

# Female sexual function in urological practice **Elzevier**, H.W.

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#### CHAPTER 2

Evaluation of sexual function in women attending an outpatient urological clinic; a survey study of 326 patients

#### Based on:

Elzevier HW, Beck JJ, Putter H, Pelger RCM, Voorham- van der Zalm PJ, Lycklama a Nijeholt AAB. Evaluation of sexual function in women attending an outpatient urological clinic; a survey study of 326 patients

#### INTRODUCTION

Well-designed, random-sample, community-based epidemiological investigations of women with sexual dysfunction (SD) are limited. The most widely cited study is based on the U.S. National Health and Social Life Survey of 1992 (1). Female sexual function was evaluated before in the general population, SD is a highly prevalent problem for 15% to 43% of women (1-5) and a result of multicausal and multidimensional factors; emotional, physical, biological, psychological, and interpersonal domains interfering with the sexual function of women (6). In this respect, urogynecologic patients may even be at a higher risk of sexual complaints (48%-64%) for multiple reasons, including advanced age and pelvic floor dysfunction (7;8). Urogynecological complaints may lead to sexual dysfunction, but are probably more due to prolapse and urinary symptoms. Our study is expanding on prior literature by not only evaluating urogynecological complaints, but also other urological complaints. To evaluate sexual function we used the SD classification of sexual desire disorders, sexual arousal disorder, orgasmic disorder and sexual pain disorders described by The International Consensus Development Conference on Female Sexual Dysfunction (9). The first aim of this study was to evaluate sexual function in an outpatient urological clinic related to a variety of urological complaints. Secondly we wanted to know which urological complaints were most likely to be related to sexual complaints.

#### **MATERIALS AND METHODS**

All female patients, aged 18-years and older, in a period of 2.5 years, who presented at our outpatient urological university clinic for urological evaluation for the first time, were included in this study. All patients gave informed consent. The patients were asked to fill out a self-administered questionnaire evaluating referal indications including urological complaints (see Appendix); the Female Sexual Function Index (FSFI) (10) and the Golombok Rust Inventory of Sexual Satisfaction GRISS (11;12), who are both validated for the Dutch language (13;14). The FSFI is a validated instrument that characterizes six domains of female sexual function. The FSFI consists of 19 items, assessing the extent to which women experience sexual problems (19). There are six subscales: desire (2 items; range, 1-5), arousal (4 items; range, 0-5), lubrication (4 items; range, 0-5), orgasm (3 items; range, 0-5), satisfaction (3 items; range, 0-5) and pain (3 items; range, 0-5). The data were scored using the scoring system as described by Rosen et al. (10). "Low FSFI score" was defined as an adjusted FSFI cut-off below 26.55 which could be a sign of sexual complaints (15). FSFI score above 26.55 was defined as a "High

#### FSFI score".

The GRISS is a, short 28-item, questionnaire for assessing the existence and severity of sexual problems. It measures the most common psychosexual complaints and has been chosen to assess the degree of bother as described before by ter Kuile et al. (16), because no validated bother questionnaire was available in the Dutch language at the start of the study. For this study, only seven items were used for analyses. These items comprised the subscales for "non-communication" (scoring ranges: 2-10) and female dissatisfaction (scoring ranges: 4-20), following the question "do you enjoy sexual intercourse with your partner" (score between 1-5). Higher scores indicate more dissatisfaction. The subscales of the GRISS was used to evalute the difference in bother between the "Low FSFI score" and "High FSFI score" group

All data were collected anonymously. The data were analysed using SPSS version 14. Differences in quantitative variables and frequencies were evaluated using Student's t test and Pearson's chi-square test, respectively. A two-sided P-value <0.05 was considered statistically significant. Our Institutional Review Board approved the study.

#### RESULTS

Of a total of 1383 patients presenting at the clinic for the first time, 410 (30%) agreed to participate after reading the informed consent form. Of them 326 (80%) completed and returned the questionnaires.

Of the remaining 326 patients 83.4% (n=272) had a partner, 119 (36.5%) were sexually inactive and 207 (63.5%) patients were sexually active. The reasons for sexual inactivity and the urological complaints (a patient could give more than one complaint) of the inactive patients are listed in Table 1 and 2. In a few extra questions we asked whether patients thought that there was an urological related reason for their sexual inactivity. Incontinence during sexual activity was the main reason for sexual inactivity in 7.6% (n=9) of the total inactive sample and in 13.2% of the patients with incontinence (n=68). For 16.1% (n=18) of the 119 sexually inactive patients, the main reason for sexual inactivity was pain during intercourse, for 23.2% (n=26) loss of libido. The mean age of the inactive population was 59.0 (sd 14.6) years, which is significantly higher than the mean age of 45.6 (sd 13.7) of the sexually active group (p<0.001). Differences between active versus inactive patients are listed in Table 3.

## Chapter 2

Table 1

Reason for sexual inactivity (n=119)		
No partner	52	42.9%
Partner-related issues like illness or Erectile Dysfunction	18	14.3%
Patient-related issues	10	8.9%
Combination of problems	36	32.1%
Unknown	3	1.8%
Total	119	100%

Table 2

Urological complaints of the	sexually inactive pation	ents (n=119)
Complaints	n	Percentage
Loin pain	16	13.4%
Heamaturia	26	21.8%
Urinary tract infection	54	45.4%
LUTS (urge and frequency)	76	63.9%
Incontinence	72	60.5%
Lower abdominal Pain	35	29.4%
Abnormality on X-ray	6	5.0%
Consult by other specialist	47	39.5%
Otherwise	20	16.8%

Table 3

#### Sexual active versus sexual inactive

	Sexual active	Sexual inactive	n
Age	45.5	58.5	>0.001
Partner	97.6%	58.8%	>0.001
Smoking	16.9%	22.0%	0.255
Alcohol	59.5%	44.4%	0.090
Cardio vascular disease	41.2%	53.8%	0.028
High blood pressure	39.7%	51.3%	0.044
Diabetes	39.2%	53.0%	0.017
Neurological complaints	39.2%	53.0%	0.017
Psychological complaints	36.8%	50.9%	0.014
Menstruation			
Regular	43.2%	8.8%	
Not regular	13.6%	6.8%	
Few months not any more	6.8%	4.3%	
Few years anymore	36.4%	70.1%	>0.001
Sexual abuse	14%	22.0%	0.064

Note. Differences between sexually active and inactive patients are also significant in the subgroup of women with a partner.

Table 4

		Domains	S					Total
Complaints	n	Desire	Arousal	Lubrication Orgasm	Orgasm	Satisfaction	Pain	
Loin pain	26	3.6 (1.8-6.0)	3.6 4.2 5.9 (1.8-6.0) (2.7-6.0)		4.6 (1.2-6.0) 5.2 (1.2-6.0)	5.2 (1.2-6.0)	6.0 28.0 (13.1-36.0)	28.0 (13.1-36.0)
Haematuria	51	3.6 (1.2-6.0)	$ \begin{array}{c c} 3.6 & 4.2 & 5.4 \\ (1.2-6.0) & (0.0-6.0) & (0.0-6.0) \end{array} $	5.4 (0.0-6.0)	5.2 (0.0-6.0) 5.2 (1.2-6.0)	5.2 (1.2-6.0)	5.6 28.4 (0.0-6.0) (3.9-36.0)	28.4 (3.9-36.0)
Urinary tract infection	93	3.6 (1.2-6.0)	3.6 4.5 5.4 (1.2-6.0) (0.0-6.0)	5.4 (0.0-6.0)	5.2 4.8 (i.2-6.0)	4.8 (1.2-6.0)	4.8 28.2 (0.0-6.0) (4.6-36.0)	28.2 (4.6-36.0)
LUTS (urge and frequency) 95	95	3.6 (1.2-6.0)	3.6 3.9 4.8 (1.2-6.0) (0.0-6.0)	4.8 (0.0-6.0)	4.4 (0.0-6.0) 4.8 (0.8-6.0)	4.8 (0.8-6.0)	4.0 (0.0-6.0) 24.9 (5.4-36.0)	24.9 (5.4 <sup>-</sup> 36.0)
Incontinence	93	3.6 (1.2-6.0)	3.6 4.5 5.4 (1.2-6.0) (0.0-6.0)		4.8 (0.0-6.0) (0.8-6.0)	4.8 (0.8-6.0)	4.8 26.9 (0.0-6.0) (4.6-34.5)	26.9 (4.6-34.5)
Lower abdominal Pain	62	3.6 (1.2-6.0)	$\begin{array}{c c} 3.6 & 3.9 & 4.8 \\ (1.2-6.0) & (0.0-6.0) & (0.0-6.0) \end{array}$	4.8 (0.0-6.0)	4.4 (0.0-6.0) 4.4 (0.8-6.0)	4.4 (o.8-6.0)	4.0 (0.0-6.0) 25.3 (5.4-36.0)	25.3 (5.4 <sup>-</sup> 36.0)
Abnormality on X-ray	81	3.0 (1.2-5.4)	3.0 4.1 5.4 (1.2-6.0)		4.6 (1.2-6.0)	4.8 (2.8-6.0)	3.8 26.5 (II.4-34.5)	26.5 (11.4-34.5)
Consult other specialist	48	3.6 (1.2-4.8)	3.6 3.8 4.4 (1.2-4.8) (0.0-6.0) (0.0-6.0)	4.4 (o.o-6.o)	4.4 (0.0-6.0) 4.6 (1.2-6.0)	4.6 (1.2-6.0)	3.6 24.3 (0.0-6.0) (4.8-34.4)	24.3 (4.8-34.4)
Otherwise	33	3.6 (1.2-6.0)	$\begin{array}{c c} 3.6 & 4.2 & 5.4 \\ (1.2-6.0) & (0.0-6.0) & (0.0-6.0) \end{array}$		4.8 (0.0-6.0) (1.2-6.0)	4.8 (1.2-6.0)	4.8 27.0 (0.0-6.0) (3.9-34.5)	27.0 (3.9 <sup>-</sup> 34.5)

Female Sexual Function Index (n=207)

A total of 207 patients were sexually active and filled out the FSFI and the 7 items of the GRISS questionnaire. The total FSFI score was 28.3 (3.9-36), of these 41.7% had a low FSFI score. FSFI scores and domains of the different urological complaints are listed in Table 4. Only age and menopause were significantly different between the Low FSFI score group versus High FSFI score group. The mean age of the Low FSFI score group (48.2 years, sd 13.1) was significantly higher than the mean age of the High FSFI score group" (42.2 years, sd 13.2, p<0.005). No significantly difference was seen in co-morbidity between both groups. Only significantly more patients were postmenopausal in the Low FSFI score group (p<0.01).

When comparing sexually active patients in the Low FSFI score group with the total sample, we found patients with complaints of LUTS (p<0.001), lower abdominal pain (p<0.05) and "consultation by another specialist" group (p<0.01) were more likely to have sexual complaints. Only 15 of the 48 patients of the "consultation by another specialist" group had no urological complaints. Of the rest of these patients (n=33) 45.5% had complaints of LUTS, and 33% reported complaints of lower abdominal pain.

The mean score of GRISS noncommunication domain of the sexually active patients was 4.9 (sd 1.7). The mean score of the Low FSFI score group was 5.3 (sd 1.7) versus 4.3 (sd 1.5) for the High FSFI score group (p<0.001). This finding indicates that the Low FSFI score group found it more difficult to discuss sexual issues with their partner.

The mean GRISS female dissatisfaction score was 7.7 (sd 3.2). The mean score of the Low FSFI score group was 8.8 (sd 3.3) versus 6.0 (sd 2.1) for the High FSFI score group (p<0.001). The mean score of the question "do you enjoy sexual contact" was 1.9 (sd 1.0). The mean score of the Low FSFI score group was 2.3 (sd 1.1) versus 1.2 (sd 0.4) of the High FSFI score group (p<0.001). The Low FSFI score group was more dissatisfied with the time devoted to sex and reported less enjoyment with sexual contact with their partner.

The question "Did you have negative sexual experiences in the past" which could indicate sexual abuse, was answered positive in 16.9% of the total population, no significant difference was seen between the active versus inactive population.

#### **DISCUSSION**

This study was performed in a tertiary referral center of an outpatient urological university clinic. In contrast to urogynecology clinic studies (8;17) also patients without urogynaecological related complaints were included. In the total sample we found sexual inactivity in 34.4% of patients, of them 46.9% was incontinence, pain or libido related, and in the sexually active patients we found

a low FSFI score (<26.55) in 41.7%. In total we found 42.6% sexual inactivity due to incontinence, pain or loss of libido or low FSFI (which could be indicative of sexual complaints). This was almost the same as the 50% sexual dysfunction in the study by Geiss et al (7).

The reason of inactivity or Low FSFI score is multicausal; we discuss some aspects in detail. Having a partner is probably the most important reason for sexual inactivity (Table3). The mean age of the inactive population was significantly higher than the sexually active group. Declining sexual activity in the elderly has been reported by others (18-21). Also the Low FSFI score group, who might be at risk for female sexual dysfunction, was significantly older. The influence of menopausal status on sexual function has recently been reviewed (22-25). In our study 70.1% of the inactive patients were postmenopausal, in contrast to 36.4% of the sexually active population (Table 3). Age and menopausal status may influence sexual activity and sexual dysfunction in this study although recently Hayes et al. (26) concluded that relationship factors were more important to low desire than age or menopause, whereas physiological and psychological factors were more important to low genital arousal and low orgasmic function than relationship factors.

There are several studies dealing with the negative effects of urinary problems on an individual's sexual life (27-30). Problems related to urinary incontinence, especially leakage during intercourse, wetness at night, odor and bedwetting, have been associated with sexual problems such as a decrease in frequency of coitus, anorgasmia and dyspareunia. Temml et al. reported that 25.1% of incontinent women had some form of impairment in sexual function, and the majority of affected women reported that stress incontinence and urge incontinence during coitus were the most bothersome (31). Incontinence complaints were the main reason for sexual inactivity in 13.2%. In our patients who were sexually active, incontinence was seen in 44.9%. The median FSFI score of these patients was 26.9 (4.6-34.5). A total of 51.2% had a Low FSFI score. In the total incontinence complaint group 41% of the patients were sexual inactive due to incontinence complaints or had a low FSFI score. This outcome is higher than Temml et al reported.

Routine screening for sexual abuse was reported to be rare in a study of health care practitioners and gynaecologists (respectively 1,3 and 0,5%) (32;33). In our study 16.9% of the patients reported to have experienced sexual abuse. The prevalence of sexual abuse in relation to pelvic floor and urological related problems was recently reviewed (34;35). Beck et al recently concluded that patients with multiple pelvic floor complaints related to pelvic floor dysfunction are more likely to have a history of sexual abuse than patients with isolated complaints (36).

A response rate of 24% is low. We offer two reasons for this low response rate.

Firstly, subjects had to be actively recruited by the urologist or resident in that s/he was to ask at any first visit whether the patient had received a letter including informed consent. Asking for participation was not always appreciated and so not always done by all urologist and residents, so this may have led to a decreased participation. The patients were required to return the questionnaire by mail or to hand it in at the second visit. The latter again required active input of the urologist or resident and could likely have resulted in not all patients handing in the questionnaire in case she was not asked to. Secondly, a part of the patients who wanted to participate may have been embarrassed by the content of the questionnaire.

In the study of Pauls et al. the majority of sexually active patients completed the FSFI questionnaire, while only a small group voiced embarrassment at the questions (8). Based on these findings, they felt comfortable incorporating this questionnaire into their introductory patient packages. In our study, 20 % of the patients who wanted to participate did not return the questionnaire. Also a large part of the patients did not want to participate after reading the informed consent. Although the FSFI was accepted as a sexual evaluation tool, probably the evaluation with sexual function questionnaires in a standard urological practice is not an option. More research is needed to select urological complaints were standard sexual evaluation of sexual function is an option. Voorham et al. has given some good advice in relation to pelvic floor complaints evaluation (37;38). On the other hand, a few sexual function questions like "do you have sexual problems" and "do you have a history of sexual abuse" or "have you had any negative sexual experiences in the past" before vaginal examination is performed, is in our opinion necessary. Important in this matter is the physician's attitude towards female sexual complaints like Berman et al. described in relation to seeking help for sexual function complaints in gynecological practice (39). This attitude is not only gynecological related only, but is needed in the medical profession in general. Female sexual problems are frequent in many clinical conditions, but are not yet a routine part of diagnostic workup and therapeutic planning. It is crucial, as Berman at al. suggested, that further research is carried out in this area, as well as more timely evaluations of what is actually going on in medical schools and postdoctoral professional training around sexual topics. With potential treatments available, women are going to come forward seeking help more than ever and, it is hoped, will feel more and more entitled to full sexual lives.

Tools are needed, like Bitzer et al. have developed, to help physicians in different clinical settings to evaluate sexual problems of the female patients (40). We noticed in our study that physicians (residents and urologists) had difficulties in asking about sexual function or participation in this study even though we had informed patients about the study by mail before the first visit of our outpatient

clinic. Although we did not evaluate this difficulties by a questionnaire some remarks can be made related to this subject. First patients were not reffered for sexual problems, so in some cases (for example; stones in the kidney or kidney tumor on radiological examination) the relation between sexual and urological complaint is difficult to make and makes it more difficult to explain the importancy of participation in this study. Secondly female sexual function is not a subject in wich urologist are educated in contrast to erectile dysfunction. Probably also the sexual attitude of the physician it self plays an important role in asking sexual questions.

A few other limitations of the study have to be discussed. Personal distress in relation to sexual dysfunction in the inactive patient group was not evaluated. Another limitation of the study could be the potential for selection bias as a substantial proportion of patients refused to fill in the questionnaire. Those that responded may be different from the non-responders.

Lastly, the university clinic patient population may have more co-morbidity, which could negatively influence the the prevalence of sexual function complaints. Nevertheless, we believe that this first study performed in a urological clinic shows, that female sexual function is an important issue in urological practice.

#### **CONCLUSION**

In urological practice female sexual function is a common problem, therefore we recommend integrating female sexual function questionnaires in standard urological care.

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## **APPENDIX**

### QUESTIONNAIRES

1 Date of Birth		
2 Do you have a partner?	□yes	□ no
3 How many children do you have?		
4 Do you smoke?	□yes	□ no
5 Do you have Vascular or heart problems High blood procesure	□ yes	□ no
High blood pressure Diabetes Neurological complaints	□ yes □ yes □ yes	<ul><li>□ no</li><li>□ no</li><li>□ no</li></ul>
Psychiatric complaints	□yes	$\square$ no
<ul> <li>6 Do you menstruate?</li> <li>☐ Yes, regularly</li> <li>☐ Yes, but not regularly</li> <li>☐ No, I haven't had a period since a few months</li> <li>☐ No, I haven't had a period for more than a year</li> </ul>		
7 Did you have negative sexual experiences in the past	□yes	$\square$ no
Would you be willing to provide some more information about the	nis?	
8 What medication do you use currently?		
9 Did you have any operations in the past, if yes, please list them here		

Urological complaints (more than one urological complaint can be

#### entered) 10 Do you experience pain in the region of the kidney? yes no 11 Do you have blood in your urine? ves yes □ no Microscopic yes yes $\Box$ no Macroscopic \_ yes □ no 12 Urinary tract infection \_ yes ☐ no 13 Urinating complaints \_ yes $\square$ no \_ yes □ no 14 Incontinence 15 Abdominal pain \_ yes $\square$ no 16 Abnormalities on radiological examination \_ yes ☐ no 17 Consultation by other specialist but I have no urological complaints $\square$ no ☐ yes 18 Other, please explain □ yes $\square$ no 19 This question refers to the reason, why you weren't sexually active Was this the result of: ☐ Not having a partner ☐ Partner related problems as, for example, illness, impotence, age ☐ Patient related problems as, for example illness, age ☐ A combination of these factors If you would like to give an explanation, you can write it underneath The reason for not being sexually active anymore was due to the next problems? 20 Incontinence during sexual intercourse ☐ yes no no

## Chapter 2

21 Pain during sexual intercourse	□yes	□no
22 No sexual desire	□yes	$\square$ no
Next FSFI and GRISS		