

VALIDATION OF THE BLADDER CONTROL SELF –ASSESSMENT QUESTIONNAIRE (B-SAQ) IN MEN.

Hypothesis / aims of study

The Bladder Control Self-Assessment Questionnaire (B-SAQ) is a short screening tool to assess lower urinary tract symptoms (LUTS). The purpose of B-SAQ is to raise awareness of LUTS and possible bladder problems within society and prompt people to seek treatment. The B-SAQ has been validated in women [1] and the aim of this study is to validate it in men.

Study design, materials and methods

In this single centre questionnaire validation study, 211 patients who were attending urology clinic completed both the B-SAQ and Kings Health questionnaire (KHQ) prior to consultation, and independent assessment of the LUTS and need for treatment. The psychometric properties of the B-SAQ were subsequently analysed, although test re-test validation was thought unnecessary in view of its previous validation in women. The study was powered, providing a 1:1 ratio of LUTS patients vs. controls, to recruit a minimum of 100 patients and 100 controls, to be able to detect an AUC that lies in between the 95% confidence interval of .85.

Results

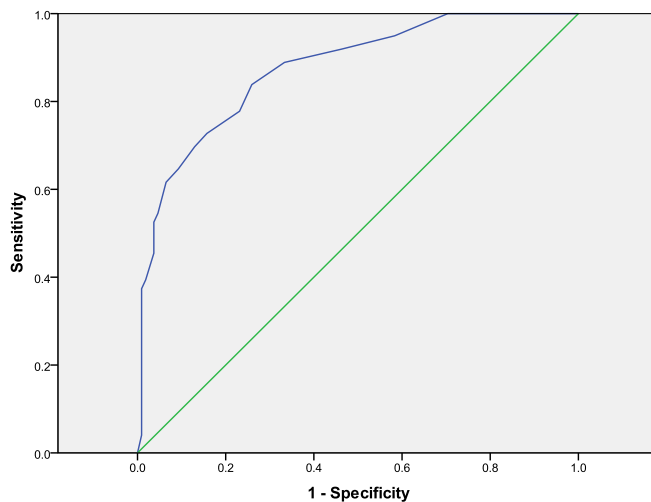
In those administered the B-SAQ, 98% of respondents completed all items correctly in less than 5 min. Mean age was 62 and 42, for cases and controls, respectively ($p < 0.01$), with higher B-SAQ scores in the cases group (12 vs 3.3; $p < 0.00001$). The B-SAQ correlated well with the KHQ (see table 1). In a sample of 61 patients, the agreement between the individual B-SAQ items and the KHQ symptom severity scale was 86%, 85%, 84% and 79% for frequency, urgency, nocturia and urinary incontinence. Using a cut off of 4 points, indicating moderate symptoms, the B-SAQ has a sensitivity and specificity of 84% and 74% for detecting LUTS. Receiver operator characteristics demonstrated the area under the curve (AUC) for the B-SAQ was 0.875 (see figure 1).

Table 1: Pearson's correlation test to compare the B-SAQ with the KHQ

	General Health Perceptions	Incontinence Impact	Role Limitations	Physical Limitations	Social Limitations	Personal Relationships	Emotions	Sleep/Energy	Severity Measures
Urge sym	0.63	0.58	0.64	0.53	0.49	0.55	0.66	0.54	0.57
Urge both	0.64	0.58	0.62	0.55	0.51	0.60	0.62	0.56	0.57
Freq sym	0.72	0.65	0.60	0.51	0.53	0.64	0.70	0.60	0.67
Freq both	0.77	0.72	0.68	0.61	0.59	0.71	0.73	0.66	0.74
Noc sym	0.64	0.56	0.57	0.47	0.44	0.49	0.76	0.50	0.59
Noct both	0.67	0.59	0.59	0.53	0.52	0.57	0.81	0.55	0.64
incon sym	0.53	0.57	0.53	0.51	0.49	0.54	0.52	0.68	0.62
incont both	0.56	0.54	0.54	0.52	0.46	0.56	0.52	0.68	0.61

All values $p < 0.001$

Figure 1 – Receiver operator characteristics for the B-SAQ. AUC – 0.875



Interpretation of results

The B-SAQ is easy and quick to use with almost all patients completing the instrument correctly. Pearson's correlation test suggested the B-SAQ correlated well with the KHQ in every domain, which was statistically significant. There appeared to be reasonable agreement between the symptom score profile from the KHQ and the B-SAQ especially frequency, urgency and nocturia. The AUC suggests the B-SAQ to be a good test for LUTS in men. The sensitivity and specificity would suggest overall the questionnaire is good although some asymptomatic males would seek help.

Concluding message

This study confirms that the B-SAQ questionnaire is a valid screening tool for the presence and bother of LUTS in men. It provides a reliable means of rapid assessment of LUTS, particularly storage LUTS and urinary incontinence. The B-SAQ has the potential to raise awareness of LUTS and promote earlier treatment and subsequently improve quality of life in patients.

References

1. Basra R, Artibani W, Cardozo L, Castro-Diaz D, Chapple C, Cortes E, De Ridder D, Pons ME, Haab F, Hohenfellner M, Kirby M, Milsom I, Van Kerrebroeck P, Vierhout M, Wagg A, Kelleher C. Design and validation of a new screening instrument for lower urinary tract dysfunction: the bladder control self-assessment questionnaire (B-SAQ). *Eur Urol.* 2007 Jul;52(1):230-7.

Disclosures

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