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Life Satisfaction Among High School Students With Social, Emotional, and Behavioral Problems

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Abstract

Over the last decade, there has been increased interest in measuring life satisfaction among children and adolescents as an indicator of broad well-being and happiness. Although limited, existing research with students with social, emotional, and behavioral (SEB) problems indicates they experience lower life satisfaction compared with their nondisabled peers. We evaluated life satisfaction ratings by 553 high school students with SEB problems and examined those ratings relative to their academic, mental health, and behavioral outcomes as well as demographic characteristics. In addition, we examined stability of life satisfaction reports over time. Overall, students reported "medium" satisfaction with life, except in the School domain, which was rated least favorably. Higher life satisfaction reports significantly correlated with lower anxiety, depression, and behavior problems, as well as higher reading and math achievement. Differences were found based on gender and ethnicity, with female and Hispanic/Latino students reporting lower satisfaction in certain life domains compared with their counterparts. Finally, self-reported life satisfaction showed variability across time.

Keywords

life satisfaction, social, emotional, and behavioral problems, anxiety, depression, academic and behavior outcomes

The development and implementation of assessment and intervention models were traditionally driven by the assumption that students with social, emotional, and behavioral (SEB) problems have specific behavior deficits that need to be identified and addressed. More recently, however, the field of Positive Behavior Support (PBS) has emphasized the importance of identifying and considering broader indicators of intervention success, such as overall life satisfaction (Carr et al., 2002). Life satisfaction has been defined as an individual's cognitive evaluation in regard to his or her life as a whole or in specific life domains, such as relationships, work environment, or self (Diener, Suh, Lucas, & Smith, 1999). An optimal level of satisfaction is individually determined and depends on how one prioritizes success in terms of outcomes, such as relationships, achievement, income, or activities (Oishi, Diener, & Lucas, 2007).

Research to date, although conducted primarily with adults, supports the link between overall life satisfaction and longevity, health, general well-being, and other important outcomes (Diener & Chan, 2011). For example, Lyubomirsky, King, and Diener (2005) examined cross-sectional, longitudinal, and experimental research and found that happiness was positively correlated with better mental health, physical health, adaptive behavior, and success. Specifically, their results indicated that people with high self-reported levels of life satisfaction appeared to experience better outcomes in the life domains of workplace (mean r = .27), relationships (mean r = .27), and health (mean r = .32). Findings also indicated happiness and positive affect were associated with desirable behaviors and attributes, such as sociability, prosocial behaviors, likability, and coping.

Many have argued that life satisfaction also plays an important role in the lives of youth, contributing to child and adolescent success (Huebner, Suldo, Smith, & McKnight, 2004). Recent research with children and adolescents parallels the adult research, demonstrating the importance of life satisfaction in the areas of social, behavioral, and psychological functioning. Specifically, higher self-reported life satisfaction among children and adolescents has been associated with higher academic performance, better interpersonal and intrapersonal functioning, higher self-esteem, lower depression, lower negative affect,

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and less social stress, compared with those reporting average and low levels of life satisfaction (Proctor, Linley, & Maltby, 2010; Suldo & Huebner, 2006). Furthermore, studies have demonstrated a relationship between life satisfaction and school functioning. For example, Lewis, Huebner, Malone, and Valois (2011) analyzed data collected from 779 middle school students and found a significant bilinear relationship between life satisfaction and cognitive engagement. More recently, Lyons and Huebner (2015) analyzed survey data from 917 middle school students and found statistically significant relationships between life satisfaction and most academic performance variables examined, such as grade point average, standardized math test scores, and cognitive, emotional, and behavioral engagement.

Given its emerging importance, it seems particularly germane to examine the life satisfaction of adolescents with SEB problems. Such information may help us to more fully understand the difficulties they experience both during and after leaving school, such as low academic performance, high dropout rate, poor family relationships, underemployment, and engagement in criminal activity (Quinn, Rutherford, Leone, Osher, & Poirier, 2005; Wagner, Kutash, Duchnowski, Epstein, & Sumi, 2005). In addition, researchers have advocated for quality of life to be included as an outcome measure that guides service design and delivery for all students, particularly those with special needs (e.g., Ager, 2002). Research of this nature may suggest the need for intervention on broad issues (e.g., leisure time, independence, relationships, connection to school) that are rarely considered, rather solely on reducing discrete problem behaviors, such as aggression and noncompliance (Huebner et al., 2004).

To date, only two studies have examined life satisfaction specifically for students identified as having SEB problems (Griffin & Huebner, 2000; Sacks & Kern, 2008) with both consistent in finding lower life satisfaction ratings on domains such as peer relationships, family, self, and environment compared with their peers without SEB problems. Griffin and Huebner (2000) compared the reports of 49 general education students in Grades 6 to 8 with the reports of 49 students identified as having "serious emotional disturbance" (SED). Results indicated that students with SED reported significantly lower satisfaction with peer friendships compared with their general education peers; however, no significant differences were found in other life satisfaction domains or global life satisfaction. In addition, the level of satisfaction with family uniquely predicted global life satisfaction for students with SED, compared with students without SED whose global life satisfaction was significantly influenced by satisfaction with Self, Friends, and Family.

Sacks and Kern (2008) compared life satisfaction differences in middle and high schools students with and without "emotional and behavioral disorders" (EBD). Eighty-six students with EBD and 99 of their general education peers completed a quality of life survey. Results indicated adolescents with EBD were significantly less satisfied with their life quality in all domains (i.e., general quality of life, self, relationships, and environment) compared with their peers. These studies highlight the importance of examining life satisfaction, but are somewhat limited by relatively small sample sizes (i.e., fewer than 100 students with SEB problems) drawn from local or regional venues.

A few additional studies, including some on a larger scale, have been conducted although the participants were not exclusively students with SEB problems. For example, Adelman, Taylor, and Nelson (1989) compared life satisfaction among 468 typical school students (8- to 19-year-olds) and 47 students referred for mental health services (7- to 26-year-olds). Participants completed a measure of dissatisfaction with life events, a depression inventory, and a clinical interview. Results indicated that students referred for mental health services reported significantly lower life satisfaction compared with their typical peers. In another study, Huebner and Alderman (1993) administered a life satisfaction scale to 53 elementary and middle school students, including 17 described as having an "emotional handicap" (EH). Their teachers also completed standardized behavioral checklists. Results indicated that students identified as EH reported lower satisfaction with life compared with students without an EH. In addition, higher teacher-reported externalizing ($r = –.30$, $p < .02$) and internalizing ($r = –.26$, $p < .03$) problems correlated with lower student reports of global life satisfaction. Given the limited number of students in each subgroup, however, results need to be considered with caution.

Limited research has examined demographic variables and their relation to life satisfaction. In the aforementioned study by Adelman et al. (1989), girls in the sample reported significantly lower satisfaction compared with their male counterparts. This finding, however, has not been consistent. McCullough and Huebner (2003) found no gender differences in their study of 191 adolescents. Huebner, Drane, and Valois (2000) also examined demographic correlates of life satisfaction reports for 5,545 adolescents in South Carolina. Overall, adolescents reported positive levels of life satisfaction, both with respect to global and domain-specific life satisfaction. A large number of students reported dissatisfaction with their family and school experiences. Although global life satisfaction reports did not differ as a function of gender, race, or grade, some effects for gender and race were noted for specific domains. Caucasian students reported higher satisfaction with their Friendships and Living Environment compared with African American students. These findings were not replicated in a later study (Huebner, Suldo, Valois, & Drane, 2006) that found nonsignificant effects for gender and ethnicity (African American vs. Caucasian) in a sample of 2,987 middle school students.

These limited and mixed findings suggest additional research is needed to more thoroughly examine the role of demographics on life satisfaction.

The aim of the current study was to further examine self-reported life satisfaction among a large group of high school students with SEB problems. This study included data from a large and diverse sample of high school students with SEB problems, which allowed us to examine differences in life satisfaction based on age, race, and gender. Given the heterogeneity of the adolescents with SEB problems, previous studies likely missed some important differences within the population that could help inform risk identification and intervention development. Furthermore, we examined the stability of self-reports of life satisfaction over time for students with SEB problems, an area not previously examined. The following specific research questions were addressed:

Research Question 1: What levels of life satisfaction do high school students with SEB problems self-report in specific domains and overall?

Research Question 2: Do overall and specific domains of self-reported life satisfaction among adolescents with SEB problems correlate with measures of academic achievement, internalizing and externalizing problem behaviors, anxiety, and depression?

Research Question 3: Are there differences in self-reported life satisfaction among adolescents with SEB problems based on age, gender, ethnicity, socioeconomic status (SES), and intervention condition?

Research Question 4: Is self-reported life satisfaction among adolescents with SEB problems stable over time?

Method

Participants and Setting

Participants in the current study were 532 students who were part of a larger study conducted by the *Center for Adolescent Research in Schools* (CARS; Kern et al., 2015). CARS was a Center grant funded by the Institute of Education Sciences (IES) to develop a comprehensive intervention package and evaluate its efficacy via a 2-year randomized control trial (RCT; Kern, Evans, & Lewis, 2011). Although 647 participants were enrolled in CARS, some participants moved or dropped out of school after eligibility screening but prior to the start of the study or did not complete all assessments; hence, baseline data are included for only 532 students (i.e., 277 students in intervention schools and 255 students in control schools). Furthermore, attrition continued throughout the 2 years of the study; therefore, data were collected for fewer students at Year 2. Thus, analyses range from 313 to 532 students.

Participants were recruited from 54 high schools distributed across five states (Kansas, Missouri, Ohio, Pennsylvania, and South Carolina). Schools were randomly assigned to intervention (27) or comparison (27) conditions. Overall, schools were fairly evenly distributed with respect to location, as defined by the U.S. Department of Education, with 19 (39%) suburban, 21 (37%) rural, and 14 (24%) urban.

School professionals (e.g., counselors, teachers, administrators) referred students for participation who were experiencing significant impairment due to SEB problems. Students were then assessed for eligibility to assure they demonstrated both social/emotional/behavioral impairment and school impairment. Social/emotional/behavioral impairment was demonstrated by (a) a *T*-score of 60 or higher on either the internalizing or externalizing composite of the Behavior Assessment System for Children–Teacher or Parent Version (BASC-2; C. R. Reynolds & Kamphaus, 2004), indicating "at risk" status; (b) a *T*-score of 60 or higher on the *Multidimensional Anxiety Scale for Children* (MASC-2; March, 2012), which is one standard deviation above the mean; or (c) a *T*-score of 50 or higher on the *Reynolds Adolescent Depression Scale–2* (RADS-2; W. M. Reynolds, 2002), which is one standard deviation above the mean. School impairment was demonstrated when a student experienced two or more of the following risk indicators for dropout: (a) five or more absences or tardies, other than illness, in any given month; (b) four or more office behavior referrals in a semester; (c) two or more suspensions in the current academic year; or (d) one or more Fs or two or more Ds in core academic subjects in one of two most recent grading periods. Students with Autism Spectrum Disorder/Pervasive Developmental Disorder or an IQ below 75 were excluded. Student demographic data are described in Table 1.

Measures

Student demographic information. Parents completed a demographic questionnaire prior to the start of the RCT. Information they provided that was used in the current study was their child's gender, race/ethnicity, age, grade, and whether they received free and reduced lunch.

Brief Multidimensional Students' Life Satisfaction Scale (BMSLSS). The BMSLSS is a brief version of the *Multidimensional Students' Life Satisfaction Scale* (MSLSS; Huebner, 1994; Seligson, Huebner, & Valois, 2003), a widely used and psychometrically sound life satisfaction measure. The scale measures six areas related to life satisfaction: family life, friendships, school experience, satisfaction with self, living environment, and overall satisfaction with life. Each domain is assessed with one representative item measured on a 7-point Likert-type scale where 1 = *terrible*, 2 = *unhappy*, 3 = *mostly dissatisfied*, 4 = *mixed* (*about equally satisfied and dissatisfied*), 5 = *mostly satisfied*, 6 = *pleased*, and 7 = *delighted*. Guidelines for interpretation (Athay, Kelley, & Dew-Reeves, 2012) recommend that scores

Table 1. Student Demographics.

Domain	*n*	%
Total	532	100
Race/ethnicity		
White/Caucasian	270	50.8
Black/African American	215	40.4
Hispanic/Latino	46	8.6
Other	1	0.1
Gender		
Female	185	34.8
Male	347	65.2
Free/reduced lunch	369	69.4
Grade		
Eighth grade	30	5.6
Ninth grade	235	44.2
10th grade	231	43.4
11th grade	27	5.1
General education total	343	64.5
Special education total	189	35.5
Learning disability	94	17.7
Emotional disturbance	39	7.3
Other health impairments	42	7.9
Other	14	2.6
Age		
13 to 14 years old	119	22.4
15 to 16 years old	350	65.8
17 to 18 years old	63	11.8

greater than 4.5 should be interpreted as "high" satisfaction, 3.3 to 4.5 "medium" satisfaction, and scores below 3.3 should be considered "low" satisfaction. The measure has been studied across diverse samples of students from different age groups, geographic locations, and cultural backgrounds (e.g., Büssing et al., 2009; Zullig, Huebner, Patton, & Murray, 2009). One-factor model supported with loadings ranging from .46 to .77 established the measure's dimensionality (Seligson, Huebner, & Valois, 2005). The internal consistency (i.e., alpha coefficient of .75 for total score, and items total correlations ranging from .65 to .73) was established with an early adolescent sample (Seligson et al., 2003). Test–retest reliability (across 2 weeks) was .91 (Funk, Huebner, & Valois, 2006).

BASC-2. The BASC-2 is a norm-referenced behavior rating scale that measures both internalizing and externalizing behaviors (C. R. Reynolds & Kamphaus, 2004). The Self-Report adolescent version has 176 items rated either on a 4-point scale with 1 = *never*, 2 = *sometimes*, 3 = *often*, and 4 = *almost always*, or with a *true/false* response. Total scores of 60 or above indicate level of symptoms associated with clinical significance. The standard scores of four composites (i.e., Internalizing Disorders, Inattention/Hyperactivity, Emotional Symptoms Index, and Personal Adjustment) were used as a measure of the students' behavior outcomes. The assessment is normed for high school students and has adequate psychometric properties, such as internal consistency ranging from .8 to .9, test–retest reliability of .82 across age ranges, long-term stability of .69, and convergent validity of .81 (C. R. Reynolds & Kamphaus, 2004).

RADS-2. The RADS-2 is a self-report measure assessing depressive symptoms in children and youth ages ranging from 11 to 20 years (W. M. Reynolds, 2002). The scale has 30 items and measures four basic dimensions of depression: Dysphoric Mood, Anhedonia/Negative Affect, Negative Self-Evaluation, and Somatic Complaints. Response options are arranged on a 4-point Likert-type scale where 1 = *almost never*, 2 = *hardly ever*, 3 = *sometimes*, and 4 = *most of the time*. The total score ranges from 30 to 120, where scores of 70 or above indicate level of symptoms associated with clinical depression. The scale is widely used and has good reported overall psychometric properties, such as internal consistency of .92 to .94 and test–retest reliability of .89 (W. M. Reynolds, 2002).

MASC-2. The MASC assesses anxiety related symptoms for children ages 8 to 18 years old (March, 2012). The scale has 39 items and response options on a 4-point Likert-type scale ranging from 0 = *never true about me*, 1 = *rarely true about me*, 2 = *sometimes true about me*, and 3 = *often true about me*. The scale measures four dimensions of Anxiety, Physical Symptoms (tense/restless and somatic/autonomic), Social Anxiety (humiliation/rejection and fear of public performance), Harm Avoidance (perfectionism and anxious coping), and Separation Anxiety and provides a total score that was used in this study. *T*-scores of 65 or above generally indicate level of symptoms associated with clinical anxiety. Adequate psychometric properties are reported, such as alpha coefficients between .87 to .89 and test–retest reliability between .73 and .89 (March, Sullivan, & Parker, 1999; Thaler, Kazemi, & Wood, 2010).

Woodcock Johnson Tests of Achievement, Third Edition (WJ-III). The WJ-III includes a battery of subtests designed to assess student achievement in reading, writing, and mathematics (Woodcock, McGrew, & Mather, 2001). The Broad Reading standard score (i.e., Letter–Word Identification, Reading Fluency, Passage Comprehension subtests), and the Broad Math standard score (i.e., Calculation, Math Fluency, and Applied Problems subtests) were used for this study. The WJ-III battery is normed for high school students and has strong psychometric properties (Woodcock et al., 2001).

Procedures

Conditions. All students in the intervention condition received a mentoring program (i.e., Check & Connect developed by Anderson, Christenson, Sinclair, & Lehr, 2004) and

a weekly group social skills intervention program designed to teach students to identify social skill goals and work toward meeting those goals by accomplishing small substeps. Additional individualized classroom and mental health interventions were delivered based on a prescribing process when predetermined student indicators were met (e.g., poor grades, frequent absences, suspension, mental health problems). Individualized interventions either were student-focused (e.g., study skills, organization skills), teacher/classroom-focused (e.g., establish expectations, increase opportunities to respond, increase rates of praise), or mental health-focused (e.g., cognitive behavior therapy for depression). For example, to help students improve organizational skills, school professionals taught students to use daily planners, missing assignment tracking sheets, or organizational checklists to organize their lockers and book bags. To help teachers increase the use of evidence-based opportunities to respond, teachers received training on strategies such as response cards, guided notes, computer-assisted instruction, or classwide peer tutoring (see Kern et al., 2015, for a comprehensive description of CARS interventions). Teachers, school mental health professionals, and parents of students in the comparison group received monthly informational and wellness newsletters throughout the study (e.g., nutrition, indicators of drug use, effective communication with adolescents).

Assessment administration. A battery of assessments was administered at baseline, the end of Year 1, and the end of Year 2 during the 2-year RCT with a few administered at one or two time points only (e.g., demographic questionnaire, BMSLSS). Data on social, emotional, behavioral, and academic outcomes were collected from teachers/school staff, parents, and/or students, depending on the measure. Only student self-report data relative to SEB functioning were used for the purpose of this study. Trained project staff and doctoral students administered the assessments during individual sessions to students and parents, either in the home or at school, and teachers completed assessments independently. On occasion, assessments were mailed to parents if they were unable to meet. All assessments were scored using teleforms that, once completed, were sent to the Texas Institute for Measurement, Evaluation, and Statistics (TIMES) at the University of Houston for entry, storage, and analysis.

Data Analyses

For preliminary analysis, school-level variability in life satisfaction measures was evaluated by estimating univariate random-intercepts multilevel models. For all six measures, variance of the random-intercept was not significantly different from zero and the actual values were close to zero. ICCs ranged from .0 to .002. This indicated that variability in life satisfaction was a within-school, between-person phenomenon. As such, the use of multilevel model for subsequent hypothesis testing was not necessary. We note that due to the lack of school-level variability, parameter estimates or their standard errors are not expected to change. As a result, we used the following analyses to answer our four research questions.

Table 2. Initial Life Satisfaction Student Reports.

Domain	*n*	*M*	*SD*
Family	532	4.00	1.36
Friendship	532	4.35	1.21
School	532	3.11	1.43
Self	532	4.35	1.42
Living environment	532	4.10	1.40
Overall	532	4.29	1.37

Note. Item scores on BMSLSS range from 1 to 7 where 1 = *terrible*, 2 = *unhappy*, 3 = *mostly dissatisfied*, 4 = *mixed* (*about equally satisfied and dissatisfied*), 5 = *mostly satisfied*, 6 = *pleased*, and 7 = *delighted*. Guidelines for interpretation (Athay, Kelley, & Dew-Reeves, 2012) recommend that scores greater than 4.5 should be interpreted as high, 3.3 to 4.5 medium, and scores below 3.3 should be considered low. BMSLSS = Brief Multidimensional Students' Life Satisfaction Scale.

To address the first research question assessing level of life satisfaction, we conducted descriptive analyses reporting mean and standard deviation of high school students' reports with overall life satisfaction and life satisfaction in specific domains collected at baseline. To answer the second research question, Pearson product–moment correlation coefficients were computed between life satisfaction collected at baseline and internalizing and externalizing problem behaviors (measured by BASC, internalizing problems, inattention/hyperactivity, emotional symptoms, and personal adjustment composites), anxiety (measured by MASC), and depression (measured by RADS) collected at baseline, as well as life satisfaction collected at the end of Year 2 and academic achievement (measured by WJ-3, reading and math composites) collected at the end of Year 2. To address the third research question examining differences based on participant characteristics, we conducted independent sample *t* tests for age, grade, gender, SES, treatment condition, and univariate analysis of variance for ethnicity using baseline data. To address the fourth research question, stability of life satisfaction over time, we conducted a paired sample *t* test using life satisfaction data from baseline and 2 years later.

Results

Level of Life Satisfaction

Descriptive statistics on BMSLSS data collected at baseline are reported in Table 2. Students' reports of satisfaction fell in the "medium" category for Family ($M = 4.0$, $SD = 1.36$), Friendship ($M = 4.35$, $SD = 1.21$), Self ($M = 4.35$, $SD = 1.42$), Living Environment ($M = 4.10$, $SD = 1.40$) and

Table 3. Pearson Product–Moment Correlation Coefficients for Baseline Life Satisfaction Reports With Anxiety, Depression, and BASC Reports Assessed at Baseline.

Domain	*n*	Anxiety (MASC)	*n*	Depression (RADS-2)	*n*	Internalizing problems (BASC)	Inattention/ hyperactivity (BASC)	Emotional symptoms (BASC)	Personal adjustment (BASC)
Family	532	−.178**	531	−.462**	530	−.378**	−.199**	−.401**	.445**
Friendship	532	−.198**	531	−.379**	530	−.314**	−.140**	−.396**	.422**
School	532	−.173**	531	−.414**	530	−.396**	−.357**	−.423**	.340**
Self	532	−.373**	531	−.566**	530	−.491**	−.243**	−.600**	.562**
Living environment	532	−.179**	531	−.353**	530	−.290**	−.183**	−.289**	.274**
Overall	532	−.266**	531	−.515**	530	−.414**	−.236**	−.479**	.420**

Note. BASC = Behavior Assessment System for Children; MASC = Multidimensional Anxiety Scale for Children; RADS-2 = Reynolds Adolescent Depression Scale–Second Edition.
*$p < .05$. **$p < .01$.

Table 4. Pearson Product–Moment Correlation Coefficients for Year 2 Life Satisfaction Reports With WJ-III Reports at Year 2.

Domain	*n*	Applied problems (WJ-III)	*n*	Broad reading (WJ-III)	*n*	Calculations (WJ-III)
Family	313	.030	306	.045	328	.003
Friendship	313	.142**	306	.177*	328	.067
School	313	.050	306	.099	328	.046
Self	312	−.005	305	.002	327	−.040
Living environment	313	.100	306	.071	328	.089
Overall	313	.092	305	.052	327	.042

Note. WJ-III = Woodcock Johnson Tests of Achievement, Third Edition.
*$p < .05$. **$p < .01$.

overall life ($M = 4.29$, $SD = 1.37$). Students reported "low" satisfaction with School ($M = 3.11$, $SD = 1.43$).

Correlations With Other Measures

Multiple significant correlations were found between satisfaction with life domains and other measures. The results of Pearson product–moment correlation coefficients revealed significant negative correlations between life satisfaction reports in all domains and self-reported anxiety (measured by MASC) and depression (measured by RADS-2). These data (see Table 3) indicate that as satisfaction with life in any domain increased, anxiety and depression decreased.

Pearson product–moment correlation coefficients (see Table 3) revealed significant negative correlations between life satisfaction reports in all domains and student reports of internalizing problems, inattention/hyperactivity, emotional symptoms (all measured by the BASC-2), indicating that lower satisfaction with life domains correlated with higher reports of the aforementioned problems. Significant positive correlations were found between life satisfaction reports on all domains and student reports of personal adjustment, indicating that higher reports of life satisfaction correlated with higher reports of personal adjustment.

Pearson product–moment correlation coefficients (see Table 4) examining the relationship between life satisfaction reports and student performance in reading and mathematics (measured by WJ-3) indicated no significant correlations between life satisfaction reports and academic performance except for the Friendship domain and Applied Problems, and the Friendship domain and Broad Reading.

Group Differences

An independent-samples *t* test was conducted to compare life satisfaction reports based on group assignment and no significant differences were identified between students in intervention and control groups at baseline. An independent-samples *t* test was conducted to compare the life satisfaction reports between male and female students. Female students reported significantly lower satisfaction with their family ($M = 3.72$, $SD = 1.32$) compared with males ($M = 4.15$, $SD = 1.36$), $t(530) = -3.49$, $p = .001$; significantly lower satisfaction with themselves ($M = 3.91$, $SD = 1.55$) compared with males ($M = 4.59$, $SD = 1.29$), $t(530) = -5.36$, $p = .000$; and significantly lower overall life satisfaction ($M = 3.96$, $SD = 1.38$) compared with male students ($M = 4.47$, $SD = 1.34$), $t(531) = -4.08$, $p = .000$.

Table 5. Stability of Life Satisfaction Reports Over Time.

Domain	*n*	*M* (*SD*)	*t*(*df*)	*p*
Family*				
Time 1	348	4.05 (1.33)	−3.31 (347)	.001
Time 2	348	4.30 (1.38)		
Friendship				
Time 1	348	4.37 (1.23)	−1.12 (347)	.261
Time 2	348	4.46 (1.27)		
School*				
Time 1	348	3.19 (1.42)	−3.05 (347)	.002
Time 2	348	3.46 (1.43)		
Self				
Time 1	347	4.33 (1.44)	−1.29 (346)	.197
Time 2	347	4.43 (1.44)		
Living environment				
Time 1	348	4.15 (1.37)	−1.15 (347)	.249
Time 2	348	4.24 (1.37)		
Overall*				
Time 1	347	4.35 (1.38)	−2.26 (346)	.024
Time 2	347	4.53 (1.41)		

*$p < .05$.

Univariate analysis of variance examined differences between ethnic groups (i.e., White, Black/African American, Hispanic/Latino, and Other) on satisfaction with life. There was a significant effect at the $p < .05$ level for ethnicity on life satisfaction reports in the Self domain, $F(2, 528) = 6.79$, $p = .001$, Living Environment domain, $F(2, 529) = 3.86$, $p = .02$, as well as Overall Satisfaction with Life, $F(2, 529) = 3.80$, $p = .02$. Scheffe post hoc comparisons indicated that Hispanic/Latino students reported significantly lower satisfaction with themselves and their living environments ($M = 3.80$, $SD = 1.50$; $M = 3.63$, $SD = 1.42$) when compared with Black/African American students ($M = 4.58$, $SD = 1.48$; $M = 4.25$, $SD = 1.34$). Hispanic/Latino students also reported significantly lower satisfaction with their overall lives ($M = 3.85$, $SD = 1.50$) compared with Black/African American students ($M = 4.44$, $SD = 1.39$).

An independent-samples *t* test was conducted to compare life satisfaction reports between students who did or did not receive free/reduced lunch and no significant differences were found in reports on any domain or the overall scale. An independent-samples *t* test conducted to compare life satisfaction reports between three age groups (i.e., 13- to 14-, 15- to 16-, and 17- to 18-year-olds) indicated no significant differences on any of the domains or the overall scale.

Stability of Life Satisfaction Reports Over Time

Findings from a paired sample *t* test examining stability of life satisfaction are displayed in Table 5. There were significant differences in reports of satisfaction in the 2-year time period in the following subdomains: Family (baseline $M = 4.05$, $SD = 1.33$; after 2 years $M = 4.30$, $SD = 1.38$), $t(347) = -3.31$, $p = .001$; Satisfaction with School (baseline $M = 3.19$, $SD = 1.42$; after 2 yrs $M = 3.46$, $SD = 1.43$), $t(347) = -3.05$, $p = .002$; and Overall Satisfaction (baseline $M = 4.35$, $SD = 1.38$; after 2 yrs $M = 4.53$, $SD = 1.41$), $t(347) = -2.26$, $p = .024$. Specifically, life satisfaction in these areas significantly increased over time. No significant differences were found in Friendship, Self, and Living Environment domains.

Discussion

In the current study, we investigated reports of satisfaction with overall life and specific life domains for adolescents with SEB problems. Overall, students with SEB problems reported medium satisfaction with their life overall as well as specific life domains, except the School domain where they reported low satisfaction. Although most means fell within the medium range, it is disconcerting that not a single mean domain score fell in the high range. Even more troubling is that youth with SEB problems expressed low satisfaction with school. This is not surprising given their high rate of dropout and poor outcomes in school. In future research and practice, intervention efforts should focus on increasing student's satisfaction with school as a way to prevent dropout.

Life satisfaction reports correlated with outcome measures. Specifically, higher life satisfaction reports in all domains significantly correlated with lower reports of depression, anxiety, and behavior problems. In addition, higher life satisfaction in specific domains (i.e., Friendship) significantly correlated with higher reading and math performance. This makes sense in that anxiety, depression, and personal adjustment problems have direct bearing on one's quality of life (Adelman et al., 1989; Gilman & Huebner, 2006; Suldo & Huebner, 2006). It also should be noted that inattention/hyperactivity was significantly negatively correlated with life satisfaction. These data emphasize the need for school-based supports that both focus directly on strategies to increase attention and decrease hyperactivity, and arrange accommodations or modifications that ameliorate the impact of those symptoms. Furthermore, the finding that broad reading and applied problems positively correlated with high life satisfaction, specifically in the Friendship domain, supports the association between life satisfaction and higher academic performance. These findings are consistent with research from other populations (Lewis et al., 2011; Lyons & Huebner, 2015) suggesting that academic performance could potentially act as a protective factor. This consideration is important, as emphasis on academic performance is likely to accrue a number of related benefits.

An important finding from the current study that research has not previously parceled out is life satisfaction among various subgroups of adolescents with SEB problems.

Differences in mean ratings of satisfaction with life were found based on gender and ethnicity, but not age or economic status. Specifically, female students with SEB problems reported being significantly less satisfied than their male counterparts with family, themselves, and overall life. Previous research with typical students documented that female students reported greater satisfaction with their friendships and school experiences compared with males (Huebner et al., 2000), whereas other research did not find gender differences (McCullough & Huebner, 2003). Thus, our results emphasize the importance of not generalizing findings from general education students to students with disabilities. One possible explanation is that females with SEB problems are underidentified due to their greater tendency to exhibit internalizing problems rather than externalizing. Thus, those female students who exhibit the type of SEB problems that garner attention from school staff may experience more severe symptoms. This theory is consistent with gender disproportionality among the group of students labeled as having emotional disturbance (ED) as well as students referred for the current study. It is also possible that real differences exist due to variances in development, gender expectations, or intervention availability and/or effectiveness. Regardless, these findings, particularly if broadly replicated, suggest the salience and impact of gender inequality at the age of adolescence. Future research should examine when these differences are replicated and attention should be paid to social, school, and family changes that are needed to reduce disparities.

With respect to ethnicity, research has been limited and has produced inconsistent findings. Although Huebner et al. (2000) found that Caucasian students reported higher satisfaction with their Friendships and Living Environment compared with African American students, Huebner et al. (2006) did not find significant effects for ethnicity when comparing African American and Caucasian middle school students. It should be noted, however, that examination of racial differences in both studies was limited to Caucasian and African American students. In addition, the samples in both studies were limited to one geographical area and no distinction between students in general education and students identified with disabilities was made. Our study extends research on demographic variables by including Hispanic students, students from various states, as well as students identified with SEB problems. Our findings that Hispanic/Latino students were significantly less satisfied with themselves, their living environment, and overall life when compared with Black/African American students, indicates that further research examining additional ethnic groups is critical.

Another important finding is that self-reported life satisfaction showed variability across time. The fact that life satisfaction reports in the areas of family, school, and overall life increased across the 2-year time period suggests that life satisfaction may be a malleable construct. For example, it is possible that changes resulted from naturally occurring events, such as maturation or school transition. That is, longer time spent at a given school may result in more favorable satisfaction ratings. This is consistent with previous research indicating that students have difficulty with school transitions, such as elementary to middle school and middle school to high school (e.g., Lane, Oakes, Carter, & Messenger, 2015). It is also possible that changes were a result of timing of the assessment. The first assessment of life satisfaction was administered near the beginning of the school year while the second occurred near the end of the second school year. At least, in the area of satisfaction with school, it is possible that students have more favorable attitudes when the school year is near an end. No significant changes were found regarding satisfaction with Friendship, Self, and Living Environment, which might be indicative of more stable constructs.

Limitations

Several limitations in the current study should be noted. First, after school staff nomination, the participants were screened to assure they had significant SEB problems for participation in the larger study. To identify six to 10 eligible participants, schools referred 20 to 25 students and some students who were screened did not exhibit significant challenges, according to the study criteria. This also raises questions about the ability of educators to accurately identify students with SEB problems. However, the fact that the current sample consisted of equal numbers of students with a label of ED and those without, all with significant SEB problems, suggests the possibility that the sample may be more representative of the larger population of students with SEB problems than samples consisting of only identified students, particularly given that special education identification rates greatly underrepresent population estimates. Regardless, the findings should be interpreted with caution with respect to generalization to a larger population.

Regarding measurement, the study relied solely on student self-report to measure their quality of life. Although this is ostensibly the best (and perhaps only) way to measure quality of life as individual priorities and references differ, other studies have also assessed parent opinions of their child's quality of life for comparison purposes (Sacks & Kern, 2008). The results might have been different if teacher and parent perceptions were included.

Another limitation is missing data. The number of completed measures varied, with most reported by at least 530 students, except for the WJ-III, which was completed by substantially fewer students (i.e., 305–328) due to student attrition throughout the trial, as well as student refusal to complete a lengthy assessment.

Another consideration pertains to the stability of quality of life assessments. All students in our study received intervention of some sort, even though the comparison intervention was not hypothesized to significantly influence student behavior. Nonetheless, results may differ for students receiving no intervention or alternative interventions. In addition, research examining test–retest reliability found that the BMSLSS was highly stable; however, stability was examined over only a 2-week time period. It is possible that self-reports of quality of life may vary in unknown ways over longer periods of time. Further research is needed to determine stability of the BMSLSS and sensitivity to change. A unique contribution of our study is that, to our knowledge, it is the first to examine change over an extended, 2-year time period. Future research should conduct more frequent self-assessments of life quality to more closely examine stability as a function of time.

Implications for Research and Practice

Our current findings emphasize the importance of restructuring intervention efforts in schools with increased attention to quality of life. In addition to changes in various aspects of curriculum and programming, along with supports to address behavioral and mental health needs, researchers and school professionals should specifically consider interventions that increase students' satisfaction with their school experience as this could concurrently improve school performance and retention. For instance, programs that better link student learning to their postschool needs are likely to increase school satisfaction.

For assessment and intervention purposes, it is important for educators to understand how their students judge their own satisfaction with overall life, as well as different life domains. This could prove to be a much better predictor of poor or favorable outcomes than more proximal measures of behavior (e.g., office disciplinary referrals, special education status). The BMSLSS takes just a few minutes to complete and could serve as a screener to further understand student satisfaction with specific life domains. Life satisfaction measures could also enable educators to better understand the role different environmental factors play in a student's functioning and thus inform prevention and intervention efforts (Huebner & Gilman, 2004). For example, if a student reports low satisfaction in a particular domain (e.g., school, family), further assessments might identify the source of discontentment that could be addressed through intervention. The need for an intervention, as well as the success experienced after an intervention, should not be determined solely on the degree of reduction in problem behaviors, but rather how it affects overall or domains of life satisfaction.

Future research should explore assessment and intervention approaches targeting both indicators of psychopathology alongside indicators of satisfaction with life. Such an approach is likely to help identify interventions that result in truly meaningful improvements. One such approach is described by the dual factor model of mental health that explicitly includes life satisfaction and psychopathology in the definition of mental health and recommends inclusion of life satisfaction in assessment and intervention efforts (Greenspoon & Saklofske, 2001; Suldo & Shaffer, 2008). In a recent study, Suldo, Savage, and Mercer (2014) found that middle school students' participation in a 10-week group wellness-promotion intervention was associated with increases in global life satisfaction. Thus, empirical evidence for changing life satisfaction via intervention is promising and should be pursued in future research with students with SEB problems.

In addition to using life satisfaction to evaluate the outcomes and broad impact of an intervention (Huebner & Gilman, 2004), we also recommend that future research explore intervention practices that may alter life satisfaction. As our research suggested, it is possible that life satisfaction is malleable and also less stable than assumed. Additional research needs to be conducted, however, to ascertain sensitivity to change of BMSLSS or other measures of life satisfaction.

Authors' Note

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References

Adelman, H. S., Taylor, L., & Nelson, P. (1989). Minors' dissatisfaction with their life circumstances. *Child Psychiatry and Human Development*, *20*, 135–147. doi:10.1007/BF00711660

Ager, A. (2002). "Quality of life" assessment in critical context. *Journal of Applied Research in Intellectual Disabilities*, *15*, 369–376. doi:10.1046/j.1468-3148.2002.00133.x

Anderson, A., Christenson, S., Sinclair, M., & Lehr, C. (2004). Check and connect: The importance of relationships for promoting engagement with school. *Journal of School Psychology*, *42*, 95–113. doi:10.1016/j.jsp.2004.01.002

Athay, M. M., Kelley, S. D., & Dew-Reeves, S. E. (2012). Brief Multidimensional Students' Life Satisfaction Scale–PTPB

Version (BMSLSS-PTPB): Psychometric properties and relationship with mental health symptom severity over time. *Administration and Policy in Mental Health and Mental Health Services Research*, *39*, 30–40. doi:10.1007/s10488-011-0385-5

Büssing, A., Fischer, J., Haller, A., Heusser, P., Ostermann, T., & Matthiessen, P. F. (2009). Validation of the brief multidimensional scale in patients with chronic diseases. *European Journal of Medical Research*, *14*, 171–177. doi:10.1186/2047-783x-14-4-171

Carr, E. G., Dunlap, G., Horner, R. H., Koegel, R. L., Turnbull, A. P., Sailor, W., . . . Fox, L. (2002). Positive behavior support: Evolution of an applied science. *Journal of Positive Behavior Interventions*, *4*(1), 4–16. doi:10.1177/109830070200400102

Diener, E., & Chan, M. Y. (2011). Happy people live longer: Subjective well-being contributes to health and longevity. *Applied Psychology: Health and Well-being*, *3*(1), 1–43. doi:10.1111/j.1758-0854.2010.01045.x

Diener, E., Suh, E. M., Lucas, R. E., & Smith, H. L. (1999). Subjective well-being: Three decades of progress. *Psychological Bulletin*, *125*, 276–302. doi:10.1037/0033-2909.125.2.276

Funk, B. A., Huebner, E. S., & Valois, R. F. (2006). Reliability and validity of a brief life satisfaction scale with a high school sample. *Journal of Happiness Studies*, *7*, 41–54. doi:10.1007/s10902-005-0869-7

Gilman, R., & Huebner, E. S. (2006). Characteristics of adolescents who report very high life satisfaction. *Journal of Youth and Adolescence*, *3*, 311–319. doi:10.1007/s10964-006-9036-7

Greenspoon, P. J., & Saklofske, D. H. (2001). Toward an integration of subjective well-being and psychopathology. *Social Indicators Research*, *54*, 81–108. doi:10.1023/a:1007219227883

Griffin, M., & Huebner, E. S. (2000). Multidimensional life satisfaction reports of students with serious emotional disturbance. *Journal of Psychoeducational Assessment*, *18*, 111–124. doi:10.1177/073428290001800202

Huebner, E. S. (1994). Preliminary development and validation of a multidimensional life scale for children. *Psychological Assessment*, *6*, 149–158. doi:10.1037//1040-3590.6.2.149

Huebner, E. S., & Alderman, G. L. (1993). Convergent and discriminant validation of a children's life satisfaction scale: Its relationship to self- and teacher-reported psychological problems and school functioning. *Social Indicators Research*, *30*, 71–82. doi:10.1007/bf01080333

Huebner, E. S., Drane, J. W., & Valois, R. F. (2000). Levels of demographic correlates of adolescent life satisfaction reports. *School Psychology Quarterly*, *21*, 281–292. doi:10.1177/0143034300213005

Huebner, E. S., & Gilman, R. (2004). Perceived quality of life: A neglected component of assessments and intervention plans for students in school settings. *The California School Psychologist*, *9*, 127–134. doi:10.1007/bf03340913

Huebner, E. S., Suldo, S. M., Smith, L. C., & McKnight, C. G. (2004). Life satisfaction in children and youth: Empirical foundations and implications for school psychologists. *Psychology in the Schools*, *41*, 81–93. doi:10.1002/pits.10140

Huebner, E. S., Suldo, S. M., Valois, R. F., & Drane, J. W. (2006). The Brief Multidimensional Students' Life Satisfaction Scale: Sex, race, and grade effects for applications with middle school students. *Applied Research in Quality of Life*, *1*, 211–216. doi:10.1007/s11482-006-9016-9

Kern, L., Evans, S. W., & Lewis, T. J. (2011). Description of an iterative process for intervention development. *Education and Treatment of Children*, *34*, 593–617. doi:10.1353/etc.2011.0037

Kern, L., Evans, S. W., Lewis, T. J., State, M., Weist, M. D., & Wills, H. P. (2015). CARS Comprehensive intervention for secondary students with emotional and behavioral problems: Conceptualization and development. *Journal of Emotional and Behavioral Disorders*, *23*, 195–205. doi:10.1177/1063426615578173

Lane, K. L., Oakes, W. P., Carter, E. W., & Messenger, M. (2015). Examining behavioral risk and academic performance for students transitioning from elementary to middle school. *Journal of Positive Behavior Interventions*, *17*, 39–49. doi:10.1177/1098300714524825

Lewis, A. D., Huebner, E. S., Malone, P. S., & Valois, R. F. (2011). Life satisfaction and student engagement in adolescents. *Journal of Youth and Adolescence*, *40*, 249–262. doi:10.1007/s10964-010-9517-6

Lyons, M. D., & Huebner, E. S. (2015). Academic characteristics of early adolescents with higher levels of life satisfaction. *Applied Research in Quality of Life*, *11*, 757–771. doi:10.1007/s11482-015-9394

Lyubomirsky, S., King, L., & Diener, E. (2005). The benefits of frequent positive affect: Does happiness lead to success? *Psychological Bulletin*, *131*, 803–855. doi:10.1037/0033-2909.131.6.803

March, J. S. (2012). *Multidimensional Anxiety Scale for Children 2nd Edition (MASC 2)*. Toronto, CA: MultiHealth Systems.

March, J. S., Sullivan, K., & Parker, J. (1999). Test–retest reliability of the Multidimensional Anxiety Scale for Children. *Journal of Anxiety Disorders*, *13*, 349–358. doi:10.1016/s0887-6185(99)00009-2

McCullough, G., & Huebner, E. S. (2003). Life satisfaction reports of adolescents with learning disabilities and normally achieving adolescents. *Journal of Psychoeducational Assessment*, *21*, 311–324. doi:10.1177/073428290302100401

Oishi, S., Diener, E., & Lucas, R. E. (2007). The optimum level of well-being: Can people be too happy? *Perspectives on Psychological Science*, *2*, 346–360. doi:10.1111/j.1745-6916.2007.00048.x

Proctor, C., Linley, A., & Maltby, J. (2010). Very happy youths: Benefits of very high life satisfaction among adolescents. *Social Indicators Research*, *98*, 519–532. doi:10.1007/s11205-009-9562-2

Quinn, M. M., Rutherford, R. B., Leone, P. E., Osher, D. M., & Poirier, J. M. (2005). Youth with disabilities in juvenile correction: A national survey. *Exceptional Children*, *71*, 339–345. doi:10.1177/001440290507100308

Reynolds, C. R., & Kamphaus, R. W. (2004). *Behavior Assessment System for Children, Second Edition (BASC-2)*. Circle Pines, MN: AGS Publishing.

Reynolds, W. M. (2002). *Reynolds Adolescent Depression Scale: Professional Manual* (2nd ed.). Lutz, FL: Psychological Assessment Resources.

Sacks, G., & Kern, L. (2008). A comparison of quality of life variables for students with emotional and behavioral disorders and students without disabilities. *Journal of Behavioral Education*, *17*, 111–127. doi:10.1007/s10864-007-9052-z

Seligson, J. L., Huebner, E. S., & Valois, R. F. (2003). Preliminary validation of the brief multidimensional students' life satisfaction scale. *Social Indicators Research*, *61*, 121–145. doi:10.1023/a:1021326822957

Seligson, J. L., Huebner, E. S., & Valois, R. R. (2005). Validation of a brief life satisfaction scale with elementary school students. *Social Indicators Research*, *73*, 355–374. doi:10.1007/s11205-004-2011-3

Suldo, S. M., & Huebner, E. S. (2006). Is extremely high life satisfaction during adolescence advantageous? *Social Indicators Research*, *78*, 179–203. doi:10.1007/s11205-005-8208-2

Suldo, S. M., Savage, J. A., & Mercer, S. H. (2014). Increasing middle school students' life satisfaction: Efficacy of a positive psychology group intervention. *Journal of Happiness Studies*, *15*, 19–42. doi:10.1007/s10902-013-9414-2

Suldo, S. M., & Shaffer, E. J. (2008). Looking beyond psychopathology: The dual-factor model of mental health in youth. *School Psychology Review*, *37*, 52–68. Retrieved from http://web.a.ebscohost.com.ezproxy.lib.lehigh.edu/ehost/pdfviewer/pdfviewer?sid=7c773d96-7479-4e78-969f-538b451c49f1%40sessionmgr4004&vid=1&hid=4114

Thaler, N. S., Kazemi, E., & Wood, J. J. (2010). Measuring anxiety in youth with learning disabilities: Reliability and validity of the Multidimensional Anxiety Scale for Children (MASC). *Child Psychiatry and Human Development*, *41*, 501–514. doi:10.1007/s10578-010-0182-5

Wagner, M., Kutash, K., Duchnowski, A. J., Epstein, M. H., & Sumi, W. C. (2005). The children and youth we serve: A national picture of the characteristics of students with emotional disturbances receiving special education. *Journal of Emotional and Behavior Disorders*, *13*(2), 79–96. doi:10.1177/10634266050130020201

Woodcock, R. W., McGrew, K. S., & Mather, N. (2001). *Woodcock-Johnson III Tests of Achievement*. Itasca, IL: Riverside.

Zullig, K. J., Huebner, E. S., Patton, J. M., & Murray, K. A. (2009). The Brief Multidimensional Students' Life Satisfaction Scale–College Version. *American Journal of Health Behavior*, *33*, 483–493. doi:10.5993/ajhb.33.5.1