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Social-Emotional Learning in Middle School: A Mixed-Methods Evaluation of the Strong Kids Program

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ABSTRACT

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Strong Kids is a social-emotional curriculum designed to reduce students' externalizing and internalizing symptoms. *Strong Kids* has shown promise in elementary school, but this was the first study to evaluate the newly updated version of the intervention in a middle school setting. The curriculum was implemented by two general education teachers with students at-risk for emotional and behavioral disorders. A mixed method design was used to evaluate outcomes with eight middle school students. Overall findings suggest that *Strong Kids* was effective at improving students' social emotional knowledge and internalizing symptoms; however, there were no significant changes in students' externalizing symptoms. Teachers were able to implement the curriculum with fidelity. Teachers and students also found the curriculum to be predominantly positive. Future studies should include a larger sample size, control group, and follow up data points.

Keywords: social and emotional learning, middle school, internalizing and externalizing symptoms, *Strong Kids*

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CHAPTER ONE

Introduction

Public education has traditionally focused on the teaching of academic skills. Today, there is growing support for schools to focus more on skills promoting the overall development of the student (National Research Council, 2013). There is mounting evidence suggesting that social and emotional skills are crucial for students' development (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011). On December 10, 2015, *The Elementary and Secondary Schools Act* was signed into law by President Obama creating a broader definition of student success and reducing the federal government's influence on student growth goals. Accountability guidelines for nonacademic factors were added to current state requirements to address school climate, student engagement, and student safety (U.S. Department of Education, 2017).

Adolescence can be a particularly difficult time as youth mature physically and emotionally. Adolescence is a period when mental and emotional disorders begin to present themselves (Merikangas, Nakamura, & Kessler, 2009). Students struggling with mental and emotional disorders may act out in school. Students may use argumentative language, make disruptive statements during classroom instruction, or struggle to stay seated during class (Weeden, Wills, Kottwitz, & Kamps, 2016).

Mental disorders in schools are labeled as Emotional and Behavioral Disorders (EBD). Behaviors associated with EBDs are typically described by two categories depending on the student's symptoms; externalizing and internalizing. Examples of externalizing symptoms include students behaving aggressively, bullying other children, demanding a lot of attention, running away, being truant, lying, or stealing (Masten et al., 2005). Examples of internalizing symptoms include an overall mood of unhappiness or depression, and fears of school and

surrounding personnel. Students exhibiting internalizing symptoms tend to develop physical symptoms such as stomachache, headache, or other physical aches (U.S. Department of Education, 2017).

Strengthening students' emotional health may benefit them behaviorally as well as academically (Durlak et al., 2011). Social Emotional Learning (SEL) strengthens students' ability to handle daily tasks and challenges effectively. SEL gives students tools needed to view life with an appropriate attitude, have positive interpersonal relationships, and strengthen their cognitive competence (CASEL, 2019). One such SEL intervention is The *Strong Kids* program (Carrizales-Engelmann, Feuerborn, Gueldner, & Tran, 2016; Merrell, Carrizales, Feuerborn, Gueldner, & Tran, 2007).

The purpose of this study was to evaluate the effectiveness of the *Strong Kids* SEL curriculum among adolescent students with increased levels of externalizing and internalizing symptoms. The curriculum was implemented as a Tier 2 small group intervention in a middle school setting. In this study, the *Strong Kids* curriculum was evaluated in a middle school to determine the effectiveness of the curriculum for reducing externalizing and internalizing symptoms of students at-risk for EBD. The following questions were addressed:

1. Were participating teachers able to implement *Strong Kids* with fidelity?
2. For participating students, did *Strong Kids* implementation lead to increased social-emotional knowledge?
3. Did *Strong Kids* implementation lead to decreased externalizing symptoms?
4. Did *Strong Kids* implementation lead to decreased internalizing symptoms?
5. Did participating teachers perceive *Strong Kids* as socially valid?
6. Did participating students perceive *Strong Kids* as socially valid?

CHAPTER TWO

Literature Review

Adolescence can be a particularly difficult time for youth as they experience the physical changes that accompany maturity (McGorry, Purcell, Goldstone, & Amminger, 2011). Socially and physically, as adolescents experience puberty they are in one of the most pivotal times of their entire lives socially and physically (Susman & Rogel, 2004). During adolescence, students experience rapid growth, changes in physical appearance, and increased hormones that can lead to higher levels of stress (Young, Caldarella, Richardson, & Young, 2011).

These changes are universal yet occur at different rates for everyone (Susman & Rogel, 2004). Those who mature quickly may be noticed more by peers, and this can have positive and negative implications. For example, young men's confidence may increase as they gain height and muscle. Whereas, girls who mature quickly may receive unwanted attention (Young et al., 2011). Students who develop early may look older and therefore create relationships with students a few years their senior. Students who mature more quickly often engage in more deviant behavior than their typically developing peers (Susman & Rogel, 2004).

As adolescents are changing physically, they also experience many academic and social changes (McGorry et al., 2011). The transition from elementary school to middle school creates several changes for students (Young et al., 2011). In elementary school, students have one teacher throughout the school year. When students enter middle school, they may have six or seven teachers. Each of these teachers has different expectations for the student, which increases the number of adaptations the student must make throughout the day (Bernstein, 2002). One study found increased psychological distress and decreased levels of academic achievement after students moved from elementary school to middle school (Chung, Elias, & Schneider, 1998).

Middle school often marks a decline in students' motivation; their behavior usually begins to decline as well (Eccles, Vida, & Barber, 2004). The behavioral decline may lead to students becoming aggressive, irritating, or pestering peers. They may also refuse to follow directions or engage in non-compliant behaviors (Hecker, Young, & Caldarella, 2014).

Students may feel like outsiders as they transition from childhood to young adulthood. Adolescents may feel a sense of excitement as they gain more independence from parents, but they may also struggle with the need for more connection and support from peers and other adults in their lives (Young et al., 2011). Middle school students' relationships with adults can often become strained as they begin focusing more on peer relationships (Young et al., 2011).

Adolescents also experience increased social pressure as they spend more time with their peers (Young et al., 2011). Social interactions become more complicated as peer relationships gain importance (Lam, McHale, & Crouter, 2014). Some students struggle to create and maintain relationships with peers (Wolff & Ollendick, 2006). Rejection and lack of connection to peers can lead to social withdrawal, aggression, disruptive, and antisocial behaviors (Blum & Libby, 2004; Izard, Fine, Mostow, Trentacosta, & Campbell, 2002). Students' rapidly changing social roles may play a part in their behavioral changes (Young et al., 2011). With so many physical, social, and emotional changes occurring, adolescence is a time when mental health concerns and emotional disorders often (McGorry et al., 2011).

Adolescent Mental Health

The most common disorders that affect adolescents are anxiety disorders, behavioral problems, mood disorders, and substance abuse disorders (Merikangas et al., 2009). According to the Surgeon General's Conference on Children's Mental Health, a fundamental component of a child's overall health and well-being is their mental health (U. S. Health and Human Services

Department, 2000). Yet, an estimated one-fourth of youth between the ages of 8 and 15 have a mental health disorder (Merikangas et al., 2009).

Unfortunately, only half of those struggling with a mental health disorder receive the treatment they need (Merikangas et al., 2009). When mental health problems go undiagnosed, a domino-like effect can occur, where one problem leads to others. Over time, the student may struggle to accomplish even everyday activities, such as self-care, schoolwork, and maintaining healthy relationships (Merrell, 2010). Many adolescents' mental health disorders are extreme enough to impact their ability to function in school; which may also limit the youth's ability to reach social and educational goals. These limitations put the students at risk for increased psychopathology, functional impairment, and lower functioning later in life (Eccles et al., 2004; O'Connell, Boat, & Warner, 2009).

Emotional and Behavioral Disorders

Emotional and Behavioral Disorder (EBD) is often the special education classification used with students who have mental health issues. Students with EBD often exhibit ongoing behavior problems, causing difficulties for the students academically and socially (Kauffman, Simpson, & Mock, 2009). One of the primary identifying criteria for EBD is academic underachievement that cannot be explained by intellectual, sensory, or health factors (Reid, Gonzalez, Nordness, Trout, & Epstein, 2004). Academically, students with EBD typically score significantly lower than expected in reading, writing, and mathematics (Reid et al., 2004). Research has found that these students have lower academic scores and fail more classes than students with any other disability (Zigmond, 2006). The dropout rate for high school students with EBD is exceptionally high at 51% (Wagner, Kutash, Duchnowski, Epstein, & Sumi, 2005).

A study by Kauffman and colleagues (2009) found that an estimated 5% of students in classrooms have symptoms that would qualify for EBD. The teacher may suspect that a student has a problem, but there is not a standardized test for EBD (Reid et al., 2004). The tests that can identify EBD require judgment by the teacher (Kauffman et al., 2009). A teacher may hesitate to classify a student with EBD out of fear of labeling the child negatively, making it difficult for early identification and treatment to occur (Merikangas et al., 2010).

Although early identification is difficult, there are many advantages to a student receiving an EBD classification (Hecker et al., 2014). For example, students qualify for special education services and support after being classified with EBD. Another advantage is that teachers often find it easier to deal with the student's misbehaviors when they know the behaviors are due to EBD (Hecker et al., 2014).

EBD impact on relationships. A student with EBD may exhibit unusual behaviors such as pestering and purposely annoying other students (Hecker et al., 2014). The U.S. Department of Education (2002) identified an average of 61% of students with EBD argue in class. These behaviors may impede the teacher's ability to teach and other students' abilities to learn, which can cause ongoing problems for everyone in the classroom (Kauffman et al., 2009). When students refuse to follow directions or are aggressive toward a teacher, their relationship can become strained (Hecker et al., 2014).

Peer relationships are difficult for students with EBD to navigate and maintain. Students with EBD are often aggressive physically and verbally. They may struggle to understand social cues with peers and often believe a neutral action of another to be aggressive (Lane et al., 2012).

Ramifications of EBD. If problems caused by EBD go untreated, outcomes can worsen as the student continues through their educational career (Wolff & Ollendick, 2006). In 2002 the

U.S. Department of Education found that an average of 73% of students with EBD are likely to be suspended while in school, while only 22% of the general population receives suspension during their educational career. Students with EBD are more likely to repeat a grade, and 51% drop out of high school (Hecker et al., 2014).

Later in life, students with EBD rarely pursue a college education. On average only 10-25% of students with EBD will pursue college compared to 53% for the general education population. As adults, they are more likely to be unemployed or underemployed than those without EBD (Zigmond, 2006).

EBD classification and treatment in schools. As noted earlier, students with EBD exhibit two categories of behavior - externalizing and internalizing (Kauffman et al., 2009). Students with externalizing disorders often exhibit behaviors that are considered uncontrolled, putting them at a higher risk for aggressive and violent behaviors such as physical fighting or carrying a weapon to school (O'Connell et al., 2009; Wolff & Ollendick, 2006). Externalizing behaviors can be highly demanding for teachers and interfere with everyday activities in the classroom (Weist et al., 2018). For these reasons, externalizing behaviors are likely to be noticed by teachers and other adults in the student's life. Fortunately, students with externalizing disorders are recognized and receive treatment 85% of the time (Bradshaw, Buckley, & Ialongo, 2008).

Conversely, students exhibiting internalizing behaviors are often considered over-controlled (Wolff & Ollendick, 2006). Internalizing disorders are characterized by students inwardly or privately experiencing feelings of distress (Cosgrove et al., 2011). Fear and worry are common symptoms found in students with internalizing disorders (Seeley, Severson, & Fixsen, 2014). Outwardly, students with internalizing behaviors may seem depressed, anxious, or

socially withdrawn (Kauffman et al., 2009). To cope with the feelings of pain, internalizing students may find unhealthy strategies to deal with their emotions, such as being quiet, shy, or self-isolating; having perfectionistic tendencies or negative perceptions of themselves; and suffering from somatic distress (body, stomach, and or headaches) without a medical explanation (Masten et al., 2005; Weist et al., 2018).

Internalizing disorders may result from the student attempting to achieve a social outcome and failing multiple times, resulting in a student who withdraws and begins coping through various forms of avoidance (Dishion & Snyder, 2016). This may lead to the student refusing to participate in school activities, making frequent visits to the school nurse, avoiding interaction with peers, or withdrawing from extracurricular activities (Weist et al., 2018). Not surprisingly, these students often report feeling lonely in school (Gage, 2013).

Internalizing disorders are not readily visible. These students do not often interfere with teachers' objectives and rarely, if ever, receive office discipline referrals or suspensions, which makes it challenging to recognize these disorders (McIntosh, Campbell, Carter, & Zumbo, 2009; Weist et al., 2018). Students may cope with their internalizing symptoms by being perfectionists and overachievers (Weist et al., 2018). These coping mechanisms explain why students with internalizing disorders generally perform well across most academic measures yet report lower social self-concept than other students (Gage, 2013).

Unfortunately, internalizing disorders are only recognized 65% of the time (Bradshaw et al., 2008). When adults are not aware of the student's symptoms, they are unable to provide the student with the help they need (Lane et al., 2012). Internalizing disorders which go untreated can have long-term adverse effects reaching into adulthood, including mental illness, complicated relationships, unemployment, and suicidality (Bayer et al., 2011).

Comorbidity

An estimated two-thirds of youth who have internalizing problems also meet the criteria for externalizing problems (Hastings, Zahn-Waxler, & Usher, 2007). Students who exhibit externalizing and internalizing symptoms have led researchers to believe EBD's two categories (externalizing and internalizing) have correlations we may not fully understand (Masten et al., 2005). Students with internalizing problems have a less positive affect but higher anxiety and cardiovascular arousal (Hastings et al., 2007). Those with externalizing problems have greater hostility and positive affect but less cardiovascular arousal. One reason for the high level of comorbidity is that some students use internalizing behaviors to cope with externalizing behaviors (Masten et al., 2005). For example, when a student exhibits externalizing symptoms they may struggle academically in school. The student may cope with their academic distress by exhibiting internalizing symptoms such as anxiety or depression. Consistent, safe and positive school environments are critical for helping students learn tools to deal with externalizing and internalizing symptoms (Weist et al., 2018).

Interventions: Social Emotional Learning

There is growing support for schools to teach skills that are non-academic but critical for student social and emotional development (National Research Council, 2013). One of the most critical challenges in schools is teaching students positive social, emotional, and behavioral skills, which are crucial for students to succeed academically and emotionally (Carrizales-Engelmann, Feuerborn, Gueldner, & Tran, 2016). Interventions based on instruction regarding how to behave, providing support for desired behaviors, and other positive interventions seem to be the best solution for helping students improve their behaviors (Kauffman et al., 2009). These

types of early mental health intervention must be implemented to slow down the growth of mental health problems, including EBD (Weist et al., 2018).

SEL is an essential aspect of improving student outcomes. Dr. Kenneth Merrell spent his career researching and implementing mental health interventions for students. Merrell (2010) described SEL by stating "Essentially, Social Emotional Learning (SEL) is how we learn the basic skills needed to work effectively with other people" (p. 1). According to the Collaborative for Academic, Social, and Emotional Learning (Collaboration for Academic Social and Emotional Learning, 2019) the definition of SEL is:

> ...the process through which children and adults acquire and effectively apply the knowledge, attitudes, and skills necessary to understand and manage emotions, set and achieve positive goals, feel and show empathy for others, establish and maintain positive relationships, and make decisions (What is SEL, para 1).

SEL programs are available to teach students healthier coping skills and more appropriate ways of dealing with uncomfortable or distressing feelings (Merrell, 2010). The hope is that as adolescents master these skills, they will shift from being controlled by external factors to being guided by internal beliefs, care, and concern for others while taking responsibility for their actions (Bear & Watkins, 2006).

SEL in schools. There is a growing body of research indicating that SEL programs enhance students' classroom behavior and their connection to the school (Weist et al., 2018). SEL seems to be most effective in schools that create a caring and nurturing environment, where students feel safe, and receive effective academic instruction (Weist et al., 2018). Most students spend 5-7 hours a day in school, which gives teachers, faculty, and administrators the advantage of working with students daily over a consistent period (Becker, Buckingham, & Brandt, 2015).

Time spent in school makes it crucial that staff members are actively engaging with students and promoting their overall well-being (Domitrovich, Durlak, Staley, & Weissberg, 2017). Research shows that SEL programs can, and often do, have a positive effect on academic performance (Durlak et al., 2011; Owens, Stevenson, Hadwin, & Norgate, 2012).

In the past, there was concern that previous efforts to implement SEL programs in school took the focus away from academics (Merrell, 2010). The early 20th century had many new national educational policies, often referred to as the social efficiency movement (Kilpatrick, 2009). The United States focused on organizing the teaching and learning processes in hopes of raising educational standards (Kilpatrick, 2009). No Child Left Behind (NCLB) and other policies resulted in school administrators focusing primarily on students' academic achievements, at the expense of mental health, and social-emotional wellness (Merrell, 2010).

Developing social and emotional health is critical for adolescent learning and health in general and must be a priority within our nation (U. S. Health and Human Services Department, 2000). When challenging behaviors are not addressed, they almost always worsen over time, which makes it very important to implement preventative and early intervention programs (Dunlap et al., 2006).

SEL research. SEL is a proven strategy that is endorsed by schools across the country. SEL is highly effective in teaching students tools and strategies to deal with externalizing and internalizing symptoms by helping to strengthen their ability to plan and exert self-control (Greenberg et al., 2003; Van Loon, Van De Ven, Van Doesum, Hosman, & Witteman, 2015). Adolescents who learn positive coping strategies have higher self-esteem (Van Loon et al., 2015). Too few schools and far fewer school systems are adopting specific, evidence-based SEL

strategies or integrating evidence-based SEL approaches — both of which are needed (Bridgeland, Bruce, & Hariharan, 2013).

Strong Kids **Program**

Strong Kids is an evidence-based SEL program designed for prevention of internalizing symptomatology by promoting social and emotional wellness and coping (Carrizales-Engelmann et al., 2016). The focus of *Strong Kids* is teaching self and social awareness, responsible decision making, self-management, and relationship management. This is accomplished by using a three-pronged instructional focus which consists of (a) affective emotional awareness, (b) cognitive awareness and change, and (c) behavioral coping and wellness strategies (Carrizales-Engelmann et al., 2016).

Strong Kids **curriculum.** *Strong Kids* can be useful for students who are highly functioning, those with at-risk behaviors, and those who fall between these two categories (Carrizales-Engelmann et al., 2016). The goal of *Strong Kids* is to have an affordable, efficient SEL program. The *Strong Kids* manual was designed to be taken off the shelf and taught to students with little or no training required for the teacher. The *Strong Kids* curriculum is for students grades 3-8. There is a manual used for elementary age children grades 3-5. There is another manual created for students in grades 6-8, ages 11-14. Multiple manuals allow for changes in the curriculum based on the students' maturity level (Carrizales-Engelmann et al., 2016). The *Strong Kids* curriculum was originally developed by Dr. Kenneth Merrell and colleagues in 2007. Carrizales-Engelmann and colleagues updated the curriculum in 2016. *Strong Kids* is versatile and can effectively be implemented in a variety of settings such as general and special education classrooms, group counseling or youth treatment facilities

(Carrizales-Engelmann et al., 2016). The *Strong Kids* program can be implemented at all three prevention levels:

1. Primary: All students receive the intervention.
2. Secondary: At-risk populations receive additional intervention in small group settings.
3. Tertiary: Students who do not respond to primary or secondary interventions receive additional intervention on an individual level (Greenwood, Kratochwill, & Clements, 2008).

This multi-tiered arrangement promotes learning for all students. It is anticipated that 80% of students will respond to the Tier 1 intervention and not require further intervention. Approximately 15% of students who do not respond to the intervention will require Tier 2 intervention. These students may be at risk of experiencing problems and so receive extra resources in the intervention and be placed in small groups. Those who do not respond to Tier 1 or 2 interventions may require a more individualized Tier 3 intervention (Glover & Vaughn, 2010). The *Strong Kids* curriculum is useful for each of the three tiers but is ideally taught at a primary or secondary tier (Carrizales-Engelmann et al., 2016).

The program teaches students skills in five categories including (a) learning to create strong attachments early in life, (b) gaining age-appropriate skills, (c) having experiences that promote healthy well-being, (d) feeling they control their fate, and (d) learning to deal with stress in healthy ways. These skills can help prevent a student from creating patterns that can lead to internalizing and externalizing disorders (Merrell, Carrizales, Feuerborn, Gueldner, & Tran, 2007). The *Strong Kids* program consists of 12 lessons. Each lesson is designed to last approximately 50 minutes (Carrizales-Engelmann et al., 2016). See Table 1 for an overview of each lesson.

Table 1

Strong Kids Lesson Overview

Lesson #	Lesson Topic	Lesson Overview
1	About *Strong Kids*: Emotional Strength Training	Teachers give students a general overview of the program, behavioral expectations, critical terms for the program.
2-3	Understanding Your Emotions	This lesson focuses on how thoughts and behaviors are linked to emotions. Learning to recognize emotions and how to express those emotions can help students express them differently.
4	Understanding Other People's Emotions	This lesson focuses on critical concepts and clues that can help them understand other people's emotions. Students are taught to see things from others' perspectives.
5	Dealing with Anger	This lesson focuses on a model to understand the anger. It also teaches students that anger is normal and gives them skills to help them manage their anger.
6-7	Clear Thinking	This lesson focuses on how to identify emotions and physical feelings that occur with emotions and how to measure the intensity of the emotions.
8	Solving People Problems	This lesson focuses on a problem-solving method and gives step-by-step ways to resolve conflict.
9	Letting Go of Stress	This lesson focuses on stress and tools to handle it healthily.
10	Positive Living	This lesson focuses on ways to alter difficult situations by changing things they have more control over by learning ways to generate habits toward long-term well-being.
11	Creating Strong and SMART Goals	This lesson focuses on goal setting. It goes over necessary steps for students to set and attain goals. The lesson also teaches the importance of finding positive activities.
12	Finishing Up	This lesson is an opportunity to review key points and terms from the lessons throughout the program.

***Strong Kids* research.** The current study evaluated the new *Strong Kids* program (Carrizales-Engelmann et al., 2016). All past studies used the old version of *Strong Kids* (Merrell et al., 2007). Previous research on *Strong Kids* found that 81% of students showed increased social-emotional knowledge after participating in the program (Gueldner et al., 2019). Studies also found that students who participated in the program self-reported lower levels of internalizing and problem symptoms on their posttest compared to what they self-reported on their pretest (Merrell et al., 2007). In fact, 17 previous *Strong Kids* studies reported that 94% of students felt their internalizing symptoms had lessened after participating in the program (Gueldner et al., 2019). *Strong Kids* research found that teachers felt that teaching students coping skills to deal with challenges in life were important. Their attitudes about the *Strong Kids* program was generally positive but mixed (Gueldner et al., 2019). Teachers observed increased student knowledge of social-emotional skills, however, have not always reported significant changes in students internalizing symptoms (Caldarella, Millet, Heath, Warren, & Williams, 2019). Research has found it is challenging for educators to adequately and fully comprehend students' internalizing symptoms (Loeber, Green, & Lahey, 1990).

Although there have been a handful of studies done on *Strong Kids*, there has been relatively little research done on *Strong Kids* in middle schools. Table 2 shows *Strong Kids* research studies and results that have included middle school age students. Most studies found an increase in knowledge of SEL. A few found a decrease in internalizing symptoms and negative feelings in general. Studies have been completed to measure internalizing symptoms after participating in the *Strong Kids* program, but little to no research has been conducted to measure externalizing symptoms after participation. More research is needed to determine how well *Strong Kids* works in lessening externalizing and internalizing symptoms in middle school

students. The second edition of *Strong Kids* was recently published (2016). As of January 2019, there has been no evaluation of this new edition in middle school classrooms.

Table 2

Previous Strong Kids Research

Year	Author	Grade	Participants	Study Findings
2017	Skiba	8	*N = 70*	There was no significant difference between the control and treatment groups on the *Strong Kids* Knowledge Test nor on the resiliency testing. However, students in the treatment group reported feeling less stressed, less angry, and happier following *Strong Kids*.
2009	Levitt	6-8	*N* = 3	Teachers had increased fidelity when they knew they were being observed and would receive feedback. Students in the treatment group were more engaged than students in the control group. Observed teachers felt students gained more social-emotional knowledge than did teachers who were in the control group.
2007	Merrell et al.	5-12	*N* = 120	Students' self-reports showed a statistically significant increase in SEL knowledge and decreased internalizing symptoms.
2007	Berry- Krazmien & Torres-Fernández	5-8	*N* = 19	Students showed a substantial increase in SEL knowledge. No significant changes in self-report externalizing and internalizing symptoms.
2006	Gueldner	6	*N* = 85	Students showed improvement in knowledge of SEL and coping skills. Small but meaningful changes were found from pretest to posttest for internalizing symptoms.
2004	Feuerborn	8	*N* = 7	Treatment group scored higher on the *Strong Kids* knowledge posttest than pretest. Students reported significantly fewer negative emotions and behaviors.

Study Purpose

Relatively few studies have been conducted using *the Strong Kids* program in middle schools. Most of the previous studies of the *Strong Kids* curriculum have been conducted in kindergarten through 5th grade. In 2016, a new version of *Strong Kids* was released and there

have been no studies of the new version in middle school. A school district in the western United States contacted Paul Caldarella, Ph.D. at Brigham Young University and asked Dr. Caldarella to present the district school administrators with SEL programs they could implement in their secondary schools. One middle school chose to implement the *Strong Kids* program in a Tier 2 general education classroom for at-risk students who exhibited primarily externalizing behaviors. The school district asked for an evaluation of the program.

The purpose of the current evaluation was to determine to what extent the use of *Strong Kids* implemented at a secondary level in a middle school impacted students' externalizing and internalizing symptoms. The teachers' ability to teach the lessons with fidelity was monitored as well. The social validity of the curriculum was also evaluated through brief interviews and focus groups at the intervention mid-point and conclusion.

CHAPTER THREE

Method

Setting

The *Strong Kids* program was implemented at a suburban middle school in a western state. The total population of the school was 1,054. The population was comprised of White (68%), Hispanic/Latino (24%), Hawaiian Native/Pacific Islander (3%), Asian Pacific Islander (2%), multi-race (2%), African American/Black (1%), students. Of the students who attended this middle school (6%) were eligible for the reduced-price lunch program and (36%) were eligible for free lunches.

The school had a School-Wide Positive Behavior Intervention and Support program. As part of this program, the school implemented the following school-wide expectations: to participate, be punctual, be polite, respect personal space, and persevere. Pride cards were handed out to students for following the above expectations. The cards were turned in for rewards like candy, pencils, or t-shirts. At the beginning of every year, the school administration spent the first three weeks going over expectations for different areas of the school (hallways, cafeteria, restrooms, and classrooms).

Participants

Student participants. This study consisted of 10 students (male $n = 9$, female $n = 1$) in 7th-8th grade. Participants' ethnicity included Hispanic/Latino (50%), White (40%), and Asian Pacific Hawaiian Native/Pacific Islander (10%). None of the participants were identified with special education needs or had Individualized Educational Programs. Due to attrition (excessive absences) evaluation data was only available on eight students. Participants were enrolled in a class the school referred to as the *Academic Success Class*. The goal of the class was to help

students socially, emotionally, and academically. Students were enrolled in this class because of behavior problems and academic grades that were significantly below grade level in most or all core content areas. Problems with substance abuse, problematic behaviors, living situations, and failing grades are all challenges that could land students in the *Academic Success Class*. The students had their first and last period classes together every day and were integrated into general education classes during other periods of the day.

Teacher reports. The participating female teacher provided the following history about the participating students. All students in the *Academic Success Class* came from challenging home situations and had limited supervision outside of school. The teacher believed the lack of parental guidance was the cause of most of the school struggles students dealt with daily. The teacher said the *Academic Success Class* was more of a support opportunity for the students than anything else. Most of the students reported a history of conflict with their parents. One of the student's mother did not have parental rights due to substance abuse issues. The father of this student worked as a truck driver often traveling to another state. Although there was a stepmother involved, this student often stayed in the home alone during the week while the father was away at work.

The students who did have parents in the home reported that their parents were rarely home because they worked multiple jobs. One student's mother lived in the United States, but the student's father lived in another country. The father wanted to reestablish a relationship with the student. The mother was supportive of the student reestablishing a relationship with the father. However, the student was not interested in reestablishing a relationship with the father because of past negative experiences. The tension between the parents and student caused the

student a lot of distress and anxiety. This anxiety possibly contributed to the student's anger and behavior problems.

A gang recruited another student. Although the student was able to get out of the gang, coming back to school was very stressful for the student.

One student had been living out of state with a parent for a few months but moved back to live with a family friend. The student reported that the new home situation with the parent was questionable because of substance abuse.

The teacher reported that students who had anger issues often lashed out at other students, teachers, and administrators. The teacher felt learning how to interact with adults respectfully was incredibly difficult for many of these students due to lack of responsible adults in their home lives. Students had difficulty knowing what tones of voice or looks were appropriate to use with adults. They did not understand what things were appropriate to say to adults. The students would treat adults the same way they treated their peers. Most of the students struggled with anxiety and depression. Their poor behavior and other discipline problems often came from their inability to deal with these emotions.

Teacher participants. The *Academic Success Class* was taught by two teachers who implemented the *Strong Kids* program in their classrooms. At the time of this study, both teachers were in their first year of teaching the *Academic Success Class*. A 31-year-old female middle school teacher with eight years of teaching experience ran the intervention during the final class period of the day. A 29-year-old male middle school teacher with four years of teaching experience taught the program during the students' first period of the day. The female teacher had a bachelor's degree in history education. The male teacher had a bachelor's degree in Art Education and was pursuing a master's degree in Art Education. The female teacher taught

10 lessons, and the male teacher taught 2 lessons. A female instructional aide age 38, was present during all of the lessons. The instructional aide had 13 years of experience and had a bachelor's degree in English. She did not teach but would occasionally comment during the lessons.

Field Notes

A researcher attended and took field notes for all 12 of the *Strong Kids* lessons taught for this program evaluation. The researcher included in the field notes the number of students in attendance for each lesson, the start and finish time of each lesson, comments made by the students, and the components of the lessons taught. After each lesson the researcher and teacher discussed the lesson, what went well, and what could be done differently in future lessons.

Dependent Measures

Social Skills Improvement System (SSIS). The SSIS is a multi-rater measure allowing the teacher and students to rate the student on the frequency of various student behaviors (Gresham & Elliott, 2008). The SSIS includes three domains of student functioning: Social Skills, Problem Behaviors, and Academic Competency. The externalizing and internalizing subscales that fall within the domain of Problem Behaviors were used in this study.

The teacher version of the SSIS measures various symptoms of externalizing and internalizing symptoms the teacher perceives in the student. The internalizing subscale is composed of 7-items, while the externalizing subscale is composed of 12-items. Sample items include: "Withdraws from others," and "Is aggressive toward people or objects." The student version of the SSIS measures externalizing and internalizing symptoms they perceive in themselves. The internalizing subtest consisted of 10 items. The externalizing subscale consisted of 12 items. Sample items include: "I think no one cares about me," and "I often do things

without thinking." All items on the SSIS are based on a four-point Likert scale rated as *never, seldom, often*, or *always* occurring.

As reported in the test manual (Gresham & Elliott, 2008), the internal consistency reliability for the SSIS student form (ages 13-18) on the internalizing subscale had an alpha coefficient of .88, and the externalizing subscale had an internal consistency alpha coefficient of .90. The internal consistency for the test-retest reliability internalizing subscale on the student form was .67. The externalizing subscale was .81. The teacher form internalizing subscale had an alpha coefficient of .90, and the externalizing subscale coefficient was .94. The test-retest reliability for the teacher form subset internalizing had an alpha coefficient of .82, and the externalizing subscale coefficient was .86. A .76 correlation demonstrated the convergent validity of the SSIS student internalizing subscale to the Behavior Assessment System for Children, Second Edition (BASC-2; Reynolds & Kamphaus, 2004) student Internalizing Problems composite. A .62 correlation demonstrated the convergent validity of the SSIS teacher Internalizing subscale to the BASC-2 teacher rated Internalizing subscale. For the SSIS teacher rated Externalizing subscale a .86 correlation demonstrated the convergent validity to the BASC-2 teacher rated Externalizing subscale.

***Strong Kids* Knowledge Test.** *The Strong Kids Knowledge Test* examines students' knowledge of social-emotional concepts included in the *Strong Kids* curriculum. The knowledge test consists of 20 items, which include multiple choice and true/false items. Sample items include: "What is an emotion?" and "Why do you want to know how someone else is feeling?" No psychometric information is available on this measure.

Social validity. Midway through the intervention, and after the intervention, the researchers held a focus group with the teachers to examine their thoughts concerning the program up to that point. The researchers asked the teachers the following questions:

1. How is the implementation of the program going in your classroom?
2. What problems, if any, are you having with the program?
3. Would you change the way the lessons are taught? If so, how?
4. What changes would you make to the curriculum content?
5. Have you been observing any changes in your students? If so, what kind of changes?

Researchers also checked-in with the students individually midway through the intervention, and after the intervention. Researchers asked the students the following questions:

1. What do you think about the *Strong Kids* lessons?
2. Do you think they are helping you in any way? If so, how?
3. Anything in the lessons you think should be changed?
4. Anything else you would like to tell me about *Strong Kids*?

Independent Variable

The independent variable in the current study was the *Strong Kids* curriculum Grades 6-8 (Carrizales-Engelmann et al., 2016). The program is an SEL curriculum designed to decrease students internalizing symptoms. The program consists of 12 lessons that cover topics such as identifying emotions, empathy, anger management, clear thinking, stress management, problem-solving, and goal setting. The lessons include direct instruction from a teacher, role-play scenarios, group discussions, and worksheets for practicing skills (Carrizales-Engelmann et al., 2016)

Fidelity checks were done to observe the integrity with which the *Strong Kids* program was implemented during the intervention. A researcher observed 100% of the lessons. A second researcher was present during 66% of the lessons to strengthen the fidelity observations by allowing for inter-observer agreement (IOA) data to be collected. The researchers completed a fidelity checklist included in the *Strong Kids* manual, which contained the main objectives and activities for each lesson. Researchers marked whether activities were completed fully, partially, or not at all. The researchers marked the start and end time of the lesson. They also kept track of how many students were in attendance for each lesson.

Interobserver agreement (IOA) was also calculated for treatment fidelity observations, for occurrence and quality, by dividing the number of agreed intervals by the total number of intervals. IOA averaged to 98.5%, with a range of 87.5-100%.

Procedures

Teachers were not given any training but studied the lessons on their own before presenting the lessons to the students. Initially, researchers met with the teachers every other week for 30 minutes. Plans for the administration of the pretest for teachers and students were coordinated early on in these meetings. After the fourth *Strong Kids* lesson, researchers held a 60 minute focus group during their meeting with the teachers to get feedback on how they felt the program was going. As the teachers became more comfortable with the program, these meetings quickly changed from bi-weekly to monthly.

A pretest and posttest which included the SSIS internalizing and externalizing subscales and the *Strong Kids* Knowledge test were administered to the students through a Qualtrics survey. Students completed the pretest one week before the intervention began. They completed the posttest the week following the last *Strong Kids* lesson. The two teachers and the

instructional aide also completed the SSIS internalizing and externalizing subscales a week before the program began, and again the week following the final lesson.

Lessons were taught each Wednesday. The school chose to have the two teachers take turns teaching the *Strong Kids* lessons (one in the a.m. and one in the p.m.) alternating each week so that both teachers would be able to learn about and support the program in the classroom. There was a three-week gap between lesson three and lesson four due to Christmas. A review lesson was taught the first Wednesday the students returned from the Christmas break. The lead researcher conducted five-minute individual brief interviews with each of the students following their review lesson (Teachers felt that researchers would gain more accurate results if students were spoken to individually rather than in focus groups). Researchers conducted a 60-minute focus group with teachers following the review lesson. Due to the results of the student brief interviews and teachers' focus group, the teachers modified the intervention; the female teacher taught all of the remaining lessons in her class. The male teacher worked with the boys in groups of three throughout the week during his class to help them complete the homework from *Strong Kids* lessons.

Lessons were 45-55 minutes long except for the ninth lesson, as teacher was unable to cover all of the material in one class period for this lesson. The teacher covered the remaining material from the ninth lesson the following day. As an incentive for participation, researchers provided students with snacks each week during the *Strong Kids* lessons. Researchers also provided teachers with feedback on fidelity after each lesson.

The afternoon teacher modified some portions of the lessons by altering the stories or examples within the lessons to be more relatable and age-appropriate for the students. The morning teacher worked on the homework with the students in groups of three throughout the

week. This allowed the morning teacher to review the information throughout the week with the students.

The researchers gathered fidelity data each week. Other measures occurred at three different times throughout the intervention:

1. Pretest (SSIS-I/E and *Strong Kids* Knowledge Test), for students and pretest (SSIS-I/E) for teachers and instructional aide one week before the intervention began
2. Individual brief interviews with students and a focus group with teachers following the fourth lesson
3. Posttest (SSIS-I/E and *Strong Kids* Knowledge Test), for students and posttest (SSIS-I/E) for teachers and instructional aide the day after the final lesson.
4. Brief interview with students and a focus group with teachers five days after the final lesson
5. Second Posttest (SSIS-I/E *Strong Kids* Knowledge Test) two months after the final lesson

The researchers determined the length of time between assessments in collaboration with the teachers.

The school purchased and implemented the *Strong Kids* curriculum. This evaluation was designed to contribute to generalizable knowledge. IRB approval was given for researchers to use the de-identified existing data set after the evaluation was completed for the purpose of this program evaluation (see IRB approval letter in appendix).

Design and Analysis

Researchers used a mixed method evaluation design, specifically concurrent triangulation strategy. Concurrent triangulation is often used to create social change or advocacy (Creswell,

Plano Clark, Gutman, & Hanson, 2003). In order to use a concurrent triangulation, the researchers gathered qualitative and quantitative data during the evaluation. This strategy allowed researchers to more accurately examine relationships among the variables.

Due to the small sample size, results from the SSIS Internalizing and Externalizing and The *Strong Kids* Knowledge Test were each analyzed quantitatively using Cohen's *d* to examine the effect size of *Strong Kids* across time (pretest and posttest).

Social validity and treatment fidelity were analyzed quantitatively using descriptive statistics and qualitatively to examine agreeability with the *Strong Kids* goals, procedures, and outcomes. The open-ended questions from the student brief interviews and the teacher focus groups were analyzed qualitatively. The responses were examined using interpretational analysis to code the data for common patterns or themes.

CHAPTER FOUR

Results

This study evaluated the effects of the *Strong Kids* program, on the internalizing and externalizing symptoms in a classroom of middle school students. In this section, a review of the research field notes will be reported, followed by answers to the six research questions addressed.

Field Notes Summary

The students began calling the *Strong Kids* lessons their "AA Group" because the teachers put the students' desks in a circle facing one another for the lessons. They ate snacks and talked about feelings. One student said, "These lessons are way better than our regular classes."

It may have been distracting for the boys to be facing one another during the mindfulness activity. During the brief student interviews after the lessons, one of the students said that it might have been helpful to put the desks in the circle after the mindfulness activity had been completed. In several of the lessons, the teacher allowed the students to put their heads down on their desks. This seemed to help the students calm down and concentrate on the activity. Overall, the students did better with the mindfulness activity as they progressed through the lessons.

Students were often distracted and talkative during the lessons. In most of the lessons, there were usually 10-minute increments throughout the lessons when students would listen and pay attention. There was one particular student who made it especially difficult for the students to concentrate. The other students' behavior was better, and they were more respectful when that student did not attend class.

From the beginning of the intervention, most of the students were open and willing to share their thoughts and experiences. At times the lesson would move away from the lesson plan and the teacher would lead a short discussion as things like sluffing, drugs, and suicide came up. Although these discussions were not part of the curriculum, the lessons gave the teachers opportunities for meaningful conversations with the students that they may not have had otherwise. For example, one boy explained that when he was young, he was overweight because he ate anytime that he was stressed. Now when he is stressed, he feels like he cannot eat. He explained to the class that he now smokes pot so that he can eat more.

In one of the first lessons, the teacher asked students if they had someone to talk to about their feelings and challenges. Some said they could talk to their parents; others said they did not have anyone to talk with. During the final lesson, the teacher took time making sure that the students all had two to three people written down on a piece of paper that they felt they could talk about their feelings and challenges.

When students had an activity that asked them to write things down, the students generally seemed engaged in the activity. However, a few of the students had a hard time writing things down because they wanted to share out loud what they were thinking. During the individual brief interviews at the end of the intervention, one student said he would have felt more comfortable filling out the worksheets and writing thoughts down if he knew he would not have to give his paper to the teacher or let anyone else see it.

One student from class kicked another student from class in the hallway. The student who had been kicked later told one of the teachers that he wanted to punch the boy who had kicked him, but stopped before he hit the boy, thought about it, and decided to kick a locker instead.

The pm teacher suggested splitting the ninth lesson into two sections. The teacher felt the key terms section was really long but very important because the students did not know the terms. She wanted to be sure they understood all of the terms before moving on. She did this by discussing ways the key terms related to their lives.

Throughout the program, the teacher would often share personal experiences with the students that related to the lesson. As the program progressed the students began sharing their personal experiences as well. One student was participating in one on one counseling outside of school. He would often pull out a notebook he kept during his counseling sessions and share ideas from his notebook. The *Strong Kids* lessons seemed to bring the students together and strengthen their relationships with one another and with the teacher. One of the students commented that he hoped he could stay in the class because of the relationships he had created.

Treatment Fidelity

The first research question examined whether teachers were able to implement *Strong Kids* with fidelity. In examining all of the objectives as outlined in the manual, teachers either fully (81%) or partially (12%) implemented lesson components. This is indicative of good treatment fidelity. Teachers did not implement some of the objectives (7%), as indicated in the curriculum manual. The objectives most often omitted included the review of the previous lesson, introduction to the new lesson, and the conclusion of the lesson.

Social-Emotional Knowledge

The second research question examined whether *Strong Kids* implementation led to increased social-emotional knowledge. Table 3 contains descriptive data on students' scores on all pretest and posttest measures. The students had a mean score of 12.50 on the *Strong Kids* Knowledge pretest. At posttest, the students had a mean score of 13.63 yielding an overall effect size of .40.

Table 3

Student Means, Standard Deviations, and Effect Size Across Time and Measure

Measure	Pre-Mean	*SD*	Post Mean	*SD*	Cohen's *d*
SKKT	12.50	3.50	13.63	1.99	.40
SSIS-E	19.80	6.37	19.25	4.83	.10
SSIS-I	13.80	8.95	10.20	5.05	.50

Note. SSIS E= Social Skills Improvement System Externalizing; SSIS I=Social Skills Improvement System Internalizing; SKKT=Strong Kids Knowledge Test

Externalizing Symptoms

The third research question examined whether *Strong Kids* implementation led to decreased externalizing symptoms. The students had a mean score of 19.8 on externalizing symptoms on the SSIS pre-self-rating. At posttest, the student's mean score was 19.25. The students' scores were in the above average range for levels of externalizing symptoms at pretest and posttest. The change between the pre and posttest mean had an effect size of .10, indicating very little change in students externalizing scores.

Table 4 contains the descriptive statistics for the two teachers and the instructional aide's pretest and posttests of student behavior. The two teachers and instructional aide all scored the students externalizing symptoms on the SSIS Externalizing in the above average for the pretests and posttests. Results were mixed, as teacher one indicated no change in externalizing symptoms over time, teacher two indicated an increase in externalizing symptoms, and the instructional aide indicated a decrease in externalizing symptoms. Teachers commented at the beginning of the evaluation that the instructional aide spent the most time with the students and that her ratings may be the most accurate.

Table 4

Teacher Means, Standard Deviations, and Effect Size Across Time and Measure

Measure	Pre-Mean	*SD*	Post Mean	*SD*	Cohen's *d*
Teacher 1					
SSIS-E	17.38	4.21	16.90	17.25	.08
SSIS-I	3.38	4.69	5.40	4.93	.42
Teacher 2					
SSIS-E	17.25	3.24	19.70	6.09	.50
SSIS-I	10.75	2.55	9.70	3.16	.37
Instructional Aide					
SSIS-E	19.38	3.25	17.67	2.92	.55
SSIS-I	9.25	3.88	7.80	2.78	.43

Note. SSIS-E=Social Skills Improvement System-Externalizing; SSIS-I= Social Skills Improvement System-Internalizing

Internalizing Symptoms

The fourth research question examined whether *Strong Kids* implementation led to decreased internalizing symptoms. At pretest, this sample of students had a mean score of 13.80 on internalizing symptoms on the SSIS self-rating, indicating that students as a group initially fell slightly above average for levels of internalizing symptoms. The students' mean score at posttest was 10.20, which was in the average range. The effect size for students' self-rating on the SSIS internalizing was .50, which indicates a medium effect size between pre and posttest.

On the teacher rating form for the SSIS Internalizing, one of the teachers and instructional aide's mean ratings were above average at pretest and posttest, while the other

teacher rated the students internalizing symptoms in the average range at both time points. Teacher two and the instructional aide pre and posttest results indicated small to medium effect size decreases in students internalizing symptoms, while teacher one indicated a small increase.

Social Validity

Teachers. The fifth question asked whether teachers perceived *Strong Kids* as socially valid. One teacher said I think the topics were incredibly beneficial. More than once, the students said things like "I feel like this was written exactly for us" and "I feel like this is just for us." One teacher said each of the students responded to something different. For example, a couple of students responded well to the lesson on stress, some responded to anxiety, and others related to the explanation of mind traps and dark glasses. Teachers said the lessons were very eye-opening for them and the students.

The teachers reported that they appreciated the resources the curriculum gave them, particularly the ability to have conversations about topics they would not typically have. This led to the students talking about different experiences. These conversations were helpful for the students and the teachers. These conversations helped the teachers understand the students better and have more empathy for them. Both teachers felt that allowing the students to think about different experiences in their lives was the most beneficial part of the program.

Teachers said because of the lessons, they were then able to start more conversations with the students because it began to feel more natural to talk through those experiences even outside of the lessons. Teachers said they would implement the program again; they felt it would be interesting to implement the program in a general education classroom. Teachers also reported that teaching the program helped them to reflect on their own life, making them more aware of

how the lessons applied in their own lives. One teacher said she felt that the lessons were a useful review for her.

Regarding things that could be improved, teachers reported that they called the program *Strong Teens* because the students made fun of the curriculum being called *Strong Kids*. Teachers stated that the name of the curriculum is a small thing, but the students care about that type of thing at this age. The teachers felt some of the activities were too elementary for middle school students. Teachers also stated there is a drastic difference between sixth graders and eighth graders. In the *Academic Success Class,* they had two seventh graders and the rest of the students were eighth graders which may have contributed to the students feeling the material was too juvenile for them.

The teachers felt it was challenging to get the students to buy into the program. Sometimes the students were afraid to participate because they did not want to be looked down on or look silly to the other students in the class. They also commented that some of the visuals were too young or juvenile for this age and students would laugh out loud at some of the visuals.

Students. The sixth question examined whether students perceived *Strong Kids* as socially valid. During the student brief interviews when asked if they would participate in the program again, five of the six students said they would. Students stated that the program helped them in different ways. When asked if the program helped them students responded with the following statements:

- Oh yeah like it helped me not to blame other people.
- It was a good activity and gave me ideas about some actions I could take when I am upset.

- It helped me understand my emotions. Because I would think about my action before did them and thought of what the consequences would have been.
- I think it made me realize some ways I can help myself. So, I think talking about it just gave me some ideas.
- I think it was very helpful and the lessons were good, especially for our class.
- It was a good activity. It helped me with the actions I take in my life. I need to calm down when I am upset.

Students said they thought the lessons could be improved by having more physical activities built into the lessons rather than sitting throughout the lessons. Another student thought the mindfulness activity would have gone better if they would not have been facing one another but had been facing forward instead.

CHAPTER FIVE

Discussion

The purpose of this program evaluation was to examine the effects the *Strong Kids* curriculum on *Academic Success Class*. The study explored changes to the levels of students externalizing and internalizing symptoms as well as their social emotional knowledge. Researchers also analyzed the treatment fidelity and social validity of the program. This was the first study to examine the second edition of the *Strong Kids* curriculum in a middle school. It was also the first to study to examine whether middle school students' externalizing symptoms were impacted by participating in the program. The implications of this research are addressed according to the research questions. Specific limitations are discussed in the corresponding sections. Directions for future research and implications for this study are also included.

Answers to Research Questions

The first question examined whether teachers were able to implement the *Strong Kids* curriculum with fidelity. According to the treatment fidelity checklists, 89% of the curriculum was implemented. Feuerborn's (2004) study had a treatment fidelity of 70% and Skiba's (2017) study had a treatment fidelity of 93%. The current study, along with these two previous studies, suggest that teachers are able to implement *Strong Kids* with fidelity. This study shows that middle school teachers were able to implement *Strong Kids* with fidelity without any training. Teachers were able to cover the majority of the curriculum but were often unable to review the previous lesson or spend time summarizing the current lesson due to time constraints. This is an area for future studies to address**.**

The second research question examined whether there was an increase in the students' social-emotional knowledge after participating in the *Strong Kids* program. Students completed

the *Strong Kids* Knowledge Test before and after implementation of the program. These tests showed increases in the students' social-emotional knowledge. This finding is consistent with previous research done by Skiba (2017) and Gueldner (2006), though effect sizes were somewhat smaller in the current study. *Strong Kids* is preventative in nature and thus it may take time to see the full effects on students' knowledge after participating in the program.

The third research question examined whether implementation of the *Strong Kids* curriculum decreased students externalizing symptoms. The teachers and students rated the students' externalizing as above average before and after the program. This curriculum was designed to lessen students' internalizing symptoms not externalizing symptoms. Researchers were interested in whether or not the curriculum could lessen externalizing symptoms due to research suggesting comorbidity between externalizing and internalizing symptoms (Masten et al., 2005). However, results of the current evaluation revealed no significant effects on students externalizing symptoms.

The fourth research question examined whether the implementation of the *Strong Kids* curriculum decreased students' internalizing symptoms. Students pretest scores placed them in the above average range and their posttest scores decreased to the average range. These results show that there was a medium effect size in the students' internalizing symptoms. These findings are consistent with previous studies (Caldarella et al., 2019; Gueldner et al., 2019). One teacher and the instructional aide rated the students internalizing symptoms as slightly above average at pretest and showed a small change in students' internalizing symptoms at posttest. The second teacher rated the students' internalizing symptoms as below average at pretest and posttest. These inconsistencies in the teachers' ratings are also consistent with previous research which has found that it is sometimes difficult for teachers to measure students' internalizing symptoms

(Centers for Disease Control and Prevention, 2013) due to the more private nature of internalizing as compared to externalizing symptoms.

Concerning the social validity of the program, the teachers' responses were predominantly positive. Results indicated that teachers noted improvements in their students' behaviors, and the teachers' relationships with their students, following implementation of the curriculum. Teachers agreed that the topics within the curriculum provided them opportunity to have discussions with the students they may have not had otherwise. Teachers did recommend some improvements for the program, as they felt that some of the material was too immature for 8th grade students. They also recommended that the lesson on stress be split into two lessons to allow for adequate time to teach the lesson topic. Overall, the teachers were pleased with *Strong Kids* and would be willing to teach the curriculum again, similar to results of past studies (Caldarella et al., 2019; Gueldner et al., 2019).

The students' social validity responses were predominantly positive regarding the *Strong Kids* curriculum, similar to past studies (Caldarella et al., 2019; Gueldner et al., 2019). Five of the six students interviewed said they would participate in the program again. Students recommended there be more opportunities for physical activities. They also suggested adding material that was more relatable to students their age.

Limitations and Directions for Future Research

There were valuable contributions that came from this study, despite some limitations. One limitation is that the study lacked a control group. Per request of the school principal, there was no random selection or random assignment, as the school's principal felt that the *Academic Success Class* would benefit greatly from the curriculum, and there was no similar class to serve as a control group. Due to time constraints imposed by the school's academic calendar, a wait-

list control group was also not feasible. For these reasons, researchers conducted a mixed methods study where the treatment group completed pretests and posttests for each variable. The measures were analyzed over time to determine changes in participants levels of internalizing and externalizing symptoms. Because there was not a control group, it is unknown how similar students who did not receive the curriculum would respond. Another limitation of not having a control group is that it is possible that students' maturing, family, and home environments may have affected outcomes. Future studies could be improved by including an experimental single subject or randomized control group design.

The teachers provided the treatment and rated the students' change, which may have led to some bias in their responses due to their desire to demonstrate. There were only three teacher raters in this study. The teachers' ratings may have varied due to the teachers' characteristics rather than the change in the students. Adding parent ratings could have helped improve the evaluation.

Another limitation is the sample size. Initially there were 10 students participating in the study. Due to attrition, the total number of students who completed the study was eight. Although the treatment group was small, the students in this class were considered at risk and therefore the school was looking for a social emotional curriculum that could benefit the students. Although students internalizing and externalizing symptoms were elevated for pretest and posttest, the student and teacher reports still showed that many students seemed to benefit from the curriculum. Future research should conduct a similar study with a larger sample size of middle school students to determine the impact of the *Strong Kids* program on students internalizing and externalizing symptoms. Another area to examine would be whether participation in the *Strong Kids* program impacts students' school attendance.

Additional research is needed on the lasting effects of *Strong Kids* measuring students' changes for a longer time span. In future studies it would be advantageous to measure change in different settings, such as the classroom as well as the home, to look for changes across multiple settings and multiple raters (teachers and parents). As some students may need more than *Strong Kids* implemented as a Tier 2 intervention, future research could investigate adding a Tier 3 intervention to improve student outcomes. Finally, given the observations and reports that students' relationships with their teachers and peers improved as a result of participation in the program, this would also be an area worthy of future study.

Conclusion

Middle school is a time of social, emotional, and physical changes for students (Young et al., 2011). SEL curriculum such as *Strong Kids* can help students manage these changes by teaching them healthy coping strategies (Merrell et al., 2007). In the current study, the results suggested that teachers were able to implement the curriculum with fidelity. The study also suggests that the curriculum may be effective in lessening students' internalizing symptoms and increasing their social emotional knowledge. Teachers and students found the curriculum to be predominantly positive. Future studies should include a larger sample size, control group, and follow up data points.

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APPENDIX

IRB Approval Letter

INSTITUTIONAL REVIEW BOARD
FOR HUMAN SUBJECTS

Memorandum

To: Paul Caldarella, Ph.D.
Department: CPSE
College: MSE
From: Sandee Aina, IRB Administrator, MPA
Date: May 1, 2019
IRB#: A 19-129
Subject: *Social Emotional Learning in Middle School: A Mixed Methods Evaluation of the Strong Kids...*

Thank you for your recent correspondence concerning your protocol referenced in the subject heading. Brigham Young University's Institutional policy requires review of all research. I appreciate your willingness to comply with this policy.

According to the Code of Federal Regulations 45.46.102 (l), research is defined as:

> a systematic investigation, including research development, testing and evaluation, designed to develop or *contribute to generalizable* knowledge.

You have communicated that the study is to evaluate Strong Kids curriculum at [redacted] in [redacted] Utah to meet their internal needs. The resulting data will be specific to [redacted] and cannot be used outside of this purpose—this project is not under the jurisdiction of the IRB.

The determination is that the activity does not meet the regulatory definition of human subjects research.

Please remove any references to the IRB on consent or cover letter documents.

Respectfully,

Sandee M.P. Aina, MPA
Institutional Review Board for Human Subjects, Administrator
Office of Research & Creative Activities
Brigham Young University
A-285 ASB Campus Drive
Provo, UT 84602
Ph: 801-422-1461 | http://orca.byu.edu/irb/

BYU