PREVALENCE OF FEMALE SEXUAL DYSFUNCTION IN GYNECOLOGIC AND UROGYNECOLOGIC PATIENTS ACCORDING TO THE INTERNATIONAL CONSENSUS CLASSIFICATION

I. M. GEISS, W. H. UMEK, A. DUNGL, C. SAM, P. RISS, AND E. HANZAL

ABSTRACT

Objectives. To evaluate the prevalence of female sexual dysfunction (FSD) in an outpatient gynecologic and urogynecologic clinic using the current International Consensus Classification.

Methods. One hundred fifty-nine patients were asked to answer an anonymous survey about FSD. Patients in the gynecologic (group 1) and urogynecologic (group 2) clinics were compared.

Results. The mean age in group 1 was 37.8 years (range 20 to 76) and in group 2 was 55.7 years (range 18 to 82). The prevalence of FSD was 50% in group 1 and 48% in group 2; 86% of group 1 and 66% of group 2 patients had been sexually active within the past 2 years. The differences found in FSD according to the consensus panel classification achieved no significance. Of the 159 patients, 96% were not embarrassed by filling out this questionnaire about their sexual function.

Conclusions. No statistically significant difference in FSD was found between the younger and older patients seeking help in a gynecologic or urogynecologic outpatient clinic. Because of the high incidence of FSD, we recommend integrating the inquiry about female sexual health concerns into routine gynecologic care. The simple survey based on the International Consensus Conference Classification of FSD gives reliable results, and this systematic framework facilitates methodologic examination.

Female sexual dysfunction (FSD) is a highly prevalent problem for 38% to 63% of women.1–4 This problem is determined by multicausal and multidimensional factors, because emotional, physical, biologic, psychological, and interpersonal domains interfere with the sexual function of women.5

Since the definition of male erectile dysfunction by a National Institutes of Health (NIH) “Consensus Development Panel of Impotence,” male sexual dysfunction has become a growing topic in medical research and in the media.6–9 In contrast to the widespread interest in research and treatment of male sexual dysfunction, less attention has been paid to the sexual problems of women. In 1998 the “International Consensus Conference of Female Sexual Dysfunction (FSD),” convened by the American Foundation for Urologic Diseases, held their initial meeting in Amsterdam to develop an international model of definitions and classifications of FSD.10 The four major categories of dysfunction, desire, arousal, orgasmic, and sexual pain disorders, were considered necessary to maintain continuity in research and clinical practice. A new category of sexual pain disorder, including noncoital sexual pain, has been added. In addition, the American Foundation for Urologic Diseases classification system includes personal distress in each category.

Since 1998, the interest in this subject has been increasing, but problems still exist comparing the data, because of methodologic differences and a lack of using the standardized definition. Nevertheless, this new classification gives a basic input for research and therapy about FSD. Epidemiologic and pathophysiologic research studies can be done...
and compared with each other using this consensus classification.11,12

The purpose of this study was to determine the prevalence of FSD using the new Consensus Classification in a gynecologic and urogynecologic outpatient clinic.

MATERIAL AND METHODS

Women were recruited from the gynecologic outpatient clinic at the University of Vienna Hospital and a community hospital in Mödling, near Vienna. The patients were divided into two groups, those seeking help in the gynecologic or the urogynecologic clinic.

Because of the sensitive issue the patients had to discuss, we believed it essential to preserve patient anonymity. The institutional ethics committee found no need for signed consent, because the study was anonymous. The inclusion criteria were women more than 15 years old, who were not pregnant, and could read German.

First, the brief (23-item) survey asked 10 items about epidemiologic and medical facts, including age, living singly, having a continuous partnership, duration of the partnership, hormonal replacement therapy, other medications, chronic diseases, hysterectomy, other gynecologic operations, and number of children. When the patients had been sexually active for the past 2 years (yes or no), they had to answer 10 additional items about their sexual function that were based on the International Consensus Classification: frequency of intercourse (one item), sexual desire disorders (three items), sexual arousal disorders (two items), orgasmic disorder (one item), sexual pain disorder (three items). Finally, we asked why the patient visited the ambulatory clinic (one item) and whether they felt embarrassed to answer the survey (one item).

The questions were structured simply: the patients had to answer each subtype of the classified dysfunction with “Yes” or “No.” In the case of a positive answer, an additional question was asked to determine whether the issue caused distress to the patient. This combined question was regarded as one item.

The patients gave their answers in a separate room after their examination. Their names were not noted, and the papers could not be associated with a particular person.

TEST-RETEST RELIABILITY

Twenty patients were separated, identified, and asked to answer a mailed retest questionnaire 4 to 6 weeks after the first examination. The correlation factor between the two answers was identified. A correlation factor of 1.0 indicates an identical answer.

FACTOR ANALYSIS

A components analysis was performed to investigate the factor structure of the 23-item questionnaire. Different items could be sorted into a factor group with one special factor as the best representative of the group. The analysis was made in two groups: patients who were sexually active were analyzed separately. A correlation factor of 1.0 indicates an identical group. The Eigen value is a statistical measure of the relative explanatory power of individual factors in a factor analysis. These factors were correlated to the items.

In the demographic factor analysis, the four factors that were the best representatives of their factor group were age (correlated with medication, hysterectomy, multipara, sexual activity, and urogynecologic group), living alone (correlated with duration of partnership), medication (correlated with chronic diseases), and hysterectomy (correlated with gynecologic operations).

In the sexually active group, the factor analysis discovered four similar factors: age, frequency of intercourse (correlated with several sexual dysfunctions), medication, and gynecologic operations.

STATISTICAL ANALYSIS

The mean and standard deviation were calculated for the general characteristics. Fisher’s exact test was used to assess the statistical significance of FSD in both groups. Significance was set at P < 0.05. Analysis of covariance was performed to evaluate whether parity, hysterectomy, and use of hormonal replacement therapy independently influenced differences in the two populations.

RESULTS

A total of 159 patients were screened between June and October 2001, of whom 151 patients (94% response) could be analyzed. Eight patients were excluded, because they did not answer the question about sexual activity within the past 2 years or did not answer any question at all.

When the patients did not fill out each question, we analyzed the data we received. Only in 18 cases were one or more items missing, and 133 questionnaires (88%) were complete.

In group 1 (gynecologic outpatient clinic), 77 women and in group 2 (urogynecologic clinic), 74 women could be evaluated. The mean age in both groups was significantly different. In group 1, the mean age was 37.8 years (range 20 to 76) and in group 2, the mean age was 55.7 years (range 18 to 82). This fact resulted in additional statistically significant differences (P < 0.0001), including use of hormonal replacement therapy, number of patients with hysterectomy and other gynecologic operations, and number of children. The mean period of living together with the same partner was 13.2 years (SD 12.0) in group 1 and 28.7 years (SD 13.9) in group 2 (P < 0.001; Table I). However, none of these characteristics gave a statistically significant difference in the frequency of FSD.

| TABLE I. Statistically significant characteristics (P < 0.0001) |
|-----------------|-----------------|-----------------|
| Characteristic  | Group 1          | Group 2          |
| Mean age (yr)   | 37.8 (SD 12.3)   | 55.7 (SD 12.7)   |
| Period of living in a partnership (yr) | 12.2 (SD 12.0) | 28.7 (SD 13.9) |
| Hysterectomy (%) | 2.6             | 39.7            |
| Other gynecologic operations (%) | 21.6       | 46.2           |
| Hormonal replacement therapy (%) | 11.8       | 43.8           |
| Nullipara (%)   | 48.0            | 13.7            |

UROLOGY 62 (3), 2003
Both groups demonstrated a similar frequency in FSD: 50.0% in group 1 and 48.8% in group 2 showed signs of FSD. They answered at least one of the combined questions about FSD and personal distress with yes. Each patient gave one or more positive answers.

The frequency of FSD, according to subtype in the sexually active women according to the International Consensus Classification was as follows (Fig. 1):

- Sexual desire disorder: 23.2% in group 1 and 28.8% in group 2
- Sexual arousal disorder: 17.9% in group 1 and 23.0% in group 2
- Orgasmic disorder: 24.4% in group 1 and 17.8% in group 2
- Sexual pain disorder: 24.3% in group 1 and 24.9% in group 2

Although the total prevalence of FSD was high in both groups (50% in group 1 and 48% in group 2), we found no statistically significant differences in the prevalence of any FSD subtype between the two groups. Of the total, 86% in group 1 and 66% in group 2 had been sexually active within the past 2 years, which was a statistically significant difference with Fisher's exact test ($P = 0.0057$). In addition, the frequency of sexual intercourse (Fig. 2) achieved statistical significance ($P = 0.0001$). Finally, 130 (96%) of 135 patients answered the question concerning whether it was embarrassing to fill out this survey about their sexual function in the negative; 16 patients did not answer the question. Only 5 patients (4%) answered yes (4 patients were from group 1, the younger group).

**TEST-RETEST RELIABILITY**

The retest showed good stability for all answers. We compared the correlation between the domain answers at baseline and control. The correlation factor was between 0.75 and 1.0.

**COMMENT**

The survey was used as a simple and quick instrument to get anonymous data about FSD and some demographic characteristics, not as a condition-specific instrument to evaluate sexual function or complex issues, such as the quality of partnership or emotional problems. We used the International Consensus Classification of FSD as a helpful and systematic framework to handle the questions. This systematic classification can specify clear endpoints and outcomes in clinical trials and epidemiologic surveys. In an assessment of FSD, Rosen and Jones found that self-reported event logs or questionnaires were best suited for research or clinical assessment of female sexual function.
The questionnaire was used to assess the frequency of FSD anonymously without personal contact. First, we wanted the method to be very quick and easy. The management of a survey by asking patients in personal interviews is time-consuming and could not be arranged in our outpatient clinic, where a high frequency of patients are seen each day. We wanted to compare the outcome of this simple instrument with the results of other studies that used the method of personal structured interviews or questionnaires.1–3

The high response rate and rate of complete questionnaires may have been a result of the separate room, where the patients could take their time, after the gynecologic examination was done, to answer all the questions. To handle the survey in routine care or following studies, the questionnaire could be answered before the gynecologic examination, so that the doctor could talk about any problems with the patient.

Our results were similar to the demographic sample in the study by Laumann et al.1 about adult sexual behavior in the United States. Of our patients, 50% and 48.8% in groups 1 and 2 suffered from FSD, and in the U.S. study, 43% were found. This small difference may have been a result of the older population in our groups or from the anonymous setting. However, we did not find a greater incidence of FSD in the elderly group visiting the urogynecologic ambulatory clinic. The group of younger women in the gynecologic ambulatory clinic had a slightly greater incidence of FSD than the elderly group. This result is consistent with the data generated by the Laumann et al.1 study, in which a greater incidence of sexual problems were noted among young, unmarried women.

The high prevalence of sexually active women may have been a result of our use of a period of 2 years for defining sexual activity. This period was longer than in other surveys.16

As sexual functioning declines with the menopausal transition, we noted a smaller number of women in the older urogynecologic group who were sexually active. However, this declining sexual function seemed to cause no distress in our population because no difference in the frequency of FSD was noted.17 In addition, a statistically significant difference was found in the frequency of sexual intercourse between the two groups. Thus, we may conclude that age or urogynecologic disease is associated with lower sexual activity, which does not mean a greater incidence of FSD. As the difference in the incidence of FSD in the older and younger population was not statistically significant, the result also verifies the outcome of other studies done with a population of patients with and without urinary incontinence and/or pelvic organ prolapse.18–20

A very clear result was that 96% of all patients answered that it was not embarrassing to fill out the questionnaire about their sexual function. This high positive result encouraged us to continue this survey. It also might give us a reference to handle these questions with each patient visiting the gynecologist. Only a few studies have been done about the care of female sexuality during gynecologic or urologic investigations. In a study about sexual counseling, 76% of the gynecologists spoke with their patients about sexual behavior during pregnancy, and only 43% of them did so with their gynecologic patients.21 Most women with sexual problems will first consult their gynecologist, or this complaint may be detected as a hidden comorbidity with another gynecologic problem. The integration of the assessment of, and therapy for, FSD in daily routine care is highly recommended.22,23

The importance of attending to the emotional and relationship context of female patients should be included in an FSD evaluation as well. The evaluation and treatment of FSD should include a psychosexual evaluation and, if needed, patients should be referred to a psychotherapist. De Kruijf et al.24 recommended that the investigation of a subtype of FSD, vaginismus and dyspareunia, should consist of a structured interview or questionnaire, physical examination, and subjective evaluation of the physical examination. A systematic evaluation and treatment work frame for FSD should be developed within the coming years for all patients who have FSD.

CONCLUSIONS

We found no statistically significant difference in the incidence of FSD between the younger patients seeking help in the gynecologic clinic or the older patients seeking help in the urogynecologic outpatient clinic. The incidence of FSD of up to 50% in young and elderly women is a high recommendation for integrating inquiries about female sexual health concerns into routine gynecologic care. Our study results show that most patients will not be embarrassed about answering questions concerning this sensitive issue. The systematic framework of the International Consensus Classification of FSD facilitates the methodologic examination, and a simple survey with a questionnaire according to this classification will produce complete and reliable results.

ACKNOWLEDGMENT. To the Department of Medical Statistics, University of Vienna, for analyzing our data.

REFERENCES