of the comments were from students; however, several students and teachers did not express any thoughts. After the program, some students highlighted themes of feeling bored or feeling that

the curriculum was not appropriately presented. For example, one student wrote, “The teachers spoke below my level, so I found myself bored most of the time.” Other students criticized the experience as not being comprehensive enough and that the lessons did not go into enough depth.

Participants were also asked how they would change the teaching portion of the program. From those who responded, several themes emerged, including a desire for more interactive learning, more breadth of content, and increased time for discussion. One student participant remarked, “Make [the lessons] more interesting and interactive instead of just reading.” Another student stated, “I wish it was an actual class, so there could be more time to understand each lesson and think on it.”

When asked about how they might change the curriculum itself, students gave feedback about the relatability of the vignettes among other things. Several students remarked on the discrepancy between their situation and the examples that were provided: “Make it less repetitive and a little more relevant; Make it less childish and relate it to teenage problems not problems 5 year olds deal with.” However, other students felt that “the curriculum was good for the subject being taught.”

Participants were also asked about any changes that they noticed in themselves or others as a result of the curriculum and many commented that the experience resulted in positive changes. The following are comments made about personal changes: “I recognize certain emotional changes in myself that I can now identify and work on when they happen. I'm less angry and I am happier during the day.” “I felt like I could manage the stress and overwhelming feelings that I sometimes get from school.” Others commented on the changes they saw in others: “I saw [classmates] around school more and they seemed to be happy.” A few comments suggested that some participants were not aware of any major changes in themselves or others.

Chapter Five:

Discussion

The goals of this study were to explore the effect that the *Strong Teens* program had on students with elevated levels of internalizing symptoms and to determine the feasibility of implementing this program at the high school level. The analysis of this study explored changes to the levels of resilience and internalizing symptoms for students. In addition, we analyzed the treatment fidelity and social validity of this program.

While students seemed to be able to notice improvements to internalizing symptoms within themselves, teachers did not notice these improvements. Consistent with the literature on internalizing symptoms (CDC, 2013), teachers have difficulty identifying students with internalizing symptoms, and may have had difficulty noticing any changes, though students perceived changes in themselves. This study suggests that secondary school teachers may not be able to accurately determine the level of internalized distress that a student is experiencing over time. This finding implies that internalizing measures that are completed by teachers may not be representative of a student's actual experience. This may help explain why many students with internalizing symptoms or EBD's go through their education without being identified by teachers or given resources to assist them (Connor, 1994). It appears important for teachers and school administrators to include student self-report measures whenever they are identifying students with internalizing symptoms. Ideally, it would be best for high schools to conduct regular universal screenings of student emotional and mental health, in order to help administrators discover the extent of student distress (Kuo, Stoep, McCauley, & Kernic, 2009). However, for schools with limited resources, working to implement limited screening procedures may still be beneficial.

The demands placed on school personnel (e.g., teachers, counselors, administrators) to help students achieve academically, while simultaneously providing resources for adolescent mental health concerns, seems potentially overwhelming. As adolescent social-emotional health issues often are left for organizations, such as public schools, to resolve, it is essential to provide these institutions with resources that can increase pro-social behavior and emotional resilience. Several previous studies which use the *Strong Kids* or *Strong Teens* curriculum have shown that these programs increase levels of resilience for students (Castro-Olivo, 2014; Isava, 2006; Kramer et al., 2014; Merrell, Juskelis, Tran, & Buchanan, 2008). This study adds to these findings by showing a trend towards increased resiliency among this population. While this study's finding on increased resilience is not by itself sufficient to make this claim, it does help validate previous research, in that we found similar positive outcomes. High school administrators who are seeking to help their students with internalizing disorders, may find the use of empirically-supported treatments, such as the *Strong Teens* curriculum, beneficial in fostering social-emotional competence or resilience, especially if resources are limited.

Another finding from this study shows that high school personnel are able to administer the *Strong Teens* curriculum with fidelity after a brief training on the program, similar to past *Strong Kids* studies (Kramer et al., 2014). Each teacher involved in the administration of the curriculum received a 1-hour orientation to become familiar with the *Strong Teens* manual, the lesson plans, and the activities. This brief training resulted in a treatment fidelity of 87%. Half of the teachers reported that sections were omitted primarily because of a lack of time, and given more time, they determined that it would be possible to increase the treatment fidelity. These results suggest that the teachers were able to consistently introduce the large majority of the different components from each lesson. Lessons were designed to take approximately 50

minutes. Had teachers been given this amount of time to present each lesson, treatment fidelity may have increased to over 95%. However, even with a limited time frame, teachers were mostly able to cover the lesson materials and complete the activities with fidelity.

Teachers' responses in regards to the social validity of the program indicated a predominately positive and validating view of the goals, procedures, and outcomes of the *Strong Teens* program. However, there were a few notable responses that indicated how the teachers felt the program could be improved. Teachers were split on whether the length of the lessons was appropriate for their students. Half of the teachers agreed that the length of time was sufficient, while the other half disagreed, suggesting more time was needed. In addition, teachers were split dichotomously on their views of whether students were interested in or excited for the lessons and showed active participation.

Student social validity responses indicated that they primarily agreed or were neutral about whether the *Strong Teens* program was valid in terms of its goals, procedures, and outcomes. Student responses that indicated higher levels of dissatisfaction with the outcomes (>18% disagreement) were found in the following three prompts: (a) "Students were interested in or excited for the lessons and showed active participation in them." (b) "I would recommend the use of *Strong Teens* to other students." (c) "I would enjoy doing *Strong Teens* again." While the program showed some positive effects, these responses indicate that a notable minority of the students did not find the lessons particularly enjoyable or exciting. It may be helpful to conduct further research exploring how to make the lessons more "enjoyable," especially for high schools that plan to consistently incorporate *Strong Teens* into their curriculum.

Limitations and Areas for Future Research

Our implementation of the *Strong Teens* program in a high school setting resulted in conditions with inherent threats to validity and limitations to generalizability. Per request of the school principal, there was no random selection, random assignment, or control group. In addition, they requested that each student who was identified as having elevated levels of internalizing symptoms be invited to participate. Additionally, implementing a wait-list control group was not feasible with time restrictions imposed by the high school's academic calendar. In order to help increase the control for the study, we conducted a quasi-experimental study, where the participants were used as controls for themselves by completing multiple pretests and posttests for each variable. These repeated measures were analyzed over time to determine changes in participant levels of internalizing symptoms and resilience. Without a control group it is unknown how similar students who do not receive the curriculum would fare. Among other possibilities, it may be that this curriculum would provide a preventative effect to students with low levels of internalizing symptoms.

Initial constraints to the design of the study limit the internal and external validity of the results. For example, using the same measures multiple times during a study increases threats to internal validity, as students may become familiar with the measures. Also, without a control group, it is possible that external factors such as the maturation of the students, family environments, or extra-curricular activities may have affected the outcomes. This could be remedied in future studies by including randomized control or comparison conditions.

Another limitation to generalizability is the sample size of the study. Initially, there were approximately 40 students who agreed to participate in the study. However, due to attrition, the total number of students who completed the study was 28. We hoped to identify more individuals

with elevated levels of internalizing symptoms who would consent to participate in the study, because previous studies which used the *Strong Teens* curriculum have had relatively few high school aged participants. In future studies, it will be important to continue exploring the effect of SEL programs, including *Strong Teens*, on high school populations using larger sample sizes.

One of the primary goals of this study was to identify students with elevated levels of internalizing symptoms in order to study what effect the *Strong Teens* curriculum would have on these individuals. School personnel were responsible for identifying students with elevated levels of internalizing symptoms. After the screening process, the school principal decided that he would prefer that any identified student, regardless of internalizing symptoms score, be allowed to participate in the study. This resulted in a total of 28 student participants with moderate levels of internalizing symptoms, rather than a cohort of students at-risk for high levels of internalizing symptoms as expected. Specifically, 10 of the 28 students had above average self-report scores for internalizing symptoms after the first pretest. Seven of these ten students were found to have statistically significant decreases in their levels of internalizing symptoms based on self-report.

Despite the majority of the participants having only moderately elevated scores, student-reports for internalizing symptoms still showed a significant reduction in these symptoms, which suggests that having high levels of internalizing symptoms in not prerequisite for garnering positive outcomes, though many of these student seem to benefit from the curriculum. Future research could work to conduct a similar study, composed of high school students with higher levels of internalizing symptoms, to determine if the level of internalizing symptoms affects the impact of the *Strong Teens* program.

In addition to some students having only moderately high levels of internalizing symptoms at the start of the study, some students had low levels of internalizing symptoms to

start. Therefore, while there is evidence that this program reduced levels of internalizing symptoms for "at-risk" student, generalizations to other populations, including groups with high levels of internalizing symptoms, would be primarily conjecture and extrapolation. However, generalization of these findings to a variety of settings is supported by comparing this study and past *Strong Teens* research (Isava, 2006; Kramer et al., 2014; Merrell et al., 2008; Merrell et al., 2010).

In regards to treatment fidelity, *Strong Teens* teachers were able to cover the majority of the content from the curriculum, but occasionally would not review the themes from the previous lessons with the students or spend time summarizing the current lesson. In talking with these teachers, several expressed feeling that the lessons were somewhat rushed as a result of the time constraints. Lessons averaged 42 minutes to complete, though the Strong Teens manuals suggest approximately 50 minutes. Treatment fidelity may have increased if teachers had been given a full 50 minutes to complete each lesson: This is an area to address in future studies.

After administering a short qualitative section with open-ended questions, it became apparent that providing a place for the participants and the *Strong Teens* teachers to express their thoughts would result in valuable data. When designing this study, we worked to minimize the amount of questionnaires the participants would fill out in order to prevent potential fatigue on their part. We found this to be necessary since we had included multiple pretests and multiple posttests. However, after reviewing our study, we felt that including qualitative interview before the start of the curriculum and after the end of the curriculum could provide valuable information. We recommend that future research include a strong qualitative component when evaluating the effects of this curriculum.

Conclusion

Adolescent mental health concerns are a growing problem (Kessler et al., 1997; Kessler et al., 2005). Often, the mental health concerns of students with externalizing symptoms are addressed while the concerns of students with internalizing symptoms are neglected, as their symptoms are less visible to others. Because of the unseen nature of internalizing symptoms and without the assistance of screening measures that can be completed via student self-report, teachers that try to meet the needs of these students may inaccurately assess their needs. This study shows that students are able to identify the presence of internalizing symptoms as well as changes in the severity of these symptoms in a way that others (e.g., school teachers) may not.

Students who are identified to be at-risk for internalizing disorder have been shown to benefit from SEL interventions at the Tier 2 level. Public schools must consider establishing positive behavioral support committees to give specialized, Tier 2 interventions, such as *Strong Teens* for students with internalizing disorders. A social-emotional learning curriculum, such as *Strong Teens,* may effectively address the social emotional needs of students with moderate internalizing symptoms and may help them navigate the risk factors in their lives. In turn, this may increase the likelihood that these young individuals will develop into adults that can earn a living, form healthy families, and contribute in useful ways to their communities.

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APPENDIX A: Treatment Fidelity Checklist (example)

Lesson 1: Emotional Strength Training

Observation start time: _____

I. Introduction

Minutes: _____

- Explains to students that new curriculum will be started.
- Explains how often they will receive the curriculum.

Circle One: Not Implemented Partially Implemented Fully Implemented
Notes: _____

II. Introduction to the Topics Covered

Minutes: _____

- Supplement 1.1 is used to introduce topics.
- Teacher orally reviews topics.

Circle One: Not Implemented Partially Implemented Fully Implemented
Notes: _____

III. Defining Behavior Expectations

Minutes: _____

- Goes over *Strong Teens* rules (respect others, come prepared, personal things stay in group) and sets up any other expectations for the group.
- Uses Supplement 1.2

Circle One: Not Implemented Partially Implemented Fully Implemented
Notes: _____

IV. Discussion of Confidentiality

Minutes: _____

- Shares that group members can choose to share personal stories, and that they can approach the counselor individually if they feel uncomfortable.

Circle One: Not Implemented Partially Implemented Fully Implemented
Notes: _____

V. Homework

Minutes: _____

- Provides students with homework (supplement 1.3)
- Explains expectations for completing homework

Circle One: Not Implemented Partially Implemented Fully Implemented
Notes: _____

VI. Closure

Minutes: _____

- Teacher reviews with students that they will be learning about life skills.
- Teacher reminds students about class rules.

Circle One: Not Implemented Partially Implemented Fully Implemented
Notes: _____

Observation finish time: _____

Percentage of Components Not Implemented: _____
Percentage of Components Partially Implemented: _____
Percentage of Components Fully Implemented: _____

APPENDIX B: Social Validity Questionnaire

Please rate the acceptability of the goals and outcomes.	**Strongly Disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
1. Students' social and emotional concerns are great enough to warrant use of a curriculum such as *Strong Teens*.	1	2	3	4	5
2. A student's level of social and emotional competence is important to their academic success.	1	2	3	4	5
3. It is important that social and emotional knowledge and skills be taught in a school setting.	1	2	3	4	5
4. It is feasible for a regular education teacher to teach social and emotional knowledge and skills.	1	2	3	4	5
5. I feel that I have the necessary skills/training to help students with social and emotional difficulties.	1	2	3	4	5
6. I am confident in my ability to implement *Strong Teens.*	1	2	3	4	5
7. I was able to reinforce the skills taught in the *Strong Teens* lessons during other classroom activities.	1	2	3	4	5
8. The time taken to deliver the weekly lessons was acceptable.	1	2	3	4	5
9. The length of lessons was appropriate for preschool students.	1	2	3	4	5

10. The materials provided (manual, pictures, handouts) were sufficient to teach the curriculum.	1	2	3	4	5
11. The materials needed for *Strong Teens* were easy to access.	1	2	3	4	5
12. I felt that the curriculum manual alone provided sufficient training to teach the lessons.	1	2	3	4	5
13. The preparation time required to teach the lessons was acceptable.	1	2	3	4	5
14. Students demonstrated a transfer of knowledge and skills from the lessons to other school situations.	1	2	3	4	5
15. I was satisfied with the social and emotional knowledge and skills demonstrated by my students during the course of the curriculum.	1	2	3	4	5
16. The teaching procedure of the program was consistent with my regular teaching procedures.	1	2	3	4	5
17. *Strong Teens* was a good way to help prevent students' social and emotional problems.	1	2	3	4	5
18. I feel my students learned important skills from *Strong Teens.*	1	2	3	4	5
19. I feel my students use the skills learned from *Strong Teens*.	1	2	3	4	5

20. My students liked *Strong Teens*.	1	2	3	4	5
21. It was reasonable for me to teach the curriculum as it was designed.	1	2	3	4	5
22. I found that *Strong Teens* was easy to teach.	1	2	3	4	5
23. Students were interested in or excited for the lessons, and showed active participation in them.	1	2	3	4	5
24. Most teachers would find *Strong Teens* suitable for improving social and emotional competence.	1	2	3	4	5
25. I would recommend the use of *Strong Teens* to other teachers.	1	2	3	4	5
26. I would like to implement *Strong Teens* again.	1	2	3	4	5
27. I enjoyed teaching *Strong Teens*.	1	2	3	4	5

What problems, if any, did you have with the implementation of the curriculum?

_____
_____
_____
_____
_____

Would you change the way the lessons are taught? How?

_____
_____
_____
_____
_____

What changes would you make to the curriculum content?

_____
_____
_____
_____
_____

What changes did you observe in your students?

_____
_____
_____
_____
_____

Additional comments:

_____
_____
_____
_____
_____
_____