734

van Rumpt L[1], Piersma D[2], Withagen M[3], Milani F[1], van der Vaart H[2]
1. *Reinier de Graaf Hospital,* ***2.*** *University Medical Center Utrecht,* ***3.*** *UMC St Radboud*

ASSOCIATIONS BETWEEN PELVIC FLOOR DYSFUNCTION AND FEMALE SEXUAL FUNCTION

Hypothesis / aims of study
Women with urogenital symptoms are believed to be at higher risk for sexual problems, but studies on this association show conflicting results. Differences in populations under study, but also in the tools used to assess sexual function may account for these differences. Sexual function in women with urogenital symptoms is mainly assessed with two questionnaires. First, the Female Sexual Function Index (FSFI) which is used to measure sexual functioning in a broad generic context, and secondly the Pelvic Organ Prolapse/urinary Incontinence Sexual Questionnaire (PISQ) which is condition-specific. The aim of our study was to look at the correlation between pelvic floor dysfunction symptoms and the FSFI and PISQ scores. Our hypothesis was that the PISQ, being condition specific, shows a better correlation with the severity of urogenital symptoms as compared to the FSFI.
Study design, materials and methods
A cross-sectional study was performed on a population of women with prolapse, urinary and/or defecatory symptoms. Between October 2009 and February 2010 one hundred heterosexual women who visited our outpatient urogynecology department, were invited to participate anonymously. Sexually inactive patients were excluded since the questionnaires are only valid for women who were sexually active. We also excluded patients who were not able to read Dutch. Sociodemographic data of all women were collected. The Urogenital Distress Inventory (UDI) was used to assess the presence and severity of a variety of urogenital symptoms. The individual domain scores range between 0 and 100. The higher the score, the more sever the symptoms are. In contrast to the original UDI a Dutch validation study identified five domains instead of three(1). Sexual function scores were obtained with the FSFI and the PISQ. A higher score on the FSFI and PISQ interval domains indicate better sexual functioning. Spearman correlation coefficients were calculated between UDI domain scores, FSFI domain scores and PISQ total scores. Statistic analyses were performed with the computer software package Statistical Package for the Social Sciences (SPSS Inc, Chicago, Ill) for Windows, version 15.0.
Results
Seventy (70%) of the 100 women eligible participated. Their baseline characteristics are listed in Table 1. The correlation coefficients between the PISQ total score and all FSFI domains were statistical significant (range 0,62-0,75). The correlation coefficients between the UDI domain scores on one hand and the FSFI domain scores and PISQ total scores on the other are displayed in Table 2. After identifying a weak correlation between the UDI domain genital prolapse and FSFI total, the FSFI lubrication and PISQ total score we questioned whether baseline characteristics could have confounded these associations. Therefore all variables that were statistical significantly associated with the FSFI total, the FSFI lubrication and PISQ score in univariate analysis were entered in a linear regression model together with the UDI genital prolapse domain. After multivariate correction, the only correlation that remained statistically significant was between the UDI genital prolapse domain and the PISQ total score (Standardized regression coefficients -0,35, $p < 0.01$).
Interpretation of results
Surprisingly, the condition specific PISQ showed as poor a correlation with many urogenital symptoms as the generic FSFI. This may reflect an absence of an association between the severity of urogenital symptoms and sexual functioning, or indicates that the PISQ is not condition-specific enough. Since sexual functioning is complex and multifactorial, improvement of PISQ scores after treatment of urogenital symptoms may well be caused by other factors than the treatment itself, like improvement in self esteem or body image.
In our study, the only indication for the condition-specificity of the PISQ was found on the UDI genital prolapse domain. Though weak, the correlation persisted to be significant after multivariate adjustment.
Concluding message
Our hypothesis that the PISQ is a condition specific questionnaire to assess sexual functioning in women with urogenital symptoms was rejected. Except for the association between the severity of genital prolapse symptoms and the PISQ score. This finding can be explained by an absence of an association between the severity of urogenital symptoms and sexual functioning. Alternatively, the PISQ is not condition specific enough to be used in all areas of urogenital problems except for prolapse complaints. Finally, many other factors like sexual relationship with partner, body image, self-esteem etc, may change after urogenital symptom treatment. These factors may also improve after surgery and be responsible for improvement in sexual functioning. Further research in this area, taking many social, relational en personal factors besides urogenital symptoms into account, may provide the answers.

Table 1. Characteristics of the study population

	n=70
Age (y, mean ± SD)	48,56 ± 12,6
BMI (mean ± SD)	24,74 ± 3,79
Educational level (%)	
Primary only	21,4
Secondary or higher	78,6
Relation (y, mean ± SD)	23,36 ± 13,5
Previous operations	
Hysterectomy (%)	1 (1,4)
Prolapse (%)	6 (8,6)
Nulliparous (%)	7 (10)
Menopausal status (%)	
Pre	32 (45,7)
Post	38 (54,3)
Current smoker (%)	6 (8,6)

.

Tabel 2 Correlation coefficients of UDI and FSFI subscales and PISQ total scores

	FSFI						PISQ
UDI	Desire	Arousal	Lubrication	Orgasm	Satisfaction	Pain	Total
Discomfort/Pain	0,05	0,02	-0,12	-0,08	0,11	-0,13	-0,13
Urinary incontinence	-0,05	0,01	0,09	-0,07	-0,02	-0,01	-0,20
Overactive Bladder	-0,02	0,07	0,05	0,06	0,15	0,02	-0,02
Genital Prolapse	-0,19	0,00	-,27(*)	-0,10	-0,10	-0,17	-,34(**)
Obstructive Micturition	-0,01	0,15	-0,04	0,09	0,12	-0,10	-0,06

Spearman correlation coeficients. * Correlation significant at P<0,05 ** Correlation significant at p<0,01 FSFI: Female sexual Function Index, PISQ: Pelvic organ prolapse Urinary Incontinence Sexual Questionnaire, UDI: Urogenital distress inventory

References

1. 1. Van der Vaart CH, De Leeuw JRJ, Roovers J-P WR, Heintz APM, Measuring Health-Related Quality of Life in Women With Urogenital Dysfunction: The Urogenital Distress Inventory and Incontinence Impact Questionnaire Revisited. Neurol and Urogyn. (2003) 22:97-104

Specify source of funding or grant	**None**
Is this a clinical trial?	**No**
What were the subjects in the study?	**HUMAN**
Was this study approved by an ethics committee?	**Yes**
Specify Name of Ethics Committee	**Ethics committee University Medical Center Utrecht**
Was the Declaration of Helsinki followed?	**Yes**
Was informed consent obtained from the patients?	**Yes**