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## CULTURAL ADAPTATION AND EVALUATION OF THE PSYCHOMETRIC PROPERTIES OF THE FRENCH VERSION OF THE FEMALE PELVIC FLOOR QUESTIONNAIRE

### Hypothesis / aims of study

Our aim was to carry out a cultural adaptation in French of the Female Pelvic Floor Questionnaire (FPFQ) and to assess its psychometric properties so as to ensure intercultural relevance and conceptual equivalence with regard to the original English-language questionnaire.

### Study design, materials and methods

The Female pelvic floor questionnaire was originally developed in English by Kaven Baessler (1). It is a self-administered tool adapted to the community-dwelling women that explores all aspects of pelvic floor function (2).

After translation into French, acceptability and reliability of the questionnaire were assessed in a sample of 56 women from the community-dwelling in a test-retest. Consistency of responses was measured with the intra-class correlation coefficient, the weighted kappa and the Bland-Altman method.

Discriminative construct validity was evaluated by comparing the results obtained by the FPFQ to those of other validated questionnaires. Strength of association was measured by the Spearman correlation coefficient.

Longitudinal follow-up of the 282 patients included in the PreNatal Pelvic floor Prevention trial (3PN) was used to analyze the sensitivity to change estimated by the standardized response mean (SRM). Pelvic floor troubles were measured 4 times: at 5 and at 9 months of pregnancy and at 2 and at 12 months after delivery. Correlations between changes measured by the FPFQ and changes measured by the other tools were estimated by the Pearson correlation coefficient.

Internal consistency was analyzed using Cronbach's alpha statistics.

### Results

**Acceptability** - Among community-dwelling women the proportion of missing data did not exceed 4% for questions about female bladder, bowel function and pelvic organ prolapse. The rate of missing data ranged from 0 to 10% for issues related to sexual function. Among women enrolled in the 3PN trial, the rate of missing data did not exceed 4% for any question. Those concerning sexuality were significantly less completed than others in the two samples (<0.0001). Question 9, in particular, was considered difficult to understand by 14% of the community-dwelling women. Following reformulation a new sample of 52 women was retested on this issue, and they no longer had any problem understanding.

**Reliability** - The test-retest showed agreement between 58% and 94% depending on the question, with a mean of 77% and a median of 80%. The average weighted Kappa for all questions was 0.6. The intra-class correlation coefficient was greater than or equal to 0.7 for all domains and for the overall score, as well. Between the times of evaluation, the mean difference of the overall score was 6.3%.

**Discriminative Construct validity** - The FPFQ was strongly and significantly correlated (Spearman  $r > 0.5$ ) with the International Consultation on Incontinence - Urinary Incontinence Short Form (ICIQ-UI SF) ( $r = 0.7$ ), the International Prostate Symptom Score (IPSS) ( $r = 0.7$ ) and the Contilife ( $r = -0.7$ ) in the community-dwelling sample. Strong and significant correlations were also found in the 3PN population between the FPFQ and the ICIQ-UI SF ( $r = 0.6$ ), the Contilife ( $r = -0.6$ ), the Pelvic Floor Distress Inventory (PFDI-20) ( $r = 0.7$ ) and the Pelvic Floor Impact Questionnaire (PFIQ-7) ( $r = 0.6$ ).

**Responsiveness** - 3PN patients showed a decrease in urinary symptoms between pregnancy and postpartum (SRM = 0.83), an increase in sexual symptoms between pregnancy and two months postpartum (SRM = -0.41) and a decrease in sexual symptoms between 2 and 12 months postpartum (SRM = 0.44). Bowel function and pelvic organ prolapse were stable over time (Figure).

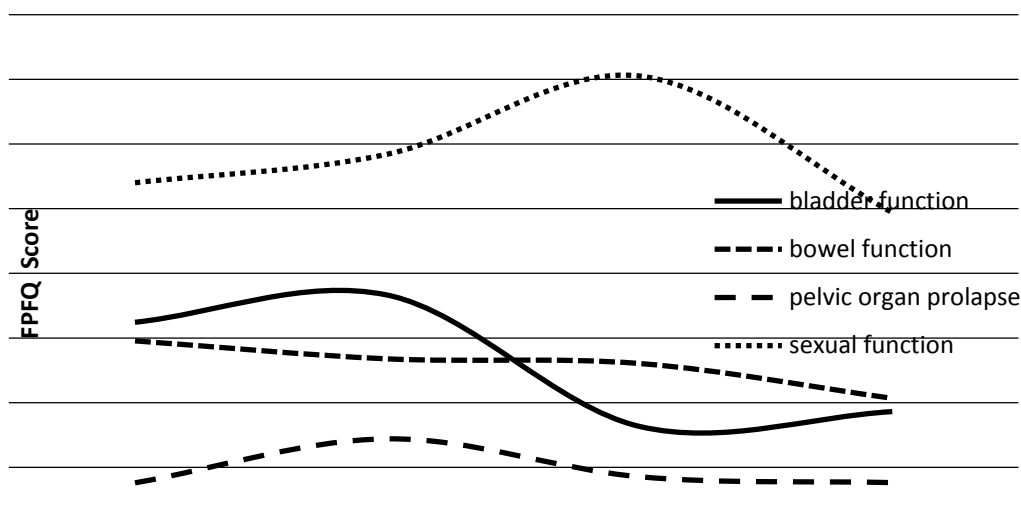


Fig. Changes in the urinary, anorectal, sexual and specific prolapse symptoms in time of the 3PN population (n=282)

**Internal Consistency** - All components showed good internal consistency with Cronbach Alpha coefficients greater than 0.7 in both study populations.

#### Interpretation of results

Regardless of the population, the proportions of missing data never exceeded 10%, which showed good acceptability of the tool. In addition, understanding of each issue in the final version was checked so as to ensure the relevance of the results.

The results achieved by the community women were constant over time and changes in scores at one-month intervals did not seem clinically significant ( $\leq 10\%$ ). The smallest change in score associated with a clinically significant change in the quality of life was estimated at 15% for the PFDI-20 and 12% for the PFIQ-7. However, comparable figure remains to be determined for the FPFQ. Based on the strong correlations between FPFQ and other measurement tools already validated, the FPFQ successfully measures what it purports to measure as regards female bladder, bowel function and pelvic organ prolapse. The discriminative validity of the sexual function findings has not been explored in this study and will be the subject of further work. Symptomatology changes measured by the FPFQ reflect good responsiveness.

#### Concluding message

The FPFQ is self-administered, suitable for all women, reliable, correctly discriminates subjects of study and is a tool of choice for research in community-dwelling women. It can detect a change in symptoms in time and may consequently be used in evaluation of a support or in measurement of the physiological changes that occur during the life of a woman.

#### References

1. Baessler K, O'Neill SM, Maher CF, Battistutta D. A validated self-administered female pelvic floor questionnaire. *Int Urogynecol J* 2009;21:163-72.
2. Bonniaud V, Raibaut P, Guyatt G, Amarenco G, Parratte B. Symptom and quality of life assessment in urinary disorders. *Ann Readapt Medecine Phys Rev* 2005;48:392-403.

#### Disclosures

**Funding:** none **Clinical Trial:** No **Subjects:** HUMAN **Ethics Committee:** The PreNatal Pelvic floor Prevention (3PN) trial was approved by the southwest and overseas Committee for the Protection of Persons in September 2007. Informed consent of the subjects was collected during the inclusion visit. **Helsinki:** Yes **Informed Consent:** Yes