

A NEW OVERACTIVE BLADDER QUESTIONNAIRE & SYMPTOM SCORE

Hypothesis / aims of study

The purpose of this study was to validate a new 6-item overactive bladder (OAB) questionnaire & symptom score.

Study design, materials and methods

3 study groups were recruited at 3 centers: 1) normal volunteers, 2) patients without lower urinary tract symptoms (LUTS), and 3) patients with overactive bladder (OAB) & LUTS. These patients were given a questionnaire two times. The questionnaire was comprised of four self-report fixed format questions and one global ten-point visual analogue question. A symptom score was constructed with a total possible score ranging from 0 (no symptoms) to 20 (worst symptoms). A multi-item scale was used to allow us greater reliability by eliminating inappropriate items that did not meet measurement criteria in the construction phase, and by calculating a final score (the mean of all items) to compensate for the unreliability of any single item. For test-retest reliability, the same scale was administered twice within one week. Simple Pearson correlations were performed for each item and for the total score between measurements at time 1 and time 2. Internal consistency (Cronbach's alpha) was assessed by calculating the intercorrelations among the scale items. Group comparisons were performed using one-way analysis of variance on the average scale score among three groups.

Results

All 125 participants (54% males and 46% females) completed both questionnaires. Internal consistency (Cronbach's alpha) of the scale administered at time 1 was found to be .84. Test-retest reliabilities were as follows: item A= .89, item B= .89, item C= .89, item D= .89, and E=.98. Test-retest reliability for the total score was .95. One-way ANOVA revealed significant differences among the final scores of all three groups ($p < .001$). Normal participants were significantly different from both patient groups ($p = .0001$) and the two patient groups were also significantly different from each other ($p = .024$) (see table below).

	Normal (n=45)	Normal patients (n=39)	OAB patients (n=39)	P value
OAB score	6.02 +/- 4.7	12.7 +/- 6.5	15.9 +/- 7.2	<.0001

Interpretation of results

Internal consistency of the scale was found to be very high, as were the test-retest reliabilities of each question individually and the questionnaire as a whole.

As expected, normal participants obtained the lowest mean scale score, the general patient group obtained the next higher mean scale score, and the overactive bladder patient group obtained the highest score.

Concluding message

This 5 item questionnaire is a reliable, valid instrument that clearly distinguishes amongst normals and LUTS /OAB patients. Further studies are ongoing to determine whether it can distinguish between grades of OAB, and its relationship with urodynamic studies, pad tests, and voiding diaries and whether it can be used as an outcome tool.