

RESPONSIVENESS OF CHINESE UROGENITAL DISTRESS INVENTORY AND INCONTINENCE IMPACT QUESTIONNAIRE SHORT FORM IN WOMEN UNDERGOING PELVIC FLOOR EXERCISE

Hypothesis / aims of study

Short form of Urogenital Distress Inventory and Incontinence Impact Questionnaire (UDI-6 and IIQ-7) has been validated for use.⁽¹⁾ Responsiveness is an important psychometric property of health related quality of life questionnaire. This study evaluated the responsiveness of the Chinese UDI-6 and IIQ-7 in women undergoing pelvic floor exercise.

Study design, materials and methods

Women who were diagnosed urodynamic stress incontinence (USI) alone and referred to received pelvic floor exercise training by Continence Advisor participated in this study. They were all assessed by Chinese UDI-6 and IIQ-7 at baseline. Thereafter, they took an educational class on how to perform pelvic floor exercise and followed by one to two consultations with the Continence Advisor. At the last visit, they completed the UDI-6 and IIQ-7 again. Responsiveness of Chinese UDI-6 and IIQ-7 were evaluated by effect sizes, standardized response mean, paired samples t-test or Wilcoxon Signed Rank Test. Effect size (ES) is equal to the mean change in scores divided by the standard deviation (SD) of the baseline score. Standardized response mean (SRM) is equal to the mean change in scores divided by the SD of the change in scores ⁽²⁾. For both ES and SRM, value of 0.2 is considered "small" effect, 0.5 for "moderate" effect; and the significance level was set at $P < 0.05$.

Results

In all, 159 women, diagnosed USI, received pelvic floor exercise in 2009-2010 completed the study. Their mean age was 53.4±10.7 years old and the mean duration of performing pelvic floor exercise was 8.5±4.1 months. Table 1 shows the mean change in scores and responsiveness, in terms of ES, SRM and paired samples t-test or Wilcoxon Signed Rank Test to change of the UDI-6 and IIQ-7 and their respective subscales. Both the UDI-6 total and IIQ-7 total scores were significantly reduced after pelvic floor exercise, meaning that the symptoms were reduced and their quality of life was improved. There was moderate effect size of UDI-6 total score; but small effect size of all its subscales and the IIQ-7 total and subscales.

Interpretation of results

Using effect size and standard response mean, there was moderate responsiveness of the UDI-6 total score in women receiving pelvic floor exercise for their urodynamic stress incontinence. There were small responsiveness of subscales of UDI-6, IIQ-7 total and subscales.

Concluding message

The Chinese UDI-6 and IIQ-7 are responsive to change in women received pelvic floor exercise for urodynamic stress incontinence.

Table 1. Mean change in scores and responsiveness to change of the PFDI and PFIQ in the different groups

	Pre-treatment Mean (SD) score	Post-treatment Mean (SD) score	Mean change in score (SD)	ES	SRM	P-value
UDI-6 total	31.1 (14.2)	23.8 (15.4)	7.3 (14.2)	0.51	0.51	<0.005
Stress subscale	40.3 (18.5)	31.7 (20.9)	8.6 (18.7)	0.46	0.46	<0.005
Irritative subscale	36.4 (17.6)	28.3 (20.6)	8.1 (19.6)	0.46	0.41	<0.005
Obstructive subscale	16.7 (16.8)	11.4 (14.8)	5.3 (17.6)	0.32	0.30	<0.005
IIQ-7 total	31.4 (24.4)	23.2 (22.1)	8.2 (21.4)	0.34	0.38	<0.005
Physical activity subscale	29.7 (24.6)	23.8 (15.4)	5.9 (24.1)	0.24	0.24	<0.002
Travel subscale	26.9 (27.0)	21.6 (27.6)	5.3 (29.7)	0.20	0.18	<0.025
Social subscale	33.3 (30.5)	21.6 (27.6)	11.7 (30.7)	0.38	0.38	<0.005
Emotional subscale	35.6 (30.6)	25.7 (28.1)	10.0 (24.7)	0.33	0.40	<0.005

References

1. Chan SS, Choy KW, Lai BPY, et al. (2010) Chinese validation of Urogenital Distress Inventory and Incontinence Impact Questionnaire short form. *Int Urogynecol J* 21:807-12
2. Crosby RD, Kolotkin RL, Williams GR (2003) Defining clinically meaningful change in health-related quality of life. *J Clin Epidemiol* 56: 395-407

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