Validation of The Questionnaire for Urinary Incontinence Diagnosis-Thai Version (QUID-Thai Version)

Sasivimol Srisukho MD , Chailert Phong-narisorn MD , Nuntana Morakote M.P.H

Department of Obstetrics and Gynecology, Faculty of Medicine, Chiang Mai University, Thailand

Aims of Study

The Questionnaire for Urinary Incontinence Diagnosis[1] (QUID), an instrument used for diagnosis of stress urinary incontinence (SUI) and/or urge urinary incontinence (UUI), is an easy-to-answer questionnaire for patients. This is the first study aimed to translate the QUID to Thai with the goal of generating a valid Thai version of the QUID.

Study Design, Materials and Methods

The Questionnaire for Urinary Incontinence Diagnosis (QUID) was translated with permission from the original investigator by a process including translation, back-translation, comparison with versions, revision by experts, and pilot study. The content validity and reliability of the questionnaire were analysed.

Results

The results revealed the overall IOC of the QUID-Thai version was 0.83, while the ranges of Cronbach's α coefficient were 0.90 (Table 1). A total of 121 patients completed the QUID-Thai version. The demographic data are listed in Table 2. Questions 1-3 were used to evaluate for SUI, while questions 4-6 were used to evaluate for UUI. The sensitivity and specificity for SUI were 73% and 82%, respectively. The sensitivity and specificity for UUI were 69% and 87%, respectively (Table 3).

Interpretation of Results

The back translation of the QUID-Thai version was correlated with the original version. The QUID-Thai version demonstrated a diagnostic value in determining the type of UI similar to that of the original version.

Conclusion

The Questionnaire for Urinary Incontinence Diagnosis (QUID)-Thai version has satisfied validity and reliability similar to the original version. QUID is beneficial for the evaluation and diagnosis of female urinary incontinence in urology/gynecology clinical practices, primary health care settings and epidemiological trials in Thailand.

Reference

1. Bradley CS, Rovner ES, Morgan MA, Berlin M, Novi JM, Shea JA, et al. A new questionnaire for urinary incontinence diagnosis in women: development and testing. American journal of obstetrics and gynecology. 2005;192(1):66-73.

Table 1 The content validity and the test-retest reliability of the translated QUID-final version

Question	IOC	Cronbach's α coefficient
Do you leak urine (even small drops), wet yourself, or wet your pads or undergarments...	0.85	
1. When you cough or sneeze?	1	0.88
2. When you bend down or lift something up?	1	0.62
3. When you walk quickly, jog or exercise?	0.85	0.68
4. While you are undressing in order to use the toilet?	1	0.92
5. Do you get such a strong and uncomfortable need to urinate that you leak urine (even small drops) or wet yourself before reaching the toilet?	0.57	0.63
6. Do you have to rush to the bathroom because you get a sudden, strong need to urinate?	0.71	0.68

Table 2 Study group characteristics (N=121)

Characteristic	Measurement	
	Median (range)	N (%)
Age (yrs)	62 (35-89)	
Body mass index (kg/m2)	23.7 (14.0-32.6)	
Parity (n)	2 (0-9)	
Educational background: (n)		
None		14 (11.6%)
Primary school		59 (48.8%)
Secondary school		22 (18.2%)
University		26 (21.5%)
Postmenopausal status (n)		96 (79.3%)
Hysterectomy (n)		21 (17.4%)
Duration of urinary incontinence symptoms: (n)		
<=1y		29 (24.0%)
2-5 y		28 (23.1%)
>5y		7 (5.8%)
Pelvic organ prolapse (Stage >=3) (n)		66 (54.5%)
Pessary use (n)		54 (44.6%)
Previous anti-incontinence surgery (n)		11 (0.09%)

Table 3 The QUID-Thai version compared with clinical diagnosis

	Stress urinary incontinence	Urge urinary incontinence
Sensitivity	0.73 (0.60-0.84)	0.69 (0.52-0.82)
Specificity	0.82 (0.71-0.91)	0.87 (0.77-0.93)
Positive predictive value	0.79 (0.68-0.86)	0.72 (0.59-0.83)
Negative predictive value	0.77 (0.69-0.84)	0.85 (0.78-0.90)
Accuracy	0.78 (0.70-0.84)	0.81 (0.73-0.87)
Area under the curve	0.86 (0.79-0.93)	0.86 (0.79-0.93)