

# Introducing the OWLQOL and WRSM Instruments

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Previously developed weight-specific Patient-Reported-Outcome measures (PROs) were either developed for application to more severely obese populations, or without cross-cultural input into the item generation process. Since attitudes toward obesity and weight loss have differing relevance, importance and sensitivity across different cultures, there is a clear need for measures that not only assess quality of life in a broad range of persons who are overweight and obese, but measures developed with specific and concurrent inclusion of items from multiple cultures.

The OWLQOL items all tap a unitary concept of quality of life needs related to being overweight or to losing weight. The OWLQOL and WRSM are designed to complete a full battery of patient-reported outcomes employing different concepts and different types of patient-reported outcome measures. The OWLQOL and WRSM are intended to be used together and alongside other patient-reported outcomes of functional status, adherence to diet and treatment, and satisfaction with treatment. The WRSM focuses on symptoms commonly associated with obesity and obesity treatment and the OWLQOL measures a person's global evaluation of position in life related to weight, weight loss, and weight-loss treatment. By using these and other patient-reported outcomes, investigators can address the experience of being overweight and obese and of weight loss on a broad spectrum of issues important to patients, their families, clinicians, regulators, payers, and society in general.

# Strengths of the OWLQOL and WRSM

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## ***The OWLQOL and WRSM instruments were developed cross-culturally***

A new process was designed to create the OWLQOL and WRSM that relied upon the current standards and guidelines for the development and cross-cultural adaptation of quality of life measures. It was augmented with additional steps to provide cross-cultural content during the development phase and full harmonization of the new items before the end of the translation phase. Items were generated in five countries outside the US and in different populations within the US. The OWLQOL and WRSM are now available in 30 different languages.

## ***The OWLQOL and WRSM instruments place primary importance on the perception of the individual***

The items in the instruments were developed based on in-depth interviews and focus groups with obese and overweight individuals. In this approach, the information comes directly from the individual, reflecting the individual's perceptions and views of their situation, instead of relying on an intermediary source such as a health worker.

## ***Systematic development of the OWLQOL and WRSM***

The method used to develop the OWLQOL and WRSM involved considerable research and checking over several years to ensure that it accurately measures the issues that are important to an obese or overweight person's quality of life, and that it does so reliably.

# Administration of the OWLQOL and WRSM

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## ***The national versions of the OWLQOL and WRSM***

The OWLQOL and WRSM instruments are available in 30 different languages. Language versions and permission to use them can be obtained by contacting Mona Martin at Health Research Associates, Inc. at the following address:

HRA, Inc.  
6505 216<sup>th</sup> Street SW, Suite 105  
Mountlake Terrace, WA 98043  
Tel: (425) 775-6565  
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Email: [hra@hrainc.net](mailto:hra@hrainc.net)  
Web: [www.hrainc.net](http://www.hrainc.net)

## ***Scoring the OWLQOL and WRSM***

The 17 items on the OWLQOL are used with equal weight to derive a single quality of life score. The WRSM provides information on 20 symptoms commonly associated with being obese and overweight. A total score is calculated by summing the scores measuring the degree of bothersomeness for each symptom.

## ***Psychometric properties of the OWLQOL and WRSM***

Both the OWLQOL and WRSM have been shown to display good internal consistency, test-retest reliability, and convergent validity.

# Uses of the OWLQOL and WRSM

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## ***In medical practice***

In clinical practice the OWLQOL and WRSM instruments may be used with other forms of assessment, giving valuable information that can indicate how a person is affected by their weight and help the practitioner in making the best choices in patient care. In addition they may be used to measure change in quality of life over the course of the treatment.

## ***Improving the doctor-patient relationship***

By increasing the physician's understanding of how obesity and being overweight affects a patient's quality of life, the interaction between patient and doctor will change and improve. This gives more meaning and fulfillment to the work of the doctor and leads to the patient being provided with more comprehensive health care. Because a more complete form of assessment covering different aspects of patients' functioning is being carried out, patients themselves may find their health care more meaningful.

## ***In assessing the effectiveness and relative merits of different treatments***

The OWLQOL and WRSM instruments can form a part of the evaluation of treatments. For example, gastrointestinal surgery may be effective for weight loss purposes, but the symptoms associated with the follow-up of the surgery might not have a positive impact on the patient's quality of life. By using the OWLQOL and WRSM instruments to look at changes in the person's well-being over the course of treatment, a much fuller picture can be gained.

## ***In health services evaluation***

In the periodic review of the completeness and quality of medical services, the patients' concerns are of importance. The instruments provide an invaluable supplementary appraisal of health care services, by yielding a measure of the relationship between the health care service and patients' quality of life, and also by directly presenting a measure of patients' perception of the quality and availability of health care.

## ***In research***

By using the OWLQOL and WRSM and other patient-reported outcomes, investigators can address the experience of being overweight and obese and of

weight loss on a broad spectrum of issues important to patients, their families, clinicians, regulators, payers, and society in general.

***In policy making***

When health providers implement new policies it is important that the effect of policy changes on the quality of life of people in contact with health services is evaluated. The OWLQOL and WRSM instruments allow such monitoring of policy changes.

# Structure of the OWLQOL and WRSM

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## ***OWLQOL***

The structure of the OWLQOL reflects the issues that obese and overweight individuals felt were important to their quality of life. The instrument consists of 17 statements about weight and quality of life. All items are rated on a six point scale (1-6).

## ***WRSM***

The WRSM is a 20-item, self-report measure for the presence and bothersomeness of symptoms. Participants respond either “yes” or “no” as to whether they have experienced the symptom in the previous 4 weeks and then indicate the degree of bothersomeness that having the symptom caused them. The bothersomeness response options are on a 7-point scale and range from 0 (“not at all”) to 6 (“a very great deal”).

# Development of the OWLQOL and WRSM

Stage	Method	Products	Objectives
<b>Initial item development</b>	Interviews and focus groups with 68 obese and overweight individuals in the US.	Preliminary pool of items.	Compiling a pool of items to test quality of life and obesity.
<b>Pre-harmonization of initial item pool</b>	Check for translatability of items.	Translatability of the items.	Checking to make sure all items would translate appropriately into other languages.
<b>Translation and cognitive debriefing</b>	Two forward and one back translation plus cognitive debriefings were conducted with 35 people in all 6 countries.	Translatability of the items.	Checking the translatability of the items.
<b>Extended qualitative development</b>	Ten additional qualitative in-country interviews were conducted.	Culturally-specific items.	To produce culturally-specific items missing from the preliminary US pool.
<b>Expanded international harmonization</b>	Additional qualitative interviews were conducted in each country outside of the US.	Culturally specific items.	To produce culturally-specific items for each country to be included in the item pool.
<b>Field tests of the OWLQOL and WRSM</b>	Four studies were conducted to evaluate the instruments: an initial validation sample, blinded data from a US trial, a US community study, and a European community study.	Final OWLQOL instrument of 17 items.  Final WRSM instrument of 20 symptoms.	To further establish the psychometric properties of the OWLQOL and WRSM.

# Future Developments

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The Seattle Quality of Life Group is submitting a grant for a study to develop a obesity and quality of life instrument specific to youth.