Perceived Quality of Life of Children and Youth

16

E. Scott Huebner, Rich Gilman, and Claudia Ma

Research on the quality of life (QOL) of adults has flourished during the last several decades, capturing the attention of a variety of scientific disciplines, such as economics, medicine, political science, psychology, and sociology. QOL conceptualizations, measurement techniques, and intervention strategies have developed from two traditions: objective and subjective QOL. Controversy has ensued regarding the importance of each and the relationships between them. Proponents of the objective QOL indicators strategy focus on population-based measures related to various objective criteria for "good" lives, such as frequencies of teen births, risk behaviors, and poverty levels. On the other hand, proponents of the subjective indicators perspective focus on models and measures that incorporate individuals' subjective perceptions and evaluations of key indicators of life quality, such as life satisfaction or perceived quality of life (PQOL) with respect to individuals' *overall* lives or specific life domains (e.g., family relationships, school experiences, living environments). Because research with adults reveals that objective and subjective indicators (e.g., physician vs. self-ratings of physical health) are distinguishable from one another, researchers have concluded that objective and subjective indicators reflect distinct but complementary QOL information (Diener and Suh 1997). Thus, a full understanding of the QOL of children and youth requires multiple indicators drawn from both traditions. Land et al. (2007) provide a notable example of the benefits of integrating the two approaches in the construction and validation of the Child and Youth Well-Being Index. Furthermore, the studies of Ben-Arieh and Goerge (2001) and Fattore et al. (2007) underscore the importance of contextual factors in the development of child well-being indexes, including grounding the indicators in the experiences of children.

Although research with adults has burgeoned over the years, research with children and youth has lagged significantly behind, particularly with respect to PQOL. Large-scale studies have been particularly absent. The typical study has involved small-scale, convenience samples, limiting the generalizability of the findings. Most studies of the PQOL of children have also employed global measures of PQOL. Such measures can be useful; nevertheless, they fail to differentiate a variety of specific domains (e.g., family, friends, school, self, living environment) that have been demonstrated to be important to children across the age range of 8–18 (Gilman et al. 2000; Huebner 1994; Seligson et al. 2003). Under some circumstances, global scores may mask differences observable in domain-level scores. For example, Antaramian et al. (2008) found that adolescents' reports of family satisfaction (but not general life satisfaction) were related to their family structure (intact vs. nonintact families).

Thus, although current findings on the PQOL of children are promising, much more research is needed

E.S. Huebner (✉) • C. Ma
Department of Psychology, University of South Carolina, Columbia, SC, USA
e-mail: Huebner@sc.edu; claudia.lindner@gmail.com

R. Gilman
Cincinnati Children's Hospital Medical Center, University of Cincinnati, Cincinnati, OH, USA

K.C. Land et al. (eds.), *Handbook of Social Indicators and Quality of Life Research*,
DOI 10.1007/978-94-007-2421-1_16,

to approach such laudable goals as "to inform decision-makers concerning the identification of variabilities within the population, inequities, public needs and trends" (Campbell 1976). For example, similar to a proposal for national longitudinal databases to monitor the PQOL of adults (Diener 2000), Huebner et al. (2004b) have argued for the development of ongoing, large-scale youth PQOL studies as part of comprehensive health-care assessments and interventions.

Although conceptually differentiable from measures of psychopathology, PQOL reports have been found to be inversely related to child reports of mental and physical health problems, risk behaviors (e.g., alcohol and drug use, risky sexual behavior), and school-related problems (see Gilman and Huebner 2003 and Huebner et al. 2006 for reviews). Importantly, PQOL has been shown to be more than an epiphenomenon; PQOL can influence adaptive outcomes. For example, PQOL has been shown to serve as a cognitive mediator of the relationship between parenting behavior and adolescents' externalizing and internalizing behavior (Suldo and Huebner 2004a). Similarly, PQOL mediates the relationship between the frequency of stressful life events and internalizing behavior in adolescents (McKnight et al. 2002). Additionally, Suldo and Huebner (2004b) found that adolescent PQOL moderated the relationship between stressful life events and subsequent increases in externalizing behavior problems. That is, the effects of stressful life events were significantly greater among students with low PQOL. Finally, in a longitudinal study of adolescents, lower levels of global PQOL predicted an increased likelihood of being victimized by peers (Martin et al. 2008). In short, efforts to promote PQOL are likely to be more than simple hedonistic pursuits. Rather, such efforts should facilitate adaptive outcomes in children and youth.

Measurement of Child PQOL

Similar to what has been noted in the adult literature, research on the measurement of PQOL among children has paled in comparison with studies investigating child and adolescent psychopathology (Rich 2003). PQOL has been associated with the absence of symptoms of psychopathology, such as mental distress (Frisch 1999; Keyes 2005). The assumption that psychological distress and PQOL occupy two ends of a bipolar continuum has been repeatedly called into question (Jahoda 1958; Keyes 2006; Seligman and Csikszentmihalyi 2000). For example, in a sample of elementary school children, Greenspoon and Saklofske (2000) found that assessments incorporating measures of psychological distress and PQOL could reliably differentiate elementary school children into four distinct categories, with placement determined by level of endorsement (high vs. low) within each dimension (psychopathology vs. PQOL). Thus, categories ranged from high psychopathology—high PQOL to low psychopathology—low PQOL, the latter category demonstrating that children who do not endorse symptoms of psychopathology do not necessarily endorse high PQOL levels. This group may reflect the lives of children whose personal and environmental resources and assets, although adequate, are challenged by various acute and/or chronic stressors (Masten 2001). Subsequent research has demonstrated that the group of students who report low PQOL, without clinical levels of psychological symptoms, reveal not only social deficits but academic and physical health deficits compared to students in the other three groups (Suldo and Shaffer 2008). Students in this group display lower levels of school engagement and GPA (Antaramian et al. 2010). In this regard, using measures of PQOL in conjunction with measures of psychopathology appears needed to more comprehensively describe children's overall adaptation (Lopez et al. 2003).

Such assessment of PQOL has been advocated for a number of professional settings, including medical (Fallowfield 1994), school (Baker et al. 2003), public health (Huebner et al. 2004b), and child clinical settings (Kazdin 1993). To this end, substantial progress has been made in the construction of various child PQOL measures designed for use with general (i.e., nonclinical) populations as well as specific populations, including children experiencing psychiatric disorders (Bastiaansen et al. 2004), trauma stemming from sexual abuse (Valente 2005), and medical conditions such as cancer (Detmar 2005) and chronic asthma (Chan et al. 2005). Although PQOL measures have been administered to both general and clinical samples on occasion, the specificity of the items comprising the clinical scales often limits their applicability to general samples of youth. In this section, findings related to generic PQOL measures will be described. Readers interested in reviews of clinical PQOL measures should consult Quittner et al. (2003) and Matza et al. (2004) for additional information.

PQOL measures have been developed for use with children ranging between the ages of 8 and 18. Reviews

of the psychometric properties of select measures can be found in Bender (1997), Gilman and Huebner (2000), and Huebner (2004). In general, extant measures largely reflect research and clinical interest in assessing PQOL at its most global (i.e., life as a whole) level or across specific domains. In the former case, global measures require the computation of a single PQOL score, based on domain-free items (e.g., "I like my life as a whole"). Presumably, this single score includes an individual's unique combination of objective (e.g., income) and subjective factors (e.g., perceived competence and coping efficacy), and their interaction with more stable and dispositional aspects such as personality and temperament (see Lent 2004). Examples of global PQOL instruments include the *Satisfaction with Life Scale* (SWLS: Diener et al. 1985) and the *Students' Life Satisfaction Scale* (SLSS: Huebner 1991a, b). Such measures are often administered when researchers prefer that respondents define their own criteria for their overall PQOL.

In contrast, multidimensional PQOL measures yield domain-specific scores as we well as an overall (general) score. Examples of these measures include the *Multidimensional Students' Life Satisfaction Scale* (MSLSS; Huebner 1994a), the *Brief Multidimensional Students' Life Satisfaction Scale* (BMSLSS: Seligson et al. 2003), and the *Comprehensive Quality of Life Scale—Fifth Edition* (ComQol-S5: Cummins 1997), which is now *The Personal Well-being Index—School Children*, 3rd Ed, 2005 (see http://www,deakin.edu.au/research/acqol/instruments/PWI/PWI-school.pdf). For these multidimensional measures, the number and types of domains are based on criteria selected by the researcher(s) and may differ given fundamentally different conceptualizations of what constitutes life quality. As one example, the MSLSS assesses five specific domains believed most important in a child's life (school, living environment, self, family, and friends), while the Com-Qol-S5 assesses seven different domains (material well-being, health, productivity, intimacy, safety, place in community, and emotional well-being). Depending upon the researchers' interests, inclusion of many different domains could be considered appropriate (Frisch 1999). Nevertheless, the number and weighting of the specific domains is important to consider when interpreting "total" or general life satisfaction scores, which are derived from some combination of the lower-order domains. For example, a total PQOL score derived from a simple summation of items across five domains may or may not be comparable to a total PQOL score derived from a weighted combination of lower-order scores across seven domains.

A number of theories have been proposed regarding the relationship between domain-specific PQOL and global PQOL scores (see Lance et al. 1989; Lance et al. 1995), with most comprising either a "top-down" or a "bottom-up" approach. In the former case, the level of global PQOL determines how quality of life is perceived within specific relevant domains, while the opposite is found for the bottom-up approach. Research findings have been inconclusive, despite the implications for clinical practice, both among adults (Frisch 2006; Lent et al. 2005) and children (Huebner 2004).

Psychometric Qualities of Self-Report Child PQOL Measures

Given the recency of interest in PQOL among children, the first step in this line of research has relied on self-report scales (Diener 2003). At present, there is sufficient evidence to conclude that child and adolescent PQOL self-reports yield adequate validity and reliability across the ages of 8–18 (Gilman and Huebner 2000; Huebner 2004). For example, many of the PQOL measures converge with each other, as well as with constructs that are conceptually similar. Specifically, Dew and Huebner (1994a) reported that the SLSS and the PLSS correlated at .58, while the SLSS and a brief version of the MSLSS (i.e., BMSLSS) correlated at .66 (Seligson et al. 2003). The SWLS showed a correlation of .42 with a one-item satisfaction measure (Leung and Leung 1992), and a correlation of .71 with a measure of happiness among an adolescent sample (Neto 1993). These relationships indicate that although a moderate (but significant) degree of variance is shared between PQOL scales, the proportion of unshared variance is large enough to indicate that the scales assess PQOL in a somewhat different manner. Evidence of criterion-related validity has also been demonstrated for the PQOL measures, including significant, positive correlations with hope (Valle et al. 2004), sense of mastery (Sam 1998), self-esteem (Huebner et al. 1999; Marriage and Cummins 2004), and social support (Petito and Cummins 2000). Further, PQOL measures evidence negative associations with negative affect (Seligson et al. 2003), external locus of control (Huebner et al. 2000b), depression (Adelman et al. 1989), and anxiety (Gullone and Cummins 1999).

Reports obtained by general PQOL measures have yielded a reasonable degree of temporal stability. For example, a correlation of .81 was obtained for the MSLSS across a 4-week period (Huebner et al. 1998), while the Com-Qol yielded a coefficient of .73 across the same time span (Cummins 1997). Global and general PQOL measures have reported stability estimates ranging from .53 for a 1-year period (Huebner et al. 2000b) to .85 (time span not reported; Adelman et al. 1989).

Perhaps most important in terms of assessing PQOL among children is the construct validity of the measures. It should be noted that among most measures, the use of exploratory factor analyses (i.e., principal axis and principal components) or demonstrations of convergent and discriminant validity has been used to support the underlying conceptual model of a particular instrument (see Gilman and Huebner 2000). Confirmatory factor analyses have rarely been used to substantiate the invariance of the factor structure beyond the exploratory phase of development. Further, few studies have investigated the factor invariance of a PQOL measure across different groups of children, which would indicate that the PQOL measures are assessing a "psychological universal" (Diener 1994, p. 112). Nevertheless, the limited research that has been conducted generally supports the hypothesized factor structures of most PQOL measures. For example, results from exploratory factor analyses have supported a one-factor model for the SWLS (Neto 1993) and the SLSS (Gilman and Huebner 1997), but not for the Perceived Life Satisfaction Scale (Adelman et al. 1989), the latter finding suggesting that the PLSS may be multidimensional rather than unidimensional in nature (Huebner and Dew 1993). For the multivariate measures, convergent and discriminant validity for the Com-Qol (Gullone and Cummins 1999) and exploratory and confirmatory analyses for the MSLSS (Huebner 1994a; Gilman et al. 2000) have been used as support for construct validity. Further, the factor structure of some PQOL measures appears to be invariant across disparate groups. For example, Atienza et al. (2003) reported that the SWLS yielded a unidimensional factor structure among Spanish youth that was consistent with that obtained among American youth. Similar findings were noted between Korean and American youth on the MSLSS (Park et al. 2004), and a separate study supported the MSLSS factor structure among American, Chinese, Israeli, Croatian, and Irish adolescents (Gilman et al. 2008). Nevertheless, both the Park et al. and Gilman et al. studies reported slightly lower reliabilities on the self-satisfaction domain of the MSLSS for youth in some nations, and Atienza et al. reported different factor loadings of the SWLS across gender. These findings suggest that interpretation of particular PQOL items may vary with respect to culture.

One reason for differences in PQOL results across disparate groups may be the manner in which the instruments, most of which were originally written for English speaking children, are interpreted among non-English speaking children. However, few differences have been found in the psychometric properties of PQOL scales when the items are translated from English. For example, translation of the MSLSS into Hebrew (Schiff et al. 2006), Chinese (Tian et al. 2003), and Korean (Park et al. 2004) has yielded comparable psychometric properties in comparison to American youth. Likewise, the SWLS has yielded similar psychometric properties among Spanish speaking youth (Atienza et al. 2003), as has the MSLSS (Casas et al. 2001). Thus, differences in PQOL reports do not appear to be influenced by translation. Nevertheless, although these studies provide support for the further study of PQOL across cultures and nations, additional research incorporating more complex procedures, such as multigroup confirmatory factor analyses and item response theory, is necessary to better determine how various PQOL measures are interpreted by non-English speaking children.

Although the stability coefficients of PQOL instruments across various time spans suggest that PQOL reports are influenced by personal dispositional factors, they are also sensitive to changes in internal and/or environmental conditions. Similar to findings in the adult literature (Diener et al. 1999), PQOL measures appear sensitive to psychosocial interventions. For example, two studies administered the MSLSS to adolescents who were first entering residential treatment settings (Gilman and Barry 2003; Gilman and Handwerk 2001), with both revealing that PQOL significantly decreased during the first month of stay, but incrementally and significantly increased during the following 3 months of treatment. Farrell et al. (2003) reported that of six outcome measures to assess the treatment effects of a violence prevention program for rural adolescents, a PQOL measure was the most sensitive. Finally, Bearsley and Cummins (1999) reported significant changes in the Com-Qol subscales among adolescents who experienced significant disruptions in their

living situation (i.e., homelessness). These findings suggest that PQOL measures are sensitive enough to capture fluctuations in perceived life quality due to changes in some life circumstances.

Alternative Forms of PQOL Measurement

Findings obtained from extant PQOL measures are based on self-reports, introducing the possibility of item misinterpretation or social desirability. In general, the findings for each scale largely attenuate such concerns. For example, the wording of items for each measure is intentionally simple so as to be interpretable across a wide array of age groups. For instance, MSLSS were written to be readable at the late first-to-second grade level, thus facilitating easy interpretation for youth of third grade level and above. Further, the internal consistency of the PQOL scales is considered adequate for research purposes, with the estimates usually ranging between .70 and .85 (see Gilman and Huebner 2000). Such findings suggest that youth respond to the items in a relatively consistent manner. Nevertheless, the internal consistency estimates can differ for youth from different nationalities (see Huebner et al. 2006), suggesting that items can be interpreted differently based on cultural nuances.

With respect to social desirability, studies often report correlations between PQOL and social desirability that are mild to moderate at best (Gilman and Barry 2003; Huebner 1991a; Huebner et al. 1998). If anything, given the nature of the construct under study, social desirability may reflect substantive individual differences that should be taken into account (Diener et al. 1999). Indeed, studies that are statistically controlled for social desirability do not improve correlations between social desirability and external criteria (e.g., Dew 1996), suggesting that social desirability does not indicate a serious threat to the validity of PQOL scales.

Nevertheless, as studies evolve from descriptive analyses of factors that contribute to high life quality among youth to more complex, theory-driven analyses, alternative forms of PQOL measurement will need to be considered. Some promising methods have been developed and implemented for youth populations. The use of experience sampling methodology (ESM) is one example. ESM involves repeated assessment of states, such as flow, a variable related to QOL, may be obtained throughout random periods in the course of a youth's day. These methods have been used in the context of various school settings (Shernoff et al. 2003), extracurricular activities (Larson 2000), child and family interactions (Rathunde 1997), and living situations (Asmussen and Larson 1991). Other methods have included reports by others (e.g., peers, parents) to corroborate PQOL self-reports. Findings have been generally positive in this regard. For example, using the SLSS, Dew and Huebner (1994a) obtained a moderate correlation ($r = .48$) between PQOL reports of high school students and their parents' estimates of their youths' PQOL. Similar correlations were noted between middle school students and their parents using the same scale (Gilman and Huebner 1997). Self-other correlations of this magnitude are not relegated to global PQOL measures. For example, correlations between adolescent and parent reports on the MSLSS ranged from .41 to .55 across the five domains of the scale (Huebner et al. 2002). Collectively, these findings support the association of parent-student PQOL reports, with correlations higher than what has been found among measures that assess psychopathology (e.g., Achenbach et al. 1987).

Levels of Child PQOL

Similar to studies of adults, most children and adolescents report positive levels of satisfaction with their overall lives as well as with specific domains. For example, in a study of more than 5,000 South Carolina (USA) adolescents, 26% reported that they were "delighted" with their lives overall, 29% reported "pleased," 18% reported "mostly satisfied," 16% reported "mixed," 4% reported "mostly dissatisfied," 3% reported "unhappy," and 4% reported "terrible" (Huebner et al. 2000a). Of five domains (family, friends, school, self, and living environment), satisfaction with the school domain was rated the lowest, with 9% of the students indicating "terrible," 7% indicating "unhappy," and 7% indicating "mostly dissatisfied." Similar findings were observed in a large-scale survey of middle schoolers in South Carolina as well (Huebner et al. 2005) and with studies of younger children in the USA and elsewhere (e.g., Korea, Spain) (see Huebner et al. 2006, for a review). Thus, although normative levels of PQOL are above the neutral point, indicating that most children are happy, there are significant numbers of youth who are not happy

with their overall lives or with specific aspects of their lives.

A related point concern is whether there is a point in the PQOL continuum that yields diminishing positive returns. Incorporating Lazarus' (1991) theory of coping as a framework, it may be that the establishment of a positive mental "set point" serves as a signal against which ongoing cognitive appraisals, affective states, and environmental circumstances are compared. Although individuals who maintain a positive set point tend to garner positive psychological and psychosocial benefits throughout their lives (Lyubormirsky et al. 2005; Myers and Diener 1995), it has also been speculated that extreme PQOL levels above this set point may indicate unrealistic or distorted cognitive or emotional systems, which may result in maladaptive behaviors (Baumeister 1989; Boyd-Wilson et al. 2004; Taylor et al. 2000). That is, considering the stresses of day-to-day living that tend to keep this set point in check, extreme PQOL reporting may indicate naïveté at best and "smug complacency, obnoxious arrogance, and lack of motivation" at worst (Friedman et al. 2002, p. 355).

Although research is in its most preliminary stages for both adults and children, there is evidence to suggest that individuals at the extreme high end of the PQOL continuum obtain psychological, psychosocial, and psychoeducational benefits that are not observed even among individuals reporting "average" PQOL levels. For example, Diener and Seligman (2002) found that over a 2-month period, "very happy people" (i.e., college students) rated themselves and were rated by others as more social and extraverted, and they reported less psychological distress than individuals at the extreme low end of the continuum. Similar results were obtained by Friedman et al. (2002). Recent studies have found similar results among children. For example, Gilman and Huebner (2006) found that adolescents who were placed at the extreme positive end of the PQOL continuum (based on their global PQOL scores as indexed by the SLSS) reported significantly higher interpersonal and intrapersonal functioning than adolescents reporting extremely low PQOL scores. Further, compared to youth reporting "average" levels of PQOL, students with extremely high PQOL reported significantly lower scores on measures of interpersonal stress, anxiety, and depression, and higher scores on measures of hope, internal locus of control, self-esteem, and (positive) attitudes toward teachers. Suldo and Huebner (2006) reported similar findings in which very high adolescent PQOL was associated with high social support and perceived competence, and virtually no psychopathology. Thus, evidence for limitations associated with high levels of PQOL has not been provided for children to date. Furthermore, these studies demonstrated that PQOL reports illuminate differences in adjustment that are not revealed by measures of psychopathology alone.

Correlates of PQOL

The correlates of PQOL among children can be organized within the ecological framework introduced by Bronfenbrenner (1979). This ecological approach examines children's PQOL vis-à-vis the major personal and environmental systems and reflects the multiplicity of interactive influences of the various systems.

Bronfenbrenner identified four different system levels: the micro-, meso-, exo-, and macrolevels. Belsky (1980) added the ontogenic level to the model. For the purposes of this review, the antecedents and correlates of children's PQOL can be organized into (1) the ontogenic system, which represents influential current and historical psychological characteristics of children; (2) the microsystem, which characterizes the immediate forces of family, friends, religious groups, and neighbors; (3) the exosystem and mesosystem, which involve settings that do not contain the children but that have indirect and/or interactive effects on them; and (4) the macrosystem, which involves overarching institutional patterns of the culture, including cultural and religious beliefs and values.

The Ontogenic Level Factors

At the core of the ecological paradigm are the ontogenic level factors that relate to child PQOL. In this level, the assumption is that individual differences affect children's PQOL. This model is transactional, which implies that not only is the child influenced by her or his environmental systems, but also that environmental systems are in turn affected by characteristics of the child, including PQOL.

Ontogenic factors include individual difference factors, such as personality characteristics, and historical factors, such as age.

Age

The findings for age have been equivocal. Studies that consist of American youth samples have consistently shown that age has no significant impact on children's global PQOL (Dew and Huebner 1994a; Gilman and Huebner 1997; Wilson et al. 1997). On the other hand, cross-cultural findings with non-American samples have reported conflicted findings. Man (1991) found that younger Hong Kong students in secondary schools reported higher levels of PQOL than older students. Chang et al. (2003) found that global PQOL tends to decline from childhood to adolescence. Park and Huebner (2005) found that an increase in age among South Korean students in secondary schooling is related to a decrease in both global and domain-specific PQOL. On the other hand, age differences have been reported for some specific domains, such as satisfaction with school experiences among American students (Huebner et al. 2000a; Okun et al. 1990; Nickerson and Nagle 2004).

Personality

Personality variables are strongly related to child and youth PQOL. Children who report high degrees of global PQOL are those who also report high self-esteem, extraversion, and internal locus of control (Huebner 1991a, b). Other studies have demonstrated that global and domain-specific self-concepts also correlated highly with reports of global PQOL among children and adolescents (Dew and Huebner 1994a; Gilman and Huebner 1997; McCullough et al. 2000; Terry and Huebner 1995). Fogle et al. (2002) found that global PQOL was associated with high levels of extraversion and perceived social self-efficacy, with social self-efficacy mediating the relationship between extraversion and PQOL.

Causal attribution, a cognitive variable, is also a key correlate of PQOL, linking personality to PQOL (Cheng and Furnham 2001; Rigby and Huebner 2005). In their sample of high school students, Rigby and Huebner (2005) found that students with an adaptive attribution style demonstrated higher global PQOL than students with a maladaptive attribution style. Furthermore, an adaptive attributional style partially mediated the relationship between emotional stability and PQOL. In other words, high school students who scored higher in emotional stability were more likely to make adaptive attributions, which were associated with higher PQOL.

Numerous studies show that children with lower global PQOL display negative behaviors that are associated with unfavorable outcomes. Low PQOL has been associated with a variety of psychopathological problems, such as depression, anxiety, and conduct disorder (Huebner and Alderman 1993; Greenspoon and Saklofske 1997; Huebner et al. 2000b; Suldo and Huebner 2004b; Valois et al. 2001). In a study of American school-aged students (ages 8–19), Adelman et al. (1989) found that students who were referred for mental health services demonstrated lower PQOL than nonreferred students. Newcomb et al. (1986) found that early alcohol usage was associated with dissatisfaction with peers and that this early dissatisfaction with peers preceded an increase in young adult alcohol usage. Students with low global PQOL may also be at risk for inappropriate dieting behaviors, unhealthy weight perceptions, and lack of physical exercise (see Huebner et al. 2004a, b for a review). Furthermore, poor physical health in adolescents is associated with a lower PQOL (Zullig et al. 2005).

Microsystem Level Factors

This system characterizes the influence of immediate environmental forces such as family, peers, and school, on children's PQOL. The factors subsumed under this level represent the interactions between child characteristics and these immediate environmental influences.

Family and Parental Factors

Parent Attachment

Child PQOL has been found to be positively associated with the quality of parent/child relationship (Leung and Leung 1992; Dew and Huebner 1994a). More specifically, one area that has been explored is the relationship between PQOL and the quality of the parent attachment relationship, that is, the extent to which the child feels securely attached to her or his parents. Several studies have demonstrated robust relationships between adolescent PQOL and a secure attachment with parents (Armsden and Greenberg 1987; Bradford and Lyddon 1994; Nickerson and Nagle 2004; Ma and Huebner 2008). In one study exploring the relationship between parent and peer attachment and PQOL, Nickerson and Nagle (2004) found that quality of parent attachment significantly predicted the level of PQOL of students in grades 4–8 and explained more variance in global PQOL than quality of peer attachment. Furthermore, parental trust was the most significant component of

the attachment-global PQOL relationship. Grossman and Rowat (1995) concluded that a lack of paternal involvement and children's perception of poor relationship between their parents resulted in a negative effect on child PQOL.

Family Structures

Few studies have examined the relationship between family structures and global PQOL. Of the studies available, Demo and Acock (1996) reported that adolescents from the USA (ages 12–18) who resided with both parents reported higher PQOL. Similarly, Antaramian et al. (2008) found that adolescents from two-parent families reported higher family life satisfaction.

Parent-Child Relations

In examining the nature of parent-child relationships, parenting style plays a key role in predicting a child's global PQOL. Petito and Cummins (2000) demonstrated that authoritative parenting style was positively related to global PQOL among a group of adolescents from ages 12–17. In a similar study, Suldo and Huebner (2004a) investigated the relationship between dimensions of authoritative parenting styles (i.e., social support, strictness-supervision, and psychological autonomy granting) with global PQOL. Collectively, all three components of authoritative parenting styles significantly predicted global PQOL and contributed 26% of variance. Furthermore, when examining each component individually in terms of its predictive power, parental social support emerged as the strongest predictor of global PQOL, whereas strictness-supervisions and psychological autonomy granting accounted for a smaller amount of variance.

The importance of parent-child relationships is supported across cultures. For example, parent-adolescent disagreements are negatively related to PQOL in adolescents from European and Vietnamese-American cultures (Phinney and Ong 2002), and also among Chinese youth (Shek 1997).

Peer Factors

The sources of individual differences in PQOL also include the perceived quality of peer support. Dew and Huebner (1994a) found that children with higher levels of satisfaction with their peer relationships reported higher levels of global PQOL. Children who were not accepted by peers were found to express greater dissatisfaction (Green et al. 1980). Nickerson and Nagle (2004) found that peer attachment significantly predicted specific PQOL domains among different age groups. In their sample of children from ages 13 to 15, peer attachment significantly predicted global PQOL along with specific domains of PQOL (living environment satisfaction, self-satisfaction, school satisfaction). In the sample of children from ages 8 to 11, peer attachment significantly predicted specific domains of PQOL (living environment satisfaction and self-satisfaction). In the sample of children from ages 11 to 14, only one specific domain of PQOL, self-satisfaction, significantly predicted peer attachment. Their study also demonstrated that among the specific dimensions of peer attachments, peer trust was the most predictive dimension of PQOL.

The relative importance of peer attachments may vary as a function of gender and age, however. Ma and Huebner (2008) found that peer attachment mediated the relationship between parent attachment and PQOL in early adolescent age students, but only for females. The relationship between peer attachment and global PQOL was nonsignificant for male students, suggesting that peer relationships are much more critical to female students' PQOL, at least in early adolescence.

The quality and types of social experiences appear to have impact on children's global PQOL. Martin and Huebner (2007) investigated the interrelationship among positive social experiences, also known as prosocial experiences, peer victimization experiences, and global PQOL among middle school students. Specifically, they found that for both males and females, overt and relational victimization were significantly correlated with global PQOL. Additionally, prosocial experiences uniquely predicted global PQOL, above and beyond variance related to victimization experiences.

School Factors

School Performance

In general, PQOL appears unrelated to intellectual ability and modestly related at best to indicators of school performance, such as grades (Gilman and Huebner 2006; Huebner and Alderman 1993; Huebner 1991b; Leung and Leung 1992). One study found no significant mean difference in levels of global PQOL between a group of students deemed at academic risk and a group of normally achieving students (Huebner and Alderman 1993). The finding was also consistent for a sample of Chinese youths (Leung and Leung 1992). To the contrary, another study of Chinese students found

that academic test scores were more predictive of children's than adolescents' PQOL (Chang et al. 2003). As suggested by the authors, this particular finding might be due to the uniqueness of Hong Kong's educational system, where children are exposed to more strict and elaborate testing sequences than adolescents. However, it is also possible that Asian students derive higher levels of global PQOL from positive school experiences due to the Asian culture's relatively high demands and expectations for children's school success. Relatedly, Park and Huebner (2005) found that Korean students' (mean age = 15) global PQOL was significantly related to their satisfaction with their school experiences, whereas American students' satisfaction with their school experiences did not contribute as much variance to their global PQOL.

Activities

Participation in school activities has demonstrated correlations with PQOL. Gilman (2001) investigated the relationship between structured extracurricular activities (SEA) and domain-specific PQOL reports. SEAs were defined as structured activities in which individuals remain actively engaged and mentally stimulated (e.g., participating in sports versus watching television). In his study, Gilman found that of the six PQOL domains, only the school domain demonstrated significant correlations with the frequency of SEA participation. Specifically, students who were involved in more self-selected structured extracurricular activities reported higher school satisfaction than students with fewer structured extracurricular activities. In a recent study using a sample of 490 students from grades 6 through 12 (mean age = 14.45), Gilman and Huebner (2006) investigated the relationship between the frequency of participation in structured extracurricular activities (SEAs) and students' *global* PQOL. The results demonstrated that students with "high" and "average" levels of PQOL reported participation in a higher number of SEAs than students with "low" levels of global PQOL.

School Perceptions and Engagement

An emerging body of literature provides evidence that school is also important to children's global PQOL (see Suldo et al. 2006, for a review). Students' levels of global PQOL are significantly related to several motivational variables, including students' *perceptions* of their academic abilities, teacher and classmate support, and general satisfaction with school. Students who report higher levels of PQOL feel they can succeed with their schoolwork, perceive their teachers to be caring and supportive, and evaluate their schooling experiences positively. Students with high levels of *school* PQOL, in particular, also demonstrate fewer behavior problems, as well as higher grades and greater levels of participation (Baker et al. 2000; Huebner and Gilman 2006). Even among students as young as kindergarten age, lower levels of school satisfaction at the beginning of the year predict lower levels of engagement near the end of the year, which in turn predict decreased standardized academic test performance (Ladd et al. 2000).

Neighborhood Factors

Research suggests that neighborhood characteristics are significant predictors of global PQOL (e.g., Barresi et al. 1984; Morris and Winter 1978; Sirgy et al. 2000), especially variables centered around neighborhood support (Oberle et al. 2011). With respect to children and youth, Sam (1998) found that adolescents living in a relatively homogenous ethnic community or neighborhood reported higher PQOL than those living is ethnically diverse areas. Similar findings were reported by Neto (2000) with a sample of adolescents from immigrant backgrounds. Homel and Burns (1989) found that children who lived in nonresidential areas of inner cities, increasing the risk of social isolation, reported lower PQOL than children who lived in residential areas. Additionally, opportunities to bond with nonfamilial adults in the neighborhood were associated with higher PQOL (Paxton et al. 2006).

Chronic and Acute Life Events

In general, life events that are acute (e.g., death in the family) or chronic (e.g., living in a poor quality neighborhood) have modest to moderate levels of influence on children's PQOL (Ash and Huebner 2001; McCullough et al. 2000). In other words, stressful life events are related to PQOL, but not as strongly as might be expected (McCullough et al. 2000; McKnight et al. 2002). In one study, it was found that the relationship between chronic stressors and adolescents' global PQOL was partially mediated by locus of control orientation (Ash and Huebner 2001), suggesting that chronic stressors exert their effects on PQOL primarily through changes in children's cognitions. Furthermore, in the same study, it was found that acute stressors contributed 9.5% of the variance in PQOL reports, and the addition of chronic

stressors contributed an additional 19% of variance in PQOL reports, underscoring the importance of ongoing daily events in children's lives. In addition, chronic positive experiences were found to be a significant predictor of global PQOL above and beyond acute positive experiences in life. In a similar study, it was found that both acute and chronic life events added significant variance to the prediction of PQOL (McCullough et al. 2000). The frequencies of stressful life events also predicted an additional 3% of variance in PQOL, over and above what personality variables predicted (McKnight et al. 2002). Nevertheless, as with adults, life experiences account for modest amounts of variance in the PQOL of children and youth.

Mesosystem and Exosystem Level Factors

The systems include settings that exert indirect rather than direct influences on children's experiences. In Bronfenbrenner's own words, they "comprises the linkages and processes taking place between two or more settings, at least one of which does not contain the developing person, but in which events occur that indirectly influence processes within the immediate setting in which the developing person lives" (Bronfenbrenner 1989, p. 227). Examples would include home-school and school-community interactions and their impact on PQOL for children. Studies of PQOL at these levels of Bronfenbrenner's framework have rarely been conducted.

Macrosystem Level Factors

The macrosystem includes, but is not limited to, the cultural variables that influence the individual. It also can be thought of as "a societal blueprint for a particular culture or subculture" (Bronfenbrenner 1989, p. 228). This system includes cultural beliefs that children and adolescents have adopted regarding family values and cultural norms. The macrosystem also includes economic, educational, legal, and political systems. Research on child and youth PQOL at this level has also been sparse; however, preliminary findings are reported below.

Gender

Similar to findings for students' age, findings for students' gender have also been mixed. The majority of studies consisting of American youth samples reported that global PQOL is not significantly related to gender (Huebner 1991a, b, c; Wilson et al. 1997). Cross-culturally, gender differences have been reported in samples of Turkish students residing in Netherlands (Verkuyten 1986) and Portuguese students (Neto 1993). Similar to findings with respect to age differences, gender differences have been reported for specific domains, such as school satisfaction in US students (Huebner et al. 2000a; Huebner 1994a, b; Nickerson and Nagle 2004).

Socioeconomic Status (SES)

Although the majority of the studies have found nonsignificant correlations between SES and global PQOL (Gilman and Huebner 1997; Sam 1998; Wilson et al. 1997; Huebner 1991a, b, c), these studies have also been limited mostly to samples of American youth. Among a sample of Latino students, Rodriguez et al. (2003) found that SES was a significant predictor of PQOL. As Veenhoven (1988) suggested, the significance of SES for individuals' PQOL may have different bearings under divergent circumstances and cultures. In a society where a high standard of living is important, the relationship between SES and PQOL might be more pronounced (Grob et al. 1996). In a sample of Chinese college students, Tong and Song (2004) found that SES was a significant predictor of global PQOL. They found that low-SES Chinese students scored lower on global PQOL than their average-SES Chinese peers.

Ethnic Differences

The findings for the associations between race and global PQOL among American students have been mixed. Studies have found no difference in mean levels of overall PQOL between African-American students and Caucasian students (Huebner 1995; Huebner et al. 2000a, b). However, Gilman (2001) found that African-American students with medium and high levels of social interest reported higher PQOL than their Caucasian counterparts.

In general, cross-cultural studies have reported that most children and adolescents are satisfied with their lives. These findings are generated from samples of Canadian students (Greenspoon and Saklofske 1997), Chinese students (Leung and Leung 1992; Chang et al. 2003), Spanish students (Casas et al. 2001), and Korean students (Park and Huebner 2005). Neto (1995) found that young Portuguese living in France did not differ in

levels of global PQOL from young Portuguese living in Portugal. Sam (1998) found that Vietnamese, Pakistanis, Turks, and Chileans did not differ in global PQOL from Norwegian adolescents. However, Gilman et al. (2008) found that although most of the youth in their samples of students from Ireland, USA, China, and South Korea reported positive PQOL, there were some exceptions for some specific domains, including satisfaction with school (Ireland, South Korea, USA), living environments (China, South Korea), self (South Korea), and general PQOL (South Korea).

Others

Cultural experiences may have profound influences on an individual's PQOL. Although few research studies have been directly devoted to the study of cultural beliefs of children and their relations to global PQOL, cross-cultural studies have found that members of Eastern cultures are more likely to emphasize the collectivist ideology, where harmony with group members is key. On the other hand, the self is considered primary in Western cultures, and personal characteristics such as attributes and goals are more valued and valid in predicting PQOL (Suh et al. 1998). A comparison of youth from Korea versus the USA showed similarities and differences in the associations between domain-specific PQOL reports and global PQOL reports across the two groups (Park and Huebner 2005). In this study, cross-cultural comparisons were made on PQOL scores between 472 Korean students (ages 12–17) and 543 US students. The results showed that in general, Korean students scored lower PQOL than US students across all specific domains of PQOL (i.e., family, school, living environment, self) and global PQOL. Specifically, the largest statistically significant difference was detected for the self domain, with US students reporting higher scores than Korean students. The study also investigated the correlation of specific PQOL domains with global PQOL across the two cultures. The findings revealed that different domains of PQOL served as correlates of global PQOL. Specifically, the self domain contributed more variance to global PQOL for US students than for Korean students, while the school domain was a stronger predictor of global PQOL for the Korean students.

In another large-scale cross-cultural study, Grob et al. (1999) examined the relationship between subjective well-being and agentic variables (strain, global coping, emotion-oriented coping, problem-oriented coping) for 3,250 adolescent students residing in Eastern and Western European countries and the USA. The main goal of the study was to determine whether predictors of the subjective well-being are of the same kind and hold the same predictive power across Western and Eastern countries. The study reported several intriguing findings. First, in general, adolescent students from both macrocontexts (Western and Eastern countries) reported overall high mean levels of subjective well-being. Second, a closer examination revealed that students from all Western countries, with exception of France, reported significant higher subjective well-being ratings than their Eastern countries' counterparts. Third, for adolescents from the Western countries, problem-oriented coping was more significantly positively associated with subjective well-being than for adolescents from Eastern countries. In this large-scale cross-cultural study, adolescents from both macrocontexts shared more similarities than differences in their overall level of well-being. This conclusion was expected given the commonalities among the Western and Eastern countries in terms of ethnic makeup and religious beliefs. Taken together, this may inform the findings of Park and Huebner (2005) with Korean and US students. Thus, future studies of children's PQOL should attend to the importance of how differences in cultural norms, ideology, and practices may influence the antecedents and consequences of individual differences in children's PQOL.

Conclusions

Based on this review, the following conclusions appear warranted regarding child PQOL (ages 8–18):

1. Although the development of PQOL measures appropriate for children has only recently been undertaken, there is promising, preliminary support for the convergent and discriminant validity of PQOL measures. The lack of research with children younger than the age of 8 is notable. Researchers will need to develop measures that are suitable to younger children.
2. Most children report global PQOL scores in the positive range (i.e., above a neutral point). That is, most children are happy. PQOL is variable across specific domains; some groups of children may not show a positive "set point" in relation to specific domains. Significant numbers of children and youth may report greater dissatisfaction in some areas of

their lives (e.g., secondary level US students' reports of satisfaction with their school experiences).
3. Demographic relationships appear to account for modest amounts of variance in child PQOL reports, except perhaps in the case of those children and youth suffering from extreme poverty or other extremely negative conditions (e.g., adjudicated youth).
4. Ontogenic (i.e., intrapersonal and developmental history) variables, including personality, cognitive, and affective variables, relate strongly to child PQOL. The influence of personality variables on PQOL appears to be mediated by cognitive factors, such as perceptions of self-efficacy and attribution processes. The study of developmental history variables awaits long-term longitudinal studies of children's well-being (see below).
5. Environmental events and experiences relate significantly to child PQOL. Personal and environmental variables appear to interact to determine child PQOL. The influence of environmental variables on PQOL also appears to be mediated by cognitive factors, such as self-efficacy. Research supports the importance of *multiple* contextual factors, ranging from the family to the peer group and school and neighborhood (Oberle et al. 2011). Studies have yet to explore interactions among major environmental systems (e.g., community-school relations).
6. Interpersonal relationships, especially family relationships, are of paramount importance to high PQOL in children and adolescents. Satisfying family relationships are important across all ages studied (ages 8–18). Peer relationships and experiences are critical as well, but may be differentially related to gender and age.
7. Extant measures of PQOL differentiate several groups of children in expected ways (e.g., students with emotional disabilities, adjudicated youth). Students with lower global PQOL are more likely to display a variety of mental health, physical, and school-related problems.
8. The meaning and correlates of PQOL likely differ across race, culture, nation, and developmental level.
9. PQOL is not an epiphenomenon; global PQOL influences important child outcomes, such as peer victimization (Martin et al. 2008) and withdrawal of parental emotional support (Saha et al. 2010).

Taken together, these studies indicate support for the study of child PQOL. Although such research is just beginning, the preliminary findings are consistent with studies of adults and with complex models of the antecedents and consequences of individual differences in life satisfaction, including personality/temperament factors, environmental factors, cognitive mediators, and behavioral consequences (see Lent 2004). Nevertheless, given that children have less control over their lives than adults, it seems likely that developmental differences related to cognitive, social-emotional, and physical maturation interacting with related environmental experiences likely play some moderating role in the determination, expression, and consequences of PQOL across the developmental trajectory from childhood to adulthood. The relevance of particular domains of PQOL is likely also subject to developmental considerations (see Gilligan and Huebner 2007).

Implications for Research and Policy

Future child and adolescent PQOL research should address several neglected issues. First, theory-based research is needed to direct future studies. Although this line of inquiry is in an early stage of development, the derivation of testable theories of child PQOL is a key next step. To date, few theory-based studies have appeared in the literature. Second, the development of psychometrically sound, child-focused PQOL measures has also begun only recently. As recommended by Gilman and Huebner (2000), existing child-focused PQOL measures would benefit from rigorous studies of basic psychometric properties, including evaluations of normative samples, reliability, and validity. Additionally, research is needed to more thoroughly assess the effects of response distortions, importance ratings, developmental changes, cultural differences, and disabilities on child PQOL ratings. Third, research on child PQOL has been limited mostly to cross-sectional research. Studies of the correlates of PQOL offer a useful initial step; however, the advancement of PQOL research requires longitudinal and/or experimental studies to clarify the directionality of relationships. Studies, such as those by Martin et al. (2008), Shek (1998), and Suldo and Huebner (2004b), in which low PQOL was shown to precede the occurrence of psychopathological behaviors and victimization experiences, offer needed information regarding the directionality of PQOL effects as well as potential support for dual-factor models of mental health (Greenspoon and Saklofske 2000; Suldo and Shaffer 2008). Given the importance of the school

context in the lives of children and youth, increasing attention to studies of transactional relationships between PQOL and school experiences should shed considerable light on the range of effects of PQOL in this age group.

Fourth, studies of the usefulness of PQOL reports as indicators of intervention effects would be beneficial. Although some studies suggest that PQOL reports may operate as useful outcome measures (e.g., Farrell et al. 2003; Gilman and Handwerk 2001), much additional research is needed. For an excellent example from the adult PQOL literature, Frisch et al. (2005) demonstrate effective strategies for conducting treatment sensitivity research that would be applicable to children as well.

Finally, cross-cultural research is essential for investigating the universality of findings related to the nature, determinants, and consequences of individual differences in child PQOL reports. Research with adults has underscored the importance of caution with respect to generalizing across different racial, cultural, and national groups. To date, few cross-national and/or cross-cultural studies of children and adolescents have been conducted. Nevertheless, preliminary work suggests important cultural differences with regard to individual's attribution processes as well as in norms for expressing negative emotions and cognition (Grob et al. 1999).

In conclusion, PQOL research with children and adolescents has yielded rich findings. Overall, PQOL appears to be a meaningful construct with children as early as approximately 8 years of age. PQOL is related to wide array of important variable, indicating the central importance of the construct for child development. Nevertheless, using Bronfenbrenner's ecological (1989) framework, limitations of the existing body of research are apparent. To date, studies of PQOL in children and youth have emphasized more proximal variables to the relative neglect of more distal meso-, exo-, and macrosystem variables. Continued research in these neglected areas appears warranted to capture the full complexity of child and youth PQOL. Such ecological research that is informed by developmental considerations should be particularly crucial.

Child PQOL literature suggests social policy implications. Layard (2005) has offered provocative suggestions for national policies based on well-being research. In general, Layard's suggestions for policy making are aimed at promoting optimal well-being at the macrosystemic level through attention to the major child supports (microsystemic environments of family, school, community) that appear to help shape child well-being and competence.

Particularly pertinent are his suggestions for family policies that relate to the welfare of children. Consistent with the findings of the central importance of families to child and adolescent PQOL across the full range of development, Layard suggests the need to develop policies that protect and support the development of healthy children and families, including compulsory prenatal and parenting classes, more family-friendly policies at work (flexible work hours, parental leave options), increased availability of high-quality child care (priced in relation to income), and changes in public attitudes toward the responsibilities of raising children, geographical mobility, and educational goals for their children. In doing so, children's most proximal environmental experiences should be characterized by fewer family stresses, marital discord, family breakups, and so forth that impede healthy child development and PQOL. With respect to educational goals, Layard argues that the school curriculum should incorporate moral education activities throughout a child's school years, leading to the "development of a sense of purpose wider than oneself" (p. 234), consistent with findings that child and youth PQOL is associated with positive interpersonal behaviors. Specifically, curricular activities should include topics such as control over negative emotions, parenting, mental illness, and citizenship. Specific recommendations for addressing such topics are elaborated upon by various educational scholars in Gilman et al. (2009).

The broad-based QOL perspective that incorporates children's perceptions of their well-being in addition to the traditional objective QOL perspective draws attention to the advantages of monitoring child well-being (including PQOL) on a national, if not, international basis. The developing research base provides important insights into new ways of defining and understanding the determinants and consequences of child and youth QOL and well-being, including the child's subjective perspective, to help optimize the functioning of all citizens. For example, policies based on QOL research that provide more optimal environments for children should likely in turn lead to the promotion of an "upward spiral" (Fredrickson 1998), that is, more positive primary environmental systems (e.g., healthy families, stronger communities, safe and healthy schools).

Of course, such broad-based interventions need to be accompanied by comprehensive research and evaluation efforts to systematically evaluate their effectiveness so that science is informed by practice (policy) as well as practice is informed by science.

References

Achenbach, T. M., McConaughy, S. H., & Howell, C. T. (1987). Child/adolescent behavioral and emotional problems: Implications of cross-informant correlations for situational specificity. *Psychological Bulletin, 101*, 213–232.

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

Antaramian, S. J., Huebner, E. S., & Valois, R. F. (2008). Adolescent life satisfaction. *Applied Psychology: Health and Well-Being, 57*, 112–126.

Antaramian, S. J., Huebner, E. S., Hills, K. J., & Valois, R. F. (2010). A dual-factor model of mental health: Toward a more comprehensive understanding of youth functioning. *The American Journal of Orthopsychiatry, 80*, 462–472.

Armsden, G. C., & Greenberg, M. T. (1987). The inventory of parent and peer attachment: Relationships to well-being in adolescence. *Journal of Youth and Adolescence, 16*, 427–454.

Ash, C., & Huebner, E. S. (2001). Environmental events and life satisfaction reports of adolescents: A test of cognitive mediation. *School Psychology International, 22*, 320–336.

Asmussen, L., & Larson, R. (1991). The quality of family time among young adolescents in single-parent and married-parent families. *Journal of Marriage and the Family, 53*, 1021–1030.

Atienza, F. L., Balaguer, I., & Garcia-Merita, M. (2003). Satisfaction with life scale: Analysis of factorial invariance across sexes. *Personality and Individual Differences, 35*, 1255–1260.

Baker, J. A., Dilly, L. J., Aupperlee, J. L., & Patil, S. A. (2000). The developmental context of school satisfaction: Schools as psychologically healthy environments. *School Psychology Quarterly, 18*, 206–221.

Barresi, C. M., Ferraro, K. F., & Hobey, L. (1984). Environmental satisfaction, sociability, and well-being among the urban elderly. *International Journal of Aging & Human Development, 18*, 227–293.

Bastiaansen, D., Koot, H. M., Bongers, I. L., Varni, J. W., & Verhulst, F. C. (2004). Measuring quality of life in children referred for psychiatric problems: Psychometric properties of the PedsQL-super(TM) 4.0 generic core scales. *Quality of Life Research: An International Journal of Quality of Life Aspects of Treatment, Care, and Rehabilitation, 13*, 489–495.

Baumeister, R. F. (1989). The optimal margin of illusion. *Journal of Social and Clinical Psychology, 8*, 176–189.

Bearsley, C., & Cummins, R. A. (1999). No place called home: Life quality and purpose of homeless youths. *Journal of Social Distress and the Homeless, 8*, 207–226.

Beh-Arieh, A., & George, R. (2001). How do we monitor the state of our children. *Children and Youth Services Review, 23*, 603–631.

Belsky, J. (1980). Child maltreatment: An ecological integration. *American Psychologist, 35*, 320–335.

Bender, T. A. (1997). Assessment of subjective well-being during childhood and adolescence. In G. Phye (Ed.), *Handbook of classroom assessment: Learning, achievement, and adjustment* (pp. 199–255). San Diego: Academic.

Boyd-Wilson, B. M., McClure, J., & Walkey, F. H. (2004). Are well-being and illusory perceptions linked? The answer may be yes, but…. *Australian Journal of Psychology, 56*, 1–9.

Bradford, E., & Lyddon, W. J. (1994). Assessing adolescent and adult attachment: An update. *Journal of Counseling and Development, 73*, 215–219.

Bronfenbrenner, U. (1979). *The ecology of human development: Experiments by nature and design*. Cambridge: Harvard University Press.

Bronfenbrenner, U. (1989). Ecological systems theory. *Annals of Child Development, 6*, 187–249.

Campbell, A. (1976). Subjective measures of well-being. *American Psychologist, 31*, 117–124.

Casas, F., Alsinet, C., Rosich, M., Huebner, E. S., & Laughlin, J. E. (2001). *Cross-cultural investigation of the multidimensional students life satisfaction scale with Spanish adolescents*. Paper presented at the Third Conference of the International Society for Quality of Life Studies, Girona, Spain.

Chan, K. S., Mangione, S. R., Burwinkle, T. M., & Varni, J. W. (2005). The PedsQLTM: Reliability and validity of the short-form generic core scales and asthma module. *Medical Care, 4*, 256–265.

Chang, L., McBride-Chang, C., Stewart, S. M., & Au, E. (2003). Life satisfaction, self-concept, and family relations in Chinese adolescents and children. *International Journal of Behavioral Development, 27*, 182–189.

Cheng, H., & Furnham, A. (2001). Attributional style and personality as predictors of happiness and mental health. *Journal of Happiness Studies, 2*, 307–327.

Cummins, R. A. (1997). *Manual for the comprehensive quality of life scale-student (Grades 7–12): ComQol-S5* (5th ed). Deakin University, Melbourne: School of Psychology.

Demo, D., & Acock, A. (1996). Family structure, family process, and adolescent well-being. *Journal of Research on Adolescence, 6*, 457–488.

Detmar, S. (2005). Children with cancer: The quality of life. *Quality of Life Research: An International Journal of Quality of Life Aspects of Treatment, Care and Rehabilitation, 14*, 1649–1650.

Dew, T. (1996). *Preliminary development and validation of a multidimensional life satisfaction scale for adolescents*. Unpublished doctoral dissertation, University of South Carolina, Columbia, SC.

Dew, T., & Huebner, E. S. (1994). Adolescents' perceived quality of life: An exploratory investigation. *Journal of School Psychology, 31*, 185–199.

Diener, E. (1994). Assessing subjective well-being: Progress and opportunities. *Social Indicators Research, 31*, 103–157.

Diener, E. (2000). Subjective well-being: The science of happiness and a proposal for a national index. *American Psychologist, 55*, 34–43.

Diener, E. (2003). What is positive about positive psychology: The curmudgeon and the pollyanna. *Psychological Inquiry, 14*, 115–120.

Diener, E., & Seligman, M. E. P. (2002). Very happy people. *Psychological Science, 13*, 81–84.

Diener, E., & Suh, E. (1997). Measuring quality of life: Economic, social, and subjective indicators. *Social Indicators Research, 40*, 189–216.

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*, 276–302.

Fallowfield, L. (1994). An overview of quality of life measurements. In W. E. Dodson & M. R. Trimble (Eds.), *Epilepsy and quality of life* (pp. 85–98). New York: Raven.

Farrell, A. D., Valois, R. F., & Meyer, A. L. (2003). Impact of the RIPP violence prevention program on rural middle school students. *Journal of Primary Prevention, 24*, 143–167.

Fattore, T., Mason, J., & Watson, E. (2007). Children's conceptualization of their well-being. *Social Indicators Research, 80*, 5–29.

Fogle, L. M., Huebner, E. S., & Laughlin, J. E. (2002). The relationship between temperament and life satisfaction in adolescence: Cognitive and behavioral mediation models. *Journal of Happiness Studies, 3*, 373–392.

Fredrickson, B. (1998). What good are positive emotions? *Review of General Psychology, 2*, 300–319.

Friedman, E. T., Schwartz, R. M., & Haaga, D. A. F. (2002). Are the very happy too happy? *Journal of Happiness Studies, 3*, 355–372.

Frisch, M. (2006). *Quality of life therapy: Applying a life satisfaction approach to positive psychology and cognitive therapy*. New York: John Wiley and Sons.

Frisch, M. B. (1999). Quality of life assessment/intervention and the Quality of Life Inventory (QOLI). In M. R. Maruish (Ed.), *The use of psychological assessment for treatment planning and outcome assessment* (Vol. 2, pp. 1227–1331). Hillsdale: Erlbaum.

Frisch, M. B., Clark, M. P., & Rouse, S. V. (2005). Predictive and treatment validity of life satisfaction and the quality of life inventory. *Psychological Assessment, 12*, 66–78.

Gilligan, T., & Huebner, E. S. (2007). Initial development and validation of the multidimensional students life satisfaction scale-adolescent version. *Applied Research in Quality of Life, 2*, 1–16.

Gilman, R. (2001). The relationship between life satisfaction, social interest, and frequency of extracurricular activities among adolescent students. *Journal of Youth and Adolescence, 30*, 749–767.

Gilman, R., & Barry, J. (2003). Life satisfaction and social desirability among adolescents in a residential treatment setting: Changes across time. *Residential Treatment for Children and Youth, 21*, 19–42.

Gilman, R., & Handwerk, M. L. (2001). Changes in life satisfaction as a function of stay in a residential setting. *Residential Treatment for Children and Youth, 18*, 47–65.

Gilman, R., & Huebner, E. S. (1997). Children's reports of their life satisfaction: Convergence across raters, time, and response formats. *School Psychology International, 18*, 229–243.

Gilman, R., & Huebner, E. S. (2000). Review of life satisfaction measures for adolescents. *Behaviour Change, 17*, 178–195.

Gilman, R., & Huebner, E. S. (2003). A review of life satisfaction research with children and adolescents. *School Psychology Quarterly, 18*, 192–205.

Gilman, R., & Huebner, E. S. (2006). Characteristics of adolescents who report very high life satisfaction. *Journal of Youth and Adolescence, 35*, 311–319.

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*, 135–160.

Gilman, R., Huebner, E. S., Tian, L., Park, N., O'Byrne, J., Schiff, M., Sverko, D., & Langknecht, H. (2008). Cross-national adolescent multidimensional life satisfaction reports: Analyses of mean scores and response style differences. *Journal of Youth and Adolescence, 37*, 142–154.

Gilman, R., Huebner, E. S., & Furlong, M. J. (2009). *Handbook of positive psychology in the schools*. New York: Routledge.

Green, K. D., Forehand, R., Beck, S. J., & Vosk, B. (1980). An assessment of the relationship among measures of children's social competence and children's academic achievement. *Child Development, 51*, 1149–1156.

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*, 138–155.

Greenspoon, P. J., & Saklofske, D. H. (2000). Toward an integration of subjective well-being and psychopathology. *Social Indicators Research, 54*, 81–108.

Grob, A., Little, T. D., Wanner, B., Wearing, A. J., & Euronet. (1996). Adolescent well-being and perceived control across fourteen sociocultural contexts. *Journal of Personality and Social Psychology, 71*, 785–795.

Grob, A., Stetsenko, A., Sabatier, C., Botcheva, L., & Macek, P. (1999). A cross-national model of subjective well-being in adolescence. In F. Alsaker (Ed.), *The adolescent experience: European and American adolescents in the 1990s* (pp. 115–130). Mahwah: Erlbaum.

Grossman, M., & Rowat, K. (1995). Parental relationships, coping strategies, received support, and well-being in adolescents of separated or divorced and married parents. *Research Nurse Health, 18*, 249–261.

Gullone, E., & Cummins, R. A. (1999). The comprehensive quality of life scale: A psychometric evaluation with an adolescent sample. *Behaviour Change, 16*, 127–139.

Homel, R., & Burns, A. (1989). Environmental quality and the well-being of children. *Social Indicators Research, 21*, 133–158.

Huebner, E. S. (1991a). Initial development of the students' life satisfaction scale. *School Psychology International, 12*, 231–240.

Huebner, E. S. (1991b). Correlates of life satisfaction in children. *School Psychology Quarterly, 6*, 103–111.

Huebner, E. S. (1991c). Further validation of the students' life satisfaction scale: The independence of satisfaction and affect ratings. *Journal of Psychoeducational Assessment, 9*, 363–368.

Huebner, E. S. (1994a). Preliminary development and validation of a multidimensional life satisfaction scale for children. *Psychological Assessment, 6*, 149–158.

Huebner, E. S. (1994b). Conjoint analyses of the students' life satisfaction scale and the Piers-Harris self-concept scale. *Psychology in the Schools, 31*, 273–277.

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*, 315–323.

Huebner, E. S. (2004). Research and assessment of life satisfaction of children and adolescents. *Social Indicators Research, 66*, 3–33.

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.

Huebner, E. S., & Dew, T. (1993). Is life satisfaction multidimensional? The factor structure of the perceived life satisfaction scale. *Journal of Psychoeducational Assessment, 11*, 345–350.

Huebner, E. S., & Gilman, R. (2006). Students who like and dislike school. *Applied Research in Quality of Life, 1*, 139–150.

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*, 118–134.

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*, 1–22.

Huebner, E. S., Drane, J. W., & Valois, R. F. (2000a). Levels and demographic correlates of adolescent life satisfaction reports. *School Psychology International, 21*, 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*, 53–64.

Huebner, E. S., Brantley, A., Nagle, R. J., & Valois, R. F. (2002). Correspondence between parent and adolescent ratings of life satisfaction for adolescents with and without mild mental disabilities. *Journal of Psychoeducational Assessment, 20*, 20–29.

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

Huebner, E. S., Valois, R. F., Suldo, S. M., Smith, L. C., McKnight, C. G., Seligson, J. L., & Zullig, K. J. (2004b). Perceived quality of life: A neglected component of adolescent health assessment and intervention. *Journal of Adolescent Health, 34*, 270–278.

Huebner, E. S., Valois, R. F., Paxton, R. J., & Drane, J. W. (2005). Middle school students' perceptions of quality of life. *Journal of Happiness Studies, 6*, 15–24.

Huebner, E. S., Suldo, S., & Gilman, R. (2006). Life satisfaction. In G. Bear & K. Minke (Eds.), *Children's needs-III* (pp. 357–368). Bethesda: National Association of School Psychologists.

Jahoda, M. (1958). *Current concepts of positive mental health*. New York: Basic Books.

Kazdin, A. (1993). Adolescent mental health: Prevention and treatment programs. *American Psychologist, 48*, 127–141.

Keyes, C. L. M. (2005). Mental illness and/or mental health? Investigating axioms of the complete state model of health. *Journal of Counseling and Clinical Psychology:, 17*, 539–548.

Keyes, C. L. M. (2006). Mental health in adolescence: Is America's youth flourishing? *The American Journal of Orthopsychiatry, 76*, 395–402.

Ladd, G. W., Buhs, E. S., & Seid, S. M. (2000). Children's initial sentiments about kindergarten: Is school liking an antecedent of early classroom participation and achievement? *Merrill-Palmer Quarterly, 46*, 255–279.

Lance, C. E., Lautenschlager, G. J., Sloan, C. E., & Varca, P. E. (1989). A comparison between bottom-up, top-down, and bidirectional models of relationships between global and life facet satisfaction. *Journal of Personality, 57*, 601–624.

Lance, C. E., Mallard, A. G., & Michalos, A. C. (1995). Tests of the causal directions of global-life facet satisfaction relationships. *Social Indicators Research, 34*, 69–92.

Land, K. C., Lamb, V. L., & Meadows, S. O. (2007). Measuring trends in child well-being: An evidence-based approach. *Social Indicators Research, 80*, 105–122.

Larson, R. W. (2000). Toward a psychology of positive youth development. *American Psychologist, 55*, 170–183.

Layard, R. (2005). *Happiness: Lessons of a new science*. New York: Penguin Press.

Lazarus, R. S. (1991). *Emotion and adaptation*. New York: Oxford University Press.

Lent, R. W. (2004). Toward a unifying theoretical and practical perspective on well-being and psychosocial adjustment. *Journal of Counseling Psychology, 51*, 482–509.

Lent, R. W., Singley, D., Sheu, H. B., Gainor, K. A., Brnenner, B. R., Treistman, D., & Ades, L. (2005). Social cognitive predictors of domain and life satisfaction: Exploring the theoretical precursors of subjective well-being. *Journal of Counseling Psychology, 52*, 429–442.

Leung, J., & Leung, K. (1992). Life satisfaction, self-concept, and relationship with parents in adolescence. *Journal of Youth and Adolescence, 21*, 653–665.

Lopez, S. J., Snyder, C. R., & Rasmussen, H. N. (2003). Striking a vital balance: Developing a complementary focus on human weakness and strength through positive psychological assessment. In C. R. Snyder & S. J. Lopez (Eds.), *Positive psychological assessment: A handbook of models and measures* (pp. 3–20). Washington: American Psychological Association.

Lyubormirsky, S., King, L. A., & Diener, E. (2005). The benefits of frequent positive affect: Does happiness lead to success? *Psychological Bulletin, 131*, 803–855.

Ma, C., & Huebner, E. S. (2008). Attachment and life satisfaction among early adolescents: Some relationships matter more to girls than boys. *Psychology in the Schools, 45*, 177–190.

Man, P. (1991). The influence of peers and parents on youth life satisfaction in Hong Kong. *Social Indicators Research, 24*, 347–365.

Marriage, K., & Cummins, R. A. (2004). Subjective quality of life and self-esteem in children: The role of primary and secondary control in coping with everyday stress. *Social Indicators Research, 66*, 107–122.

Martin, K., & Huebner, E. S. (2007). Peer victimization, prosocial experiences, and emotional well-being of middle school students. *Psychology in the Schools, 44*, 199–208.

Martin, K., Huebner, E. S., & Valois, R. F. (2008). Does life satisfaction predict victimization experiences in adolescents? *Psychology in the Schools, 45*, 705–714.

Masten, A. S. (2001). Ordinary magic : Resilience processes in development. *American Psychologist, 56*, 227–238.

Matza, L. S., Swensen, A. R., Flood, E. M., Secnik, K., & Leidy, N. K. (2004). Assessment of health-related quality of life in children: A review of conceptual, methodological, and regulatory issues. *Values in Health, 7*, 72–92.

McCullough, G., Huebner, E. S., & Laughlin, J. E. (2000). Life events, self-concept, and adolescents' positive subjective well-being. *Psychology in the Schools, 37*, 281–290.

McKnight, C., Huebner, E. S., & Suldo, S. M. (2002). Relationships among stressful life events, temperament, problem behavior, and global life satisfaction. *Psychology in the Schools, 39*, 677–687.

Morris, E. W., & Winter, M. (1978). *Housing, family, and society*. New York: Wiley.

Myers, D. G., & Diener, E. (1995). Who is happy? *Psychological Science, 6*, 10–19.

Neto, F. (1993). The satisfaction with life scale: Psychometric properties in an adolescent sample. *Journal of Youth and Adolescence, 22*, 125–134.

Neto, F. (1995). Predictors of satisfaction with life among second-generation migrants. *Social Indicators Research, 35*, 93–116.

Neto, F. (2000). *S*atisfaction with life among adolescents from immigrant families in Portugal. *Journal of Youth and Adolescence, 30*, 53–67.

Newcomb, M. D., Bentler, P. M., & Collins, C. (1986). Alcohol use and dissatisfaction with self and life: A longitudinal analysis of young adults. *Journal of Drug Issues, 63*, 479–494.

Nickerson, A., & Nagle, R. J. (2004). The influence of parent and peer attachments on life satisfaction in middle childhood and early adolescence. *Social Indicators Research, 66*, 35–60.

Oberle, E., Schonert-Reichl, K. A., & Zumbo, B. D. (2011). Life satisfaction in early adolescence: Personal, neighborhood, school, family, and peer influences. *Journal of Youth and Adolescence, 40*, 889–901.

Okun, M., Braver, M. W., & Weir, R. (1990). Grade level differences in school satisfaction. *Social Indicators Research, 49*, 419–428.

Park, N., & Huebner, E. S. (2005). A cross-cultural study of the levels and correlates of life satisfaction among adolescents. *Journal of Cross-Cultural Psychology, 36*, 444–456.

Park, N., Huebner, E. S., Laughlin, J. E., Valois, R. F., & Gilman, R. (2004). A cross-cultural comparison of the dimensions of child and adolescent life satisfaction reports. *Social Indicators Research, 66*, 61–79.

Paxton, R., Valois, R. F., Huebner, E. S., & Drane, J. W. (2006). Opportunities for adult bonding/meaningful neighborhood roles and life satisfaction among middle school students. *Social Indicators Research, 79*, 291–312.

Petito, F., & Cummins, R. A. (2000). Quality of life in adolescents: The role of perceived control, parenting style, and social support. *Behaviour Change, 17*, 196–207.

Phinney, J., & Ong, A. (2002). Adolescent-parent disagreements and life satisfaction in families from Vietnamese and European American backgrounds. *International Journal of Behavioral Development, 26*, 556–561.

Quittner, A. L., Davis, M. A., & Modi, A. C. (2003). Health-related quality of life in pediatric populations. In M. C. Roberts (Ed.), *Handbook of pediatric psychology* (Vol. 3, pp. 696–709). New York: Guilford Press.

Rathunde, K. (1997). Family context and the development of undivided interest: A longitudinal study of family support and challenge and adolescents' quality of experience. *Applied Developmental Science, 5*, 158–171.

Rich, G. J. (2003). The positive psychology of youth and adolescence. *Journal of Youth and Adolescence, 3*, 1–3.

Rigby, B., & Huebner, E. S. (2005). Do causal attributions mediate the relationship between personality characteristics and life satisfaction in adolescence? *Psychology in the Schools, 42*, 91–99.

Rodriguez, N., Mira, C. B., Meyers, H. F., Morris, J. K., & Cardoza, D. (2003). Family or friends: Who plays a greater supportive role for Latino college students? *Cultural Diversity & Ethnic Minority Psychology, 9*, 236–250.

Saha, R., Huebner, E. S., Suldo, S. M., & Valois, R. F. (2010). A longitudinal study of parenting behavior and adolescent life satisfaction. *Child Indicators Research, 3*, 149–156.

Sam, D. L. (1998). Predicting life satisfaction among adolescents from immigrant families in Norway. *Ethnicity & Health, 3*, 5–18.

Schiff, M., Nebbe, S., & Gilman, R. (2006). Life satisfaction among Israeli children in residential treatment care. *British Journal of Social Work, 36*, 1325–1343.

Seligman, M. E. P., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist, 55*, 5–14.

Seligson, J. L., Huebner, E. S., & Valois, R. F. (2003). Preliminary validation of the Brief Multidimensional Students' Life Satisfaction Scale (BMSLSS). *Social Indicators Research, 61*, 121–145.

Shek, D. T. (1997). The relation of parent-adolescent conflict to adolescent psychological well-being, school adjustment, and problem behavior. *Social Behavior and Personality, 25*, 277–290.

Shek, D. T. (1998). Adolescent positive mental health and psychological symptoms in a Chinese context. *Psychologia, 41*, 217–225.

Shernoff, D. J., Csikszentmihalyi, M., Schneider, B., & Shernoff, E. S. (2003). Student engagement in high school classrooms from the perspective of flow theory. *School Psychology Quarterly, 18*, 158–176.

Sirgy, M., Rahtz, D., Cicic, M., & Underwood, R. (2000). A method for assessing residents' satisfaction with community-based services: A quality-of-life perspective. *Social Indicators Research, 49*, 279–316.

Suh, E., Diener, E., Oishi, S., & Triandis, H. C. (1998). The shifting basis of life satisfaction judgments across cultures: Emotions versus norms. *Journal of Personality and Social Psychology, 74*, 482–493.

Suldo, S. M., & Huebner, E. S. (2004a). The role of life satisfaction in the relationship between authoritative parenting dimensions and adolescent problem behavior. *Social Indicators Research, 66*, 165–195.

Suldo, S. M., & Huebner, E. S. (2004b). Does life satisfaction moderate the effects of stressful life events on psychopathological behavior in adolescence? *School Psychology Quarterly, 19*, 93–105.

Suldo, S. M., & Huebner, E. S. (2006). Is extremely high life satisfaction during adolescence advantageous? *Social Indicators Research, 78*, 179–203.

Suldo, S. M., & Shaffer, E. J. (2008). Looking beyond psychopathology: The dual-factor model of mental health in youth: Associations with education, social, and physical health outcomes. *School Psychology Review, 37*, 52–68.

Suldo, S. M., Riley, K. N., & Shaffer, E. J. (2006). Academic correlates of children and adolescents' life satisfaction. *School Psychology International, 27*, 567–582.

Taylor, S. E., Kemeny, M. E., Reed, G. M., Bower, J. E., & Gruenwald, T. L. (2000). Psychological resources, positive illusions, and health. *American Psychologist, 55*, 99–109.

Terry, T., & Huebner, E. S. (1995). The relationship between self-concept and life satisfaction in children. *Social Indicators Research, 35*, 29–52.

Tian, L., Wang, L., & Gilman, R. (2003). Advances in western research on life satisfaction of among adolescents. *Chinese Mental Health Journal, 17*, 814–816.

Tong, Y., & Song, S. (2004). A study on general self-efficacy and subjective well-being of low SES college students in a Chinese university. *College Student Journal, 38*, 637–642.

Valente, S. M. (2005). Sexual abuse among boys. *Journal of Child and Adolescent Psychiatric Nursing, 18*, 10–16.

Valle, M. F., Huebner, E. S., & Suldo, S. M. (2004). Further evaluation of the children's hope scale. *Journal of Psychoeducational Assessment, 22*, 320–337.

Valois, R. E., Zullig, K., Huebner, E. S., & Drane, J. W. (2001). Relationships between life satisfaction and violent behavior among adolescents. *American Journal of Health Behavior, 25*, 353–366.

Veenhoven, R. (1988). The utility of happiness. *Social Indicators Research, 20*, 333–354.

Verkuyten, M. (1986). Impact of ethnic and sex differences on global self-esteem among adolescents in the Netherlands. *Psychological Reports, 59*, 446–467.

Wilson, S. M., Henry, C. S., & Peterson, G. W. (1997). Life satisfaction among low-income rural youth from Appalachia. *Journal of Adolescence, 20*, 443–459.

Zullig, K. J., Valois, R. F., Huebner, E. S., & Yoon, J. W. (2005). Adolescent health-related quality of life and perceived satisfaction with life. *Quality of Life Research, 14*, 1573–1584.