

## Examining adolescent wellness, success skills and academic performance: A classroom intervention approach

Ergenlerde iyilik hali, başarı becerileri ve akademik performansın incelenmesi: Bir sınıf müdahale yaklaşımı

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### Abstract

This article presents the results of an experimental study designed to impact early adolescent wellness, success skills and academic performance. Students in the participating study were randomly assigned, at the school level, to a complete the required PE class in the fall or spring semester of their seventh grade year. The students in the treatment group ( $n=66$ ) participated in five, 45-minute SSS lessons, spaced one week apart while students in the control group ( $n=69$ ) receive their standard physical education curriculum. The volunteer seventh grade students' ( $N=135$ ) pre- and post-test total scores on the Five Factor Wellness Inventory Form-T, Student Engagement in School Success Skills survey, and nine-week grades were used to determine if a statistical difference existed between groups post intervention. An analysis of variance (ANOVA) of the pre- and post-test student wellness scores on the Five Factor Wellness Inventory Form-T resulted in statistically significant differences for students who participated in the SSS intervention and their peers who did not. No statistically significant differences were found between groups on their engagement in school success skills or nine-week grades reported in core academic subject areas (Language Arts, Mathematics, Science, and Social Studies).

**Keywords:** Early adolescent wellness, classroom intervention, evidence-based programs

### Özet

Bu makale, erken ergen iyilik halini, başarı becerilerini ve akademik performansı etkilemek üzere tasarlanmış bir deneysel çalışmanın sonuçlarını sunmaktadır. Çalışmaya katılan öğrenciler, yedinci sınıfı okudukları yılın güz ya da bahar döneminde beden eğitimi dersini tamamlamak zorunda olan öğrenciler arasından okul düzeyinde rastgele seçilmiştir. Deney grubundaki öğrenciler ( $n=66$ ) bir hafta arayla 45'er dakikalık beş ÖBB dersine katılırken kontrol grubundaki öğrenciler ( $n=69$ ) standart beden eğitimi öğretim programına göre öğrenim görmüşlerdir. Gruplar arasında müdahalenin ardından anlamlı bir farklılığın ortaya çıkıp çıkmadığı belirlemek için gönüllü yedinci sınıf öğrencilerinin ( $N=135$ ) Beş Faktörlü İyilik Hali Envanteri Formu-T ve Okul Başarı Becerilerinde Öğrenci Bağlılığı ölçeğinden elde ettikleri ön test ve son test puanlarıyla dokuz haftalık notları kullanılmıştır. Ön test ve son test öğrenci iyilik hali puanları üzerinde yapılan varyans analizi (ANOVA), ÖBB programına katılan öğrenciler ile söz konusu programa katılmayan akranları arasında istatistiksel olarak anlamlı farklılıklar ortaya koymuştur. Gruplar arasında okul başarı becerilerine olan bağlılıkları ya da temel akademik konu alanlarında (Dil Sanatları, Matematik, Fen ve Sosyal Bilimler) elde ettikleri dokuz haftalık notlar açısından herhangi anlamlı bir farklılık bulunamamıştır.

**Anahtar Kelimeler:** Erken ergenlik iyilik hali, sınıf müdahaleleri, kanıta dayalı programlar

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## Introduction

Experts in the study of adolescent social-emotional development agree that young people can be taught specific skills that contribute to long-term well-being and academic success (Durlak, Weissberg, Dymnicki, Taylor, Schellinger, 2011; Greengberg et al., 2003; Zins, Weissberg, Wang, & Walberg, 2004). Adolescence marks the end of childhood and is the stage of the human development process that leads to adulthood (Steinberg & Lerner, 2004). The early adolescent phase is comprised of Erik Erikson's Stage Four (school age, 6 to 12 years) and Stage Five, (adolescence, 12 to 18 years). A phase overlap between those individuals who are in the latency stage of industry vs. inferiority and identity vs. role confusion is possible (Erikson, 2005). During these two critical stages, adolescents no longer considered parents the complete authorities. Nevertheless, parents play an important role in the development of their children, specifically as adolescents struggle to form their own identity. Erikson suggested successful navigation during these stages allows the individual to gravitate towards identity formation and away from role confusion when the developing adolescent is in a supportive environment.

Nowhere else in the United States' institutions of education, are there greater numbers of early adolescents than in the middle school setting. Students ages 10 to 14, grades 6 - 8 meet in one educational setting at one of the most vulnerable periods in human growth and development, the early adolescent phase. In addition to teaching the standard academic subjects, educators can address the students' personal and social needs by creating opportunities for developing positive social skills, behaviors, and attitudes necessary to successfully manage challenges in healthy ways (Zins et al., 2004).

## Wellness

Those subscribing to the concept of wellness understand that wellness has a multidimensional, synergistic, and broad nature. It is a holistic balance within each person and with his or her environment. Wellness is promoted in multiple disciplines as a "whole person" approach. It is a continuum dependent on self-responsibility and motivation (Myers & Sweeney, 2005a; Myers, Sweeney, & Witmer, 2000; Sweeney & Witmer, 1991; Witmer, Sweeney, & Myers, 1998), and is more than the absence of illness or an end state (Roscoe, 2009). Wellness requires an emphasis on personal choice and responsibility resulting in a sense of empowerment (Myers, Willse, & Villalba, 2011).

Individuals who experience a balance of their thoughts, feelings, and actions exhibit the characteristics of being healthy. These characteristics associated with healthy people living longer and higher-quality lives, paved the way for the development of *The Wheel of Wellness*. Sweeney and Witmer (1991) were the first to present a theoretical model of wellness based on a counseling theory. This integrated model of wellness, referred to as *The Wheel of Wellness*, contains both principles from Alfred Adler's Individual Psychology (Ansbacher & Ansbacher, 1964; Myers & Sweeney, 2005b; Witmer et al., 1998;) and cross-disciplinary research on characteristics of healthy people.

After twelve years of study, Myers et al. (2000) enhanced *The Wheel of Wellness* with an evidence-based model known as the Indivisible Self Model of Wellness (IS-Wel; Myers & Sweeney, 2005a). The IS-Wel provides an alternative perspective for viewing wellness across the life span. The IS-Wel model is grounded in Adlerian theory, and suggests an individual's wellness is based on healthy interactions between environmental and ecological factors (Myers & Sweeney, 2005a). Individual wellness includes life tasks and subtasks that permit interaction with the environment to promote and develop a healthy lifestyle.

## **Social-Emotional Development in Early Adolescence**

Social-emotional development of the early adolescent involves the process of developing one's identity while concepts of self, family, friends, and peers undergo great changes (Caissy, 1994; Roeser, Eccles, & Sameroff, 2000). A unique identity, separate from one's parents, begins to emerge and individuals' need to see how their new identity fits into society. Attempting new adult behaviors while experiencing thoughts of insecurity, anxiety, stress, and worrying about what others think about their new behaviors can lead to unwelcome stress (Wigfield, Eccles, MacIver, Reuman, & Midgley, 1991). Emotional and social adjustment can bring great challenges for early adolescents. During this time, individuals learn to become self-sufficient, independent thinkers with a stronger sense of moral and ethical responsibilities. Meanwhile, they are gaining an understanding of how to respond effectively to their opposite and same sex peers as they struggle to develop a greater sense of socially acceptable behaviors. Social and emotional functioning is a core variable in effective learning (Wang, Haertel, & Walberg, 1994).

Various researchers have linked school engagement (i.e., feelings of connectiveness) and peer relationships to improvements in adolescent's social-emotional development. For example, Lemberger and Clemens (2012) reported inner-city African American students ( $n=53$ ) involved in the Student Success Skills small group program (Webb & Brigman, 2007) experienced increases in executive functioning (as reported by teachers), changes in metacognitive skills and feelings of connectedness to others in the school as compared to students in the control group ( $n=47$ ). More recently, Lemberger, Selig, Bowers, and Rogers (2015) found similar results when examining the influence of the SSS classroom guidance curriculum (Brigman & Webb, 2010a) with seventh grade, predominately Hispanic students ( $N=193$ ) in a two-level cluster randomized trial. Their findings revealed significant differences between students in the treatment group post-intervention on a variety of Executive functioning scales (i.e., Shift, Emotional Control, Plan/Organize, Organization of Materials, and Task Completion), feelings of connectiveness (i.e., Classroom Support scale), and academic achievement (i.e., math and reading standardized assessments) as compared to their peers who did not receive the intervention.

In addition, numerous researchers have addressed the impact of friendship and peer relationships on academic adjustment and found that positive peer relationships can facilitate motivation, engagement, and achievement in school as well as happiness and well-being (Buchmann & Dalton, 2002; Dishion, Nelson, & Bullock, 2004; Noddings, 2003; Ryan, 2011; Véronneau & Dishion, 2010). Ryan (2011) recommended researchers increase the knowledge-base of what middle school educators can do to help support students' positive relationships with peers. Embedding strategies that promote engagement in school and build positive peer relationships into evidence-based curriculums can help adolescents learn essential skills they need to address future academic and social challenges. The use of evidence-based curriculum interventions, when implemented in elementary, middle, and high school promote a greater feeling of satisfaction, better relationships with teachers, as well as higher scores on standardized tests and grades earned (Lapan, Gysbers, Petroski, 2001; Lapan, Gysbers, & Sun, 1997; Sink & Stroh, 2003).

### **Student Success Skills**

Student Success Skills (SSS) is a K-12 evidence-based curriculum, that is grounded in humanistic philosophy (Authors Masked, Year) and embeds the Individual Psychology principles of holism, social

interest, the need to belong, the encouragement process, and the notion that human behavior is goal-directed (Authors Masked, Year). The SSS theory of change suggests that students experience changes in school outcomes (i.e., academic performance) when trained educators teach students strategies that foster the development of cognitive, social, and self-management skills (Brigman & Campbell, 2003; Brigman, Webb, & Campbell, 2007; Campbell & Brigman, 2005; Lemberger & Clemens, 2012; Authors Masked, Year; Authors Masked, Year; Webb, Brigman, & Campbell, 2005). Changes occur when these skills are then cued and coached by the classroom teacher in a positive and encouraging setting. When students begin to experience even small improvements in the areas of academic and personal/social domains their effort, feelings of accomplishment, and connectedness to others increases. According to the theory of change, these changes lead to improved classroom engagement, enhanced social skills, ability to perform under pressure and decreased test anxiety (Authors Masked, Year).

The SSS classroom program (grades 4-12) is based on key foundational learning skills associated with increased academic performance and the acquisition of critical social skills (Hattie, Biggs, & Purdie, 1996; Masten & Coatsworth, 1998; Wang et al., 1994). These learning or success skills make up the core SSS strategies and are organized around five areas: (a) goal setting, progress monitoring, and success sharing; (b) creating a caring, supportive, and encouraging class environment; (c) memory; (d) managing anxiety to perform at one's peak, even under pressure; and (e) healthy optimism (Authors Masked, Year). These strategies continue to be supportive in a growing body of social and emotional literature (Daly, Duhon, Witt, 2002; Durlak et al., 2011; Elias et al., 2003; Greenberg et al., 2003; Hattie, 2009; Marzano, Pickering, & Pollack, 2001; Zins et al., 2004).

The SSS classroom program includes a standardized manual and CD necessary to deliver the five, 45-minute lessons spaced one week apart with embedded concepts of wellness in each lesson. Each lesson follows a beginning, middle, and end format. In the first lesson, students are taught to set weekly goals and develop action plans regarding their academic performance and behavior. In weeks two - five, students begin by reviewing the main ideas from the previous lesson, and reporting any improvements they made on their previous week's goals in the areas of nutrition, exercise, rest, fun, and social support. Students then reflect on how their lifestyle choices impacted their energy and mood. By reporting their successes in the classroom setting, students have the opportunity to model making healthy choices as well as effective strategies for reaching their desired goals. After setting a new weekly goal and action plan students engage in mental and physical breaks that combine music and movement to increase energy. The middle of each lesson is used to introduce new concepts and provide an opportunity for practice (e.g. memory pegs, concept mapping, strategies for handling anxiety, mental practice, and storytelling). At the end of each lesson, students share successes related to academic goals, then develop new goals and action plans for the following week. Throughout the program, students are encouraged to notice even small improvements in their progress towards meeting goals, which fosters hope and contributes to building healthy optimism for achieving success. As students begin to demonstrate mastery of the critical cognitive and meta-cognitive, social, and self-management skills their effort and confidence increases, this in turn makes learning a more enjoyable experience. After the implementation of initial five lessons, monthly booster sessions help reinforce skills and concepts taught in the program leading up to the Spring standardized tests; however, the boosters were not used in this study.

### **Purpose of the Study**

The purpose of this study was to examine the effect the SSS classroom program (Brigman & Webb, 2010a) had on seventh-grade middle school students' engagement in wellness behaviors, success skills

strategies, and nine-week grades in core academic subject areas. The core academic subjects included: Language Arts, Mathematics, Science, and Social Studies. The primary goal of this study was to investigate if implementing a school counseling curriculum program containing wellness factors and skills associated with academic success, would lead to an increase in middle school students' overall wellness and improve their academic performance. The primary research question was: What is the impact on the engagement of wellness behaviors, cognitive and behavioral strategies associated with academic success, and nine-week grades in core academic subjects when seventh-grade students participate in Student Success Skills classroom program?

## Method

### Participants

A random sample of 560 seventh-grade students needing to fulfill the state requirement for physical education (PE) from two middle schools, similar in size and demographics, from one suburban school district had the opportunity to participate in the study. Students who participated in the study were randomly assigned, at the school level, to a complete the required PE class in the fall semester of their seventh grade year. Table 1 provides a summary of ethnic and gender characteristics of the total population of students eligible to participate in the study during the fall semester by school.

**Table 1.** Demographics of the total population of seventh-grade students by school

	School A (n = 253)	School B (n = 307)
Ethnicity		
Asian	08 (01.5%)	09 (02.9%)
Black	58 (22.8%)	87 (28.2%)
Hispanic	37 (14.6%)	32 (10.4%)**
Native American	07 (02.7%)	02 (< 1%)
White	143 (56.5%)	212 (69.1%)**
Multi-racial	11 (04.3%)*	08 (02.6%)*
Gender		
Female	145 (57.3%)	169 (55%)
Male	108 (42.7%)	138 (45%)

*Note.* n = number of students; \* students identified with more than one ethnic group; \*\* students identified and were calculated in the Hispanic and White ethnic groups.

A signed parental consent form determined the student's final eligibility (N = 135). Students in school A (n = 66) included 34 (52.3%) females and 31 (47.7%) males, served as the treatment group and received the SSS classroom program delivered by their PE teacher for five consecutive weeks. Students in the treatment group reported belonging to the following ethnic groups: 1 (01.5%) Asian, 04

(06.2%) Black, 10 (15.4%) Hispanic, 37 (56.9%) White, and 13 (20.0%) Multi-racial. Students in school B ( $n = 69$ ) included 36 (52.2%) females and 33 (47.8%) males, served as the control group and received their standard PE curriculum for the same five-week period. Students in the control group reported belonging to the following ethnic groups: 02 (02.9%) Asian, 04 (05.8%) Black, 11 (15.9%) Hispanic, 39 (56.5%) White, and 13 (18.8%) Multi-racial. PE teachers in both groups were trained by the researcher to administer the study instruments. The PE teachers were chosen to implement the SSS curriculum to augment the health and wellness initiatives of the school district. The schools were assigned to the treatment condition based on the order they volunteered for participation (i.e., the first to volunteer was assigned to the treatment group and the second was assigned to the control group). The professional school counselor at both schools served as the on-site liaison between the PE teachers and the researcher.

### **Instrumentation**

All participating students, with parental consent and who gave their assent, completed the Five Factor Wellness Inventory Form T and the Student Engagement in School Success Skills surveys pre and post SSS implementation. In addition, the professional school counselor at each school provided the researcher with the participants' grades in core classes at the end of the first nine weeks and at the end of the second nine weeks of the school year.

***The Five Factor Wellness Inventory Form T (5F-Wel-T).*** The Five Factor Wellness Inventory Form T (5F-Wel-T) is an evidence-based measure designed to assess characteristics of wellness for adolescents with a sixth grade reading level or above and gives a global description of wellness for the individual (Myers & Sweeney, 2005a, 2006). It measures the total wellness or the entirety of the indivisible self. For this study, the five-second order wellness factors (Creative Self, Coping Self, Social Self, Essential Self, and Physical Self) that build the indivisible self were examined to obtain a total wellness score. The 5F-Wel-T instrument contains 99 items and takes 20 – 30 minutes to complete. The respondent is required to select choices on a Likert-type scale: “*Strongly Agree*”, “*Agree*”, “*Disagree*”, “*Strongly Disagree*”. Hattie, Myers, and Sweeney (2004) reported alpha coefficients for the five-second order factors as: Creative Self - .93, Coping Self .92, Social Self - .94, Essential Self - .91, and Physical Self - .90 and .94 for Total Wellness.

***Student Engagement in School Success Skills (SESSS).*** The SESSS survey, a 33-item student self report, and specifically designed to measure the frequency in which students use the skills and strategies associated with school success taught in the SSS curriculum (Authors Masked, Year; Authors Masked, Year). The survey takes approximately 10 minutes to complete and the respondent rates how often they engaged in the academic or social strategy during a two week period using a Likert-type scale: “*I didn't do this at all*”, “*I did this once*”, “*I did this two times*”, “*I did this three times or more*”. A confirmatory factor analysis of the SESSS reported a four-factor model that related to cognitive and metacognitive, social skills, and self-management categories. These four factors include: Self-Management of Learning, Application of Learning Strategies, Support of Classmates Learning, and Self-Regulation of Arousal. The overall reliability alpha coefficient for the SESSS total scale ranged from .34 - .63, and the scores were distributed normally with a mean of 65.83 and a standard deviation of 15.44 (Brigman et al., 2014).

## Procedures

Prior to the study implementation and data collection, the university's institutional review board and the school district research approvals were obtained. Two middle schools in one school district in southeast Florida participated in this study. Seventh-grade students randomly assigned to first semester, second nine-week PE classes were eligible to participate in the study. A total of 135 students returned the signed parental consent forms and gave their assent to complete the study instruments as well as their first semester, core academic subject grades. The results of a two-tailed a priori G-Power analysis where effect size  $d = 0.5$ ,  $\alpha = 0.05$ , and power-  $p = 0.80$ , indicated a minimum of 128 participants were needed. Therefore, the sample size ( $N = 135$ ) was considered adequate.

Scores on the 5F-Wel-T and SESSS surveys were collected the week prior and after the implementation of the SSS program in order to assess changes in students' attitudes towards wellness and engagement in cognitive and behavioral success skills. The students' first nine-week grades served as pre-test scores and the end of second nine-week grades served as post-test scores. After all pre-test data was collected, the PE teacher in the treatment group delivered the five, 45-minute SSS lessons, spaced one week apart for five weeks.

**Fidelity of Treatment.** To maintain fidelity of treatment and consistency in the completion of the study instruments and data collection procedures, the researcher conducted a two-hour training for participating school counselors. Two middle school counselors assisted in this study by providing the researcher with academic grades. The school counselors were trained in completing the required reports and accessing school district databases for data collection. Finally, the school counselors were asked to complete a report detailing any other classroom guidance, small group, workshops, or school improvement initiatives conducted during the study implementation period.

The PE educator teaching seventh-grade students in the treatment group (school A) participated in a one-day training, addressing the protocol for the delivery of the SSS intervention (Brigman & Webb, 2010a) and the administration of 5F-Wel-T and SESSS instruments at pre- and post-test. The PE teacher was provided with a standardized manual that includes structured outlines, scripts for lesson implementation, and a CD with all the lesson PowerPoints to facilitate the delivery of the SSS classroom program. All study instruments were provided with pre-affixed labels to improve completion rates and standardized distribution of materials. The PE teacher who implemented the SSS intervention submitted a weekly electronic report by Friday at 3 p.m. in order to monitor treatment fidelity. The weekly electronic monitoring report asked the teacher to provide the following information: (a) the name of the SSS lesson (1-5) delivered, (b) date of the lesson implementation, (c) start and finish time, (d) number of students present and (e) absent, as well as (f) a description of any problems or obstacles encountered. The PE teacher in the control group (school B) participated in a two-hour training regarding the administration of study instruments and data collection procedures. The control group PE teacher was eligible for the SSS materials and training for program delivery after all study data was collected and the study was complete.

## Data Analysis

To achieve the objectives of the study, data were analyzed using the SPSS 19.0 statistical software package, and using an alpha level of .05. An analysis of variance (ANOVA) was conducted on the students' 5F-Wel-T and SESSS - scores to determine if any statistically significant differences existed among the treatment and control groups prior to the implementation of the SSS intervention. A multivariate analysis of variance (MANOVA) was conducted to determine if statistically significant differences existed on the grades in core academic subject grades between students in the treatment

and control groups, prior to the treatment group receiving the SSS intervention. If significance was found, then covariates were used in the subsequent analyses of their post-test scores.

In addition, the researchers calculated effect sizes (ES) to determine the practical significance of the SSS intervention (Brigman & Webb, 2010a). Following the recommendations by Sink and Stroh (2006), and because the research design called for the comparison between post-test mean scores, the ES was determined by using a standardized differences index (Cohen's *d*). More specifically, an ES for the 5F-Wel-T, SESSS, and core academic subject grades was obtained by calculating post-test mean score difference of the treatment group minus the post-test mean score difference of the control group divided by the pooled standard deviation. Finally, confidence intervals were reported.

## Results

A summary of the group means, standard deviations, gain scores on the 5F-Wel-T, SESSS, and core academic subject grades by treatment condition are presented in Table 2.

Results from a preliminary ANOVA on the 5F-Wel-T and SESSS pre-test scores revealed no statistically significant differences between participants by treatment condition. In order to determine if students in the treatment group would experience an increase in wellness behaviors on the 5F-Wel-T and in the engagement of success skills on the SESSS as a result of receiving the SSS intervention an ANOVA was performed on the participants' post-test scores. Results from the ANOVA revealed a significant difference for the 5F-Wel-T post-test by condition [ $F(1,133) = 4.701, p = .032$ ]. A Cohen's *d* ES for the 5F-Wel-T of +0.37 (95% CI [0.030, 0.711]) indicated a medium effect, as determined by the benchmarks set forth by Sink and Mvududu (2010). No statistically significant difference was detected between the treatment and control group based on the results of the ANOVA for the SESSS post-test scores [ $F(1, 133) = 1.600, p = .208$ ]. A Cohen's *d* ES for the SESSS of +0.21 (95% CI [-.12, 0.55]) indicated a small effect.

Results from the preliminary MANOVA revealed no statistically significant differences between the participants by treatment condition on their pre-Language Arts grade [ $F(1, 133) = .668, p = .415$ ] and pre-Mathematics grade [ $F(1, 133) = 2.751, p = .100$ ]. However, there were statistically significant differences among the participants by condition on their pre-Science grade [ $F(1, 133) = 8.585, p = .004$ ] and pre-Social Studies grade [ $F(1, 133) = 20.555, p = .000$ ]. Therefore, a multivariate analysis of covariance (MANCOVA) was performed, using the participants' pre-Science and pre-Social Studies grades as the covariates, to determine if there were statistically significant differences between the participants' post-test core academic subject grades by condition.

Results from the MANCOVA showed no statistically significant difference between the participants by condition on their post-Language Arts [ $F(1, 133) = 1.1777, p = .280$ ], post-Mathematics [ $F(1, 133) = .202, p = .654$ ], post-Science [ $F(1, 133) = 1.210, p = .273$ ], and post-Social Studies [ $F(1, 133) = .270, p = .604$ ] grades. An ES for core academic subject grades of  $< 0$  (95% CI [-.59, -.25]) indicated no effect.



**Table 2.** Treatment and Control Group Means, Standard Deviations, and Change Scores for the 5F-Wel-T, SESSS, and Core Academic Subject Grades by Condition

Condition (n)	Measure	Pre-test <i>M</i> ( <i>SD</i> )	Post-test <i>M</i> ( <i>SD</i> )	<i>M</i> +/-
Treatment(66)				
	5F-Wel-T	77.50 (09.89)	78.83 (08.46)	+1.33
	SESSS	71.30 (20.71)	70.74 (17.48)	-0.56
	Language Arts	3.14 (01.03)	2.64 (01.23)	- 0.50
	Mathematics	3.06 (0.943)	2.85 (0.949)	- 0.21
	Science	3.00 (0.804)	2.94 (01.00)	- 0.06
	Social Studies	2.88 (0.851)	2.89 (01.11)	+ 0.01
Control (69)				
	5F-Wel-T	78.73 (09.93)	75.46 (09.40)	-3.27
	SESSS	70.84 (16.76)	70.74 (17.48)	-0.10
	Language Arts	2.99 (01.10)	3.20 (0.994)	+ 0.21
	Mathematics	3.32 (0.866)	3.23 (0.984)	- 0.09
	Science	3.38 (0.688)	3.42 (0.755)	+0.04
	Social Studies	3.49 (0.720)	3.38 (0.802)	- 0.11

*Note.* *n* = number; *M* = Mean; *SD* = standard deviation; *M*+/- = mean change score; 5F-Wel-T = The Five Factor Wellness Inventory Form T; SESSS = Student Engagement in School Success Skills survey.

## Discussion

The purpose of this study was to examine the effect the SSS classroom program had on seventh-grade middle school students' engagement in wellness behaviors, success skills strategies, and nine-week grades in core academic subject areas. First, the result of increased engagement in wellness behaviors for the students who received the SSS intervention supports previous research indicating that young people can be taught specific skills that contribute to long-term well-being and academic success (Durlak et al., 2011; Greengberg et al., 2003; Zins et al. 2004). Additionally, it is worth noting that while the students in the treatment group experienced an increase in engagement in wellness behaviors there was also a decline in engagement of wellness behaviors by students in the control group. This finding lends support to the underlying premise of the SSS curriculum, that when students have the opportunity to model making healthy choices and share effective strategies for reaching their desired goals, even small improvements can be achieved. On the other hand, without intervention students may experience a decline in wellness behaviors as they progress through the academic year and are faced with additional stressors and challenges. This finding also supports the PE teachers' mission of assisting students to be more physically active and healthy and indicates that students exposed to wellness strategies can improve their total wellness.

Second, this study did not find a difference in the students' engagement in success skills strategies specifically taught in the SSS program and academic grades. Reschly et al. (2008) found a students' positive affect was associated with adaptive coping, leading to higher levels of student engagement. They suggested future researchers develop empirically based intervention strategies to increase students' positive emotions that can then give rise to broader thinking, coping, and engagement in their education. Various studies indicate the SSS classroom program helps students develop cognitive, social, and self-management skills linked to improved student performance (Brigman & Campbell, 2003; Brigman et al., 2007; Campbell & Brigman, 2005; Authors Masked, Year; Authors Masked, Year; Webb et al., 2005) as measured by state mandated standardized tests. In the elementary school setting, students have one or possibly two teachers throughout their school day, as opposed to the middle school where students interact with five or more teachers per day. In this study, once the students left the PE classes, where the success skills concepts were taught, other teachers did not reinforce the specific skills. The lack of statistically significant differences in student engagement in success skills points to the need that specific cognitive and academic success skills should be reinforced throughout the students' academic day by a variety of educators. In addition, because students received the SSS intervention in the PE classes they may not have been able to successfully transfer the skills beyond their engagement in wellness behaviors. Considered together, given extra time for strategy application and practice and as well as teacher reinforcement outside of the PE classes students may have reported an increase in success skills engagement.

Finally, a certain amount of perceived unfairness in grading practices was noted in this study. There is a lack of consistency in grading standards from one school district and teacher to another. Grades, unlike standardized tests or assessments, do not meet the same rigors of reliability and validity. Close (2009) explored fairness in grading and presupposed that teachers base their student evaluations upon the most common and shared concepts of justice. The assumption of this study was that the participants' middle teachers share these concepts of justice. This was the first study to examine the effects of the SSS intervention on grades in core academic subject. The results indicated there was no statistically significant difference for grades in core academic subject areas of language arts, mathematics, science, and social studies between participants by treatment condition. This finding points to the need to include standardized measures as a means for determining improvements of student academic performance (Anderson & Kuman, 2009).

In summary, this study contributes to the SSS research in several ways. For instance unlike other studies using the SSS intervention, this study was the first to examine student engagement in wellness behaviors, involved only five SSS 45-minute classroom lessons and was delivered by classroom teachers rather than school counselors. These findings suggest that PE teachers, who are trained to deliver the SSS intervention, have the potential to support students' engagement in wellness behaviors. Finally, this was the first study to include core academic subject grades as a school outcome measure.

### **Limitations and Recommendations for Future Research**

Several limitations were encountered in the implementation of this study. The SSS classroom intervention was originally designed as a school counselor-led intervention. In this study, a PE teacher delivered the intervention without the assistance of other teachers reinforcing the program skills taught in their core academic subject areas. This study raises the question: Are teachers better at reinforcing wellness and success skills concepts taught by the school counselor in classroom settings? This is an area for future study. In addition, future studies should examine whether there is a difference in student outcomes based on who delivers the SSS intervention (i.e., teachers and school counselors).

Next, the assignment of grades by the core academic subject teachers had the potential for grade inflation, bias, and/or the general perception of grades being viewed as unfair. Grades as measures of student performance do not have the same rigor of reliability and validity as standardized measures. Although school districts are moving toward standardized grading practices, the current lack of standardization can be seen as a limitation. Furthermore, this study only examined changes between the first and second nine-week grades. Adding the third or fourth nine-week grading periods as additional data points may allow researchers the opportunity to detect increases in participants' grades over time.

This study was implemented in one school district, thereby limiting the generalizability of the results to other school districts within the state or nationally. The study only included the five SSS classroom lessons. Future researchers may consider adding the SSS classroom booster lessons and other SSS curriculum components such as the Parent Success Skills (Brigman & Peluso, 2008) and/or the SSS small group interventions (Brigman & Webb, 2010b) to be delivered in tandem and to provide additional reinforcement of the SSS constructs to master foundational learning skills.

The measures completed by participants in the study were self-reported and based on the students' perception. Therefore, student completion of the monitoring instruments is a limitation to this study. Finally, this study did not measure the impact of the SSS intervention over time. Additional follow-up studies to support the long-term effect of the SSS intervention led by teachers and professional school counselors on total wellness of adolescents, success skills, and grades are needed.

## Conclusion

The results of this study supported the prediction that students who received the SSS classroom program (Brigman & Webb, 2010a) would experience an improvement in their engagement in wellness behaviors. Given the gap in research related to adolescent wellness, this finding has merit. More research in the area of early adolescent wellness in relation to school counseling curriculum programs is needed.

Early adolescence is a difficult time of human development. Successful navigation through this life stage allows students to gravitate towards identity formation and away from role confusion in a supportive environment (Erikson, 2005). Teaching wellness in this developmental stage may make it a less difficult time for the early adolescent and those involved in their lives.

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