

## TRANSLATION, CROSS-CULTURAL ADAPTATION, AND VALIDATION OF THE “URGENCY QUESTIONNAIRE” IN PORTUGUESE VERSION

### Hypothesis / aims of study

The Overactive Bladder Syndrome (OAB) is defined by the International Continence Society (ICS) as the presence of urgency, with or without urge incontinence, usually associated with frequency and nocturia. The Overactive Bladder Questionnaire – Short Form (OAB-q SF) is an available questionnaire in Portuguese language for assessing quality of life and bothersome caused by the OAB symptoms [1]. However a different approach to OAB syndrome can be useful and the Urgency Questionnaire (UQ) has been a tool that enhances the “urgency” symptom [2]. The original English version has not been still validated for other languages. The aim of this study is to translate, cross-culturally adapt and validate the Portuguese version of UQ in order to be used in Brazilian patients with OAB.

### Study design, materials and methods

After receiving authorization from the author of the questionnaire, the standardized method for the validation procedure was followed according to international criteria. Then the processes of translation, back translation and cross-cultural adaptation were carried out and the final Portuguese version was defined. The study was approved by the Institutional Ethics Committee and all persons gave their informed consent prior to their inclusion in the study. Sixty-three patients were enrolled. They were separated into two groups: 1 - patients who reported “urgency” in the past 4 weeks; 2 - patients who denied the symptom. Urgency was defined as “a sudden intense feeling of urgency where the person feels that must urinate immediately”. Exclusion criteria were age under 18 or over 80 years old, active urinary tract infection, pregnancy, neurological diseases or other medical conditions that could compromise the perception of bladder sensation, as well as patients with cognitive impairment that prevented the application of the questionnaire.

The UQ consists of 15 Likert-scale items and 4 visual analog scales (VAS). The 5-point Likert items range from “none of the time” to “all of the time” and form four subscales (nocturia, fear of incontinence, time to control urgency, and impact on daily activities). The four VAS assess urinary urgency’s severity, intensity, impact, and discomfort. Higher scores mean greater intensity of symptoms, consequently, greater severity of the condition [2].

At the baseline, demographic and clinical data were collected and the Portuguese version of UQ was applied to be tested as well as the Portuguese version of the OAB-q SF for testing criterion validity. Questionnaires were applied as an interview, in order to include patients with low level of literacy, carried out by trained personnel. The construct validity was assessed comparing the scores of UQ obtained between symptomatic and asymptomatic patients. Fifteen days after the first interview, some patients were asked to respond the translated version of UQ again to check its stability (test-retest). During this period of time, no participants included were treated for their OAB symptoms.

The Mann-Whitney was used to compare continuous and categorical variables, respectively. To test correlation, the Spearman’s rank correlation coefficient was used. The internal consistency of each subscale was tested using the Cronbach’s alpha coefficient. The significance level adopted was 5 % ( $\alpha < 0.05$ ).

### Results

Forty-six patients were symptomatic and seventeen asymptomatic (40 men/23 women). The mean age were  $57.72 \pm 11.31$  and  $51.12 \pm 10.75$  for symptomatic and asymptomatic, respectively ( $p=0.02$ ). The body mass index (BMI) were  $28.29 \pm 7.12$  and  $27.96 \pm 2.62$  ( $p=0.90$ ). Symptomatic patients had higher scores on all subscales of UQ than the asymptomatic (table 1). The subscales of UQ correlated with the different scales of OAB-q SF except the subscale “time to control urgency” and the VAS item “impact” that did not correlate with the OAB-q SF – HRQL scale as demonstrated in table 2. Fifteen patients underwent test-retest process with good correlation of the scores, except the subscales “fear of incontinence” and the VAS item “severity” (table 3). The Cronbach’s alpha coefficients for “Impact on Daily Activities”, “Time to Control Urgency”, “Nocturia”, and “Fear of Incontinence” were 0.84, 0.85, 0.84, and 0.73, respectively.

Table 1: Comparison of scales of Urgency Questionnaire between symptomatic and asymptomatic patients (construct validity).

Urgency Questionnaire Scales	Symptomatic Median (Q1; Q3)	Asymptomatic Median (Q1; Q3)	p value
Impact on Daily Activities	35,42 (19,79; 66,67)	0,00 (0,00; 4,17)	< 0,001
Time to Control Urgency	68,75 (42,19; 93,75)	25,00 (0,00; 50,00)	0,001
Nocturia	62,50 (37,50; 100,00)	12,50 (0,00; 18,75)	< 0,001
Fear of Incontinence	45,83 (16,67; 66,67)	0,00 (0,00; 0,00)	< 0,001
<b>VAS</b>			
Impact	7,00 (4,75; 9,25)	0,00 (0,00; 4,50)	< 0,001
Severity	7,00 (4,00; 9,00)	0,00 (0,00; 3,50)	< 0,001
Intensity	9,00 (6,00; 10,00)	0,00 (0,00; 3,00)	< 0,001
Discomfort	9,00 (5,00; 10,00)	0,00 (0,00; 1,50)	< 0,001

Table 2: Correlation between scales of Urgency Questionnaire and OAB-q SF (criterion validity). (A) OAB-q SF – Symptom Burden Scale ; (B) OAB-q SF – Health Related Quality of life.

Table 3: Test-retest reliability scores for Urgency Questionnaire (stability).

Urgency Questionnaire Scales	Spearman's coefficient	p value
Impact on Daily Activities	0.82	<b>0.0002</b>
Time to Control Urgency	0.70	<b>0.003</b>
Nocturia	0.83	<b>0.0001</b>
Fear of Incontinence	0.38	0.16
<b>VAS</b>		
Impact	0.52	<b>0.046</b>
Severity	0.36	0.18
Intensity	0.66	<b>0.007</b>
Discomfort	0.76	<b>0.001</b>

#### Interpretation of results

Psychometric properties as construct validity, criterion validity, and stability of the UQ were tested and approved. The internal consistency of each subscale was adequate to excellent [3]. Therefore, UQ proved to be easily understandable when applied as an interview.

#### Concluding message

The Portuguese version of UQ is a practical instrument to be used in clinical practice and research in order to assess and document the severity and impact of urgency syndrome in individuals, supporting clinical decision making and individual evaluation of the outcome. Future studies should be conducted to demonstrate the responsiveness of this version.

#### References

1. Acquadro C, Kopp ZOE, Coyne KS, Corcos J, Tubaro A, Choo M. Translating overactive bladder questionnaires in 14 languages. *Urology* 2006;67(3):536–40
2. Matza LS, Thompson CL, Krasnow J, Brewster-Jordan J, Zyczynski T, Coyne KS. Test-retest reliability of four questionnaires for patients with overactive bladder: The overactive bladder questionnaire (OAB-q), patient perception of bladder condition

Urgency Questionnaire Scales	Spearman's coefficient (A)	p value	Spearman's coefficient (B)	p value
Impact on Daily Activities	0.58	<0.0001	-0,74	<0.0001
Time to Control Urgency	0.33	0.02	-0.28	0.06
Nocturia	0.77	<0.0001	-0.65	<0.0001
Fear of Incontinence	0.55	<0.0001	-0.56	<0.0001
<b>VAS</b>				
Impact	0.32	0.03	-0.25	0.09
Severity	0.62	<0.0001	-0.50	0.0004
Intensity	0.53	0.0002	-0.37	0.01
Discomfort	0.64	<0.0001	-0.57	<0.0001

(PPBC), urgency questionnaire (UQ), and the primary OAB symptom questionnaire (POSQ). *Neurourol. Urodyn.* 2005;24(3):215–25

3. Nunnally JC, Bernstein IH. *Psychometric theory*. Mcgraw-Hill, New York, 1994.

#### Disclosures

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