

Development, validity and reliability of an URDU version of the International Prostate Symptom Score

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Abstract

Objective: To develop and validate the Urdu version of the International Prostate Symptoms Score.

Methods: The prospective study was conducted at Indus Hospital, Karachi, from January to April 2014, and comprised interviews of subjects at baseline and at 2 weeks for assessing the test-retest reliability. Patients presenting with lower urinary tract symptoms and who were able to read Urdu were recruited as subjects. The reliability of the Urdu version of the International Prostate Symptoms Score was assessed by determining the internal consistency, and by assessing the test-retest reliability.

Result: There were 58 subjects with a mean age of 61.53±9.99 years. There was no statistically significant difference in self-administered and assister filling total score ($p=0.145$) and quality of life ($p=0.201$). For reliability analysis, Cronbach's alpha coefficient was 0.756 total score and 0.622 for quality of life.

Conclusion: The Urdu version of the International Prostate Symptoms Score stood validated for assessing lower urinary tract symptoms.

Keywords: Urdu version, IPSS. (JPMA 68: 200; 2018)

Introduction

Lower urinary tract symptoms (LUTS) are one of most common presenting symptoms among aging men in urology clinics. It is more common in men but lower urinary tract symptoms also affect women. It affects approximately 40% of older men and it can be divided into storage, voiding and post-micturition symptoms.^{1,2} Storage symptoms include frequency, urgency, urge incontinency and nocturia. Voiding symptoms include hesitancy, dysuria, intermittency, poor stream of urine and residual urine sensation.^{3,4} Benign prostatic hyperplasia (BPH) is a commonly encountered clinical condition in the elderly population. BPH presents with different LUTS.

The international prostate symptom score (IPSS) is an assessment tool for the evaluation of LUTS. It is a self-administered questionnaire which quantifies the symptoms that a patient has experienced in the preceding 4 weeks. This questionnaire has been validated by numerous researchers in well-educated patients.^{5,6} IPSS have been validated in different languages.⁷ English is not the national language in Pakistan and IPSS should be in Urdu language for patients who are unable to read English. After searching the literature till date, we were not able to find an Urdu version of the score (U-IPSS). The current study was planned to develop and validate U-IPSS that may be conceptually equivalent to the original version. It must be relevant and

culturally acceptable to the target population.

Subjects and Methods

The prospective study was conducted at Indus Hospital, Karachi, from January to April 2014, and comprised interviews of subjects at baseline and at 2 week for assessing the test-retest reliability. Approval was obtained from the institutional review board. Standard English IPSS was translated into Urdu language. Forward and backward translation of IPSS into Urdu language was done and discrepancies between forward and backward translations were identified after which U-IPSS was considered to have been drafted. Debriefing interview was conducted on 8 males. Four subjects were patients having presented to the relevant clinic and were able to read, understand and answer the questionnaire, and four subjects were healthy males. They were given the U-IPSS to complete and then interviewed. Differences in the answers were discussed in view of their understanding of the questions. Results of the interviews were reviewed and U-IPSS was modified and finalised. A pilot study comprising 15 patients and 15 controls was conducted in which flow of question, importance, acceptability and administrative ease were assessed. The actual study comprised patients >45 years of age who presented with LUTS at the urology out-patient clinic for the first time and were able to read Urdu. Patients who had prior treatment under any urologist were excluded. Also excluded were patients who did not give informed consent.

The subjects were requested to self-administer U-IPSS on the

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first visit. In the subsequent visit after one week, without giving any treatment, the same U-IPSS was filled up by the subjects with the assistance of a urologist, and the answers were compared. Test-retest reliability and internal consistency was assessed by giving the same U-IPSS after one week. The internal consistency of the IPSS was assessed using Cronbach's α coefficient. The test-retest reliability was assessed using the intra-class correlation coefficient (ICC), which was derived through analysis of variance (ANOVA). Values of ICC varied from 1 (perfectly reliable) to 0 (totally unreliable). Content was validated by asking the expert to assess whether all important aspects were accurately evaluated by U-IPSS.

Result

There were 58 subjects with a mean age of 61.53±9.99

Table-1: Comparison between self administered and follow-up IPSS.

	N	Mean (SD)	Median (IQR)	P-value
Age in years		61.53 (9.99)	63 (55-70)	-
Self administered score		18.01 (8.99)	20 (10.75-24)	
Follow-up assisted filling	58	17.67 (12.32)	18 (9.75-24.25)	0.145†
Self administered QoL		4.18 (1.96)	5 (3-6)	
Follow-up assisted filling QoL		3.97 (1.77)	3 (4-6)	0.201†

*P-value<0.05, †wilcoxon signed rank test. QoL: Quality of life.

U-IPSS

To be filled by study personnel

Name: _____ MR#: _____ Followup Interview: 1~No, 2~Yes, skip to IPSS question

Age in years: _____ Education: # of years of schooling completed?(0 if no schooling) _____

Can read and write Urdu? 1~Yes →self administered 2~No → assisted filling up of form

چند اہم سوالات	کوئی نہیں	1 بر 5 مرتبہ سے	2 بر 5 مرتبہ سے	3 بر 5 مرتبہ سے	4 بر 5 مرتبہ سے	5 بر 5 مرتبہ سے
پچھلے ایک ماہ کے دوران آپ نے کتنے مرتبہ محسوس کیا کہ پیشاب کرنے کے بعد ہیڈ ٹانہ پورے طرح خالی نہیں ہوا؟	0	1	2	3	4	5
پچھلے ایک ماہ کے دوران آپ کو کتنے مرتبہ پیشاب کرنے کے بعد 2 گھنٹے کے اندر دوبارہ پیشاب کی حاجت ہوئی؟	0	1	2	3	4	5
پچھلے ایک ماہ کے دوران آپ نے کتنے مرتبہ محسوس کیا کہ پیشاب روکنا بہت مشکل ہے؟	0	1	2	3	4	5
پچھلے ایک ماہ کے دوران آپ نے کتنے مرتبہ محسوس کیا کہ پیشاب روکنا بہت مشکل ہے؟	0	1	2	3	4	5
پچھلے ایک ماہ کے دوران آپ کو کتنے مرتبہ پیشاب کی مقدار میں کمی محسوس ہوئی؟	0	1	2	3	4	5
پچھلے ایک ماہ کے دوران آپ کو کتنے مرتبہ پیشاب شروع کرنے سے قبل وقت زور لگانا پڑا یا خوشواری محسوس ہوئی؟	0	1	2	3	4	5
پچھلے ایک ماہ کے دوران آپ کو رات میں کتنے مرتبہ بعد اور صبح اٹھنے تک کتنے مرتبہ پیشاب کرنے کے لیے اٹھنا پڑا؟	0	1	2	3	4	5

معماری زندگی کا تجزیہ

اہم سوال	بہت خوش	خوش	عموماً تسلی بخش	ملا جلا	عموماً غیر تسلی بخش	نا خوش	تکلیف دہ
اگر لہو آئندہ زندگی میں پیشاب کی موجودہ حالت کے ساتھ گزارنے پر توجہ کیسا محسوس کریں گے؟	0	1	2	3	4	5	6

نام مریض: _____

نومل اسکور [7-1] معیاری کی موصولی [19 8] معیاری کی درجہ اولیٰ علامات [35-20] معیاری کی شدید علامات []

Figure: Urdu version IPSS.

Table-2: Reliability of U-IPSS.

	Cronbachs Alpha	P-value
Total score	0.756	0.001**
QoL score	0.622	0.001**

**P-value<0.0001.

QoL: Quality of life.

years. The mean self-administered U-IPSS score was 18.01±8.99 and it was 17.67±12.32 for assisted filling (p=0.145). Similarly, there was no significant difference in terms of quality of life (QoL) (p=0.201) (Table-1).

Internal consistency for the IPSS and the QoL showed a good homogeneity and alpha coefficient was 0.756 for the total score and 0.622 for QoL (Table-2).

Discussion

Bladder outflow obstruction, which is often caused by prostatic hyperplasia, is one of the most common causes of LUTS. There are many other causes of LUTS which include detrusor overactivity/overactive bladder (OAB), or nocturnal polyuria. LUTS can be due to neurological diseases, urinary incontinence, urogenital infections, ureteral stones, or

malignant diseases of the lower urinary tract.⁸ LUTS is evaluated with self-administered IPSS which is a seven-item symptoms score along with QoL.⁹ It is categorised as asymptomatic (score 0), mildly symptomatic,¹⁻⁷ moderately symptomatic⁸ and severely symptomatic.¹⁰ The answers to the QoL range from 0 (delighted) to 6 (terrible). Changes in symptoms would have been minimal if the test-retest values were assessed at 1, 2 or at the most 4 weeks after the initial assessment. IPSS was developed in English and a translated version of IPSS is required for assessment of local populations.⁷ It has been translated and validated in the Malayan, Arabic and many other languages.^{11,12} The issue of non-availability of the questionnaire in a local language and its impact on the ability of a patient to self-administer a questionnaire in English has been highlighted in literature.¹³ We commonly employ the English version of the questionnaire at our centre. Studies have pointed out that there can be significant misinterpretation of the IPSS by the patients. The IPSS has thus become a commonly used instrument in multicentre international clinical trials to assess this medical problem.

Conclusion

U-IPSS was found to be reliable and valid questionnaire in assessing LUTS. It was easy to understand and quick to answer. A few minutes prior to the clinic visit is required to fill the self-administered U-IPSS. It has the potential to standardise patient management and can be used in research as well.

Disclaimer: None.

Conflict of Interest: None.

Funding Sources: None.

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