

**Youth Quality of Life Instrument –
Weight Quality of Life Module
(YQOL-W)**



**User Manual and
Interpretation Guide**

**1st Edition
2010**

Seattle Quality of Life Group

Youth Quality of Life Instrument - Weight Module (YQOL-W)

User Manual and Interpretation Guide

**1st Edition
2010**

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LIST OF ABBREVIATIONS

Abbreviation	Full text
YQOL	Youth Quality of Life Instrument
SeaQoL	Seattle Quality of Life Group
QoL	Quality of Life
BMI	Body Mass Index



INTRODUCTION

The Seattle Quality of Life Group (SeaQoL) at the University of Washington has worked for over the past 15 years assessing the quality of life among youth who are often stigmatized by society.

Since its creation, the SeaQoL Group's objective has been to develop and distribute instruments that may be used to assess quality of life among youth with disabilities, chronic conditions, or who may for other reasons be marginalized by society.

This manual was designed to provide practical information on the *Youth Quality of Life Instrument – Weight Module* (YQOL-W) as well as its administration, scoring procedures, psychometric properties, interpretation of results, conditions of use, and language translation.

Its purpose is to describe:

- The YQOL-W
- How it is administered
- How to calculate the scale scores
- The meaning of the scores and their reference values
- The main measurement properties
- The available translations and linguistic validation methodology
- The conditions of use

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I. INSTRUMENT OVERVIEW

1.1. History and development

The YQOL-W was developed by the SeaQoL Group with funding from the National Institute on Diabetes and Digestive and Kidney Diseases (NIDDK). The instrument development was conducted in three phases: Phase I item generation and selection; Phase II psychometric validation, and Phase III pilot study to determine ability to detect change (responsiveness).

The instrument was developed to provide an outcome measure augmenting the Youth Quality of Life generic research form (YQOL-R) or short form (YQOL-SF) for use in evaluating the impact of weight or weight management treatments. The instrument was simultaneously developed in both US English and Mexican Spanish.

1.2. Instrument description

The YQOL-W is designed to assess the quality of life of youth ages 11-18 years who are obese (\geq the 95th percentile of the age-sex standard for BMI) or overweight (85th-94th percentile) and as a complement to the generic Youth Quality of Life Instrument – Research Form (YQOL-R) or Short Form (YQOL-SF).

Since the weight-specific and generic instruments tap different content, it is highly recommended that a generic instrument be administered in conjunction with the weight-specific measure.

The ***YQOL-W consists of n=21*** perceptual items tapping three domains of weight-specific QoL: 1) Self: n=4 items, 2) Social: n=12 items, and 3) Environment: n=5 items.

The ***generic YQOL-R consists of n=41*** perceptual items tapping three domains of generic QoL: 1) Self: n=14 items, 2) Social: n=14 items, 3) Environment: n=10 items, and 4) General QoL: n=3 items.

The ***generic YQOL-SF consists of n=10*** perceptual items tapping three domains of generic QoL: 1) Self: n=3 items, 2) Social: n=4 items, 3) Environment: n=2 items, and 4) General QoL: n=1 item.

To obtain the generic instruments, see the SeaQoL website:
<http://www.seaqolgroup.org>

1.3. Instrument summary grid

Author(s)	<i>Donald L. Patrick, Todd C. Edwards, Anne Skalicky, Leo Morales, Yvonne Flores</i>
Stated Purpose of development	<i>Assessment of Weight-Specific Quality of Life among Youth</i>
Type of instrument	<i>Quality of Life Instrument - Weight-Specific Youth Module</i>
Therapeutic area/Disease	<i>Typical, Overweight, or Obese adolescents</i>
Population/Age	<i>Youth ages 11-18 years</i>
Domains of Perceptual Items	<i>Self, Social, and Environment</i>
Total number of items	<i>21 Items total</i>
Response scales	<i>11-point rating scale (with anchors outside the ends)</i>
Mode of administration	<i>Self-administered</i>
Time for completion	<i>Median time: 5-7 minutes</i>
Time recall	<i>Generally, at the moment</i>
Scoring	<i>General scoring rules: /score per domain/score per item/range of scores/direction of scores</i>
Avail. Of Normative data	<i>None available currently</i>
Language	<i>Original language: English Available Translations: Mexican Spanish, Mandarin</i>
Conditions of use	<i>Information on Copyright license agreement/fees</i>
Related website(s)	<i>http://www.seaqolgroup.org</i>

1.4. Background: Why a Weight-Specific Module?

Quality of life is known to be associated with weight and weight loss in adults (Sullivan et al., 1993; Kolotkin, R. L., Head, Hamilton, & Tse, 1995; Patrick, K. et al., 2004)). One in 7 US children and youth are overweight, yet little is known about their perceived health and quality of life (QoL) (Schwimmer, Burwinkle, & Varni, 2003). To date we are not aware of literature directly addressing QoL and weight for ethnic minority youth specifically. A large number of possible correlates have been explored for weight and weight loss among youth, including body image, depression, and physical activity (Goodman & Whitaker, 2002; McMurray et al., 2002; Zimetkin, Zoon, Klein, & Munson, 2004). Numerous treatment studies have been conducted (Campbell, Waters, O'Meara, Kelly, & Summerbell, 2002), though no long-term effective treatment has emerged, either in relation to weight loss, diabetes prevention, psychosocial health, or quality of life.

Although there are currently other weight-specific modules in existence, the YQOL-W is unique in that it was developed through a series of in-depth interviews with African-American, Caucasian, Mexican-American, and Mexican adolescents, and takes into account culturally-sensitive issues surrounding weight and quality of life. It also can be used to evaluate weight-management treatment, inform how youth view and evaluate the importance of weight, weight loss, and the stigma of overweight in their lives, and provides a gauge for evaluating the associations of weight with environment and behavior.

We define "quality of life" as an individual's "perception of their position in life in the context of the culture and value systems in which they live, in relation to their goals, expectations, standards, and concerns" (WHOQoL Group, 1994). This definition of QoL is broader and more global than either the concept of "subjective well-being" in reflecting the cultural and social context that defines the good life (Kahneman, Diener, & Schwarz, 1999) or health-related QoL (HRQoL), which focuses on functional limitations. This definition requires that youth and parents or guardians define the concepts and items, that the measure use subjective self-report whenever possible, and that the items be developmentally appropriate. It focuses on a positive emphasis on health enhancing aspects of life rather than a negative orientation found in most mental health assessments.

The weight-specific module was constructed to augment the generic Youth Quality of Life Instrument (YQOL) developed by Patrick and colleagues (Edwards, 2002; Patrick, D., Edwards, TC, Topolski, TD, 2002) for assessing perceptions among youth ages 11-18 years (see <http://www.seaqolgroup.org>).

1.5. Development of the YQOL-W Module

In developing the YQOL-W, 68 semi-structured, qualitative interviews with youth ages 11-18 years were conducted in the United States (n = 55) and Mexico (n = 13), to investigate how their perceptions of their weight affects their lives.



Additionally, 4 interviews were held with youth ages 19-22 that were overweight or obese when they were 11-18 years of age.

An advisory meeting was held with clinical and academic experts (n=13) working in the field, in which the newly developed items were evaluated. The interviews with the adolescents formed the primary basis for item generation. The expert panel was used primarily as confirmation checks that no major issues were missing and for the purpose of reducing the large item bank generated by the adolescent interviews to a manageable amount.

The youth who were interviewed were purposively selected to represent a spectrum of BMI (healthy (n=4); overweight (n=8); and obese (n=56). Participants were also recruited from the following ethnic categories (Caucasian (n=17); African-American (n=16) and Mexican-American (n=15), Mexican (n=13), and Mixed ethnicity (n=7). The main objective of this sampling approach was to articulate a diverse set of perspectives regarding QoL of youth, and to ensure that the concepts being explored are relevant across a number of different cultures.

The youth were approached to participate in the research project as "expert informants" to help design a questionnaire to assess adolescents' thoughts and feelings about their QoL. Individual interviews were conducted by four members of the research team experienced in qualitative interviewing. Interviewees were recruited until what they were telling us became redundant with what previous interviewees had said and little new information was gained.

Youth interviewees were invited to generally discuss their lives in relation to others their age, including values, goals, and expectations. Specific probes were used to illuminate stage-salient contexts of youth including home, school, work, and community (Bronfenbrenner, 1979), and how they perceived their lives were affected by their weight in today society. Participants were asked similar questions regarding their view of youth QoL in general, and how they perceived it was affected by their weight.

In accordance with the WHO QoL definition cited above, we used the needs-based model to create the YQOL-W. The needs based approach to development of QoL measures builds upon functional status measurement and views QoL as the net result of a person's evaluation of how much their needs have been met including their evaluation of functional status and interaction with the environment. It is based on Maslow's needs hierarchy and was the basis for the WHO-sponsored measure of QoL (Skevington, 2002). Also pioneering in this approach was Jan Hornquist from Scandinavia and in general the needs-based approach has been a current in Scandinavian outcomes assessment for a number of years. The approach is discussed in more detail in papers by Hunt, McKenna, and others in reference to other instrument development (1992; 2001). Thus, the items comprising the YQOL-W were selected to represent the areas of greatest salience as identified primarily by the youth themselves.

We generated an item pool from qualitative interviews with youth, input from clinicians and community health professionals experienced with obesity or youth development, and from an examination of existing instruments.



1.6. Qualitative data analysis and item development

A "grounded theory" approach guided data analysis of the interviews and focus groups (Glaser & Strauss, 1967). Grounded theory is derived from the sociological theory of symbolic interactionism (Blumer, 1969), and is used to model phenomena about which little is known, in this case, the weight-specific QoL of youth. It is an inductive process approach, with an emphasis on social dynamics. The basic tenet of symbolic interactionism is that people construct meanings about their lives on the basis of interactions they have with other people and the world at large.

The investigators, previously experienced in this approach (Edwards, 2002), worked with the transcribed interviews to code relevant QoL issues and to write items based as closely as possible on the views and language of the adolescents themselves. Data coding strategies included *open coding*, assignment of codes to the text based on words or phrases that captured meaning in the data; *axial coding*, comparing open codes with each other to create relevant categories; and *selective coding*, using frequently occurring axial codes to create core categories, or conceptual model domains (see Strauss, 1990) for a full explanation of these coding processes).

Over a 6-month period, the following steps were conducted to collect, code and analyze qualitative interview data: (1) The interviews were audio-recorded and transcribed. (2) Each transcription was checked for accuracy. (3) At least two team members selected QoL-relevant text from each transcription. (4) The selected text was transferred to a spreadsheet along with its interview number. (5) Team members began coding text and generated a long list of codes (open coding). (6) The long list of codes was consolidated into categories (axial coding). (7) All selected text was coded with the axial codes. (8) The selected text was sorted by axial code and further consolidated into core domains (selective coding). (9) Draft items were written based upon the text comprising the core domains. (10) The number of draft items was reduced based upon participant, investigator, and parent judgment of the importance of items. (11) Draft items were crafted maintaining original language as much as possible. (12) A reduced list of draft items was presented to an advisory board panel of community members, parents and clinicians. (13) A final set of items was cognitively debriefed with youth and prepared for field testing. Cognitive debriefing is a method by which individuals assess the relevance, importance, and comprehension of the content of measures (Jabine, 1984; Fowler, 1993). Twenty youth (U.S., $n = 17$, Mexico, $n = 3$) who participated in the original interviews completed the draft instrument and afterward were asked to "think aloud" about how they interpreted each item and how they chose a response. They were also asked to identify awkward or unclear wording, and to evaluate whether any important issues were not included.

Perceptual items were developed for the YQOL-W to measure those aspects of QoL known only to the youth respondent, which cannot be observed by others. (Cummins, 1997; Wallander, Schmitt, & Koot, 2001). A determination was made by the research team to not create weight-specific contextual items because of the existence of sufficient existing developed and validated measures.



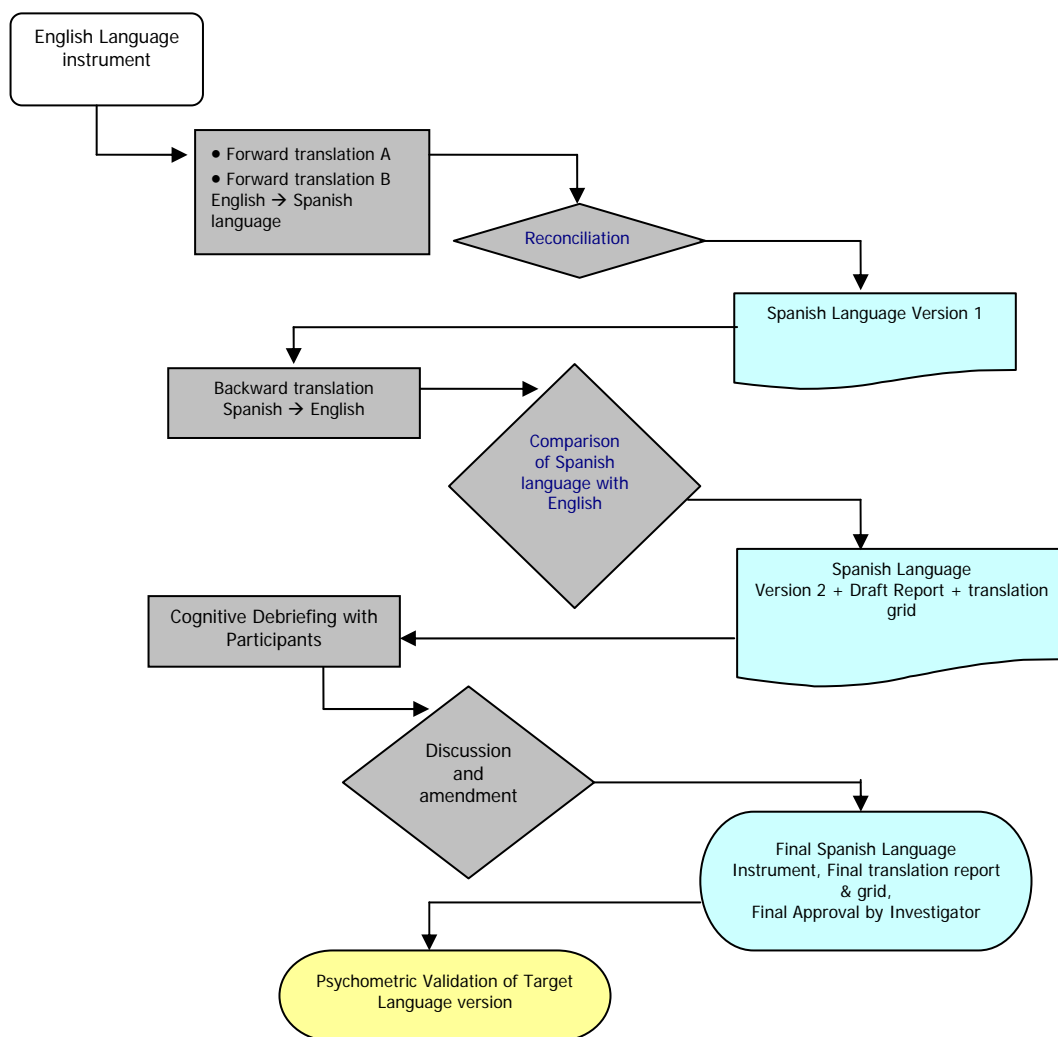
The original number of items generated was 154, all perceptual, distributed across 3 domains, Self, Social and Environment. The research team then evaluated each of these items and nominated the top 20 QoL items from each of the domains (self, social, environment) based upon the following criteria: (1) the item evaluated a "quality" (perception/sensation/feeling), (2) the item represented an area of importance to people with the condition, (3) the item was in the language of the youth with the condition, and the item was translatable conceptually, (4) the item was likely to change with successful treatment of the condition, (5) the item was likely to discriminate by severity of condition, (6) the item was likely to discriminate between known population groups, (7) the item was frequently mentioned by youth participants, and (8) the item was relevant to everyone with the condition. This resulted in 100 items that were retained and presented to each research team member for nomination of items that they thought best captured the weight-specific QoL issues for youth. The reduced item list (n=35) was then presented to the advisory board panel for recommendation and selection. This process resulted in n=25 perceptual items for field testing. These items were fielded in cognitive debrief interviews with the youth participants.

1.7. Development of Spanish Translation of YQOL-W

The aim of the linguistic validation of YQOL-W was to produce a Mexican-Spanish version which is **conceptually** equivalent to the original version. Three steps were conducted in the translation process (also, see flowchart below):

1. Two forward translations by native Mexican-Spanish speakers, (includes the production of a "reconciled" version by a translation team members);
2. Backward translation by a 3rd bilingual English-Spanish speaker with no knowledge of original English items;
3. Confirmation by translation team and subsequent review by development team and cognitive interviews with Mexican-Spanish participants.





Comprehensive guidelines for the cultural and linguistic adaptation of new survey instruments and measures are provided by the Scientific Advisory Committee of the Medical Outcomes Trust (<http://www.outcomes-trust.org/monitor/nov98/8.html>)

1.8. Response Scales

The response scales used with the YQOL-W items are:

NOT AT ALL 0 1 2 3 4 5 6 7 8 9 10 VERY MUCH

These response scales are based on the familiarity of the base 10 system and of rating things as “X...out of 10” in the common parlance of youth. Research indicates that discrimination among categories can improve up to 11-13 points, after which persons are unable to discriminate between numerical options (Nunnally, 1994). These response scales were tested with 6th to 12th grade

students in the Seattle, Washington area. Students were asked to state their preference between 5-point likert scales and the 11-point rating scales. Younger respondents preferred the 0-10 point scales, while older students were indifferent between the two options.

For a complete description of the process used in developing the YQOL-W, see Morales, et al. (2010).





II. ADMINISTRATION

2.1. Self-Administration guidelines

The YQOL-W should be self-administered with supervision by personnel knowledgeable about the instrument in case the participant has questions while completing. It should be administered in a quiet room, where privacy can be assured, and interruptions eliminated.

If a participant has a question about any of the items while completing the instrument, paraphrase the item, and tell them to answer it in the way that makes the most sense to him/her. When the respondent is finished with the instrument, make sure to look it over for missing data. If there is missing data, ask the respondent to complete the blank items, unless they prefer not to.

2.2. Example of introductory script

When introducing the participant to the instrument, the administrator should refer to the following script:

“Many teenagers are taking part in this important survey. This survey will help us understand your thoughts and concerns so that better programs can be developed to improve the lives of teens.

The questions in this survey ask about a wide range of concerns and feelings. Some of these may or may not be important to you.

This is NOT a test. There are no right or wrong answers. Please answer as honestly as you can. Your responses will be kept strictly secret.

Thank you for your help!”

2.3. Management of difficult situations

All participants should be encouraged to discuss issues which arise for them during completion of the questionnaire. The following is the script to be used at the end of the administration and also included at the end of the questionnaire: “We realize that answering these questions may have brought up some unpleasant issues for you. If you have been upset at all by this experience, we

would encourage talking about it with someone close to you, such as a parent, friend, minister, counselor, or doctor.” Also give a crisis number to call in case any respondents would like to talk to a crisis counselor.





III. SCORING INSTRUCTIONS

3.1. Description of the instrument

Dimensions	Number of Items	Item Reversal	Direction of Dimensions
Self	4	Yes	Higher = Better QoL
Social	12	Yes	Higher = Better QoL
Environment	5	Yes	Higher = Better QoL

3.2. Scoring of YQOL-W

Item scaling	Items are on an 11 point rating scale. Items are scored: <i>Not at all 0 1 2 3 4 5 6 7 8 9 10 Very Much</i>
Range of scores	The scores per domain are transformed on a scale from 0 to 100. For all three domains (Self, Social, and Environment) a higher score indicates a better quality of life.
Scoring procedure	After transformation of the item scores, domain scores are calculated by computing the mean for the items that comprise each scale. A minimum of 80% of items in the scale must be non-missing to compute a scale score. For Self domain, at least 4 of 4 items have to be answered. For Social domain, at least 10 of 12 items have to be answered. For Environment domain, at least 4 of 5 have to be answered.
Interpretation and Analysis of Missing Data	Missing data should be reviewed to verify that data are missing at random. Youth with non-random missing data should be eliminated from further analyses. Information regarding the association of missingness with demographic and other variables should be reviewed and noted as a limitation in the analysis.



3.3. Scoring Syntax

Prior to calculating domain scores: 1) All items are first reverse-scored so that a higher score equals a better score, and 2) Transformed to a 100-point scale. The following syntax can be used in SPSS 13.0 or higher:

*** Reverse coding of items so higher equals better.**

```
RECODE wql1 wql2 wql3 wql4 wql5 wql6 wql7 wql8 wql9 wql10 wql11 wql12 wql13 wql14 wql15
wql16 wql17 wql18 wql19 wql20 wql21 (0=10) (1=9) (2=8) (3=7) (4=6) (5=5) (6=4) (7=3) (8=2) (9=1)
(10=0) (777=777) (999=999) (SYSMIS=999) INTO wql1R wql2R wql3R wql4R wql5R wql6R wql7R
wql8R wql9R wql10R wql11R wql12R wql13R wql14R wql15R wql16R wql17R wql18R wql19R
wql20R wql21R.
```

```
VARIABLE LABELS wql1R 'REVERSE CODED: ' / wql2R 'REVERSE CODED: ' / wql3R 'REVERSE
CODED: ' / wql4R 'REVERSE CODED: ' / wql5R 'REVERSE CODED: ' / wql6R 'REVERSE CODED: '
/ wql7R 'REVERSE CODED: ' / wql8R 'REVERSE CODED: ' / wql9R 'REVERSE CODED: ' / wql10R
'REVERSE CODED: ' / wql11R 'REVERSE CODED: ' / wql12R 'REVERSE CODED: ' / wql13R
'REVERSE CODED: ' / wql14R 'REVERSE CODED: ' / wql15R 'REVERSE CODED: ' / wql16R
'REVERSE CODED: ' / wql17R 'REVERSE CODED: ' / wql18R 'REVERSE CODED: ' / wql19R
'REVERSE CODED: ' / wql20R 'REVERSE CODED: ' / wql21R 'REVERSE CODED: '.
EXECUTE.
```

*** Transforming items to 0 to 100 point scale.**

```
COMPUTE wql1RT=((wql1R-0)/10)*100.
EXECUTE.
COMPUTE wql2RT=((wql2R-0)/10)*100.
EXECUTE.
COMPUTE wql3RT=((wql3R-0)/10)*100.
EXECUTE.
COMPUTE wql4RT=((wql4R-0)/10)*100.
EXECUTE.
COMPUTE wql5RT=((wql5R-0)/10)*100.
EXECUTE.
COMPUTE wql6RT=((wql6R-0)/10)*100.
EXECUTE.
COMPUTE wql7RT=((wql7R-0)/10)*100.
EXECUTE.
COMPUTE wql8RT=((wql8R-0)/10)*100.
```



EXECUTE.

COMPUTE wql9RT=((wql9R-0)/10)*100.

EXECUTE.

COMPUTE wql10RT=((wql10R-0)/10)*100.

EXECUTE.

COMPUTE wql11RT=((wql11R-0)/10)*100.

EXECUTE.

COMPUTE wql12RT=((wql12R-0)/10)*100.

EXECUTE.

COMPUTE wql13RT=((wql13R-0)/10)*100.

EXECUTE.

COMPUTE wql14RT=((wql14R-0)/10)*100.

EXECUTE.

COMPUTE wql15RT=((wql15R-0)/10)*100.

EXECUTE.

COMPUTE wql16RT=((wql16R-0)/10)*100.

EXECUTE.

COMPUTE wql17RT=((wql17R-0)/10)*100.

EXECUTE.

COMPUTE wql18RT=((wql18R-0)/10)*100.

EXECUTE.

COMPUTE wql19RT=((wql19R-0)/10)*100.

EXECUTE.

COMPUTE wql20RT=((wql20R-0)/10)*100.

EXECUTE.

COMPUTE wql21RT=((wql21R-0)/10)*100.

EXECUTE.

RECODE wql1RT wql2RT wql3RT wql4RT wql5RT wql6RT wql7RT wql8RT wql9RT wql10RT
wql11RT wql12RT wql13RT wql14RT wql15RT wql16RT wql17RT wql18RT wql19RT wql20RT
wql21RT (7770=777) (9990=999).

EXECUTE.

*** Domain scoring.**

* Self domain score: requires 4 out of 4 non-missing items.

* Social domain score: requires at least 10 out of 12 non-missing items.

* Environment domain score: requires at least 4 out of 5 non-missing items.

* Total YQOL-W score: requires at least 17 out of 21 non-missing items.

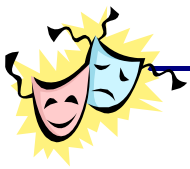


```
COMPUTE wqlSelf = mean.4(wql1RT, wql2RT, wql3RT, wql4RT).  
COMPUTE wqlSocial = mean.10(wql5RT, wql6RT, wql7RT, wql8RT, wql9RT, wql10RT, wql11RT,  
wql12RT, wql15RT, wql16RT, wql17RT, wql18RT).  
COMPUTE wqlEnv = mean.4(wql13RT, wql14RT, wql19RT, wql20RT, wql21RT).  
COMPUTE TotWQoL = mean.17(wql1RT, wql2RT, wql3RT, wql4RT, wql5RT, wql6RT, wql7RT,  
wql8RT, wql9RT, wql10RT, wql11RT, wql12RT, wql13RT, wql14RT, wql15RT, wql16RT, wql17RT,  
wql18RT, wql19RT, wql20RT, wql21RT).  
EXECUTE.
```

VARIABLE LABELS

```
wqlSelf "YQOL-W Self domain score"  
wqlSocial "YQOL-W Social domain score"  
wqlEnv "YQOL-W Environment domain score"  
TotWQoL "Total YQOL-W score".  
EXECUTE.
```





IV. PSYCHOMETRIC PROPERTIES

Development of the YQOL-W perceptual module involved psychometric and practical testing to evaluate measurement properties, including conceptual and measurement model, reliability, validity, respondent and administrative burden, and alternative modes of administration. The adequacy of the hypothesized conceptual model was evaluated by examining evidence that: (1) the expected subdomains measured a single construct; (2) multiple scales measured distinct domains; and (3) the scale adequately represented variability in the domain.

4.1. Validation of the YQOL-W¹

The studies to validate the YQOL-W were conducted with approval from the institutional review boards at the University of Washington and Seattle Children's Hospital.

A multi-site observational study was conducted by investigators at the University of Washington (Seattle), University of California (Los Angeles). The sites partnered with Seattle Children's Hospital, Seattle, Tacoma and Yakima Public Schools; Group Health Cooperative based in Seattle, WA; University of California-Los Angeles, David Geffen School of Medicine, and Pediatric Weight Management Program in Los Angeles, CA; Los Angeles, Riverside, and San Bernardino Unified School Districts; Anaheim Joint Union High School District. Youths and at least one parent/guardian completed a battery of instruments.

4.1.1. Sample

The recruitment goal was 480 youth from three categories of weight (160 participants in each category). The final sample obtained was n=443 youth (categorized by ethnicity and sex). Youth were excluded from the study if their primary caregiver indicated that they had a co-morbid mental or physical condition that currently had a greater impact on their life than their weight, or if they were not African-American, Caucasian, or Mexican-American. Demographic characteristics of the sample are shown in Table 4.1.1.

¹ See also Morales LS, Flores Y, Edwards T, Barr L, Patrick DL. Measurement Properties of a New Multicultural Weight-Specific Quality of Life Measure for Adolescents. *Quality of Life Research, E-pub ahead of print, 06 Sept, 2010.*



Table 4.1.1. Sample Characteristics (n=443)

	N	%
Age in Years		
11-14	234	53
15-18	209	47
(mean \pm sd = 14.7 \pm 2.2)		
Gender		
Female	233	53
Male	210	47
Race-Ethnicity		
Black/African-American	132	30
White/Caucasian	145	33
Mexican-American	165	37
Mother's Education		
Less than HS	75	18
HS/GED	77	18
Some College	128	31
College	97	23
Masters or Higher	40	10
BMI Category		
Healthy	149	34
Overweight	89	20
Obese	204	46
(mean \pm sd = 27.1 \pm 6.8)		
Recruitment Site		
Seattle	226	51
Los Angeles	217	49

Note. Sample sizes within characteristics may not sum to n = 443 due to missing values.



4.2. Domain Structure of the YQOL-W

Quantitative evaluation of the individual items showed that four of the items differed significantly from the properties of a normal distribution and were subsequently eliminated. A review of the frequencies and ranges verified that all response choices were used, and that in general they followed a normal distribution. The cut-point adopted for floor/ceiling effects was greater than 66% of correspondents scoring in the top or bottom two response categories. The multi-trait/multi-item correlation matrix was used to examine the relationship of each item to its hypothesized scale and the other scales. A correlation of less than 0.4 was used to eliminate an item as not measuring the construct. Items correlating significantly higher to one of the competing scales than to its hypothesized scale were moved to the competing scale. Items within a scale with bivariate correlations greater than 0.7 were considered redundant and subject to elimination if the scale's integrity could be maintained without the item. Additionally, inter-scale correlations were computed to assess whether the scales uniquely contributed to the reliable variance in the data. Finally, items were assessed for greater than 5% missing data.

To determine if there were a sufficient number of significant correlations among the items to justify exploratory factor analysis, we computed a Bartlett's test of sphericity coefficient and Kaiser-Meyer-Olkin (KMO) test of sampling adequacy.

The number of factors extracted was based upon analyses including principal components analysis (PCA), principal axis factoring (PAF), and the examination of several criteria including the Kaiser-Guttman criteria, the percent of variance explained, a Scree-plot, parallel analysis, and the interpretability of the factors. For more information conducting exploratory factor analysis, see Pett et al. (2003).

After establishing the number of factors to extract, orthogonal (Varimax) and oblique (Promax) factor rotations were computed. Following each rotation, the factor structure was examined to find the rotation method that produced the most interpretable simple structure. Items without a loading of 0.40 or higher on any factor or items with loadings on multiple factors of 0.40 or higher were considered for elimination from the item pool (Table 4.2.1).

Confirmatory factor analysis was also applied to investigate the factor structure. In contrast to exploratory factor analysis, confirmatory factor analysis is hypothesis-driven. We used confirmatory factor analysis to evaluate the fit of two alternative model specifications derived from the exploratory factor analysis: a one-factor and a three-factor model. The fit of each model was first assessed by standard fit indexes including comparative fit index (CFI), Tucker-Lewis index (TLI) and the root mean square error of approximation (RMSEA) and relative fit was assessed by contrasting the model log-likelihood values.



Table 4.2.1. Factor Analytic Structure of YQOL-W Perceptual Items

Item No.	Brief Item Content	3-Factor Model			1-Factor Model
		Social	Self	Environ	
9	Avoid being noticed	0.96	-0.03	-0.14	0.77
6	Avoid photos	0.85	0.08	-0.16	0.74
11	Uncomfortable at social events	0.84	0.05	-0.01	0.85
21	Not included	0.81	-0.03	0.08	0.82
20	People stare	0.70	-0.01	0.20	0.84
8	Embarrassed to eat	0.62	0.05	0.14	0.77
7	Embarrassed to exercise	0.59	0.05	0.21	0.81
12	Feel like a loser	0.57	0.15	0.14	0.81
5	Feel unattractive	0.52	0.31	0.05	0.81
22	Hard getting a good job	0.51	-0.09	0.24	0.64
10	Worry what people say	0.50	0.21	0.16	0.82
19	Hard finding a boyfriend or girlfriend	0.45	0.07	0.31	0.78
1	Feel depressed	-0.04	0.98	-0.06	0.74
2	Feel ashamed about my weight	-0.05	0.97	0.01	0.77
3	Uncomfortable with skinnier people	0.14	0.60	0.02	0.66
4	Hide my body	0.17	0.51	0.22	0.80
24	Difficult finding clothes	-0.08	-0.03	0.93	0.73
23	Difficult wearing clothes	-0.09	0.11	0.91	0.81
25	Hard to exercise	0.30	-0.05	0.56	0.75
14	Uncomfortable moving	0.41	-0.03	0.49	0.80
16	Avoid swimsuits	0.31	0.14	0.36	0.74

Notes. The three-factor solution was obtained by principal axis factoring with Promax rotation ($\kappa=4$). The one-factor solution was obtained by principal axis factoring.



4.3. Reliability

The results of the analyses of internal consistency are shown in Table 4.3.1. The Cronbach's alphas for all domains exceeded the minimum requirement of 0.70 suggesting good internal consistency and of the domain scores.

Table 4.3.1 Internal Consistency of the YQOL-W

Scale and Item Content (Item Number)	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Social		<i>0.95</i>
Feel unattractive (5)	0.79	0.95
Avoid photos (6)	0.74	0.95
Embarrassed to exercise (7)	0.77	0.95
Embarrassed to eat (8)	0.76	0.95
Avoid being noticed (9)	0.78	0.95
Worry what people say (10)	0.80	0.95
Uncomfortable at social events (11)	0.85	0.95
Feel like a loser (12)	0.80	0.95
Hard finding a boyfriend or girlfriend (19)	0.76	0.95
People stare (20)	0.84	0.95
Not included (21)	0.83	0.95
Hard getting a job (22)	0.81	0.96
Self		<i>0.90</i>
Feel depressed (1)	0.84	0.86
Feel ashamed (2)	0.85	0.85
Uncomfortable with skinny people (3)	0.70	0.91
Hide my body (4)	0.75	0.89
Environment		<i>0.90</i>
Uncomfortable moving (14)	0.78	0.88
Avoid swimsuits (16)	0.69	0.90
Difficult wearing clothes (23)	0.84	0.86
Difficult finding clothes (24)	0.77	0.88
Hard to exercise (25)	0.73	0.89



Test-retest reliability was evaluated for the Self, Social, and Environment factors and the one-factor model with an intraclass correlation coefficient (ICC) from a two-way random effects ANOVA model. The ICC was 0.73 for the Social factor, 0.71 for the Self factor, 0.73 for Environment factor, and 0.77 for the one-factor model. In general, ICCs of 0.70 or greater are acceptable for group comparisons in randomized clinical trials and other clinical research.

4.4. Validity

4.4.1. Content validity

As described in the instrument development section, the content validity of the YQOL-W was aided by having youth themselves define the content of items. Additional items were elicited from professionals and reviews of the psychosocial literature involving youth who are overweight or obese.

4.4.2 Construct validity

zBMI was negatively correlated with Self (-0.34, $p < 0.01$), Social (-0.38, $p < 0.01$), and Environment (-0.43, $p < 0.01$) and with the one-factor model (-0.41, $p < 0.01$), indicating that as weight increased, weight-specific QOL decreased. The Children's Depression Inventory was also negatively correlated with Self (-0.48, $p < 0.01$), Social (-0.59, $p < 0.01$), Environment (-0.49, $p < 0.01$), and the one-factor model (-0.58, $p < 0.01$), indicating that as depression scores increased, weight-specific QOL scores decreased. Finally, the YQOL-R scores were positively correlated with the Self (0.48, $p < 0.01$), Social (0.58, $p < 0.01$), Environment (0.51, $p < 0.01$) and on-factor scores (0.57, $p < 0.01$), providing further evidence of construct validity.

4.5. Ability to detect change²

Youth generic (YQOL-S) and weight-specific instruments (YQOL-W) from 133 youth age 11-19 years were analyzed at the beginning and end of 4-week immersion camp sessions known to produce weight loss.

Paired samples t-tests were used to test mean difference between baseline and final Body Mass Index (BMI) and YQOL-S and W scores. YQOL-S and YQOL-W scores were transformed to values between 0 and 100, with higher values indicating better QOL. Cohen's *d* effect sizes were calculated to assess magnitude of effects. Percent weight loss (as % of baseline weight), change in BMI (baseline kg/m^2 - follow-up kg/m^2) and change in % overweight ($(\text{BMI} - 50^{\text{th}}\% \text{ BMI for age and sex}) / 50^{\text{th}}\% \text{ BMI for age and sex} \times 100$) were calculated. Multiple regression was used to model final YQOL scores in the 11-14 and 15-19 age groups as functions of each measure of weight change, sex, age, and baseline YQOL score.

² See also Patrick DL et al., Weight Loss and Changes in Generic and Weight-Specific Quality of Life in Obese Adolescents, under review.



Youth experienced significant reductions in BMI (Mean change=3.7, SD=1.4, $t=34.1$, $p < .001$) and in the other measures of weight change. YQOL-S and YQOL-W scores improved significantly ($p < .001$) and effect sizes were 0.61 and 0.66 respectively (see Table below for all YQOL-W effect sizes).

Description of YQOL-S and YQOL-W changes and effect sizes (n = 133)

4-week Camp Attendees	Baseline		Follow-up		Change [†]		Effect Size
	Mean	SD	Mean	SD	Mean	SD	Cohen's d^{\ddagger}
YQOL-W Total	49.2	26.1	59.9	26.9	10.7***	16.1	0.66
11-14 (n=63)	58.5	24.5	69.6	23.7	11.1***	14.8	0.75
15-19 (n=70)	40.8	24.7	51.2	26.9	10.4***	17.3	0.60
Self	40.6	27.8	50.9	27.1	10.3***	15.4	0.67
11-14 (n=63)	49.3	26.4	60.8	25.2	11.4***	14.5	0.79
15-19 (n=70)	32.7	26.9	42.0	25.8	9.4***	16.2	0.58
Social	53.9	27.5	62.9	27.5	9.0***	17.2	0.52
11-14 (n=63)	63.3	25.4	72.0	24.4	8.8***	15.6	0.56
15-19 (n=70)	45.5	26.7	54.5	27.7	9.1***	18.7	0.49
Environment	44.8	28.1	57.2	29.5	12.4***	18.1	0.69
11-14 (n=63)	54.4	27.7	67.3	26.3	12.9***	16.7	0.77
15-19 (n=70)	36.1	25.7	48.1	29.4	12.0***	19.4	0.62

† Change = (follow-up – baseline) quality of life measure. *** $p < 0.001$

‡ Cohen's d = (mean of change) / (standard deviation of change).





V. INTERPRETATION OF SCORES

5.1. Interpretation of high and low scores

The YQOL-W is used to augment the results from the YQOL-R or YQOL-SF generic instruments. The YQOL-W has 3 domains which are interpreted by calculating a profile analysis.

Scale	Number of items	Meaning of scores	
		Low	High
Self	4	Poor Quality of Life	Good Quality of Life
Social	12	Poor Quality of Life	Good Quality of Life
Environment	5	Poor Quality of Life	Good Quality of Life

We found that changes in generic and weight-specific quality of life scores are associated with weight loss. The weight-specific measure is slightly more sensitive to weight changes, however when controlling for modifiers, the YQOL-W remained significantly associated with weight loss while the generic QoL measure did not.





VI. TRANSLATIONS

	Linguistic validation process				
Language	Forward Translation	Backward Translation	Adaptation	Team Review	Cognitive Debriefing
English (American)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Spanish (Mexican)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Mandarin (Chinese)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>



VII. CONDITIONS OF USE

7.1. Copyright

Copyright © 2010 The Seattle Quality of Life Group.

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If you have questions regarding permissions contact: seaqol@u.washington.edu

7.2. License/User agreement

USER AGREEMENT

Conditions for user of the Youth Quality of Life Instrument
Weight Module (YQOL-W)

Date: _____, _____
Day Month Year

CONTACT INFORMATION

Name: _____

Agency/University/Company: _____

Title: _____

Full Address: _____

Country: _____

Phone: _____ Fax: _____

E-mail: _____

SUMMARY OF STUDY

- Title:
- Disease or disorder:
- Type of research
- Primary outcome measure or end point:
- Design:
- Number of expected respondents (total):
- Number of expected administrations of the questionnaires per respondent:
- Length of the follow-up (if any):
- Planned study date:
- Name of the funder:
- Other questionnaires used in the study:
- Number of countries/language versions involved:



SPECIFY:

USA (Spanish) ☐

USA (English) ☐

IMPORTANT REMARK: THE YQOL-W MAY BE USED IN THE ABOVE MENTIONED INVESTIGATIONS WHEN THE FOLLOWING AGREEMENT IS COMPLETED AND SIGNED BY “USER”.

« _____(Person, University, Company)» referred hereinafter as « User » wishes to use the **YQOL-W** in the above mentioned versions.

The UNIVERSITY OF WASHINGTON distributes the **YQOL-W** and its translations available in the following languages: U.S. English, and U.S. Spanish.

Therefore, User and UNIVERSITY OF WASHINGTON agree as follows:

1. UNIVERSITY OF WASHINGTON’s obligations

UNIVERSITY OF WASHINGTON shall deliver the original **YQOL-W** and/or the translations requested by “User” subject to the following conditions:

- The translations requested are available, and
- The present agreement is duly completed and signed by “User”

2. “User’s” obligations

2.1 No modification

“User” shall not modify, abridge, condense, adapt, recast or transform the **YQOL-W** in any manner or form, including but not limited to any minor or significant change in wordings or organization in **YQOL-W**, without the prior written agreement of UNIVERSITY OF WASHINGTON, which agreement shall not be unreasonably withheld or delayed.

2.2 No translation

“User” shall not translate **YQOL-W**, without the prior written agreement of **Dr. Donald Patrick**.

2.3 No reproduction

“User” shall not reproduce the **YQOL-W** except for the limited purpose of generating sufficient copies for use in investigations stated hereunder and shall in no event distribute copies of the **YQOL-W** to third parties by sale, rental, lease, lending, or any other profit-making means.



2.4. Publication

In case of publication of study results, “User” shall cite (1)

Morales LS, Flores Y, Edwards T, Barr L, Patrick DL. Measurement Properties of a New Multicultural Weight-Specific Quality of Life Measure for Adolescents. *Quality of Life Research, E-pub ahead of print, 06 Sept, 2010.*

Provision of data

All data, results and reports obtained by, or prepared in connection with the **YQOL-W** shall remain the User’s property. However, UNIVERSITY OF WASHINGTON may request the User to share data, results and reports obtained through the use of the **YQOL-W**, which request the User can accept or reject in its sole and unfettered discretion. UNIVERSITY OF WASHINGTON shall ensure the anonymisation of such data at three levels, by the removal of: any patient identification, any university or company identification and any therapy name. UNIVERSITY OF WASHINGTON will classify and reorganize such anonymous data and therefore, shall hold all intellectual property rights regarding these data when and if submitted to the data pool.

UNIVERSITY OF WASHINGTON may provide such reorganized data to third parties, for analysis in education, research, consulting, and specifically for the evaluation of cross-cultural equivalence and development of reference values for this YQOL-W or for any other similar project.

2.5 Payment

2.5.1 *Royalty fees (Authors)*

The use of the **YQOL-W** is free of author’s royalty fees.

2.5.2 *Distribution fees (UNIVERSITY OF WASHINGTON)*

The use of the **YQOL-W** in studies is subject to a distribution fee payable to UNIVERSITY OF WASHINGTON, of an amount of 150 dollars for general and administrative expenditures plus 100 dollars per language version requested. This fee includes provision of a user manual and scoring program.

The use of the **YQOL-W** in non-funded academic research in developing countries or by students is subject to a reduced price fee for the instruments and user manual.

2.5.3 **Invoicing**

For the use of the YQOL-W, at the time of execution of this agreement, “User” shall pay an amount of \$150 (one hundred and fifty dollars, US) for general and



administrative expenditures plus \$100 (one hundred dollars, US) per language version and “User” shall pay such invoice within thirty (30) days of the date of this agreement.

3. Copyright Infringement

The **YQOL-W** was developed by the Seattle Quality of Life Group at The University of Washington. The UNIVERSITY OF WASHINGTON holds copyright over the YQOL-W and all its present and future translations. Each new translation will be made available to third parties once it is available, through UNIVERSITY OF WASHINGTON, under the conditions described in the present document.

If, at any time during the term of this agreement, « User » learns of any infringement by a third party of any Intellectual Property Rights in connection with the **YQOL-W**, « User » shall promptly notify UNIVERSITY OF WASHINGTON. UNIVERSITY OF WASHINGTON shall notify such infringement to **Authors**. **Authors** will decide to institute or not proceedings against the infringing party.

4. Confidentiality

All and any information related to the **YQOL-W** including but not limited to the following: information concerning clinical investigations, creations, systems, materials, software, data and know-how, translations, improvements ideas, specifications, documents, records, notebooks, drawings, and any repositories or representation of such information, whether oral or in writing or software stored, are herein referred to as confidential information. Likewise, any information provided by User to **Authors** relating to this Agreement, including information provided in this Agreement, shall be treated as confidential information.

In consideration of the disclosure of any such confidential information to the other, each party agrees to hold such confidential information in confidence and not divulge it, in whole or in part, to any third party except for the purpose specified in this agreement.

5. Use of name

It is agreed that UNIVERSITY OF WASHINGTON shall not disclose, whether by the public press or otherwise, the name of “**User’ or institution**”, to any third party to this agreement except to the copyright holder(s) of the **YQOL-W**.

6. Liability

6.1 In case of breach of contract



In the event of total or partial breach by UNIVERSITY OF WASHINGTON of any of its obligations hereunder, UNIVERSITY OF WASHINGTON's liability shall be limited to the direct loss or damage (excluding loss of profit and operating losses) suffered by "User" as a result of such breach and shall not include any other damages and particular consequential damages.

6.2 In the scope of the use of the "Questionnaire"

Under no circumstances may Authors or UNIVERSITY OF WASHINGTON be held liable for direct or consequential damage resulting from the use of the YQOL-W.

6.3 In the event of non-renewal of this Agreement

In the event of non-renewal of this Agreement by UNIVERSITY OF WASHINGTON for any cause or failure by UNIVERSITY OF WASHINGTON to conclude a new agreement with "User" upon the expiry of this Agreement, UNIVERSITY OF WASHINGTON will have no liability for payment of any damages and/or indemnity to "User".

7. Term and termination

This agreement shall be effective as the date of its signature by "User" and shall continue for a term of 10 (ten) years at least or until the term of the study above mentioned in SUMMARY OF THE STUDY.

Either party may terminate this Agreement immediately upon providing written notice to the other party in the event of: (a) the other party's unexcused failure to fulfill any of its material obligations under this Agreement or (b) upon the insolvency or bankruptcy of, or the filing of a petition in bankruptcy or similar arrangement by the other party. User may terminate this Agreement for any reason upon 90 days written notice.

Upon expiration or termination of this Agreement UNIVERSITY OF WASHINGTON may retain in its possession confidential information it acquired from **YQOL-W** while under contract. The obligations which by their terms survive termination, include, without limitation, the applicable ownership, confidentiality and indemnification provisions of this Agreement, shall survive termination.

8. Assignment

This Agreement and any of the rights and obligations of "User" are personal to the "User" and cannot be assigned or transferred by "User" to any third party or by operation of law, except with the written consent of UNIVERSITY OF WASHINGTON notified to "User".

9. Separate Agreement



This Agreement holds for the above mentioned study only. The use of the **YQOL-W** in any additional study of the “User” will require a separate agreement **without additional fees, unless significant updates have been added to the user manual (new edition, etc.).**

10. Entire Agreement, Modification, Enforceability

The entire agreement hereto is contained herein and this Agreement cancels and supersedes all prior agreements, oral or written, between the parties hereto with the respect to the subject matter hereto.

This Agreement or any of its terms may not be changed or amended except by written document and the failure by either party hereto to enforce any or all of the provision(s) of this Agreement shall not be deemed a waiver or an amendment of the same and shall not prevent future enforcement thereof.

If any one or more of the provisions or clauses of this Agreement are adjudged by a court to be invalid or unenforceable, this shall in no way prejudice or affect the binding nature of this Agreement as a whole, or the validity or enforceability of each/and every other provision of this Agreement.

11. Governing law

This Agreement shall be governed by and construed in accordance with the laws of the State of Washington. Any disputes will be adjudicated first through the UNIVERSITY OF WASHINGTON and subsequently through courts in the State of Washington.

IN WITNESS WHEREOF, the parties hereto have caused this agreement to be executed by their duly authorised representatives as of the date first above written.

User/University/Company:

UNIVERSITY OF WASHINGTON:

Name:

Name:

Title:

Title:

Signature:

Signature:

Date:

Date:



7.3. Fees

Unit Price \$150.00 (\$25.00 for Students), including YQOL-SF short form
 \$200 YQOL-W + YQOL-R long form

Electronic Shipping

- No cost

Standard Shipping & Handling

- USPS \$10

U.S. Expedited Delivery:

- 1 day: \$40 ▪ 2-day: \$25

USPS International Express (4-7 Business Days):

- Africa/Asia \$60
- Australia: \$60
- Canada: \$30
- Germany, Italy, France, UK: \$50
- Mexico: \$50
- South America \$60

7.4. Contact Information

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University of Washington
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Campus Box 359455
Seattle, WA 98195-9455
206 616-6977
Fax 206 616-3135

<http://www.seaqolgroup.org>



VIII. MANUAL APPENDIX



DESCRIBING HOW WEIGHT AFFECTS YOUR LIFE

University of Washington
Seattle Quality of Life Group



<http://depts.washington.edu/yqol/>
Seattle, Washington
(800) 291-2193

The authors recommend using the YQOL-SF or YQOL-R (generic instruments) in conjunction with the YQOL-W. For more information about these instruments visit:
<http://depts.washington.edu/yqol/instruments/YQOL-W.htm>

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How Does Your Weight Affect Your Life

Following are sentences that describe how you may feel about yourself and your weight. After you read each sentence choose the one number that best describes how you feel about your life RIGHT NOW.

After you read each sentence, please circle one number on the scale from 0 (Not at all) to 10 (Very Much) that best describes how YOU FEEL ABOUT YOUR LIFE RIGHT NOW.

1. I feel **depressed** about how much I weigh ... (please circle one number)^{sel}

NOT AT ALL 0 1 2 3 4 5 6 7 8 9 10 VERY MUCH

2. I feel **ashamed** about my weight ... (please circle one number)^{sel}

NOT AT ALL 0 1 2 3 4 5 6 7 8 9 10 VERY MUCH

3. I feel **uncomfortable** around people who are skinnier than I am ... (please circle one number)^{sel}

NOT AT ALL 0 1 2 3 4 5 6 7 8 9 10 VERY MUCH

4. Because of my weight I **feel the need** to wear clothes that hide my body ... (please circle one number)^{sel}

NOT AT ALL 0 1 2 3 4 5 6 7 8 9 10 VERY MUCH

5. Because of my weight other **people think** I am unattractive ... (please circle one number)^{soc}

NOT AT ALL 0 1 2 3 4 5 6 7 8 9 10 VERY MUCH

6. Because of my weight I **try to hide** behind other people when I get my picture taken ... (please circle one number)^{soc}

NOT AT ALL 0 1 2 3 4 5 6 7 8 9 10 VERY MUCH



7. Because of my weight I am **embarrassed** to exercise around other people... (please circle one number)^{soc}

NOT AT ALL 0 1 2 3 4 5 6 7 8 9 10 VERY MUCH

8. Because of my weight I am **embarrassed** to eat around other people ... (please circle one number)^{soc}

NOT AT ALL 0 1 2 3 4 5 6 7 8 9 10 VERY MUCH

9. Because of my weight I **try to avoid** people noticing me ... (please circle one number)^{soc}

NOT AT ALL 0 1 2 3 4 5 6 7 8 9 10 VERY MUCH

10. Because of my weight I **worry** about what people say about me ... (please circle one number)^{soc}

NOT AT ALL 0 1 2 3 4 5 6 7 8 9 10 VERY MUCH

11. Because of my weight I feel **uncomfortable** at social events ... (please circle one number)^{soc}

NOT AT ALL 0 1 2 3 4 5 6 7 8 9 10 VERY MUCH

12. I feel like a **loser** when people tease me about my weight ... (please circle one number)^{soc}

NOT AT ALL 0 1 2 3 4 5 6 7 8 9 10 VERY MUCH

13. Because of my weight my body feels **uncomfortable** when I move around ... (please circle one number)^{env}

NOT AT ALL 0 1 2 3 4 5 6 7 8 9 10 VERY MUCH

14. Because of my weight I **avoid** being seen in a swim suit ... (please circle one number)^{env}



NOT AT ALL 0 1 2 3 4 5 6 7 8 9 10 VERY MUCH

15. Because of my weight it is **hard** to find a girlfriend or boyfriend ... (please circle one number)^{soc}

NOT AT ALL 0 1 2 3 4 5 6 7 8 9 10 VERY MUCH

16. I think that people **stare** at me because of my weight ... (please circle one number)^{soc}

NOT AT ALL 0 1 2 3 4 5 6 7 8 9 10 VERY MUCH

17. Because of my weight I feel people my age **do not include** me in things ...(please circle one number)^{soc}

NOT AT ALL 0 1 2 3 4 5 6 7 8 9 10 VERY MUCH

18. I worry that my weight will **prevent** me from getting a good job ... (please circle one number)^{soc}

NOT AT ALL 0 1 2 3 4 5 6 7 8 9 10 VERY MUCH

19. Because of my weight **it is difficult** for me to wear the clothes I want to wear ... (please circle one number)^{env}

NOT AT ALL 0 1 2 3 4 5 6 7 8 9 10 VERY MUCH

20. Because of my weight it is **hard** for me to find clothes that fit me ... (please circle one number)^{env}

NOT AT ALL 0 1 2 3 4 5 6 7 8 9 10 VERY MUCH

21. Because of my weight exercising is **hard** for me... (please circle one number)^{env}

NOT AT ALL 0 1 2 3 4 5 6 7 8 9 10 VERY MUCH



Describiendo Como Tu Peso Afecta Tu Vida

Calidad de Vida de Jóvenes-Modulo de Peso (YQOL-W)

Universidad de Washington
Departamento de Servicios de Salud
Box 359455
Seattle, Washington
(800) 291-2193



Los autores sugieran usar el YQOL-SF o el YQOL-R (instrumentos genéricos) con el YQOL-W. Para más información consulta nuestro sitio del internet:

<http://depts.washington.edu/yqol/instruments/YQOL-W.htm>

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Evaluando Cómo Tú Peso Afecta Tu Vida

En seguida hay unas frases que describen cómo te podrías sentir sobre ti mismo(a) y tu peso. Después de leer cada frase escoge un número que mejor describe cómo te sientes sobre tu vida AHORRA MISMO.

Después de leer cada frase, por favor circula un solo número en la escala del 0 (Para Nada) al 10 (Bastante) que mejor describe cómo TE SIENTES SOBRE TU VIDA AHORRA MISMO.

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1. Me siento **deprimido(a)** de cuánto peso ... *(por favor circula un número)*

PARA NADA 0 1 2 3 4 5 6 7 8 9 10 BASTANTE

2. Me siento **avergonzado(a)** de mi peso ... *(por favor circula un número)*

PARA NADA 0 1 2 3 4 5 6 7 8 9 10 BASTANTE

3. Me siento **incómodo(a)** cuando estoy con gente más flaca que yo ... *(por favor circula un número)*

PARA NADA 0 1 2 3 4 5 6 7 8 9 10 BASTANTE

4. A causa de mi peso, **siento que necesito** usar ropa que esconda mi cuerpo ... *(por favor circula un número)*

PARA NADA 0 1 2 3 4 5 6 7 8 9 10 BASTANTE

5. A causa de mi peso, **las personas piensan** que soy poco atractivo(a)... *(por favor circula un número)*

PARA NADA 0 1 2 3 4 5 6 7 8 9 10 BASTANTE

6. A causa de mi peso, cuando me toman fotos **trato de esconderme** atrás de otras personas ... *(por favor circula un número)*



PARA NADA 0 1 2 3 4 5 6 7 8 9 10 BASTANTE

7. A causa de mi peso, **me da pena** hacer ejercicio en frente de otras personas ... *(por favor circula un número)*

PARA NADA 0 1 2 3 4 5 6 7 8 9 10 BASTANTE

8. A causa de mi peso, **me da pena** comer en frente de otras personas ... *(por favor circula un número)*

PARA NADA 0 1 2 3 4 5 6 7 8 9 10 BASTANTE

9. A causa de mi peso, **trato de evitar** que la gente se fije en mi ... *(por favor circula un número)*

PARA NADA 0 1 2 3 4 5 6 7 8 9 10 BASTANTE

10. A causa de mi peso, me **preocupa** lo que los demás dicen de mi ... *(por favor circula un número)*

PARA NADA 0 1 2 3 4 5 6 7 8 9 10 BASTANTE

11. A causa de mi peso, me siento **incómodo(a)** en los eventos sociales ... *(por favor circula un número)*

PARA NADA 0 1 2 3 4 5 6 7 8 9 10 BASTANTE

12. Me siento como un **fracaso** cuando la gente se burla de mi peso ... *(por favor circula un número)*



PARA NADA 0 1 2 3 4 5 6 7 8 9 10 BASTANTE

13. A causa de mi peso, mi cuerpo se siente **incómodo** cuando me muevo ... (por favor circula un número)

PARA NADA 0 1 2 3 4 5 6 7 8 9 10 BASTANTE

14. A causa de mi peso, **evito** que me vean en traje de baño ... (por favor circula un número)

PARA NADA 0 1 2 3 4 5 6 7 8 9 10 BASTANTE

15. A causa de mi peso, es **difícil** encontrar novio o novia ... (por favor circula un número)

PARA NADA 0 1 2 3 4 5 6 7 8 9 10 BASTANTE

16. Pienso que la gente **se me queda viendo** a causa a mi peso ... (por favor circula un número)

PARA NADA 0 1 2 3 4 5 6 7 8 9 10 BASTANTE

17. A causa de mi peso, siento que las personas de mi edad **no me incluyen** en actividades ... (por favor circula un número)

PARA NADA 0 1 2 3 4 5 6 7 8 9 10 BASTANTE

18. Me preocupa que mi peso **no me permita** conseguir un buen trabajo... (por favor circula un número)

PARA NADA 0 1 2 3 4 5 6 7 8 9 10 BASTANTE

19. A causa de mi peso, me **cuesta trabajo** usar la ropa que quiero usar ... (por favor circula un número)

PARA NADA 0 1 2 3 4 5 6 7 8 9 10 BASTANTE

20. A causa de mi peso, me **cuesta trabajo** encontrar ropa que me queda ... (por favor circula un número)



PARA NADA 0 1 2 3 4 5 6 7 8 9 10 BASTANTE

21. A causa de mi peso, me *cuesta trabajo* hacer ejercicio ... *(por favor circula un número)*

PARA NADA 0 1 2 3 4 5 6 7 8 9 10 BASTANTE



IX. BIBLIOGRAPHIC REFERENCES

- BETHELL, C., SIMPSON, L., STUMBO, S., CARLE, A. C., & GOMBOJAV, N. (2010). NATIONAL, STATE, AND LOCAL DISPARITIES IN CHILDHOOD OBESITY. *HEALTH AFF (MILLWOOD)*, 29(3), 347-356.
- BLUMER, H. (1969). *SYMBOLIC INTERACTIONISM: PERSPECTIVE AND METHOD*. ENGLEWOOD CLIFFS, NJ: PRENTICE-HALL.
- BRONFENBRENNER, U. (1979). *THE ECOLOGY OF HUMAN DEVELOPMENT: EXPERIMENTS BY NATURE AND DESIGN*. CAMBRIDGE, MA: HARVARD UNIVERSITY PRESS.
- CAMPBELL, K., WATERS, E., O'MEARA, S., KELLY, S., & SUMMERBELL, C. (2002). INTERVENTIONS FOR PREVENTING OBESITY IN CHILDREN. *COCHRANE DATABASE SYST REV*(2), CD001871.
- CRUZ, M. L., SHAIBI, G. Q., WEIGENBERG, M. J., SPRUIJT-METZ, D., BALL, G. D., & GORAN, M. I. (2005). PEDIATRIC OBESITY AND INSULIN RESISTANCE: CHRONIC DISEASE RISK AND IMPLICATIONS FOR TREATMENT AND PREVENTION BEYOND BODY WEIGHT MODIFICATION. . *ANNUAL REVIEW OF NUTRITION*, 25, 435-468.
- CUMMINS, R. (1997). ASSESSING QUALITY OF LIFE. IN R. BROWN (ED.), *QUALITY OF LIFE FOR PEOPLE WITH DISABILITIES* (2ND ED., PP. 116-150). LONDON: STANLEY THORNES, LTD.
- DOYAL, L., & GOUGH, I. (1991). *THE THEORY OF HUMAN NEED*. NEW YORK GUILFORD PRESS.
- EDWARDS, T., HUEBNER, CE, CONNELL, FA, PATRICK, DL. (2002). ADOLESCENT QUALITY OF LIFE, PART I: CONCEPTUAL AND MEASUREMENT MODEL. *JOURNAL OF ADOLESCENCE*, 25(3), 275-286.
- FOWLER, F. (1993). *SURVEY RESEARCH METHODS* (2ND ED.). NEWBURY PARK: SAGE.
- GLASER, B. G., & STRAUSS, A. L. (1967). *THE DISCOVERY OF GROUNDED THEORY; STRATEGIES FOR QUALITATIVE RESEARCH*. CHICAGO,: ALDINE PUB. CO.
- GOODMAN, E., & WHITAKER, R. C. (2002). A PROSPECTIVE STUDY OF THE ROLE OF DEPRESSION IN THE DEVELOPMENT AND PERSISTENCE OF ADOLESCENT OBESITY. *PEDIATRICS*, 110(3), 497-504.
- HUNT, S. M., & MCKENNA, S. P. (1992). THE QLDS: A SCALE FOR THE MEASUREMENT OF QUALITY OF LIFE IN DEPRESSION. *HEALTH POLICY*, 22(3), 307-319.
- JABINE, P., STRAS, ML, TANOR, JM, TOURANGEAU, R (ED.). (1984). *COGNITIVE ASPECTS OF SURVEY METHODOLOGY: BUILDING A BRIDGE BETWEEN DISCIPLINES*. WASHINGTON, DC: NATIONAL ACADEMY PRESS.
- KAHNEMAN, D., DIENER, E., & SCHWARZ, N. (EDS.). (1999). *WELL-BEING: THE FOUNDATIONS OF HEDONIC PSYCHOLOGY*. NEW YORK, NY, US: RUSSELL SAGE FOUNDATION.
- KOLOTKIN, R. L., CROSBY, R. D., KOSLOSKI, K. D., & WILLIAMS, G.R. . (2001). DEVELOPMENT OF A BRIEF MEASURE TO ASSESS QUALITY OF LIFE IN OBESITY. *OBESITY RESEARCH*, 9(2), 102-111.
- KOLOTKIN, R. L., HEAD, S., HAMILTON, M., & TSE, C. K. (1995). ASSESSING IMPACT OF WEIGHT ON QUALITY OF LIFE. *OBES RES*, 3(1), 49-56.
- MCKENNA, S. P., DOWARD, L. C., KOHLMANN, T., MERCIER, C., NIERO, M., PAES, M., ET AL. (2001). INTERNATIONAL DEVELOPMENT OF THE QUALITY OF LIFE IN DEPRESSION SCALE (QLDS). *J AFFECT DISORD*, 63(1-3), 189-199.



- McMURRAY, R. G., HARRELL, J. S., BANGDIWALA, S. I., BRADLEY, C. B., DENG, S., & LEVINE, A. (2002). A SCHOOL-BASED INTERVENTION CAN REDUCE BODY FAT AND BLOOD PRESSURE IN YOUNG ADOLESCENTS. *J ADOLESC HEALTH*, 31(2), 125-132.
- MORALES, L. S., FLORES, Y.N., EDWARDS, T.C., BARR, L.A., LENG, M., PATRICK, D.L. (2010). MEASUREMENT PROPERTIES OF A NEW MULTICULTURAL WEIGHT-SPECIFIC QUALITY OF LIFE MEASURE FOR ADOLESCENTS. *QUALITY OF LIFE RESEARCH, E-PUB AHEAD OF PRINT 06 SEPT.*
- NUNNALLY, J. (1994). *PSYCHOMETRIC THEORY* (VOL. 2). NEW YORK: BASIC BOOKS.
- OGDEN, C. L., CARROLL, M. D., CURTIN, L. R., McDOWELL, M. A., TABAK, C. J., & FLEGAL, K. M. (2006). PREVALENCE OF OVERWEIGHT AND OBESITY IN THE UNITED STATES, 1999-2004. *JAMA*, 295(13), 1549-1555. DOI: 10.1001/JAMA.295.13.1549
- PATRICK, D., EDWARDS, TC, TOPOLSKI, TD. (2002). ADOLESCENT QUALITY OF LIFE, PART II: INITIAL VALIDATION OF A NEW INSTRUMENT. *JOURNAL OF ADOLESCENCE*, 25(3), 287-300.
- PATRICK, K., NORMAN, G. J., CALFAS, K. J., SALLIS, J. F., ZABINSKI, M. F., RUPP, J., ET AL. (2004). DIET, PHYSICAL ACTIVITY, AND SEDENTARY BEHAVIORS AS RISK FACTORS FOR OVERWEIGHT IN ADOLESCENCE. *ARCH PEDIATR ADOLESC MED*, 158(4), 385-390.
- Pett, M. A., Lackey, N. R., & Sullivan, J. J. (2003). Making Sense of Factor Analysis: The Use of Factor Analysis for Instrument Development in Health Care Research. Thousand Oaks, CA: Sage Publications.
- POWER, C., LAKE, J. K., & COLE, T. J. (1997). MEASUREMENT AND LONG-TERM HEALTH RISKS OF CHILD AND ADOLESCENT FATNESS. *INTERNATIONAL JOURNAL OF OBESITY AND RELATED METABOLIC DISORDERS*, 21(7), 507-526.
- PUHL, R., & BROWNELL, K. D. . (2001). BIAS, DISCRIMINATION, AND OBESITY *OBESITY RESEARCH*, 9(12), 788-805.
- SCHWIMMER, J. B., BURWINKLE, T. M., & VARNI, J. W. (2003). HEALTH-RELATED QUALITY OF LIFE OF SEVERELY OBESE CHILDREN AND ADOLESCENTS. *JAMA*, 289(14), 1813-1819. DOI: 10.1001/JAMA.289.14.1813
- SKALICKY, A. S., EDWARDS, T.C., FLORES, Y.N., HOBBY, A.D., MORALES, L.S., PATRICK, D.L. (2009). PERCEPTIONS OF MULTICULTURAL YOUTH ABOUT WEIGHT AND BODY SIZE. [ABSTRACT]. *QUALITY OF LIFE RESEARCH*(ISOQOL CONFERENCE ABSTRACT ISSUE), A-106.
- SKEVINGTON, S. M. (2002). ADVANCING CROSS-CULTURAL RESEARCH ON QUALITY OF LIFE: OBSERVATIONS DRAWN FROM THE WHOQOL DEVELOPMENT. WORLD HEALTH ORGANISATION QUALITY OF LIFE ASSESSMENT. *QUALITY OF LIFE RESEARCH*, 11(2), 135-144.
- STARFIELD, B., BERGNER, M., ENSMINGER, M., RILEY, A., RYAN, S., GREEN, B., ET AL. (1993). ADOLESCENT HEALTH STATUS MEASUREMENT: DEVELOPMENT OF THE CHILD HEALTH AND ILLNESS PROFILE. . *PEDIATRICS*, 91(2), 430-435.
- STRAUSS, A., CORBIN, J. (1990). *BASICS OF QUALITATIVE RESEARCH*. NEWBURY PARK, CA: SAGE.
- SULLIVAN, M., KARLSSON, J., SJOSTROM, L., BACKMAN, L., BENGTSSON, C., BOUCHARD, C., ET AL. (1993). SWEDISH OBESE SUBJECTS (SOS)--AN INTERVENTION STUDY OF OBESITY. BASELINE EVALUATION OF HEALTH AND PSYCHOSOCIAL FUNCTIONING IN THE FIRST 1743 SUBJECTS EXAMINED. *INT J OBES RELAT METAB DISORD*, 17(9), 503-512.



- TSIROS, M. D., OLDS, T., BUCKLEY, J. D., GRIMSHAW, P., BRENNAN, L., WALKLEY, J., ET AL. (2009). HEALTH-RELATED QUALITY OF LIFE IN OBESE CHILDREN AND ADOLESCENTS. *INT J OBES (LOND)*, 33(4), 387-400. DOI: IJO200942 [PII] 10.1038/IJO.2009.42
- VARNI, J. W., SEID, M., & RODE, C. A. . (1999). THE PEDSQL: MEASUREMENT MODEL FOR THE PEDIATRIC QUALITY OF LIFE INVENTORY. *MEDICAL CARE*, 37(2), 126-139.
- WALLANDER, J. L., SCHMITT, M., & KOOT, H. M. (2001). QUALITY OF LIFE MEASUREMENT IN CHILDREN AND ADOLSECENTS: ISSUES, INSTRUMENTS, AND APPLICATIONS. *JOURNAL OF CLINICAL PSYCHOLOGY*, 57(4), 571-585.
- WARDLE, J., & COOKE, L. . (2005). THE IMPACT OF OBESITY ON PSYCHOLOGICAL WELL-BEING. BEST PRACTICE AND RESEARCH. . *CLINICAL ENDOCRINOLOGY AND METABOLISM*, 19(3), 421-440.
- WHOQOL GROUP. (1994). THE DEVELOPMENT OF THE WORLD HEALTH ORGANIZATION QUALITY OF LIFE ASSESSMENT INSTRUMENT (WHOQOL). IN K. W. ORLEY J (ED.), *QUALITY OF LIFE ASSESSMENT: INTERNATIONAL PERSPECTIVES*. (PP. 41-57). BERLIN: SPRINGER-VERLAG.
- WRIGHT, C. M., PARKER, L., LAMONT, D., & CRAFT, A. W. (2001). IMPLICATIONS OF CHILDHOOD OBESITY FOR ADULT HEALTH: FINDINGS FROM THOUSAND FAMILIES COHORT STUDY. . *BMJ*, 323(7324), 1280-1284.
- ZAMETKIN, A. J., ZOON, C. K., KLEIN, H. W., & MUNSON, S. (2004). PSYCHIATRIC ASPECTS OF CHILD AND ADOLESCENT OBESITY: A REVIEW OF THE PAST 10 YEARS. *J AM ACAD CHILD ADOLESC PSYCHIATRY*, 43(2), 134-150.

