

PREVALENCE OF FEMALE SEXUAL DYSFUNCTION SYMPTOMS IN WOMEN WITH STRESS URINARY INCONTINENCE.

Aims of study

To assess the prevalence of female sexual dysfunction (FSD) symptoms in women with stress urinary incontinence (SUI) and to identify potential risk factors. We also aim to assess if women with concomitant pelvic organ prolapse were more likely to suffer of FSD symptoms.

Study design, materials and methods

A prospective cohort study which was approved by the local ethics committee. All heterosexual women admitted for surgical treatment of stress urinary incontinence (SUI) in the tertiary urogynaecology unit of the West of Scotland over the period of June 2005 to December 2006 were invited to participate in this study. Women were classified into two groups according to the presence of pelvic organ prolapse (POP): Group A: SUI with no symptomatic POP and Group B: SUI with POP. Those who agreed and signed the relevant consent form were asked to complete the PISQ-12 questionnaire¹ anonymously and in their own privacy with the option of asking assistance from the nursing staff if needed. Extra questions were added for: patient demography, smoking, BMI, HRT, previous gynaecological surgery and whether or not they were in current stable relationships. All participants were asked to complete the questionnaire if they were sexually active or have been sexually active and stopped due to problems related to urinary incontinence.

The PISQ-12 is a validated reliable questionnaire for assessment of sexual function in heterosexual women with urinary incontinence (UI) and/or POP. It is composed of 12 questions with questions 1-4 assessing the behavioural emotive factor and questions 5-9 assessing the physical factor while questions 10-12 assess the partner related factors. The questionnaire can be reported as a total score or as per item however in this study we will be reporting on the prevalence as per item basis. The questionnaire is considered valid if there were no more than two missing answers with total score of 48.

Outcome Measures:

****Primary Outcome:** Prevalence of each symptom of FSD in women with SUI

****Secondary Outcomes:**

- Identify relevant risk factors for FSD
- Compare prevalence of FSD in women with SUI with or without POP

The FSD scores were compared between groups A & B using Mann-Whitney tests. Associations between quantitative variables were assessed using correlation. All analyses were done using Minitab (version 14) with a significance level of 5%.

Results

In total 367 patients were eligible and invited to participate: 12 (3.3%) patients refused to participate due to the intimate nature of the questions, while 17 (4.6%) patients returned invalid questionnaires i.e. more than 2 missing answers. Therefore the analysis included 338 patients [Group A: n = 273 (81%) Vs. Group B: n = 65 (19%)]. The mean age of patients was 50.8 years (range 36-87). The median parity was 2 (range 0-7) while the mean BMI was 30.2, (range 19.0-43.0). 105 women (31%) were smokers, 222 (65.7%) were currently in stable relationships and 36 (10.7%) were on HRT. 71 women (21%) had had a previous hysterectomy, while 58 (17.2%) had previous incontinence/ pelvic floor repair procedure.

In this cohort of patients: 92 (25%) patients were not sexually active [Group A: n = 73 (79%) Vs. Group B: n = 19 (21%)] due to reasons other than urinary incontinence such as: no partner, general health, partner related issues, age, others or combination of reasons. Meanwhile, 246 patients (67%) were sexually active at time of completion of the study or have stopped due to incontinence related problems [Group A: n = 200 (81%) Vs. Group B: n = 46 (19%)]. The mean total score of PISQ-12 was 17.99, median 18 and range from 4 to 47.

Table 1: Descriptive analysis of FSD symptoms in the sexually active women.

Symptom	Always	Usually	Sometimes	Seldom	Never	FSD
Frequency of Sexual Desire	26 (10.57%)	83 (33.74%)	64 (26.02%)	42 (17.07%)	31 (12.60%)	73 (29.7%)
Sexual Satisfaction	46 (18.70%)	79 (32.11%)	63 (25.61%)	23 (9.35%)	35 (14.23%)	58 (23.6%)
Sexual excitement	46 (18.70%)	81 (32.93%)	47 (19.11%)	27 (10.98%)	45 (18.29%)	72 (29.3%)
Satisfaction with varieties in Sexual Activities	50 (20.33%)	86 (34.96%)	52 (21.14%)	18 (7.32%)	40 (16.26%)	58 (23.6%)
Menstrual pain	29 (11.79%)	8 (3.25%)	73 (29.67%)	63 (25.61%)	73 (29.67%)	37 (15%)
Urinary Incontinence	48 (19.51%)	35 (14.23%)	85 (34.55%)	41 (16.67%)	37 (15.04%)	83 (33%)
Interference of Sexual activity due to fear of UI	56 (22.76%)	27 (10.98%)	88 (35.77%)	24 (9.76%)	51 (20.73%)	83 (33%)

Restriction of Sexual activity o POP	38 (15.45%)	27 (10.98%)	44 (17.89%)	14 (5.69%)	123 (50.00%)	65 (26.5%)
Negative emotions	24 (9.76%)	17 (6.91%)	56 (22.76%)	33 (13.41%)	116 (47.15%)	41 (17%)

Legend: highlights the number (%) of women with answers of Seldom/ Never to Q1-4 (Behavioural emotive factor problems) and answers of Always/ Usually to Q 5-9 (Physical factor problems).

Table 2: Analysis of Risk factors for FSD

	Pearson Correlation		
Age	-0.017	$p = 0.793$	NS
Parity	-0.07	$p = 0.29$	NS
BMI	-0.038	$p = 0.592$	NS
	Mann Whitney Test	CI (95% Confidence Interval)	
POP	$p = 0.36$	(-5.001,1.998)	NS
Smoking	$p = 0.047$	(-5.001,-0.00)	Significant
Previous Hysterectomy	$p = 0.47$	(-1.999,4.000)	NS
Stable Relationship	$p = 0.82$	(-1.999,2.999)	NS
HRT	$p = 0.44$	(-1.997,5.000)	NS
Previous SUI/POP Surgery	$p = 0.79$	(-2.999,2.999)	NS

NS= non significant, HRT= Hormone Replacement Therapy, POP= Pelvic organ prolapse

Interpretation of results

The most prevalent symptoms of FSD among this cohort of women were "Coital Incontinence", which was present in 85% of the patients and consequent "Restriction of Sexual activity" in 79%. 52 % had negative emotions such as fear, guilt or disgust as regards sexual activity due to SUI. However when only with answers of always/ usually were included, the prevalence of "severe" coital incontinence & consequent restriction of sexual activity dropped to 33% & the negative emotions to 17%. About of 25% of the patients had never or seldom experienced *any* desire for sexual activity, climax, excitement or satisfaction. There was no difference in FSD symptoms between women with SUI Vs. those with SUI & POP. There were no correlations between FSD scores and age, parity or BMI. Only Smoking could be identified as a contributing risk factor for FSD symptoms in women with USI.

Concluding message

FSD symptoms are highly prevalent in women awaiting surgery for SUI with no significant difference between those with combined SUI & POP or those with SUI alone.

References

1. [A short form of the Pelvic Organ Prolapse/Urinary Incontinence Sexual Questionnaire \(PISQ-12\)](#). International Urogynaecology Journal 2003; 14 (3): 164-168

FUNDING: This study was funded by the unit with no recourse to external funding

HUMAN SUBJECTS: This study was approved by the Greater Glasgow Ethics committee and followed the Declaration of Helsinki Informed consent was obtained from the patients.