

## Original Article

# Evaluation of Sexual Functions of Married Women: A Case from Istanbul

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### Abstract

**Background:** Female sexual function is an important component for quality of life and is affected by various physiological, psychological and sociocultural factors.

**Aim:** This research was conducted in order to evaluate sexual functions of married women living in Istanbul.

**Method:** This descriptive and cross-sectional type of study was conducted with 417 married women who agreed to participate in the research in a public hospital in Istanbul province between June 2016 and December 2016. Data were collected using the Individual Identification Form and the Female Sexual Function Index (FSFI). Descriptive statistics, student's test, and One-way ANOVA test were used in the evaluation.

**Results:** It was determined that the average age of married women participated in the study was 31.40±6.93 years. In the study, 45.6% of married women were found to have a decrease in sexual function compared to the FSFI cut-off score (<26.55). In addition, the FSFI score average was determined to be 25.84±6.38. Those who were primary school graduates, those with chronic disease, those who had three or more pregnancies and births, those who had a first sexual intercourse age of 18 years or younger and those who had a sexual intercourse once a week were found to have significantly lower scores from the FSFI ( $p<0.05$ ).

**Conclusion:** Nearly half of the subjects had sexual dysfunction. As the education level and the age of first sexual intercourse decreased, as the number of pregnancies and births increased, as the number of sexual intercourse decreased and in case of chronic diseases, sexual functions were found to progress poorly.

**Keywords:** Sexuality; sexual dysfunction; women.

### Introduction

The female sexual function is an important component for quality of life and is affected by various physiological, psychological and sociocultural factors. Sexual dysfunction (SDF) is defined as the condition in which an individual can not experience a sexual relationship that he or she expected in the International Statistical Classification of Diseases and Related Health Problems (ICD-10) published by the World Health Organization (WHO) (Ozerdogan et al., 2009). Female SDF is a common health problem with a tendency to increase in its prevalence with age; however, the prevalence varies among societies (Ozerdogan et al., 2009; Erenel & Kitis, 2011). The most important reason for this difference among the societies is based on the meaning that society attributes on women and sexuality. Our country is a traditional society in which sexuality and sexual issues are not

discussed, sexual health issues are not sufficiently included in the education system, and premarital sexual experience is not acceptable especially by girls (Erenel & Kitis, 2011). It is a fact that there is not enough data on the sexual functions of women in eastern societies with traditional cultural characteristics like ours. However, 49.8% (39,771,221 people) of the population in our country are women. 39% of these women are in the age range of 20-44 years, thus they are in reproductive age (TUIK, 2017). Explanation of sexual problems to women in this age group, directing them to appropriate units, and initiation of treatment are of great importance in increasing the quality of life (Karakoyunlu & Oncel, 2014). In the light of above information, it was aimed to evaluate the sexual functions of married women living in Istanbul, in this study.

## Methodology

**Research Type:** This study is a descriptive and cross-sectional type of study.

### Research Questions

1. What is the sexual function level of married women participated in the study?
2. Do sociodemographic characteristics of married women affect sexual function level?
3. Do obstetrical characteristics and general health status of married women affect sexual function level?

**Research Sample and Universe:** The universe of the research consisted of with 623 married women who applied to obstetrics and gynecology clinic of a public hospital in Istanbul. The research was carried out with 417 married women who applied to the obstetrics and gynecology clinic between June 2016 and December 2016, who were sexually active, literate, not pregnant or puerperal, who did not go through the menopause surgically or naturally, who did not receive hormonal or steroid treatment and who accepted to participate in the research.

### Data Collection Tools and Collection of Data:

In order to collect data for the research, the Individual Identification Form and the Female Sexual Function Index (FSFI) were used. The Individual Identification Form: It was prepared by researchers in line with the literature and consisted of 24 questions in order to obtain information about socio-demographic, obstetric-gynecological characteristics of women. The data were collected with the self-report method in the interview room allocated in the clinic, protecting the privacy of the women. The Female Sexual Function Index (FSFI), which was used in this study to evaluate the sexual functions of the participating women over the past four weeks, was developed by Rosen et al. in 2000 (Rosen et al., 2000). The index is a multidimensional scale that consists of a total of 19 items divided into the following six categories: desire, arousal, lubrication, orgasm, satisfaction, and pain. In this scale, questions 3-14 and 15-19 are scored on a 6-point Likert scale (0-5 points), while the remaining questions are answered on a 5-point likert scale (1-5 points). The index applicable to those, who had sexual intercourse within the last month, is scored negatively; the index score is obtained by multiplying the scores obtained from subdimensions by the factor loads. The maximum possible score for this scale is 36, while the minimum is 2. The validity and

reliability study of the Turkish adaptation of the scale was conducted by the Turkish Society of Andrology (Aygin & Aslan, 2005). The cut-off point for the scale is 26.55; participants with a score of  $\leq 26.55$  are assumed to exhibit a sexual dysfunction (Wiegel et al., 2005).

**Ethical Considerations:** Prior to the initiation of research, permissions (decision no:183397, decision date:23.04.2016) were obtained from the ethics committee of the hospital in which the study was conducted, and written consents of the participants were taken explaining that the participation was based on voluntariness.

**Statistical Analysis:** For statistical analysis, the commercial available software Statistical Package for the Social Sciences v.21.0 (SPSS, Inc., Chicago, IL, USA) was used. In data evaluation; numbers, percentage values, means, student's *t*-test and one way anova techniques were used. The significant level was set a P value  $< 0.05$ .

## Results

The average age of the married women participated in the study was  $31.40 \pm 6.93$ . It was determined that nearly half of the participants (45.1%) were in the age range of 29-39 years and secondary school graduates (42.4%), that more than half were working (51.3%) and that their income was equal to their expenses (51.3%). Very few of the married women (5.5%) were found to have a chronic disease and to use drugs for this (Table.1). The obstetric characteristics of the participants are shown in Table. 2. In the study, 45.6% of the married women were found to have a decrease in sexual function compared to the FSFI cut-off score ( $< 26.55$ ). The lowest and highest scores could be obtained from the FSFI were 2 and 36, respectively and the score average of the scale was  $25.84 \pm 6.38$  (Table. 3). The sexual function status of the married women participated in the study were evaluated in terms of socio-demographic characteristics such as level of education, working status, economic status and marriage duration (Table. 4). Statistically, there was no significant difference found in terms of characteristics besides the level of education ( $p > 0.05$ ). It was determined that married women who were primary school graduates had statistically lower FSFI scores than women who were secondary school and higher education graduates ( $p < 0.05$ ). When the sexual function status of married women was examined in terms of general health status and obstetric characteristics, it was found that married women

who had a chronic disease and who were continuously using drugs for it had significantly lower scores from the FSFI ( $p < 0.05$ ). On the other hand, it was observed that FSFI score averages of married women who experienced three or more pregnancies and births were statistically lower than that of women who experienced one or two pregnancy(ies) and birth(s) ( $p < 0.05$ ). In the research, the sexual function status of the married women was evaluated in terms of characteristics related to sexual health such as the age of first sexual intercourse, and frequency of sexual intercourse.

FSFI scores of married women who had the age of first sexual intercourse of 18 and younger were statistically lower than that of women who had the age of first sexual intercourse between 19-24 years; however, no difference was found when compared with women who had the age of first sexual intercourse of 25 and older ( $p > 0.05$ ). It was found that FSFI scores of women who had sexual intercourse once a week, were significantly lower than that of women who had sexual intercourse 2, 3 and more times a week ( $p < 0.05$ ) (Table. 4).

**Table. 1 Descriptive characteristics of the participants**

|                             | Number (n) | Percentage (%) |
|-----------------------------|------------|----------------|
| <b>Age</b>                  |            |                |
| 18-28 years                 | 162        | 38.8           |
| 19-39 years                 | 188        | 45.1           |
| ≥40 years                   | 67         | 16.1           |
| <b>Education</b>            |            |                |
| Primary school              | 90         | 21.6           |
| Secondary/High school       | 177        | 42.4           |
| University                  | 150        | 36.0           |
| <b>Employment Status</b>    |            |                |
| Employed                    | 223        | 53.5           |
| Unemployed                  | 194        | 46.5           |
| <b>Economic status</b>      |            |                |
| Bad                         | 148        | 35.5           |
| Moderate                    | 214        | 51.3           |
| Good                        | 55         | 13.2           |
| <b>Family Type</b>          |            |                |
| Nuclear family              | 359        | 86.1           |
| Large family                | 58         | 13.9           |
| <b>Chronic disease</b>      |            |                |
| Yes                         | 23         | 35.5           |
| No                          | 394        | 94.5           |
| <b>Regular medicine use</b> |            |                |
| Yes                         | 23         | 35.5           |
| No                          | 394        | 94.5           |

**Table. 2 Descriptive obstetrics characteristics of the participants**

| Variables                       | Mean  | ±SD    | Min.- Max |
|---------------------------------|-------|--------|-----------|
| Duration of Marriage (years)    | 9.20  | ±7.81  | 1-35      |
| Age of first sexual intercourse | 21.93 | ±3.98  | 13-38     |
| Number of pregnancies (n=351)   | 2.11  | ±1.44  | 1-13      |
| Number of births (n=330)        | 1.87  | ± 1.12 | 1-9       |
| Number of abortion (n=64)       | 1.23  | ±0.58  | 1-4       |
| Number of miscarriages (n=66)   | 1.21  | ±0.44  | 1-3       |
| Sexual frequency (per week)     | 2.33  | ±1.34  | 1-12      |

SD = Standard deviation

**Table. 3 Participants Distribution by FSFI Scale Score**

| FSFI Total and Subdimension Variable | $\bar{X}$  | $\pm$ SD       | Min.             | Max. |
|--------------------------------------|------------|----------------|------------------|------|
| Desire                               | 3.72       | 1.04           | 1.20             | 6.0  |
| Arousal                              | 4.04       | 1.30           | 0                | 6.0  |
| Lubrication                          | 4.60       | 1.32           | 0                | 6.0  |
| Orgazm                               | 4.29       | 1.41           | 0                | 6.0  |
| Satisfaction                         | 4.54       | 1.28           | 0,80             | 6.0  |
| Pain                                 | 4.62       | 1.60           | 0                | 6.0  |
| FSFI Total                           | 25.84      | 6.38           | 2                | 36   |
| FSFI* cut-off score                  | Number (n) | Percentage (%) | Mean $\pm$ SD    |      |
| <26.55 (Sexual dysfunction)          | 190        | 45.6           | 20.59 $\pm$ 5.67 |      |
| $\geq$ 26.55 (No sexual dysfunction) | 227        | 54.4           | 30.23 $\pm$ 2.36 |      |

SD = Standard deviation. \* FSFI total score of 26.55 to be the optimal cut score for differentiating women with and without sexual dysfunction. Low FSFI score” was defined as an adjusted FSFI cut-off below 26.55 which could be a sign of sexual complaints. FSFI score above 26.55 was defined as a “High FSFI score”.

**Table-4 : Distribution of FSFI scale mean scores according to some variables**

| Variables                                      | FSFI Mean $\pm$ SD                              | Statistical Analysis                 |
|--|---|--------------------------------------|
| p  |   |                                      |
| <b>Socio-demographic variables</b>             |   |                                      |
| Age  | $\leq$ 28 years (n:162)                         | 23.24 $\pm$ 5.83                     |
|  | 29-39 years (n:188)                             | 26.04 $\pm$ 6.24                     |
|  | $\geq$ 40 years (n:67)                          | 24.30 $\pm$ 7.79                     |
|  |   | F=1.378<br>p=0.094                   |
| Education status                               | Primary school <sup>a</sup> (n:90)              | 23.12 $\pm$ 6.52                     |
|  | Secondary/High school <sup>b</sup> (n:177)      | 26.26 $\pm$ 5.67                     |
|  | University <sup>c</sup> (n:150)                 | 26.98 $\pm$ 6.67                     |
|  |   | F=11.449<br><b>p=0.000*</b><br>b,c>a |
| Employment status                              | Employed (n:223)                                | 26.34 $\pm$ 6.74                     |
|  | Unemployed (n:194)                              | 25.27 $\pm$ 5.91                     |
|  |   | t=1.711<br>p=0.088                   |
| Economic status                                | Bad (n:148)                                     | 25.65 $\pm$ 6.68                     |
|  | Moderate (n:214)                                | 26.24 $\pm$ 5.99                     |
|  | Good (n:55)                                     | 24.80 $\pm$ 6.99                     |
|  |   | F=1.210<br>p=0.299                   |
| Duration of Marriage (years)                   | $\leq$ 7 years (n:223)                          | 26.09 $\pm$ 6.14                     |
|  | >7 years (n:194)                                | 25.55 $\pm$ 6.65                     |
|  |   | t=0.849<br>p=0.397                   |
| <b>General Health and Obstetrics Condition</b> |   |                                      |
| Chronic disease                                | Yes (n:23)                                      | 20.83 $\pm$ 7.94                     |
|  | No (n:394)                                      | 26.13 $\pm$ 6.17                     |
|  |   | t=-3.940<br><b>p=0.000*</b>          |
| Regular medicine use                           | Yes (n:23)                                      | 20.83 $\pm$ 7.94                     |
|  | No (n:394)                                      | 26.13 $\pm$ 6.17                     |
|  |   | t=-3.940<br><b>p=0.000*</b>          |
| Numbers of pregnancies (n=351)                 | One pregnancy <sup>a</sup> (n:140)              | 26.38 $\pm$ 6.32                     |
|  | Two pregnancies <sup>b</sup> (n:100)            | 26.80 $\pm$ 5.77                     |
|  | Tree and over pregnancies <sup>c</sup> (n:111)  | 24.16 $\pm$ 6.18                     |
|  |   | F=4.572<br><b>p=0.011*</b><br>a,b>c  |
| Numbers of births (n=330)                      | One birth <sup>a</sup> (n:150)                  | 26.37 $\pm$ 6.36                     |
|  | Two birthsb (n:120)                             | 26.68 $\pm$ 5.25                     |
|  | Tree and over birthsc (n:60)                    | 23.14 $\pm$ 6.70                     |
|  |   | F=7.683<br><b>p=0.001*</b><br>a,b>c  |
| <b>Sexual Health</b>                           |   |                                      |
| Age of first sexual intercourse                | $\leq$ 18 years <sup>a</sup> (n:88)             | 24.28 $\pm$ 6.32                     |
|  | 19-24 years <sup>b</sup> (n:217)                | 26.67 $\pm$ 5.99                     |
|  | $\geq$ 25 years <sup>c</sup> (n:112)            | 25.46 $\pm$ 6.93                     |
|  |   | F=4.755<br><b>p=0.009</b><br>b>a     |
| Sexual freagueny (per week)                    | Once a week <sup>a</sup> (n:130)                | 22.45 $\pm$ 7.24                     |
|  | Twice a week <sup>b</sup> (n:116)               | 26.50 $\pm$ 5.68                     |
|  | Tree times a week and over <sup>c</sup> (n:171) | 27.97 $\pm$ 4.94                     |
|  |   | F=32.770<br><b>p=0.000*</b><br>b,c>a |

FSFI= Female Sexual Function Index, t:student' s t test, F:One-Way Anova , \*p<0.05

## Discussion

In this study, the sexual functions of married women living in Istanbul were questioned using FSFI and the relationship between FSFI scores and various demographic parameters was examined. In the study, it was determined that 45.6% of the women had a decrease in sexual function compared to FSFI cut-off score (<26.55). In studies conducted in different regions of Turkey, Ege et al., (2010) have determined sexual dysfunction in 45.6% of women, Güvel et al., (2003) in 38%, Oksuz & Malhan (2006) in 48.3%, Karakoyunlu & Oncel (2014) in 23.3%, Aslan et al., (2008) in 43.4% and Demir et al., (2007) in 28.6% (Ege et al., 2010; Güvel et al., 2003; Oksuz & Malhan, 2006; Karakoyunlu & Oncel, 2014; Aslan et al., 2008; Demir et al., 2007). Given literature examples support our study results and show that sexual dysfunction is a common problem among women in Turkey. When the sexual function status of married women participated in the study was compared with some sociodemographic characteristics, statistically there was no significant difference found in terms of characteristics besides the level of education ( $p>0.05$ ). Accordingly, FSFI scores of women who were primary school graduates were lower than women with higher educational level ( $p<0.05$ ). Like in studies conducted in Turkey by, it has been determined that lower level of education increases the risk of experiencing sexual dysfunction (Ege et al., 2010; Tashbulatova et al., 2013; Karakoyunlu & Oncel, 2014; Erenel & Kitis, 2011; Ozerdogan et al., 2009; Aslan et al., 2008). This situation is associated with the fact that as the level of education of married women increases, they become more entrepreneurial in cases such as requesting support from spouses and requesting professional assistance. In the study, it was found that women who had a chronic disease and who were continuously using drugs for it had significantly lower scores from the FSFI ( $p<0.05$ ). Tashbulatova et al., (2013) have reported that sexual dysfunction increased by two fold in women who were receiving infertility treatment and who were depressed compared to those who were not receiving infertility treatment and were not depressed, Demir et al., (2007) have stated that women with lower urinary tract symptoms had lower FSFI scores compared to women without symptoms despite the fact that they were at similar ages, Odabaş, (2017) has

found that FSFI scores of the women with tension-type headache were significantly lower than that of the control group, Erturan et al., (2014) have found that the rate of sexual dysfunction in women with Behçet's disease was significantly higher in the patient group (81.8%) than in the healthy control group (45.9%), Ozerdogan, et al., (2009) have reported that scale score average among women who had a chronic disease such as high blood pressure, thyroid and who were using drug was low (Tashbulatova et al., 2013; Demir et al., 2007; Odabaş, 2017; Erturan et al., 2014; Ozerdogan et al., 2009). Literature examples support our study findings. In the study, FSFI score averages of women with tree and more pregnancies and births were found to be low. In studies conducted by Ozerdogan et al., (2009) and Karakoyunlu & Oncel (2013) FSFI score averages were found to be significantly lower in married women with 3 and more births (Ozerdogan et al., 2009; Karakoyunlu & Oncel, 2013). However, in the study conducted by Guvel et al. (2003), multiparity was not found to be associated with sexual dysfunction (Guvel et al., 2003). In the study, FSFI score averages of those who had the first sexual intercourse age of 18 or younger were found to be significantly low. In the study conducted by Ozerdogan et al., (2009), it has been found that as the age of first marriage increased, the incidence of SDF decreased significantly (Ozerdogan et al., 2009). This is considered to be an important finding showing that sexual experiences in childhood have a negative effect on the female sexual life in older ages. In addition, FSFI scores of married women who had sexual intercourse once a week were found to be significantly lower than that of married women who had sexual intercourse more frequently. This suggests that there is a significant relationship between SDF and the frequency of sexual intercourse.

**Conclusion:** In the study, nearly half of the married women were found to have sexual dysfunction. As the education level and the age of first sexual intercourse decreased, as the number of pregnancies and births increased, as the number of sexual intercourse decreased and also in the case of chronic diseases and continuous use of drugs, sexual functions were found to progress poorly.

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