

## VALIDATED SELF OR INTERVIEWER ADMINISTERED FEMALE PELVIC FLOOR QUESTIONNAIRES FOR CLINICAL USE: IS THERE A DIFFERENCE?

### Hypothesis / aims of study

A pelvic floor questionnaire that assesses female bladder, bowel and sexual function, pelvic organ prolapse and condition-specific quality of life issues and that is suitable for routine clinic and research has previously been validated as an interviewer-administered questionnaire (1). As self-administered questionnaires are considered the "gold standard" in research, we sought to validate this pelvic floor questionnaire as a self-administered version and to compare the answers to the interviewer-administered questionnaire.

### Study design, materials and methods

The self-administered pelvic floor questionnaire contained the same questions as the previously validated interviewer-administered pelvic floor questionnaire (1). The self-administered questionnaire was mailed to 51 urogynaecological patients (mean age 53±12 years) 8-20 days prior to their first clinical visit.

To assess reproducibility, the patients were asked to complete the questionnaire again when they arrived in the clinic. The same questionnaire was then applied during the interview (interviewer administered).

Content validity was assessed by the level of missing data and ambiguous questions. Criterion validity was evaluated by comparing the self-administered questionnaire to established and validated instruments and to clinical measures like the ICS pelvic organ prolapse staging and urodynamic studies (n=122).

To evaluate construct validity, the self-administered questionnaire was compared with 49 women from a community-based sample who are taking part in a longitudinal study of ageing (mean age 57±9 years).

Internal consistency was analysed using Cronbach's alpha statistics.

The agreement between the self and interviewer administered versions of the pelvic floor questionnaire and clinical measures were calculated using Kappa values.

### Results

#### **Content validity**

The questionnaire was easily completed by most women. The response rate was 99%. Missing data did not exceed 4% for any question.

#### **Construct validity**

The self-administered questionnaire clearly distinguished the urogynaecological patients and women in the community. Bladder, bowel and sexual function and prolapse symptom scores as well as most individual responses differed significantly (no differences: defaecation frequency, stool consistency, wind incontinence, lubrication during sex and dyspareunia; Mann-WhitneyU tests).

#### **Criterion validity**

The bladder function score of the self-administered questionnaire correlated significantly with the SUDI score (Spearman's rho 0.76).

Bowel function correlated significantly with corresponding items in the established bowel questionnaire (2) (Spearman coefficients: faecal urgency 0.78, flatus incontinence 0.71, faecal incontinence 0.44, digitation 0.79).

Sexual function (n=64) was compared with the validated McCoy Female Sexuality Questionnaire (3). Spearman's correlation was reasonable at a significant level for the matching variables dyspareunia (-0.66) and lubrication (-0.58).

The self-reported sensation of prolapse, vaginal heaviness, need to reduce the prolapse in order to void and prolapse bother correlated significantly with increasing pelvic organ prolapse quantification (Spearman correlations 0.28- 0.56 for Aa, Ba, Ap, Bp; p<0.01).

## **Reliability**

### Internal consistency

The Cronbach's alpha for the four domains in the self-administered questionnaire were: bladder function 0.80, bowel function 0.73, prolapse symptoms 0.86 and sexual function 0.60. For the interviewer-administered questionnaire the respective values were 0.74, 0.74, 0.85 and 0.65.

### Test-retest reliability

Between 80% and 100% of women answered the questions identically on both occasions and most of the remaining women answered within one category. Kappa values in the test-retest analyses varied between 0.5 (urgency 0.58; urge incontinence 0.5, social impact of bladder dysfunction 0.6) and 1.0 (recurrent UTI; use of laxatives, prolapse reduction to void, vagina lax or tight).

## **Agreement between self and interviewer administered questionnaire**

Self and interviewer administered questionnaires showed moderate to excellent agreement for most questions in the bladder and bowel function domain and good to excellent agreement for all prolapse and sexual symptoms. Only for straining to void, weak urinary flow and incomplete bladder emptying Kappa values were between 0.21-0.4 (fair agreement) but only the answers obtained during the interview showed moderate agreement with the urodynamic diagnosis voiding dysfunction (Kappa 0.52).

When compared to the urodynamic diagnosis stress incontinence, the interviewer administered questionnaire achieved better agreement (Kappa 0.79 vs. 0.58). McNemar's test estimated that there is a systematic disagreement between the self-reported answers and urodynamic stress incontinence (p=0.03) which was not demonstrated for the interviewer-administered questionnaire. Neither questionnaire application was able to determine the diagnosis of detrusor overactivity.

### Interpretation of results

The self-administered version of the previously validated pelvic floor questionnaire assesses all aspects of pelvic floor function and condition-specific quality of life issues in a reproducible and valid fashion. However, the interviewer-administered questionnaire showed superior agreement with the urodynamic stress incontinence which emphasises that we cannot skip the personal discussion with the patient if we want to treat the right problem.

### Concluding message

The Pelvic floor questionnaire can be used in either version: self and interviewer administered. Due to their easy completion and application, the questionnaires can be integrated in routine clinical assessment and employed for research. The self-administered version should be preferred when attempting to assess outcome independently.

## *References*

- 1 A validated female pelvic floor questionnaire for clinicians and researchers. *Neurourol Urodynam* 2004; 398-399.
- 2 Bowel function and irritable bowel symptoms after hysterectomy and cholecystectomy – a population based study. *Gut* 1993;34:1108-1011.
- 3 The McCoy Female Sexuality Questionnaire. *Qual Life Res* 2000;9:739-745.