

Youth life satisfaction measures: a review

Carmel Proctor^{a*}, P. Alex Linley^b and John Maltby^a

^aSchool of Psychology, University of Leicester, UK; ^bCentre for Applied Positive Psychology, University of Warwick Science Park, Coventry, UK

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The burgeoning field of positive psychology has highlighted the need to discover what makes life worth living. Within this framework is the exploration of how youths perceive their lives and achieve happiness. Recent research demonstrates that perception of life satisfaction (LS) among youths has important implications for their psychological, social, and educational functioning. An important part of understanding how youths perceive their lives is the incorporation of measurement of life satisfaction, and this article provides a review of the extant measures of youth life satisfaction. Following systematic literature searches, empirical studies ($n = 47$) of youth LS measures are reviewed. The review provides an overview of each instrument outlining its normative samples, reliability, and validity. Recommended future research directions are briefly discussed.

Keywords: life satisfaction; youth; adolescents; measure; review; psychometric

Introduction

For more than half a century, psychology has been a science devoted to the accurate diagnosis and treatment of mental illness. Recently, however, the positive psychology movement has brought about paradigm shifts that have caused increased attention away from the negative personal psychological effects of stressors and events that make life miserable, towards positivity and the discovery of what makes life worth living. Exploration of positive characteristics including happiness, life satisfaction, love, morality, altruism, spirituality, and goodness have recently expanded.

Within the framework of positive psychology (Seligman & Csikszentmihalyi, 2000), lies the foundation for understanding and promoting positive youth development (Park, 2004). Positive youth development research focuses on developmental potential rather than deficiencies (Damon, 2004). Currently, numerous research-based programs exist which are aimed at the developmental potentialities of youths, and continued rigorous applied psychology is needed in this area (Larson, 2000). An important part of this work includes the implementation of self-report measures of subjective quality of life in the assessment and evaluation of educational and social programs aimed at promoting positive development among youths (Proctor, Linley, & Maltby, 2008). Research demonstrates that life satisfaction is a key component in the attainment of positive mental health and is a determinant of many life outcomes (Proctor et al., 2008).

Accordingly, understanding the way in which youth perceive their lives is fundamental discovering how youth achieve happiness. Insight into perceptions of youths' levels of life satisfaction (LS) has implications for psychological, social, and educational functioning.

Purpose

The purpose of this paper is to review extant measures of youth LS. Several scales have been developed which purport to measure satisfaction among youth, however only a handful specifically provide an indication of overall levels of satisfaction with life. To provide context, a discussion of subjective well-being (SWB) and its relation to LS is presented, followed by a brief discussion of LS models. Consistent with the review conducted by Gilman and Huebner (2000), the remainder of this review will provide an overview of each instrument outlining its normative sample(s), reliability (e.g., internal consistency and test–retest reliability), and validity (e.g., construct, convergent, and discriminant validity). It is the aim of this review to add to the existing literature by including all relevant measures of youth LS as gathered through specified systematic literature search strategies, thereby ensuring that recently developed instruments are not overlooked. Further, this review aims to be a source of reference for current youth LS measures and, thus, has been organized so that each instrument is overviewed concisely and presented according to its underlying

*Corresponding author. Email: clp17@le.ac.uk

conceptual model (i.e., unidimensional, multidimensional). Overviews conclude with a brief summary of each measure and various limitations of each scale. Following the measures summaries, a brief discussion of recommended future research directions is presented.

Subjective well-being

Inherent to both positive psychology and positive youth development is the concept of SWB. Diener, Suh, Lucas, and Smith (1999) defined SWB as a tripartite category of phenomena which includes positive affect (e.g., joy, optimism), negative affect (e.g., sadness, anger), and LS (i.e., evaluation of life as a whole). According to multitrait-multimethod analyses conducted by Lucas, Diener, and Suh (1996), pleasant affect, unpleasant affect, and LS are separable constructs, and therefore can be assessed as separate components (Diener et al., 1999; Pavot & Diener, 2004).

In general, the affective components of SWB have received more attention in the literature than the cognitive components (i.e., LS) (Diener, Emmons, Larsen, & Griffin, 1985; Pavot & Diener, 1993; Pavot, Diener, Colvin, & Sandvik, 1991), despite the fact that each of the three components are generally considered of equal importance (Gilman, Huebner, & Laughlin, 2000). This imbalance is accounted for in part by the fact that the affective components are based on emotional responses which, although invariably short lived and fluctuating, are representative of the nature of everyday life (Gilman et al., 2000). Life satisfaction, on the other hand, is based on overall cognitive appraisals of quality of life and, thus, typically not susceptible to change due to short-term emotional reactions to life events. Therefore, LS is considered not only to be a more stable component (Eid & Diener, 2004), but also the key indicator of positive SWB (Diener & Diener, 1995), and consequently the indicator most amenable for inclusion in studies of youths' perceptions of their life circumstances (Huebner, 2006).

Life satisfaction

Life satisfaction is the cognitive assessment of one's life as a whole (Shin & Johnson, 1978). In arriving at overall evaluations of life, individuals typically use their own set of criteria and standards in weighting the different aspects of their lives (Diener et al., 1985; Pavot & Diener, 1993; Shin & Johnson, 1978). Consequently, it is often more meaningful to assess global judgments of LS rather than satisfaction with specific life domains (Diener & Diener, 1995; Pavot & Diener, 1993; Pavot et al., 1991). However, when

a more differentiated assessment is required for purposes of focused diagnostic, prevention, and intervention efforts, measures of multidimensional LS may be required (Huebner, 2001). Nevertheless, the LS construct incorporates the full range of satisfaction (i.e., from very low to very high) and thus measurement of this personal strength is fitting for a positive psychological paradigm interested in optimal well-being and human fulfillment (Huebner, 2004).

Literature search strategies

Literature to be included in this review was established using three search strategies. First, two major psychology databases, PsycINFO and PsycARTICLES, were searched for peer-reviewed published literature in April 2008. Abstracts in each of these databases were searched with each of the following specific search terms: *life satisfaction*, *psychometric*, *adolescent*, and *youth*. During each search, the terms were paired and combined (i.e., *life satisfaction* and *psychometric*; *life satisfaction* and *adolescent*; *life satisfaction* and *youth*; *life satisfaction*, *psychometric*, and *adolescent*; *life satisfaction*, *psychometric*, and *youth*); the use of these specific search terms was based on information obtained from the results of the literature search strategies employed by Proctor et al. (2008). The search results from these specific search terms were then screened via the title and abstract for their relevance for inclusion in this review. Non-empirical (i.e., theoretical, literature review) publications, dissertations, and foreign language studies were not included. Further, in line with Gilman and Huebner (2000), only studies that unequivocally examined youth life satisfaction were included. That is, studies that included scales that measured other similar well-being constructs (e.g., positive affect, see Watson, Clark, & Tellegen, 1988), or restricted the measurement of LS to a specific domain (e.g., school, see Epstein & McPartland, 1977), were not included. Similarly, satisfaction measures designed for those with specific disabilities or medical conditions (e.g., the Pediatric Cancer Quality of Life Inventory, see Varni et al. 1998), or for those over the age of 18 (e.g., the Quality of Life Inventory, see Frisch, Cornell, Villanueva, & Retzlaff, 1992), were also excluded. Finally, only studies specifically reporting the psychometric properties of LS measures were included. Therefore, this review does not include studies which would be included in a general review of the youth LS literature (see Proctor et al., 2008, for a review). Using this strategy, a total of 12 empirical studies (i.e., English language) were identified. References obtained from the search performed using the first strategy are marked with an asterisk (*) in Table 1.

Table 1. Youth life satisfaction measures: sample characteristics of reviewed studies.

Scale	Study	Location	N	Gender	Mean age	Alpha	Mean score	SD
SLSS	** (Huebner, 1991a)	USA	79	29 F; 50 M	11.54	0.82	19.79	4.61
	** (Huebner, 1991b)	USA	254	125 F; 128 M	10.54	0.86		
	** (Huebner, 1991c)	USA	S1: 254 S2: 329	125 F; 128 M	10.54	0.82	26.08	5.65
	** (Huebner & Alderman, 1993)	USA	S1: 56 S2: 53	26 F; 30 M 11 F; 42 M	10.20 10.89	0.74	20.84	4.51
	* (Huebner & Dew, 1993a)	USA	222	115 F; 107 M (TS)	15.50 (TS)		21.93 20.28	4.27 4.29
	** (Dew & Huebner, 1994)	USA	222	115 F; 107 M	15.50	0.85 (AM)	19.05	4.41
	** (Huebner, 1994a)	USA	235	125 F; 110 M	11.72	0.85 (CA)	21.57	3.92
	* (Huebner, 1995)	USA	654	337 F; 315 M (TS)	09.36 (TS)	0.86	20.26	4.35
	** (Terry & Huebner, 1995)	USA	183	97 F; 86 M (TS)	09.07 (TS)	0.75 (AM) 0.79 (CA) 0.73 (TS)	20.52 21.57 19.68 (AM) 22.05 (CA)	4.29 4.29 4.08 4.07
	** (Gilman & Huebner, 1997)	USA	S1: 99 S2: 73	60 F; 39 M 46 F; 27 M	12.60 12.70	0.84 0.82	31.62	7.60
	** (Huebner et al., 1999)	USA	290	165 F; 125 M	12.90			
	*** (Huebner et al., 2000b)	USA	T1: 321 T2: 99	209 F; 112 M 64 F; 35 M	16.14	0.84 0.79	29.40 30.94	6.58 6.23
*** (Harain et al., 2007)	USA	T1: 1,201 T2: 821 T3: 577	769 F; 432 M 534 F; 287 M 375 F; 202 M	14.62 15.19 15.76	0.84-0.91*			
*** (Arrindell et al., 1991)	Netherlands		72 F; 35 M		0.87	23.63	7.01	
*** (Arrindell et al., 1999)	Netherlands		887 F; 888 M		0.82	26.18	5.72	
* (Diener et al., 1985)	USA	S1: 176 S2: 163 S3: 53			0.87	23.50	6.43	
*** (Hultell & Gustavsson, 2008)	Sweden		32 F; 21 M	75.00		25.80		
*** (Lewis et al., 1995)	Ireland		2447 F; 453 M	28.92	0.88			
** (Pavot et al., 1991)	USA	S1: 39 S2: 136	165 F; 48 M 23 F; 16 M 85 F; 51 M	21.60 74.00	0.83 0.83	24.44 24.05	6.99 7.82	
*** (Pons et al., 2000)	Spain	133	65 F; 68 M	13.00		3.54-4.05	0.74-1.11	
* (Neto, 1993)	Portugal	133	68 F; 65 M	78.60		3.30-3.75	0.93-1.23	
*** (Shevlin & Bunting, 1994)	Ireland	217	118 F; 99 M	14.70	0.78	24.10	5.90	
*** (Shevlin et al., 1998)	Britain	96	49 F; 37 M					
** (Adelman et al., 1989)	USA	258	85 F; 173 M	22.90 F; 20.60 M	0.92			
** (Huebner & Dew, 1993b)	USA	S1: 221	111 F; 110 M	14.50		8.60	5.9	
** (Huebner & Dew, 1993c)	USA	S2: 179	82 F; 97 M	13.20		7.00	4.10	
** (Smith et al., 1987)	USA	S3: 68 S4: 47	44 F; 24 M 13 F; 34 M	12.90 11.10		7.80 9.70	4.70 6.80	
		222	115 F; 107 M	15.50	0.77-0.81			
		222	115 F; 107 M	15.50	0.89	87.42	15.20	
		S1: 80	53 F; 27 M	13.20		59.50	5.80	

(continued)

Table 1. Continued.

Scale	Study	Location	N	Gender	Mean age	Alpha	Mean score	SD	
ESWLS	***(Alfonso et al., 1996) ***(Gregg & Salisbury, 2004)	USA	S2: 57	19 F; 38 M	13.30		57.30	6.10	
			S3: 51	11 F; 40 M	14.3		59.90	6.70	
		USA	302			0.81-0.89	23.30-48.20	4.70-11.00	
			S1: 151						
MSLSS	**(Huebner, 1994b)	USA	S1: 312	168 F; 144 M	10.90	0.92	2.65-3.31	0.57-0.64	
			S2: 413	201 F; 212 M	08.97	0.92	3.02-3.34	0.56-0.62	
	*(Greenspoon & Saklofske, 1997)	Canada	314	173 F; 141 M	11.00	0.90	2.90-3.50	0.47-0.62	
			314	173 F; 141 M	11.00	0.90			
	*(Huebner et al., 1998)	USA	291	166 F; 125 M	12.89	0.91	3.94-5.19	0.73-1.20	
			725	377 F; 344 M (TS)	09.90 (TS)	0.91 (AM)			
	*(Gilman et al., 2000)	USA	321	209 F; 112 M	16.14	0.91	3.68-5.12	0.65-1.05	
			160	47 F; 33 M	15.80 (MMD)		2.73-3.08	0.39-0.64	
	MSLSS-A	***(Gilman et al., 2008)	USA	308	176 F; 132 M	14.58	0.93	3.70-5.17	0.67-1.14
				224	166 F; 58 M	14.80	0.93	3.88-5.31	0.70-1.15
Ireland			369	185 F; 184 M	14.10	0.89	3.73-4.78	0.62-0.95	
			437	227 F; 210 M	15.22	0.92	3.35-4.32	0.62-0.95	
*(Gilligan & Huebner, 2002)			USA	266	173 F; 93 M	16.20	0.72-0.90	3.91-4.99	0.82-1.06
				266	173 F; 93 M	16.20	0.72-0.90	3.91-4.99	0.82-1.06
BMSLSS	***(Huebner et al., 2000a)	USA	5544	2883 F; 2661 M (TS)			4.24-5.59 (AM)	1.39-1.91	
							4.19-5.71 (CA)	1.25-1.75	
ComQol	*(Seligson et al., 2003)	USA	S1: 221	93 F; 128 M	12.33	0.75	5.26-6.06	1.28-1.48	
			S2: 46	24 F; 22 M	15.65				
	*(Huebner et al., 2004)	USA	5,545	2883 F; 2662 M			4.97-5.07	1.11-1.24	
			518	274 F; 242 M	09.34	0.68	5.52-6.18	1.35-1.48	
	*(Seligson et al., 2005)	USA	T1: 146	79 F; 67 M	15.95	0.75	4.64-5.75 (TS)	1.10-1.54 (TS)	
			T2: 51	26 F; 25 M	15.98		5.31-6.08	0.94-1.65	
	****(Zullig et al., 2005)	USA	522	344 F; 178 M		0.78	5.18-5.93	1.02-1.28	
			308	239 F; 69 M		0.73	5.1-5.7	0.87-1.27	
	***(Cummins et al., 1994)	Australia	264	117 F; 147 M (TS)	14.92 (TS)	0.78 (F)	7.28-12.06	6.52-7.93	
						0.83 (M)	7.38-10.44	5.38-8.56	

Note: Key:

- S1 = Study 1
- S2 = Study 2
- T1 = Time 1
- T2 = Time 2
- F = Female
- M = Male
- = Information Not Provided
- MMD = Mild Mental Disability
- AM = African American
- CA = Caucasian
- TS = Total Sample
- * = Alpha range based on both SLSS & MSLSS total scores

Second, using the ancestry method (Anderson & Arseneault, 1998), the 12 identified articles chosen for inclusion had their references screened by title for other relevant publications. These publications were then collected and this process repeated until no further relevant references were derived. This process yielded an additional 18 empirical studies. References obtained from the search performed using the second strategy are marked with a double asterisk (**) in Table 1.

Third, references that were known by the author to be directly relevant to the review, but not detected using the other two search strategies, were also included. This process yielded an additional 9 empirical studies. References obtained using the third strategy are marked with a triple asterisk (***) in Table 1. Therefore, the three strategies employed yielded a total of 39 empirical studies for review.

Finally, in order to ensure the literature established from the first three literature search strategies was complete, a search of the Web of Science database using the previous literature search terms and strategies was conducted during July 2008. This search resulted in an additional 8 empirical studies. References obtained using the fourth strategy are marked with a quadruple asterisk (****) in Table 1. Therefore, a total of 47 empirical studies are to be reviewed.

Models of life satisfaction

Life satisfaction measures are typically derived from three conceptual models or frameworks: unidimensional (i.e., global and general LS) and multidimensional (Huebner, 2004). Measures representative of unidimensional models present an overall total score as indication of individual levels of LS. Multidimensional measures provide a profile of LS across various domains (i.e., satisfaction scores are calculated for each domain) (Huebner, 2004). The two unidimensional models differ in that for the global model the total score is derived from context-free items that allow individuals to use their own unique criteria on weighting the different aspects of their lives (Pavot & Diener, 1993). In contrast, in the general model the total score is the sum of LS reports across predetermined domains included by the authors (e.g., satisfaction with relationships, physical well-being, personal development) that are considered crucial to the contribution of overall LS (Gilman & Huebner, 2000; Huebner, 2004). The key difference between unidimensional and multidimensional models and measures of LS is that under the unidimensional framework the emphasis is on providing a single total LS score, whereas under the multidimensional framework the emphasis is on creating a profile of LS across multiple life domains.

Measures of adolescent life satisfaction

Global unidimensional scales

Students' Life Satisfaction Scale

The Students' Life Satisfaction Scale (SLSS; Huebner, 1991b, 1991c) is a 7-item self-report scale which assesses global LS for students aged 8–18. As a global measure of LS, items on the SLSS are context-free (e.g., *My life is better than most kids'* vs. *My family life is better than most kids'*) (Huebner, Suldo, & Valois, 2003). Students are required to respond to each item using a 6-point Likert scale: 1 = Strongly Disagree, 2 = Moderately Disagree, 3 = Mildly Disagree, 4 = Mildly Agree, 5 = Moderately Agree, and 6 = Strongly Agree. Items are summed for a total score and divided by seven to create a mean score. Using this rating scale, total scores range from 7–42, a high score on the SLSS is indicative of high LS, and low scores are indicative of low LS.

The initial scale was comprised of 10 items, which was reduced to 7 items as a result of item analysis and reliability estimates, and employed a 4-point Likert scale: 1 = never, 2 = sometimes, 3 = often, and 4 = always (see Huebner, 1991c). The 4-point Likert scale format is used with children, whereas the 6-point Likert scale format is used with adolescent samples. Using the 4-point format total scores range from 7–28. Administration instructions state that respondents should think about their lives over a period of several weeks and indicate their satisfaction with their overall life based on their agreement or disagreement with the seven statements presented to them. The SLSS may be individually or group administered and completion takes no more than few minutes.

Samples. Initial development research samples included 254 children aged 7–14 and 329 children aged 8–14, from a Midwestern American state (Huebner, 1991c). Examination of personality correlates and demographic variables was assessed in a sample of 79 children in grades 5–7 from a Midwestern American state (Huebner, 1991a), and among 222 children in grades 8–12 from a Southeastern American state (Dew & Huebner, 1994).

Reliability. Coefficient alphas have been consistently reported across all age groups (i.e., 8–18) for the SLSS ranging from 0.70–0.86. For example, an alpha of 0.82 was reported with initial samples, with 1–2 week test-retest reliability being reported at 0.74 (Huebner, 1991c). Overall, the SLSS has been shown to be a reliable measure of LS for students in elementary (e.g., Terry & Huebner, 1995) ($r=0.73$), middle (e.g., Huebner, 1991a) ($r=0.82$), and high (e.g., Dew & Huebner, 1994) ($r=0.86$) school. Moreover, examination of cross-cultural studies have shown comparability

of alpha coefficients between African American ($r=0.75, 0.85$) and Caucasian ($r=0.79, 0.85$) children (Huebner, 1995; Huebner & Dew, 1993a, respectively). Additional test-retest reliability estimates have been reported at 0.76 across 1–2 weeks (Terry & Huebner, 1995), 0.64 across 4 weeks, (Gilman & Huebner, 1997), and 0.53 across 1 year (Huebner, Funk, & Gilman, 2000b).

Validity. Evidence of construct validity has been demonstrated through comparison of SLSS scores with measures of related constructs. For example, positive correlations have been shown between the SLSS and the Perceived Life Satisfaction Scale (Adelman, Taylor, & Nelson, 1989; Dew & Huebner, 1994) ($r=0.58$), the Self-Description Questionnaire-II (SDQ-II; Marsh, 1990) ($r=0.58$ global, $r=0.57$ general, self-concept) (see Gilman & Huebner, 1997), the Piers-Harris Self-Concept Scale (Piers & Harris, 1984) ($r=0.53$) (see also Huebner, 1994a), the Delighted/Terrible scale (D/T; Andrews & Withey, 1976) ($r=0.62$), and the Moods Scale of the Dimensions of Temperament Survey-Revised (Windle & Lerner, 1986) ($r=0.34$) (see Huebner, 1991c).

Evidence of the convergent validity of the SLSS has been provided through significant positive correlations with measures of self-esteem ($r=0.65$) and extraversion ($r=0.23$), and significant negative correlations with measures of anxiety ($r=-0.51$), external locus of control (LOC) ($r=-0.48$), neuroticism ($r=-0.46$) (see Huebner, 1991a), depression ($r=-0.57$), loneliness ($r=-0.38$), and teacher ratings of classroom behavior problems ($r=-0.35$) (see Huebner & Alderman, 1993). Further, evidence of discriminant validity of the SLSS has been provided through non-significant correlations with school grades (Huebner, 1991a), social desirability (Huebner, 1991c), and intelligence (Huebner & Alderman, 1993). Moreover, the SLSS has demonstrated consistent moderate positive correlations ($r=0.25$ to 0.48) with the Adaptive Scales (e.g., self-esteem, interpersonal relations) and moderate negative correlations ($r=-0.17$ to -0.56) with the Clinical Scales (e.g., depression, anxiety, social stress) of the Behavior Assessment System for Children (BASC; Reynolds & Kamphaus, 1992) (Huebner et al., 2000b). Moreover, SLSS total scores have been demonstrated to be significantly related to scores on measures of internalizing and externalizing behavior 1–2 years later, providing evidence of the predictive validity of the scale (Haranin, Huebner, & Suldo, 2007). Further, the SLSS has demonstrated ethnic equivalency for internal consistency, factor structure, criterion-related validity, and reliability across two ethnic groups of elementary (Huebner, 1995) and high (Huebner & Dew, 1993a) school students. Finally, factor analyses have

supported a one-factor structure for the instrument (see Dew & Huebner, 1994; Gilman & Huebner, 1997; Huebner, 1991c). Scores on the SLSS have not been found to be related to demographic variables, including: age, grade, gender (Dew & Huebner, 1994; Gilman & Huebner, 1997; Huebner, 1991a, 1991c; Huebner & Alderman, 1993; Huebner, Gilman, & Laughlin, 1999), or ethnicity (Huebner, 1995; Huebner & Dew, 1993a).

Summary. Overall, research supports the SLSS as a psychometrically sound brief measure of LS for students aged 8–18. Specifically, the SLSS has demonstrated appropriate internal consistency reliabilities for students in elementary, middle, and high school across both response formats (i.e., 4-point and 6-point). Further, the SLSS has demonstrated moderate temporal stability across one year and preliminary equivalency across two ethnic groups for both children and adolescents. Evidence of the construct validity of the scale has been well supported through appropriate correlations with measures of various related constructs. Factor analyses have supported a one-factor solution for the instrument. Limitations include: (1) normative data is based on geographically narrow samples; (2) ethnic equivalency has been limited to comparisons across only two groups; and (3) repetitive wording of scale items could be problematic for children.

Satisfaction With Life Scale

The Satisfaction With Life Scale (SWLS; Diener et al., 1985) is a 5-item self-report measure of global LS. Respondents are required to respond to each item using a 7-point Likert scale: 1 = Strongly Disagree, 2 = Disagree, 3 = Slightly Disagree, 4 = Neither Agree or Disagree, 5 = Slightly Agree, 6 = Agree, and 7 = Strongly Agree. The scale was originally developed for use with adult populations, but it has subsequently been used extensively with adolescent samples. Scoring consists of summing the items for a total score that ranges from 5–35 and dividing by five to create a mean score. Scores on this scale can be interpreted in terms of absolute and relative LS (Pavot & Diener, 1993). For example, a score of 20 represents the *neutral point* on the scale, whereas scores between 21–25 represent *slightly satisfied*, 26–30 *satisfied*, 31–35 *extremely satisfied*, 15–19 *slightly dissatisfied*, 10–14 *dissatisfied*, and 5–9 *extremely dissatisfied* (Pavot & Diener, 1993). Administration instructions state that respondents should indicate their satisfaction with their overall life based on their agreement or disagreement with the five statements presented. The SWLS may be individually or group administered and completion takes no more than a few minutes.

Samples. Initial development research samples included 176 general undergraduate students, and 163 undergraduate students enrolled in introductory psychology, from the University of Illinois; and 53 American elderly participants (Diener et al., 1985). Additionally, psychometric properties of a Portuguese version of the scale was assessed among a sample of 217 students aged 14–17 (Neto, 1993).

Reliability. Development research studies among adults have demonstrated the SWLS to have strong internal reliability ($r=0.87$) and moderate temporal stability ($r=0.82$, 2-month test–retest reliability) (Diener et al., 1985). Among adolescents, an internal consistency reliability coefficient of 0.78 has been reported (Neto, 1993). Additional studies with adults have shown coefficient alphas in the range of 0.82 to 0.92 (Arrindell, Heesink, & Feij, 1999; Arrindell, Meeuwesen, & Huyse, 1991; Hultell & Gustavsson, 2008; Pavot et al., 1991; Shevlin, Brunsten, & Miles, 1998), with 2-week and 1-month test–retest reliabilities averaging 0.84 (Pavot et al., 1991).

Validity. Validity was demonstrated among adults through the convergence of the SWLS with other criterion measures for the two samples used during development of the scale, that is, the Fordyce Global Happiness Scale (Fordyce, 1977) ($r=0.58, 0.57$), the Cantril measure (Cantril, 1965) ($r=0.62, 0.66$), the Gurin scale (Gurin, Veroff, & Feld, 1960) ($r=0.59, 0.47$), the D/T scale ($r=0.68, 0.62$), and the Bradburn-Positive Affect Scale (Bradburn, 1969) ($r=0.50, 0.51$) (Diener et al., 1985). Further convergent validity among adults was demonstrated through correlations with external criteria, such as a memory measure of LS ($r=0.42$), peer reports of LS ($r=0.54$), and other self-reported measures of LS, such as the Life Satisfaction Index-A (Neugarten, Havighurst, & Tobin, 1961) ($r=0.81$) (Pavot et al., 1991). Construct validity has been provided among young adults through differentiation between LS and health status (see Arrindell et al., 1999). Moreover, positive LS among young adults has been demonstrated to be related to higher levels of self-esteem and trait-euphoria, and lower levels of trait-neuroticism and trait-dysphoria (see Arrindell et al., 1999). Among adolescents, scores on the SWLS were found to correlate negatively with loneliness ($r=-0.49$), social anxiety ($r=-0.23$), and shyness ($r=-0.29$), and positively with self-concept ($r=0.51$), social acceptance ($r=0.38$), happiness ($r=0.69$), and physical attractiveness ($r=0.32$) (Neto, 1993). Factor analyses have supported a one-factor structure for the instrument (Diener et al., 1985; Lewis, Shevlin, Bunting, & Joseph, 1995; Neto, 1993; Pavot et al., 1991; Pons, Atienza, Balaguer, & Garcia-Merita, 2000; Shevlin & Bunting, 1994);

partial support has also been provided for a two-factor second-order model, however further research is required in order to confirm the results (Hultell & Gustavsson, 2008). Factorial invariance has been provided for a single-factor model for both males and females, however further research is required to determine if it is also factorially invariant across age and ethnicity (Shevlin et al., 1998). Analysis of the effects of demographic variables on LS as measured by the SWLS among adolescents has revealed a moderate effect by both gender and socioeconomic status (SES) (see Neto, 1993). Among adults, scores on the SWLS have not been found to be related to gender, age, or education level; however, significant correlations have been demonstrated with marital status, with higher LS being found among married people (see Arrindell et al., 1991).

Summary. Overall, research supports the SWLS as a psychometrically sound brief measure of LS among adult populations and preliminary evidence supports its use with adolescents. Acceptable temporal stability has been provided across a 2-month period among adults, however temporal stability estimates among adolescents have not yet been reported. Preliminary research of the construct validity of the SWLS among adolescents has been supportive with appropriate correlations being found with various related variables. Factor analyses conducted with both adult and adolescent samples have supported a one-factor solution for the instrument. Limitations include: (1) limited normative samples of adolescents; (2) temporal stability among adolescents has not been established; and (3) lack of reported support for the effects of demographic variables on adolescent LS.

General unidimensional scales

Perceived Life Satisfaction Scale

The Perceived Life Satisfaction Scale (PLSS; Adelman et al., 1989; Smith, Adelman, Nelson, & Taylor, 1987) is a 19-item self-report measure designed to provide an indication of a youth's degree of satisfaction/dissatisfaction with their life across five major domains (i.e., material/physical well-being, relationships, environment, personal development/fulfillment, and recreation/entertainment) of quality of life. Individuals respond to items using a 6-point Likert scale: 1 = Not at All, 2 = Not Much, 3 = A Little, 4 = Somewhat, 5 = A Lot, and 6 = Extremely. The 6-point ratings are converted into three indices of dissatisfaction by scoring low ratings (1 and 2) as 2, moderate ratings (3 and 4) as 1, and high ratings (5 and 6) as 0. Thus, dissatisfaction scores can range from 0–38. Respondents are provided with an explanation card designed to assist them in understanding the

three ratings. On the card, the rating alternatives are presented in large font and graphically represented as circles with varying degrees of shading (Adelman et al., 1989).

Samples. Initial development research samples were comprised of three groups of regular classroom students, and one group of students referred to a mental health centre, from California, USA: 221 children aged 9–19; 179 children aged 11–16; 68 children 8–18; and 47 children aged 7–16, respectively (Adelman et al., 1989). Additionally, a demographic analysis was carried out among 222 children in grades 8–12 from a Southeastern American state (Huebner & Dew, 1993c).

Reliability. Internal reliability coefficient estimates have been reported for the PLSS as ranging from 0.74 to 0.80 (Smith et al., 1987), and as high as 0.89 in a sample of students in grades 8–12 (Huebner & Dew, 1993c), with test–retest reliability reported from a random sample of students over an unspecified time period of 0.85 (Adelman et al., 1989).

Validity. The validity of the PLSS has been demonstrated through its ability to discriminate between special and regular education students (Smith et al., 1987), as well as, between regular students and those referred for mental health services (Adelman et al., 1989). Construct validity has been provided through differentiation between the PLSS and various measures of related constructs, such as the SDQ-II ($r=0.48$), the Nowicki-Strickland Locus of Control Scale-Short Form (LOCS-SF; Nowicki & Strickland, 1973) ($r=-0.49$) (Huebner & Dew, 1993c), and the Children's Depression Inventory (Kovacs, 1981, 1992) ($r=0.55$) (Adelman et al., 1989). Further, cross-method convergent validity has been demonstrated through the correlation between PLSS scores and independent parent estimates ($r=0.42$) of their child's LS (Huebner & Dew, 1993c). The dimensionality of the PLSS has been demonstrated through exploratory factor analysis where a four-factor solution was retained as the most interpretable solution (eigenvalues across the four factors: 6.80, 1.78, 1.23, 1.10), suggesting that the PLSS is multidimensional (Huebner & Dew, 1993b). However, further confirmatory factor analysis is required in order to determine the factor structure of the scale and confirm its status as a scale measuring general unidimensional LS. Scores on the PLSS have not been found to be related to age, grade, gender, or ethnicity, however a moderate age effect and a negative correlation with SES has been reported (see Adelman et al., 1989; Huebner & Dew, 1993b).

Summary. Overall, preliminary internal consistency and test–retest reliability estimates support the use of the PLSS with adolescents. Development research samples consisted of older children and adolescents, however the exact applicable age range of this scale is unclear. Both convergent and discriminant validity have been supported for the scale. However, results of factor analyses have left doubt over the unidimensional structure of the scale and suggest that it may be multidimensional. Confirmatory factor analysis is required in order to determine the status of this scale as a general unidimensional measure. Limitations include: (1) normative data is limited in scope; (2) applicable age range for use has not been provided; (3) research supporting the psychometric properties has not been well established; (4) additional development and cross-cultural research is required in order to establish generalizability; and (5) doubt over the dimensionality of the scale is problematic.

Brief Multidimensional Students' Life Satisfaction Scale

The Brief Multidimensional Students' Life Satisfaction Scale (BMSLSS; Seligson, Huebner, & Valois, 2003) is a 5-item LS measure for use with children and adolescents aged 8–18. Each of the five items of the BMSLSS represents one of the five LS domains of the MSLSS (i.e., family, friends, school, self, and living environment) (Seligson et al., 2003). However, despite that the BMSLSS is based on the conceptual model of the MSLSS, the items are unique to the scale and thus it is not a short form of the MSLSS (Huebner, Suldo, Valois, Drane, & Zullig, 2004). Response options are derived from the D/T scale, a 7-point Likert style scale that ranges from: 1 = Terrible, 2 = Unhappy, 3 = Mostly Dissatisfied, 4 = Mixed (equally satisfied and dissatisfied), 5 = Mostly Satisfied, 6 = Pleased, and 7 = Delighted. The total (i.e., general) score is derived from the summation of the five items.

Samples. Initial development research samples included 221 children in grades 6–8 and 46 high school students, both from a Southeastern American state (Seligson et al., 2003). Further normative samples have included 518 children in grades 3–5 (Seligson, Huebner, & Valois, 2005), 146 students in grades 9–12 (Funk, Huebner, & Valois, 2006), and 5545 students in grades 9–12 (Huebner et al., 2004).

Reliability. Reliability coefficients for the total score have been reported at 0.68 for elementary (Seligson et al., 2005), 0.75 for middle (Seligson et al., 2003), and 0.75 (Funk et al., 2006) and 0.81 (Zullig, Valois, Huebner, Oeltmann, & Drane, 2001) for high school students. Among college students, an internal

consistency reliability coefficient of 0.78 has been reported (Zullig, Huebner, Gilman, Patton, & Murray, 2005). Two-week test–retest reliability coefficients have been reported at 0.91 among 51 high school students in grades 9–12 (Funk et al., 2006).

Validity. Criterion-related validity between the BMSLSS total score and other validated measures of LS have been acceptable; correlations with the MSLSS have been recorded at 0.66 (Seligson et al., 2003), and with the SLSS at 0.74 (Funk et al., 2006), 0.62 (Seligson et al., 2003), and 0.69 (Seligson et al., 2005). Moreover, BMSLSS total scores have been shown to correlate positively with the Adaptive Scales ($r=0.45$ to 0.65) and negatively with the Clinical Scales ($r=-0.17$ to -0.69) of the BASC (Funk et al., 2006). Construct validity has been supported through confirmatory factor analysis, multitrait-multimethod correlation comparisons with the total domain scores of the MSLSS and enhanced by significant correlations with other theoretically related instruments; for example, the Positive and Negative Affect Schedule-Children (Laurent et al., 1999; see Seligson et al., 2003, 2005). Similarly, among college students BMSLSS total scores have been found to be negatively related to scores on the Health Related Quality of Life Scale (HRQOLS), such that as the number of reported poor HRQOL days increased, levels of LS decreased (see Zullig et al., 2005). Overall, principal axis factor analyses have supported a one-factor structure for the instrument (see Funk et al., 2006; Seligson et al., 2005; Zullig et al., 2005). Scores on the BMSLSS have not been found to be related to demographic variables, such as age, grade, or gender (Funk et al., 2006; Huebner, Drane, & Valois, 2000a; Huebner et al., 2004; Seligson et al., 2003, 2005; Zullig et al., 2005), however weak associations have been found with SES (Seligson et al., 2003) and ethnicity (Huebner et al., 2004).

Summary. Overall, research findings support the use of the BMSLSS among youth aged 8–18, particularly in studies where it is beneficial to have a brief but reliable and valid alternative to longer multidimensional measures. Internal consistency reliability estimates have supported its use with elementary, middle, and high school students, and temporal stability has preliminarily been supported among adolescents. Criterion-related validity has been demonstrated through acceptable correlations with other well-being measures. Further, convergent and discriminant validity has been supported through appropriate correlations with theoretically related constructs. The one-factor structure of the BMSLSS has been supported by principal factor analyses. Limitations include: (1) normative data is based on geographically

narrow samples; (2) temporal stability among children has not been established; and (3) additional research is required among adolescents.

Multidimensional scales

Extended Satisfaction With Life Scale

The Extended Satisfaction With Life Scale (ESWLS; Alfonso, Allison, Rader, & Gorman, 1996) is a 50-item self-report scale that measures LS across nine domains (i.e., general, social, sex, school, family, relationship, self, physical, job). Individuals respond to items using a 7-point Likert scale: 1 = Strongly Disagree, 2 = Disagree, 3 = Slightly Disagree, 4 = Neither Agree or Disagree, 5 = Slightly Agree, 6 = Agree, and 7 = Strongly Agree. Scores from each subscale are calculated as the sum of the ratings from each of the items comprising the subscale. The ESWLS is used across a wide range of populations including adolescent, patient, and adult groups. Respondents of the ESWLS respond only to the subscales relevant to their lives or to the areas under study. For example, a person who did not go to school or work would not respond to the school or job satisfaction subscales. General administration instructions include asking respondents to agree or disagree with the statements provided. The ESWLS can be individually or group administered and completion takes 20 minutes or less. An alternative 22-item version of the scale, which includes three additional domains (i.e., income, health, safety), has also been proposed (see Gregg & Salisbury, 2004).

Samples. The initial development research sample was comprised of 302 undergraduate students from two American universities (Alfonso et al., 1996).

Reliability. Internal reliability coefficient estimates from the development research sample were reported as ranging from 0.81 to 0.96, with 2-week test–retest reliability reported from a 109 undergraduate student sample as ranging from 0.74 to 0.87 (Alfonso et al., 1996).

Validity. Preliminary support has been provided among adults for the convergent validity of the ESWLS through positive correlations with scales measuring conceptually distinct but overlapping constructs, such as self-esteem. For example, positive correlations were found between general ($r=0.48$) and self-satisfaction ($r=0.59$) as measured by the ESWLS (Alfonso et al., 1996) and the Rosenberg Self-Esteem Scale (RSE; Rosenberg, 1965). Further, preliminary support has been provided for the discriminant validity of the ESWLS indirectly through the correlations between the subscales of the measure being found to be

lower than their respective coefficient alpha reliabilities, and directly through structural equation modeling whereby some of the factors of the scale were found to be correlated but not identical (Alfonso et al., 1996). Factor analyses have suggested seven and nine factors, which considered together provide strong support for the developmentally hypothesized eight-factor solution accounting for 77% of the variance (Alfonso et al., 1996; Gregg & Salisbury, 2004).

Summary. Overall, preliminary results of ESWLS suggest that it has adequate internal reliability and convergent validity among young adults. However, further research is required in order to determine internal consistency reliability estimates and validity among adolescent samples. Further, a specified age range for the scale needs to be determined. Additional factor analyses are required in order to determine the factor structure of the instrument, as preliminary findings have not provided firm support for the hypothesized eight-factor solution. Further research is required in order to determine the usefulness and desirability of including the proposed additional domains of income, health, and safety. Limitations include: (1) normative samples of adolescents are required; (2) temporal stability among adolescents has not been established; (3) the effects of demographic variables on adolescent LS has not been examined; and (4) further research is required in order to determine the factor structure of the instrument.

Multidimensional Student's Life Satisfaction Scale

The Multidimensional Students' Life Satisfaction Scale (MSLSS; Huebner, 1994b) is a 40-item self-report scale designed to provide a profile of LS within five specific domains (i.e., family, friends, school, self), as well as, an overall assessment of general LS (Huebner & Gilman, 2002). The MSLSS is applicable for use with students aged 8–18. For elementary school children a 4-point Likert response format is used: 1 = Never, 2 = Sometimes, 3 = Often, and 4 = Almost Always. For middle and high school students a 6-point Likert scale response format is used: 1 = Strongly Disagree, 2 = Moderately Disagree, 3 = Mildly Disagree, 4 = Mildly Agree, 5 = Moderately Agree, and 6 = Strongly Agree. Domains consist of unequal items and, therefore, the domain and overall scores are made comparable by using domain averages (Huebner, 2001). Throughout the scale, a high score is indicative of high LS and low scores are indicative of low LS.

Samples. Initial development research samples included 312 children in grades 3–8 and 413 children in grades 3–5, from a Southeastern American state

(Huebner, 1994b). Further normative samples include 314 children in grades 3–8 from Western Canada (Greenspoon & Saklofske, 1997, 1998), 291 children in grades 6–8 (Huebner, Laughlin, Ash, & Gilman, 1998), 321 adolescents in grades 9–12 (Gilman et al., 2000), and 725 children in grades 3–8 (Huebner, 1998) from a Southeastern American state, and 160 adolescents in grades 9–12 from South Carolina, USA (Huebner, Brantley, Nagle, & Valois, 2002).

Reliability. Reliability coefficients for the MSLSS total score have been reported at 0.92 for elementary (Huebner, 1994b), 0.91 for middle (Huebner et al., 1998), and 0.91 for high (Gilman et al., 2000) school students. Internal consistency and test-retest alpha coefficients in the range of 0.70 to 0.90 have been reported by various studies of elementary school students (e.g., Greenspoon & Saklofske, 1997; Huebner, 1994b; Huebner et al., 1998). Examinations of ethnic bias have indicated equivalent coefficients for the total score for African American ($r=0.91$) and Caucasian ($r=0.93$) elementary school students, and across the five domains of the scale with the exception of the School domain where Caucasian ($r=0.87$) students had significantly higher reliability estimates to their African American (0.77) peers (Huebner, 1998). Cross-national comparisons of American (domain $r=0.82$ to 0.89, general $r=0.93$), Irish (domain $r=0.80$ to 0.90, general $r=0.93$), Chinese (domain $r=0.67$ to 0.87, general $r=0.89$), and South Korean (domain $r=0.79$ to 0.86, general $r=0.92$) students has revealed internal consistency estimates for the scale to be generally consistent across nationalities, with most values being found to exceed 0.70. An exception is the Self and Living Environment domains among Chinese adolescents (Gilman et al., 2008).

Validity. The dimensionality of the MSLSS has been supported through exploratory (eigenvalues across the five factors: 8.12, 3.40, 2.19, 1.83, 1.08, and 9.68, 3.20, 2.36, 2.40, 1.75, with 42.4% to 49.5% of the total variance accounted for) (Greenspoon & Saklofske, 1997; Huebner, 1994b, respectively) and confirmatory (Goodness of Fit Index: 0.78, Comparative Fit Index: 0.97) (Greenspoon & Saklofske, 1998; Huebner et al., 1998, respectively) factor analyses, which have supported the five-factor model of the instrument. Evidence of the convergent and the discriminant validity of the MSLSS has been provided through multitrait-multimethod correlation matrix analysis whereby significant convergent validity correlations (i.e., $r=0.41$ to 0.55 for the domains, and $r=0.50$ for the total score) between student and parental reports of LS were found (see Huebner et al., 2002). Further evidence of convergent and discriminant validity has

been demonstrated through correlations between the domain scores of the MSLSS and those of the SDQ-II (Huebner, 1994b; Huebner et al., 1998), the BASC (Gilman et al., 2000), and the BASC Self Report of Personality scales (Greenspoon & Saklofske, 1997). Evidence of construct validity has been provided through significant negative correlations between the MSLSS total score and depression ($r = 0.61$) and social stress ($r = 0.52$), as measured by the BASC. Further, domain scores on the MSLSS have been demonstrated to provide additional, unique information over and above that of a global LS measure (i.e., SLSS) in the prediction of later internalizing and externalizing behavior, thereby demonstrating the incremental validity of the domain scale scores (see Haranin et al., 2007).

Summary. Overall research findings have provided support for the use of the MSLSS with students aged 8–18 and may be used as an indicator of both general and domain specific LS. Internal consistency reliability estimates have been supported across elementary, middle, and high school students. Temporal stability has been established for the MSLSS among elementary school students; however, further research is required in order to assess stability among adolescents. Convergent and discriminant validity has been supported for the MSLSS through appropriate correlations with measures of related constructs. Exploratory and confirmatory factor analyses have supported a five-factor solution for the instrument. Limitations include: (1) further investigation of the meaningfulness of the domains with various populations is required; and (2) ethnic equivalency has been limited to comparisons across only two groups.

Multidimensional Students' Life Satisfaction Scale-Adolescent

The Multidimensional Students' Life Satisfaction Scale-Adolescent version (MSLSS-A; Gilligan & Huebner, 2002) is a 53-item self-report scale designed to provide a profile of LS within six specific domains (i.e., family, opposite-sex friends, same-sex friends, school, self, living environment). Individuals respond to items using a 6-point Likert scale: 1 = Strongly Disagree, 2 = Moderately Disagree, 3 = Mildly Disagree, 4 = Mildly Agree, 5 = Moderately Agree, and 6 = Strongly Agree. The MSLSS-A is a modification of the MSLSS designed specifically for use with adolescents and contains an additional domain measuring opposite-sex relationships. Negative items are reverse scored so that a high score on the MSLSS-A indicates high satisfaction and a low score low satisfaction. The total LS score is calculated by summing all items of the individual domains of the MSLSS-A and then dividing by six.

Samples. The initial development research sample was comprised of 266 adolescents in grades 9–12 from a Southeastern American state (Gilligan & Huebner, 2002, 2007).

Reliability. Alpha coefficients for the six domains have been reported as ranging from 0.72 to 0.90 (Gilligan & Huebner, 2002, 2007). Two-week test–retest reliability coefficients for the MSLSS-A have been reported as ranging from 0.85 to 0.90 for the domain scores and 0.94 for the total score (Gilligan & Huebner, 2007).

Validity. Factor analyses have supported a six-factor structure for the instrument, with 37.31% of the total variance accounted for (Gilligan & Huebner, 2007). Evidence of the convergent validity of the MSLSS-A has been supported through multitrait-multimethod correlation matrix analysis whereby significant convergent validity correlations ($r = 0.30$ to 0.37) between student and parental reports of LS were found (Gilligan & Huebner, 2002). Further support for the validity of the MSLSS-A has been demonstrated through correlations between the total LS score and LOC ($r = -0.55$) as measured by the LOCS-SF, self-esteem ($r = 0.62$) as measured by the RSE, and positive ($r = 0.52$) and negative ($r = -0.35$) affect as measured by the Positive and Negative Affect Scale (Watson et al., 1988) (see Gilligan & Huebner, 2007).

Summary. Overall, preliminary results suggest that the MSLSS-A has adequate internal reliability and temporal stability. However, additional research is required in order support these findings. Further, a specified age range for the scale needs to be determined. Scale development research suggests that the MSLSS-A has adequate convergent validity for research purposes. However, additional research is required in order to expand and support these findings. Initial factor analyses have supported a six-factor solution for the instrument, however findings suggest difficulty with the Self domain, and therefore additional analyses of the factor structure are necessary. Further development of this scale is necessary, although preliminary results suggest support for the psychometric properties of the scale. Limitations include: (1) normative data is limited; (2) specific adolescent age range for the scale has not been provided; (3) internal reliability estimates, and internal and external validity are not well established; and (4) factor structure of the instrument has not been fully determined.

Comprehensive Quality of Life Scale

The Comprehensive Quality of Life Scale (ComQoL; Cummins, McCabe, Romeo, & Gullone, 1994) is

a 35-item LS measure that assesses quality of life (QOL) on two dimensions (i.e., objective and subjective) in each of seven domains (i.e., material well-being, health, productivity, intimacy, safety, place in the community, emotional well-being). The scale was originally developed for use with adults (see Cummins, 1997a; Cummins et al., 1994), however an adolescent version has been designed for use with adolescents aged 11–18 (Gullone & Cummins, 1999). The adolescent version of the scale is currently in its fifth revision (see Cummins, 1997c) with a separate form available for individuals with intellectual disability (see Cummins, 1997b). The objective dimension assesses how often adolescents engage in an activity (e.g., “On average, how many hours of TV do you watch each day?”). The subjective dimension assesses satisfaction with each activity and each is weighted by its importance (e.g., “How satisfied are you with the things you own?” and “How important to you are the things you own?”). Both subjective dimension items are rated on 5-point Likert scales with the satisfaction ratings ranging from: 1 = Terrible, 2 = Mostly Dissatisfied, 3 = Mixed (equally satisfied and dissatisfied), 4 = Mostly Satisfied, and 5 = Delighted, and the importance ratings ranging from: 1 = Not Important At All, 2 = Slightly Important, 3 = Somewhat Important, 4 = Very Important, and 5 = Could Not Be More Important. In the fifth edition, each satisfaction item is responded to on a 7-point D/T scale, however the results using this extended format have not been published. Satisfaction and importance ratings are combined for each domain to arrive at a subjective QOL score. In order to weight scores according to importance, the five items on the satisfaction scale are coded: -4.0 , -2.5 , 1.0 , 2.5 , and 4.0 , so that each subjective score ranges from 20 (delighted \times could not be more important) to -20 (terrible \times not important at all). For each of the seven domains there are 7 satisfaction items and 7 importance items, and there are 3 items for each domain of the objective scale (i.e., 21 objective items).

Development of the ComQol was abandoned in 2001 for reasons detailed by Cummins (2002). However, the satisfaction scale was retained and used to form the basis of the Personal Well-being Index-Adult (PWI-A) scale (International-Wellbeing-Group, 2006), which is currently in its fourth revision. The PWI-A is designed for use with the general adult population, aged at least 18 years. The adolescent version of the scale is currently in its third revision (see Cummins & Lau, 2005c), with separate forms available for pre-school aged children (see Cummins & Lau, 2005b) and individuals with intellectual disability (see Cummins & Lau, 2005a).

Samples. The initial development research sample was comprised of 243 university students and 65 staff

from an Australian university (Cummins et al., 1994). Psychometric properties of the ComQol for adolescents has been reported from a sample of 264 students aged 12–18 from Melbourne, Australia (Gullone & Cummins, 1999).

Reliability. Among adults, coefficient alphas have been reported for the satisfaction subscale at 0.73 and the importance subscale 0.65 (Cummins et al., 1994). Internal consistency coefficient alphas based on age and gender groups have been found to range from 0.78 (females) to 0.83 (males) for the satisfaction scale, and from 0.75 (males, older adolescents) to 0.77 (females) for the importance scale. Subjective QOL scores (i.e., satisfaction \times importance) based on age and gender group have been found to range from 0.80 (older adolescents) to 0.83 (females). One-week test-retest reliability coefficients have been reported as 0.73 for the satisfaction scale and 0.74 for the importance scale (Gullone & Cummins, 1999). A total satisfaction score (i.e., all domains) coefficient alpha has been reported at 0.80 (Cummins, 1997c). No reliability data are available for adolescents.

Validity. Convergent validity for the ComQol has been demonstrated through negative correlations between satisfaction QOL and anxiety (-0.14 to -0.33), and subjective QOL and fear (-0.14 to -0.32) (Gullone & Cummins, 1999). It has been suggested that content validity for the ComQol is demonstrated by the satisfaction scores for each domain falling within the proposed normative range of 75% (± 2) to 100% (see Cummins, 1995). Results reported from adolescents has provided support for this, with satisfaction scores for all domains falling in the range of 70–80% (see Gullone & Cummins, 1999).

Summary. Overall, internal coefficient reliabilities among adult samples are adequate for research purposes. However, preliminary research reporting reliability data has not been conducted among adolescent samples and therefore additional research is required. Preliminary support of convergent validity has been provided for both young adults and adolescents. However, support of construct validity is not well documented and further research is required in order for it to be established and to provide additional support for the convergent and discriminant validity of the scale. Limitations include: (1) reliability and validity of the scale among adolescents has not been well established; (2) complex structure of the scale makes scoring difficult; (3) additional normative data among adolescents is required; and (4) cross-cultural comparisons of the scale, which examine psychometric

properties and establish the generalizability of the findings, have not been conducted.

Discussion

The positive psychology field has illuminated the need to readdress psychology's neglected historical foundations, which included making the lives of all people better, by encouraging a redirection of some of its focus back to discovering how we achieve happiness. Accordingly, interest in the positive development of youth, and the incorporation of LS assessments in order to better understanding how youths perceive their lives and achieve happiness, has grown. Similarly, development of instruments designed to measure global and domain specific LS have increased. As a result, assessment of self-reported youth LS has provided researchers with useful insights into how youths perceive their lives, and associations between LS and various psychological, social, behavioral, environmental, and educational variables have demonstrated LS to be a key indicator of well-being (see Proctor et al., 2008, for a review). Nevertheless, continued theoretical and empirical refinement of assessment measures will benefit future youth LS measurement research (Gilman & Huebner, 2000).

Future directions

It is clear from the findings of this review that the reported psychometric properties of many of the measures considered are based on normative samples from limited geographical regions. Specifically, for the measures reviewed, the scale development samples were derived from: Midwest and Southwest American states (SLSS), the University of Illinois (SWLS), California and a Southeastern American state (PLSS), a Southeastern American state (BMLSS), American university students (ESWLS), a Southeastern American state, Canada, and South Carolina USA (MSLSS), a Southeastern American state (MSLSS-A), and Australian university students (ComQol). Additional cross-cultural studies exploring the psychometric properties of LS measures is necessary in order to establish the generalizability of the reported findings. Moreover, preliminary research examining the cross-national differences between individualistic and collectivistic cultures suggests important similarities and differences in response styles between nations, additional research in this area will further illuminate important cultural, educational, and social variables influencing LS reports among youths (Gilman et al., 2008). Additionally, as evidenced by Gilman et al. (2008), in order to make informed and evaluative cross-national recommendations with regards to the applicability and usefulness

of youth LS measures it is essential that researchers in this area form efficacious partnerships with researchers from diverse cultures. Such partnerships would undoubtedly result in a much-needed increase in the generation of cross-cultural research in this important and burgeoning area. Further, additional research is required with special populations, such as those with mental or learning disabilities. Recent research has shown that modifications are often required when using LS measures among disabled populations in order to improve internal consistency estimates. For example, Brantley, Huebner, and Nagel (2002) omitted three items from the Living Environment domain and one item from the Self domain of the MSLSS in order to achieve acceptable reliability levels for use with adolescents with mild mental disability. Similarly, Griffin and Huebner (2000) omitted two items from the School domain, two items from the Living Environment domain, one item from the Family domain of the MSLSS, and one Global item from the SLSS, in order to achieve acceptable reliabilities for use with youth classified as seriously emotionally disturbed. In contrast, McCullough and Huebner (2003) found that internal consistency coefficients for the MSLSS total and domain scores were acceptable for use with adolescents with learning disabilities without modifications being made to the scale. The variability of these findings further demonstrates the necessity for additional examination of LS measures among diverse special populations.

In accordance with the findings of Gilman and Huebner (2000), internal consistency reliability estimates for the LS scales considered have been demonstrated to be acceptable for research purposes. However, there continues to be a paucity of research in this area providing firm demonstration of the temporal stability of youth LS measures across varying time frames (Gilman & Huebner, 2000). Similarly, additional investigations of the validity of youth LS measures are required in order to further support the conceptual models proposed for many of the scales. For example, the PLSS purports to measure general unidimensional LS. The total score on the scale is based on the summation of heterogeneous items from diverse domains (e.g., material and physical well-being, personal development, recreation). Results of factor analyses have demonstrated an underlying multidimensional structure to the instrument (see Huebner & Dew, 1993b), which suggests there are serious issues to be addressed with regards to the underlying rationale for the scale. Further, validity investigations should consider, and provide account for, the findings which demonstrate that convergent validities are often reported as lower than discriminant validities, and provide rationale for a given correlation being reported as weak, moderate, or strong. Furthermore, investigations of validity should be expanded to include, and

provide further support for, the predictive and construct validity of youth LS measures (Gilman & Huebner, 2000). Recent research suggests that global LS scores can predict future measures of internalizing and externalizing behavior up to 2 years later (Haranin et al., 2007). Additional research is required in order to support these findings and to determine the role that LS measures play in the diagnosis and prediction of psychopathology among youth. Moreover, with the exception of the SWLS and the PLSS, the measures reviewed provide no indication of indices of satisfaction for interpretive or clinical use. Clearer designation of satisfaction ratings as being low, moderate, or high would greatly benefit the use of these measures in the assessment, evaluation, and implementation of educational and social programs. Similarly, investigations of the clinical utility of LS measures are required in order to determine the usefulness of these instruments as outcome measures for well-being enhancement interventions among adolescents and youth. For example, recent research conducted by Froh, Sefick, and Emmons (2008) demonstrated that counting daily blessings resulted in enhanced LS, gratitude, optimism, and decreased negative affect among middle school students. Further exploration of the usefulness of measures of LS in the evaluation of well-being intervention programs among youth is required in order to support these findings and to expand upon the applicability of these measures.

Conclusion

Life satisfaction is a key component in the attainment of positive well-being among youth and is a determinant of many life outcomes (Proctor et al., 2008). In line with the positive psychology movement, investigations into how youths perceive their lives is fundamental to discovering how youth achieve and maintain positive levels of well-being and happiness. Part of the growing awareness of the importance of subjective evaluations of quality of life is the incorporation of measurements of life satisfaction among youths. In selecting the appropriate measure for a given situation or research question, the psychometric properties of the measures reviewed in this paper should be considered, along with the scale length, administration time, and age appropriateness of each. Further, measurement selection should take into account the appropriateness of using a unidimensional versus multidimensional measure of life satisfaction. Whereas unidimensional measures (e.g., SLSS and SWLS) provide an indication of overall satisfaction with life, multidimensional measures (e.g., MSLSS) provide a profile of life satisfaction across various domains. Therefore, a multidimensional measure may be more appropriate, for example, when a more

differentiated assessment is required for a focused diagnostic, prevention, or intervention effort (Huebner, 2001). Overall, the strengths and limitations of each measure reviewed here should be considered when selecting an appropriate measure for a given situation or research question.

Implementations of assessment of life satisfaction among youths is essential in order for researchers and educators to discover those youths suffering with low subjective quality of life, and assess the outcomes of research and educational programs designed to improve subjective quality of life among youths. Accordingly, adopting a dual-factor model of mental health, in which subjective well-being and psychopathology are assessed together through an integrated system, would also enable identification of those who do not fall within the usual (high-subjective well-being/low-psychopathology and low-subjective well-being/high psychopathology) unidimensional model of mental health; i.e., those exhibiting low-subjective well-being/low-psychopathology and high-subjective well-being/high-psychopathology. Support for an integrative system has been provided by Greenspoon and Saklofske (2001) and additional recent research (see Suldo & Shaffer, 2008) has demonstrated that youths with complete mental health (i.e., high-subjective well-being/low psychopathology) have better reading skills, school attendance, academic self-perceptions, academic-related goals, social support from friends and parents, self-perceived physical health, and fewer social problems than their vulnerable peers (i.e., low subjective-well-being/low psychopathology). Additional research aimed at the development of applicable interventions that will enable educators and mental health professionals to increase life satisfaction and subjective well-being among youths is required (Suldo & Shaffer, 2008). Finally, improvements of existing measures (and development of new measures) of life satisfaction will greatly aid in the overall aim of promoting positive development among youth.

References

- Adelman, H.S., Taylor, L., & Nelson, P. (1989). Minors' dissatisfaction with their life circumstances. *Child Psychiatry and Human Development*, 20(2), 135-147.
- Alfonso, V.C., Allison, D.B., Rader, D.E., & Gorman, B.S. (1996). The extended satisfaction with life scale: Development and psychometric properties. *Social Indicators Research*, 38(3), 275-301.
- Anderson, G., & Arsenault, N. (1998). *Fundamentals of educational research*. London: Routledge, Taylor & Francis Group.
- Andrews, F.M., & Withey, S.B. (1976). *Social indicators of well-being: Americans' perceptions of life quality*. New York: Plenum.

- Arrindell, W.A., Heesink, J., & Feij, J.A. (1999). The Satisfaction With Life Scale (SWLS): Appraisal with 1700 healthy young adults in the Netherlands. *Personality and Individual Differences, 26*(5), 815–826.
- Arrindell, W.A., Meeuwesen, L., & Huyse, F.J. (1991). The satisfaction with life scale (SWLS): Psychometric properties in a non-psychiatric medical outpatients sample. *Personality and Individual Differences, 12*(2), 117–123.
- Bradburn, N.M. (1969). *The structure of psychological well-being*. Chicago: Aldine.
- Brantley, A., Huebner, E.S., & Nagle, R.J. (2002). Multidimensional life satisfaction reports of adolescents with mild mental disabilities. *Mental Retardation, 40*(4), 321–329.
- Cantril, H. (1965). *The patterns of human concern*. New Brunswick, NJ: Rutgers University Press.
- Cummins, R.A. (1995). On the trail of the gold standard for subjective well-being. *Social Indicators Research, 35*(2), 179–200.
- Cummins, R.A. (1997a). *Manual for the Comprehensive Quality of Life Scale-Adult Version: ComQol-A5* (5th ed.). Melbourne: School of Psychology, Deakin University.
- Cummins, R.A. (1997b). *Manual for the Comprehensive Quality of Life Scale-Intellectual/Cognitive Disability: ComQol-I5* (5th ed.). Melbourne: School of Psychology, Deakin University.
- Cummins, R.A. (1997c). *Manual for the Comprehensive Quality of Life Scale-School Version (Grades 7–12): ComQol-S5* (5th ed.). Melbourne: School of Psychology, Deakin University.
- Cummins, R.A. (2002). Caveats to the Comprehensive Quality of Life Scale. <http://acqol.deakin.edu.au/instruments/index.html>
- Cummins, R.A., & Lau, A.L. (2005a). *Personal Well-being Index-Intellectual Disability (PWI-ID)* (3rd ed.). Melbourne: School of Psychology, Deakin University.
- Cummins, R.A., & Lau, A.L. (2005b). *Personal Wellbeing Index-Pre-School (PWI-PS)* (2nd ed.). Melbourne: School of Psychology, Deakin University.
- Cummins, R.A., & Lau, A.L. (2005c). *Personal Wellbeing Index-School Children (PWI-SC)*, (3rd ed.). Melbourne: School of Psychology, Deakin University.
- Cummins, R.A., McCabe, M.P., Romeo, Y., & Gullone, E. (1994). The Comprehensive Quality of Life Scale (ComQol): Instrument development and psychometric evaluation on college staff and students. *Educational and Psychological Measurement, 54*(2), 372–382.
- Damon, W. (2004). What is positive youth development? *Annals of the American Academy of Political and Social Science, 591*, 13–24.
- Dew, T., & Huebner, E.S. (1994). Adolescents' perceived quality of life: An exploratory investigation. *Journal of School Psychology, 33*(2), 185–199.
- Diener, E., & Diener, M. (1995). Cross-cultural correlates of life satisfaction and self-esteem. *Journal of Personality and Social Psychology, 68*, 653–663.
- Diener, E., Emmons, R.A., Larsen, R.J., & Griffin, S. (1985). The Satisfaction with Life Scale. *Journal of Personality Assessment, 49*, 71–75.
- Diener, E., Suh, E.M., Lucas, R.E., & Smith, H.L. (1999). Subjective well-being three decades of progress. *Psychological Bulletin, 125*(2), 276–302.
- Eid, M., & Diener, E. (2004). Global judgements of subjective well-being: Situational variability and long-term stability. *Social Indicators Research, 65*, 245–277.
- Epstein, J.C., & McPartland, J.M. (1977). *The quality of school life scale*. Riverside, CA: Riverside.
- Fordyce, M.W. (1977). Development of a program to increase personal happiness. *Journal of Counseling Psychology, 24*(6), 511–521.
- Frisch, M.B., Cornell, J., Villanueva, M., & Retzlaff, P.J. (1992). Clinical validation of the Quality of Life Inventory. A measure of life satisfaction for use in treatment planning and outcome assessment. *Psychological Assessment, 4*(1), 92–101.
- Froh, J.J., Sefick, W.J., & Emmons, R.A. (2008). Counting blessings in early adolescents: An experimental study of gratitude and subjective well-being. *Journal of School Psychology, 46*(2), 213–233.
- 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*(1), 41–54.
- Gilligan, T.D., & Huebner, E.S. (2002). Multidimensional life satisfaction reports of adolescents: A multitrait-multimethod study. *Personality and Individual Differences, 32*(7), 1149–1155.
- Gilligan, T.D., & Huebner, E.S. (2007). Initial development and validation of the Multidimensional Students' Life Satisfaction Scale-Adolescent Version. *Applied Research in Quality of Life, 2*(1), 1–16.
- Gilman, R., & Huebner, E.S. (1997). Children's reports of their life satisfaction: Convergence across raters, time and response format. *School Psychology International, 18*(3), 229–243.
- Gilman, R., & Huebner, E.S. (2000). Review of life satisfaction measures for adolescents. *Behaviour Change, 17*(3), 178–195.
- Gilman, R., Huebner, E.S., & Laughlin, J.E. (2000). A first study of the Multidimensional Students' Life Satisfaction Scale with adolescents. *Social Indicators Research, 52*(2), 135–160.
- Gilman, R., Huebner, E.S., Tian, L., Park, N., O'Byrne, J., Schiff, M., et al. (2008). Cross-national adolescent multidimensional life satisfaction reports: Analyses of mean scores and response style differences. *Journal of Youth and Adolescence, 37*(2), 142–154.
- Greenspoon, P.J., & Saklofske, D.H. (1997). Validity and reliability of the Multidimensional Students' Life Satisfaction Scale with Canadian children. *Journal of Psychoeducational Assessment, 15*(2), 138–155.
- Greenspoon, P.J., & Saklofske, D.H. (1998). Confirmatory factor analysis of the multidimensional students' life satisfaction scale. *Personality and Individual Differences, 25*(5), 965–972.
- Greenspoon, P.J., & Saklofske, D.H. (2001). Toward an integration of subjective well-being and psychopathology. *Social Indicators Research, 54*(1), 81–108.
- Gregg, P.M., & Salisbury, P.S. (2004). Confirming and expanding the usefulness of the Extended Satisfaction

- With Life Scale (ESWLS). *Social Indicators Research*, 54(1), 1–16.
- Griffin, M.D., & Huebner, E.S. (2000). Multidimensional life satisfaction reports of middle school students with serious emotional disturbance. *Journal of Psychoeducational Assessment*, 18(2), 111–124.
- Gullone, E., & Cummins, R.A. (1999). The Comprehensive Quality of Life Scale: A psychometric evaluation with an adolescent sample. *Behavior Change*, 16(2), 127–139.
- Gurin, G., Veroff, J., & Feld, S. (1960). *American's view of their mental health*. New York: Basic Books.
- Haranin, E.C., Huebner, E.S., & Suldo, S.M. (2007). Predictive and incremental validity of global and domain-based adolescent life satisfaction reports. *Journal of Psychoeducational Assessment*, 25(2), 127–138.
- Huebner, E.S. (1991a). Correlates of life satisfaction in children. *School Psychology Quarterly*, 6(2), 103–111.
- Huebner, E.S. (1991b). Further validation of the Students' Life Satisfaction Scale: The independence of satisfaction and affect ratings. *Journal of Psychoeducational Assessment*, 9(4), 363–368.
- Huebner, E.S. (1991c). Initial development of the Students' Life Satisfaction Scale. *School Psychology International*, 12(3), 231–240.
- Huebner, E.S. (1994a). Conjoint analyses of the Students' Life Satisfaction Scale and the Piers-Harris Self-Concept Scale. *Psychology in the Schools*, 31(4), 273–277.
- Huebner, E.S. (1994b). Preliminary development and validation of a multidimensional life satisfaction scale for children. *Psychological Assessment*, 6(2), 149–158.
- Huebner, E.S. (1995). The Students' Life Satisfaction Scale: An assessment of psychometric properties with black and white elementary school students. *Social Indicators Research*, 34(3), 315–323.
- Huebner, E.S. (1998). Cross-racial application of a children's multidimensional life satisfaction scale. *School Psychology International*, 19(2), 179–188.
- Huebner, E.S. (2001). Manual for the Multidimensional Student's Life Satisfaction Scale. Retrieved from <http://www.psych.sc.edu/pdfdocs/huebslssmanual.doc>
- Huebner, E.S. (2004). Research on assessment of life satisfaction of children and adolescents. *Social Indicators Research*, 66(1–2), 3–33.
- Huebner, E.S. (2006). Life satisfaction. In G.G. Bear, & K.M. Minke (Eds.), *Children's needs III: Development, prevention, and intervention* (pp. 357–368). Bethesda, MD: National Association of School Psychologists.
- 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(1), 71–82.
- Huebner, E.S., & Dew, T. (1993a). An evaluation of racial bias in a life satisfaction scale. *Psychology in the Schools*, 30(4), 305–309.
- Huebner, E.S., & Dew, T. (1993b). Is life satisfaction multidimensional? The factor structure of the Perceived Life Satisfaction Scale. *Journal of Psychoeducational Assessment*, 11(4), 345–350.
- Huebner, E.S., & Dew, T. (1993c). Validity of the Perceived Life Satisfaction Scale. *School Psychology International*, 14(4), 355–360.
- Huebner, E.S., & Gilman, R. (2002). An introduction to the Multidimensional Students Life Satisfaction Scale. *Social Indicators Research*, 60, 115–122.
- Huebner, E.S., Brantley, A., Nagle, R., & Valois, R.F. (2002). Correspondence between parent and adolescent ratings of life satisfaction for adolescents with and without mental disabilities. *Journal of Psychoeducational Assessment*, 20(1), 20–29.
- Huebner, E.S., Drane, J.W., & Valois, R.F. (2000a). Levels and demographic correlates of adolescent life satisfaction reports. *School Psychology International*, 21(3), 281–292.
- Huebner, E.S., Funk, B.A., & Gilman, R. (2000b). Cross-sectional and longitudinal psychosocial correlates of adolescent life satisfaction reports. *Canadian Journal of School Psychology*, 16(1), 53–64.
- Huebner, E.S., Gilman, R., & Laughlin, J.E. (1999). A multimethod investigation of the multidimensionality of children's well-being reports: Discriminant validity of life satisfaction and self-esteem. *Social Indicators Research*, 46(1), 1–22.
- Huebner, E.S., Laughlin, J.E., Ash, C., & Gilman, R. (1998). Further validation of the Multidimensional Students' Life Satisfaction Scale. *Journal of Psychoeducational Assessment*, 16(2), 118–134.
- Huebner, E.S., Suldo, S.M., & Valois, R.F. (2003, March). *Psychometric properties of two brief measures of children's life satisfaction: The Students' Life Satisfaction Scale and the Brief Multidimensional Students' Life Satisfaction Scale*. Paper presented at the Child Trends, Indicators of Positive Development Conference, Washington, DC.
- Huebner, E.S., Suldo, S.M., Valois, R.F., Drane, J.W., & Zullig, K.J. (2004). Brief Multidimensional Students' Life Satisfaction Scale: Sex, race, and grade effects in a high school sample. *Psychological Reports*, 94, 351–356.
- Hultell, D., & Gustavsson, J.P. (2008). A psychometric evaluation of the Satisfaction With Life Scale in a Swedish nationwide sample of university students. *Personality and Individual Differences*, 44(5), 1070–1079.
- International-Wellbeing-Group. (2006). *Personal wellbeing index* (4th ed.). Melbourne: Australian Centre on Quality of Life, Deakin University. http://www.deakin.edu.au/research/acqol/instruments/wellbeing_index.htm
- Kovacs, M. (1981). Rating scales to assess depression in school-aged children. *Acta Paedopsychiatrica: International Journal of Child & Adolescent Psychiatry*, 46(5–6), 305–315.
- Kovacs, M. (1992). *Children's depression inventory: Manual*. New York: Multi-Health Systems.
- Larson, R.W. (2000). Toward a psychology of positive youth development. *American Psychologist*, 55(1), 170–183.
- Laurent, J., Cantanzaro, J.S., Thomas, J.E., Rudolph, D.K., Potter, K.I., Lambert, S., et al. (1999). A measure of positive and negative affect for children: Scale development and preliminary validation. *Psychological Assessment*, 11(3), 326–338.
- Lewis, C.A., Shevlin, M.E., Bunting, B.P., & Joseph, S. (1995). Confirmatory factor analysis of the Satisfaction With Life Scale: Replication and methodological refinement. *Perceptual and Motor Skills*, 80, 304–306.

- Lucas, R.E., Diener, E., & Suh, E.M. (1996). Discriminant validity of well-being measures. *Journal of Personality and Social Psychology*, 71(3), 616–628.
- Marsh, H.W. (1990). *The Self-Description Questionnaire-II*. San Antonio, TX: Psychological Corporation.
- McCullough, G., & Huebner, E.S. (2003). Life satisfaction reports of adolescents with learning disabilities and normally achieving adolescents. *Journal of Psychoeducational Assessment*, 21(4), 311–324.
- Neto, F. (1993). The Satisfaction With Life Scale: Psychometrics properties in an adolescent sample. *Journal of Youth and Adolescence*, 22(2), 125–134.
- Neugarten, B.L., Havighurst, R.J., & Tobin, S.S. (1961). The measurement of life satisfaction. *Journal of Gerontology*, 16, 134–143.
- Nowicki, S., & Strickland, B.R. (1973). A locus of control scale for children. *Journal of Consulting and Clinical Psychology*, 40(1), 148–154.
- Park, N. (2004). Character strengths and positive youth development. *The Annals of the American Academy of Political and Social Science*, 591, 40–54.
- Pavot, W., & Diener, E. (1993). Review of the Satisfaction With Life Scale. *Psychological Assessment*, 5(2), 164–172.
- Pavot, W., & Diener, E. (2004). Findings of subjective well-being: Applications to public policy, clinical interventions, and education. In P.A. Linley, & S. Joseph (Eds.), *Positive psychology in practice* (pp. 679–692). Hoboken, NJ: John Wiley & Sons, Inc.
- Pavot, W., Diener, E., Colvin, C.R., & Sandvik, E. (1991). Further validation of the Satisfaction With Life Scale: Evidence of cross-method convergence of well-being measures. *Journal of Personality Assessment*, 57(1), 149–161.
- Piers, E.V., & Harris, D.B. (1984). *Piers-Harris Children's Self-Concept Scale*. Los Angeles, CA: Western Psychological Service.
- Pons, D., Atienza, F.L., Balaguer, I., & Garcia-Merita, M.L. (2000). Satisfaction With Life Scale: Analysis of factorial invariance for adolescents and elderly persons. *Perceptual and Motor Skills*, 91, 62–68.
- Proctor, C.L., Linley, P.A., & Maltby, J. (2008). Youth life satisfaction: A review of the literature. *Journal of Happiness Studies*. <http://dx.doi.org/10.1007/s10902-008-9110-9>
- Reynolds, C.R., & Kamphaus, R.W. (1992). *Manual for the Behavioral Assessment System for Children*. Circle Pines, MN: American Guidance Service, Inc.
- Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton: Princeton University Press.
- Seligman, M.E.P., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist*, 55(1), 5–14.
- Seligson, J., Huebner, E.S., & Valois, R.F. (2003). Preliminary validation of the Brief Multidimensional Students' Life Satisfaction Scale (BMSLSS). *Social Indicators Research*, 61(2), 121–145.
- Seligson, J., Huebner, E.S., & Valois, R.F. (2005). An investigation of a brief life satisfaction scale with elementary school children. *Social Indicators Research*, 73(3), 355–374.
- Shevlin, M.E., & Bunting, B.P. (1994). Confirmatory factor analysis of the Satisfaction With Life Scale. *Perceptual and Motor Skills*, 79, 1316–1318.
- Shevlin, M.E., Brunsten, V., & Miles, J.N.V. (1998). Satisfaction With Life Scale: Analysis of factorial invariance, mean structures and reliability. *Personality and Individual Differences*, 25(5), 911–916.
- Shin, D., & Johnson, D.M. (1978). Avowed happiness as an overall assessment of the quality of life. *Social Indicators Research*, 5, 475–492.
- Smith, D.C., Adelman, H.S., Nelson, P., & Taylor, L. (1987). Students' perception of control at school and problem behavior and attitudes. *Journal of School Psychology*, 25(2), 167–176.
- Suldo, S.M., & Shaffer, E.J. (2008). Looking beyond psychopathology: The dual-factor model of mental health in youth. *School Psychology Review*, 37(1), 52–68.
- Terry, T., & Huebner, E.S. (1995). The relationship between self-concept and life satisfaction in children. *Social Indicators Research*, 35(1), 39–52.
- Varni, J.W., Katz, E.R., Seid, M., Quiggins, D.J.L., Friedman an-Bender, A., & Castro, C.M. (1998). The Pediatric Cancer Quality of Life Inventory (PCQL). I. Instrument development, descriptive, descriptive statistics, and cross-informant variance. *Journal of Behavioral Medicine*, 21(2), 179–204.
- Watson, D., Clark, L., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology*, 54(6), 1063–1070.
- Windle, M., & Lerner, R.M. (1986). Reassessing the dimensions of temperamental individuality across the life span: The Revised Dimensions of Temperament Survey (DOTS-R). *Journal of Adolescent Research*, 1(2), 213–229.
- Zullig, K.J., Huebner, E.S., Gilman, R., Patton, J.M., & Murray, K.A. (2005). Validation of the Brief Multidimensional Students' Life Satisfaction Scale among college students. *American Journal of Health Behavior*, 29(3), 206–214.
- Zullig, K.J., Valois, R.F., Huebner, E.S., Oeltmann, J.E., & Drane, J.W. (2001). Relationship between perceived life satisfaction and adolescents' substance abuse. *Journal of Adolescent Health*, 29(4), 279–288.