Araştırma Makalesi / Research Article
doi: 10.18678/dtfd.593920

Düzce Tıp Fakültesi Dergisi / Duzce Medical Journal
2019;21(3):172-176

Evaluation of Factors Affecting Sexual Functions and Contraceptive Method Preferences of Women

Kadınların Cinsel Fonksiyonlarını Etkileyen Faktörlerin ve Kontraseptif Yöntem Tercihlerinin Değerlendirilmesi

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Geliş Tarihi / Received : 18.07.2019
Kabul Tarihi / Accepted : 05.11.2019
Çevrimiçi Yayın Tarihi / Available Online : 08.11.2019

ABSTRACT

Aim: Sexual function is a complex process that is influenced by physical, biological and emotional factors. The use of contraception is very common among women and can affect women's sexual functions in various ways. The aim of this study was to investigate of factors affecting sexual functions and contraceptive method preferences of women.

Material and Methods: The study was planned in cross-sectional descriptive pattern and women between the ages of 18-49 who were not in menopause and who used contraception were included in the study. Sociodemographic data form and Female Sexual Function Index (FSFI) were used to collect data. The independent effects of different determinants on sexual dysfunction were evaluated by logistic regression analysis model.

Results: In this study, 45.5% of women were found to have sexual dysfunction (FSFI score <26.55). Logistic regression analysis of sexual dysfunction revealed that using modern contraceptive methods (OR= 0.393, 95% CI 0.191-0.808) and considering that the income was adequate (OR= 0.405, 95% CI 0.211-0.780) were found to be protective factors, while presence of chronic disease (OR= 2.639, 95% CI 1.074-6.481), vaginal discharge (OR= 2.121, 95% CI 1.130-3.937) and self-decision on method of contraception by herself (OR= 3.331, 95% CI 1.471-7.543) were found to be risk factors.

Conclusion: The use of modern contraceptive methods can protect women from sexual dysfunction when compared to traditional contraceptive methods. If the method of contraception used by women is learned and the directions they need are made, their sexual life and quality of life can be improved.

Keywords: Contraception; female; sexuality.

ÖZ

Amaç: Cinsel fonksiyon fiziksel, biyolojik ve duygusal pek çok faktörden etkilenen karmaşık bir süreçtir. Gebelikten korunma yöntemi kullanımı kadınlar arasında oldukça yaygındır ve kadınların cinsel fonksiyonlarını çeşitli yollarla etkileyebilmektedir. Bu çalışmanın amacı kadınların cinsel fonksiyonlarını etkileyen faktörleri ve gebelikten korunma yöntemi tercihlerini araştırmaktır.

Gereç ve Yöntemler: Çalışma kesitsel tanımlayıcı desende planlandı ve 18-49 yaş arasında, menopozda olmayan ve gebelikten korunma yöntemi kullanan kadınlar çalışmaya dahil edildi. Çalışmada veri toplamak amacı ile sosyodemografik veri formu ve Kadın Cinsel Fonksiyon İndeksi (Female Sexual Function Index, FSFI) kullanıldı. Farklı belirleyicilerin cinsel işlev bozukluğu üzerindeki bağımsız etkileri lojistik regresyon analiz modeli ile değerlendirildi.

Bulgular: Bu çalışmada kadınların %45,5'inin cinsel fonksiyon bozukluğu (FSFI skoru <26,55) yaşadığı bulundu. Cinsel fonksiyon bozukluğu üzerine oluşturulan lojistik regresyon analizinde, modern korunma yöntemi kullanmanın (OR= 0,393; %95 GA 0,191-0,808) ve gelirinin yeterli olduğunu düşünmenin (OR= 0,405; %95 GA 0,211-0,780) koruyucu faktörler olduğu bulunurken; kronik hastalık varlığı (OR= 2,639; %95 GA 1,074-6,481), vajinal akıntı (OR= 2,121; %95 GA 1,130-3,937) ve korunma yöntemine kendi kendine karar vermenin (OR= 3,331; %95 GA 1,471-7,543) ise risk faktörleri olduğu bulundu.

Sonuç: Geleneksel korunma yöntemleri ile kıyaslandığında, modern korunma yöntemleri kullanılması kadınları cinsel fonksiyon bozukluğundan koruyabilir. Kadınların gebelikten korunma yöntemi tercihleri öğrenilerek ihtiyaç duydukları yönlendirmeler yapılır ise cinsel hayatları ve yaşam kaliteleri iyileştirilebilir.

Anahtar kelimeler: Kontrasepsiyon; kadın; cinsellik.

INTRODUCTION

According to the World Health Organization, sexual health is the physical, mental and social fullness of sexuality, and everyone has the right to reach out sexual information and to experience sexual intercourse for enjoyment or for breeding purposes (1). To be able to talk about complete sexual health, sexual functions must be fully functioning (2). Sexual function is a complex process which is affected by psychosocial factors such as family, social relations and religious beliefs as well as neurologic, endocrine and vascular systems (2). Sexual dysfunction is defined as the deterioration of one or more of the components of sexual desire, arousal, orgasm, and pain in the sexual response cycle, and approximately 41% of women worldwide experience sexual dysfunction (3). Factors such as lifestyle habits, urogenital and obstetric complaints and the presence of chronic diseases may cause sexual dysfunctions of female (3).

Use of contraception is necessary for the continuation of sexual activity in cases where pregnancy is not desired (4). Women can use traditional and modern contraceptive methods to prevent pregnancy (5). Contraceptive methods have many side effects such as changes in mood-state, changes in the amount of menstrual bleeding (4). These side effects can cause women to abandon the method of contraception. However, the effect of the contraceptive method on sexual function can be neglected by the patients and also by the healthcare professionals who offer both the method and the service (4).

In general, it is believed that the use of a contraceptive method has a positive effect on sexual function since it eliminates the fear of being pregnant (4). Contraception methods cause hormonal and physical changes and it is thought that this may adversely affect sexual function (4). In the literature, there are very few studies examining the difference between traditional and modern contraceptive methods in terms of their effects on female sexual function and the subject is still unclear (6). In particular, combined oral contraceptive pills (COCP) can cause vaginal dryness and cause pain in coitus, and not using contraceptive methods may adversely affect sexual function because of the concern of pregnancy (5).

Sexual function is an important factor that determines the physical, emotional and social integrity of human being since it is a sexual entity (7). Considering the widespread use of contraceptive methods, it deserves to examine the effects on sexual function in more detail (7). The aim of this study was to investigate the factors affecting sexual functions and contraceptive method preferences of women.

MATERIAL AND METHODS

This study in the cross-sectional design was conducted between 01.04.2017 and 01.06.2017 at the Reproductive Health Clinic of Izmir Katip Celebi University Atatürk Training and Research Hospital, Obstetrics and Gynecology Department. The study included women aged between 18-49 year, who were sexually active in last month and were not in the menopause period and protected from pregnancy by any means of contraception method. Patients with thyroid dysfunction, psychiatric disease, malignancy, active infection, pregnancy and hormone therapy for any reason were not included in the study. The presence of these diseases and treatments that stated by patients who were not included in the study were checked from the computer system with the verbal consent of the patients.

The number of female patients between the ages of 15-49 who were admitted to the reproductive health clinic and were sexually active and suitable for the inclusion criteria was 10 women per day. For the 2-months period during data were collected, the study population was accepted as 400 women. The study sample size to be achieved was calculated as at least 197 women with the 95% confidence level and the margin of error of 5%, incidence of sexual dysfunction taken as 48% based on a stated ratio in a previous study conducted in Turkey (7). Ethics committee approval was obtained from Izmir Katip Celebi University Non-invasive Ethics Committee on March 22, 2017, with decision number 62.

Data Collection Tools

In order to collect data, sociodemographic data form consisting of 33 questions prepared by the researchers and Female Sexual Function Index (FSFI) were used. In the sociodemographic characteristics, age was divided into three groups as 30 years and under, 30-39 years and 40 years and above because of some studies indicate that women in these age groups experience different sexual dysfunctions (3). Three groups according to the educational status (primary and lower, middle and high school, university and higher), two groups according to marital status (single and married), two groups according to income level perception (sufficient and insufficient), two groups according to the presence of chronic disease (yes and no), four groups according to the type of delivery is given to (nulliparous, normal vaginal birth, cesarean section and both normal vaginal birth and cesarean section), and the decide on the contraception method was divided into three groups (partner, with her partner, and herself). The patients were divided into two groups as those using traditional contraception methods and using modern contraception methods. The methods of hormonal contraception (COCP, injected contraceptives, subcutaneous implants, intrauterine devices (IUD), and barrier methods (condom, diaphragm, and spermicides) considered as modern contraception and the coitus interruptus (withdrawal or pull-out method) and calendar method considered as traditional methods.

Female Sexual Function Index (FSFI)

FSFI is a 19-items likert-type scale used to measure the sexual function of women. The Turkish validity and reliability study of the FSFI was conducted by Oksuz and Malhan in 2005 (8). In the Turkish version, the Cronbach Alpha coefficient of the scale was 0.95 and the test-retest reliability was 0.75-0.95. The scale consists of six items: desire, arousal, lubrication, orgasm, satisfaction, and pain. Each item is scored between 0 or 1 to 5. The lowest score is 2 and the highest is 36. The FSFI total score below 26.55 is indicative of sexual dysfunction. The presence of a score of 26.55 and above indicates normal sexual function (9).

Statistical Analysis

Data were summarized as mean±standard deviation or numbers and percentage. In univariate analyses, categorical data were evaluated using the Pearson chi-square test followed by post hoc Bonferroni method. The independent effects of different determinants on sexual

dysfunction were analyzed by multiple logistic regression analysis model with Backward method. The relationship between dependent variable sexual dysfunction and independent variables that will be included in the model was evaluated separately and the determinants of p≤0.250 were included in the regression model (10). Age and marital status were added to the regression model as they were the main factors that could affect sexual function. Statistical analyses of the data were done by using SPSS 16 package program and p values below 0.05 were considered statistically significant.

RESULTS

A total of 253 women were invited to the study. Since 32 patients did not want to answer questions related to their sexual function and 19 patients refused to participate in the study due to other reasons (lack of time or unwilling to participate in any study, etc.), the study was completed with a total of 202 women.

The mean age of the women who participated in the study was 31.96±7.05 years. Of the patients, 48.5% (n=98) had a university or higher education level. Of the patients, 95.0% (n=192) were married. While 24.3% (n=49) of the patients were using traditional contraception methods, 75.7% (n=153) were using modern contraception methods. While 45.5% (n=92) of the women participated in the study had sexual dysfunction, 54.5% (n=110) had normal sexual function.

There was no significant relationship between socio-demographic characteristics and the choice of contraceptive methods, except deciding on the method (Table 1). It was found that women who decided to contraceptive method with her partner (69.7%, n=101) or by herself (94.6%, n=35) used modern contraceptive methods more frequently than traditional contraceptive methods (p=0.004).

In univariate analysis, significant relationship was found between sexual dysfunction and income level perception, and sexual dysfunction and presence of vaginal discharge. It was found that 60.0% (n=36) of women who thought that her income was insufficient had sexual dysfunction, while 39.4% (n=56) of women who thought that her income was sufficient had sexual dysfunction (p=0.007). In terms of vaginal discharge, 52.0% (n=64) of women with vaginal discharge had sexual dysfunction and 35.4% (n=28) of women without vaginal discharge experienced sexual dysfunction (p=0.021). There was no relationship between sexual function and other socio-demographic characteristics such as age, education level, marital status, presence of chronic disease (Table 2).

Logistic regression analysis model with backward elimination method was found to be significant (p<0.001), and the number of variables remaining in the model was five at last step. According to the logistic regression analysis results, income sufficiency (OR= 0.405, 95% CI 0.211-0.780) and using modern contraception method (OR= 0.393, 95% CI 0.191-0.808) are protective factors against sexual dysfunction. Also presence of chronic disease (OR= 2.639, 95% CI 1.074-6.481), presence of vaginal discharge (OR= 2.121, 95% CI 1.130-3.937) and decide on the method of contraception by patient's herself (OR= 3.331, 95% CI 1.471-7.543) were found to be risk factors for sexual dysfunction (Table 3).

DISCUSSION

In this study, factors affecting on female sexual functions and women's contraceptive method preferences was investigated. At the end of our study, we have concluded that protection against pregnancy with modern contraceptive methods, protects women from the risk of sexual dysfunction. We found that low-income level, the presence of chronic disease, the presence of vaginal discharge, and making the decision on contraceptive method by herself, had negative effect on sexual function.

In our study, 24.3% of women were using a traditional contraception method and 75.7% of them were using a modern method. The frequency of married women using traditional methods in Turkey according to the Demographic and Health Survey conducted in Turkey in 2013 was found to be 26% and is similar with the results of our study (11). The frequency of contraception with the traditional method across the world varies between 20-40% and is most commonly used in North Africa and West Asia (12). As the accessibility to modern contraceptive methods increases, the frequency of traditional contraceptive method decreases (12,13).

Sexual dysfunction was detected in 45.5% of the women who participated in our study. According to the literature, the frequency of female sexual dysfunction in Turkey ranges from 40 to 60% (7,14). In the study of Oksuz et al. (7), the frequency of female sexual dysfunction was found to be 48.3% and in Koseoğlu et al's (14) studies, it was 57.1%. In the world, female sexual dysfunction is seen with a frequency of 30-60% (15,16). Sexual dysfunction adversely affects the quality of life and lives of individuals (3). For this reason, it will be useful for patients to investigate the causes of the prevalence of sexual dysfunction and to develop treatment options for the causes.

In this study, it was found that the prevalence of sexual dysfunction was higher in women with a perception of inadequate income, chronic disease, and vaginal discharge. In the studies of Yanıkkerem et al. (17), it was found that low-income level increased the risk of sexual dysfunction. The insufficiency of income makes the living conditions of people difficult and increases the level of stress, and this is thought to negatively affect sexual desire and sexual function in women (17). Also, Zsoldos et al. (18) showed in their studies that the presence of chronic disease negatively affects sexual function. The presence of chronic disease brings with it the symptoms and complications related to the disease and also the undesirable side effects associated with the drugs used for treatment. Considering the psychological burden of each diagnosed chronic disease, all these factors may have a negative effect on sexual function.

Vaginal discharge is one of the most common causes of referral to the gynecology outpatient clinic of women. Vaginal discharge has various causes such as vaginitis and cervicitis and women have symptoms such as itching and pain along with the discharge (19). In a review of the literature, it is stated that genitourinary problems negatively affect female sexual functions (3). Diseases associated with vaginal discharge, additional symptoms associated with these diseases, and concerns about women's urogenital health and hygiene may adversely affect sexual functions.

Table 1. Effect of sociodemographic characteristics on contraceptive method selection

Sociodemographic characteristics	Traditional (n=49)	Modern (n=153)	p
Age			
<30 years	21 (42.9)	77 (50.3)	
30-39 years	19 (38.8)	53 (34.6)	0.649
>39 years	9 (18.4)	23 (15.0)	
Educational status			
Primary and lower	10 (20.4)	22 (14.4)	
Middle and high	18 (36.7)	54 (35.3)	0.552
University and higher	21 (42.9)	77 (50.3)	
Marital status			
Single	0 (0.0)	10 (6.5)	0.122
Married	49 (100)	143 (93.5)	
Current relationship			
<5 years	29 (59.2)	66 (43.1)	
5-10 years	8 (16.3)	47 (30.7)	0.087
>10 years	12 (24.5)	40 (26.1)	
Income level perception			
Insufficient income	13 (26.5)	47 (30.7)	0.577
Sufficient income	36 (73.5)	106 (69.3)	
Presence of chronic disease			
No	42 (85.7)	133 (86.9)	0.828
Yes	7 (14.3)	20 (13.1)	
Type of delivery			
Nulliparous	17 (34.7)	33 (21.5)	
Normal vaginal birth	15 (30.6)	49 (32.0)	0.283
Cesarean section	14 (28.6)	57 (37.3)	
Both (normal + cesarean)	3 (6.1)	14 (9.2)	
Deciding the method			
Partner	3 (6.1)[a]	17 (11.1)[a]	
With her partner	44 (89.8)[a]	101 (66.0)[b]	**0.004**
Herself	2 (4.1)[a]	35 (22.9)[b]	

Table 3. Logistic regression analysis on sexual dysfunction

Determining Factors	OR	%95 CI	p
Sufficient income	0.405	0.211-0.780	**0.007**
Presence of chronic disease	2.639	1.074-6.481	**0.034**
Presence of vaginal discharge	2.121	1.130-3.937	**0.019**
Deciding the method herself	3.331	1.471-7.543	**0.004**
Modern contraceptive method	0.393	0.191-0.808	**0.011**

OR: Odds ratio, CI: Confidence Interval

Table 2. Results of univariate analysis on sexual dysfunction

Determining Factors	Sexual Dysfunction		p
	Present (n=92)	None (n=110)	
Age			
<30 years	41 (44.6)	57 (51.8)	
30-39 years	33 (35.9)	39 (35.5)	0.363
>39 years	18 (19.6)	14 (12.7)	
Educational status			
Primary and lower	18 (19.6)	14 (12.7)	
Middle and high	35 (38.0)	37 (33.6)	0.217
University and higher	39 (42.4)	59 (53.6)	
Marital status			
Single	5 (5.4)	5 (4.5)	0.772
Married	87 (94.6)	105 (95.5)	
Income level perception			
Insufficient income	36 (39.1)	24 (21.8)	**0.007**
Sufficient income	56 (60.9)	86 (78.2)	
Presence of chronic disease			
No	75 (81.5)	100 (90.9)	0.051
Yes	17 (18.5)	10 (9.1)	
Drug use			
No	83 (90.2)	105 (95.5)	0.144
Yes	9 (9.8)	5 (4.5)	
Smoke			
No	62 (65.4)	72 (65.5)	0.772
Yes	30 (32.6)	38 (34.5)	
Alcohol use			
No	83 (90.2)	95 (86.4)	0.399
Yes	9 (9.8)	15 (13.6)	
Presence of vaginal discharge			
No	28 (30.4)	51 (46.4)	**0.021**
Yes	64 (69.6)	59 (53.6)	
Type of delivery			
Nulliparous	20 (21.7)	30 (27.2)	
Normal vaginal birth	35 (38.0)	29 (26.4)	0.133
Cesarean section	27 (29.3)	44 (40.0)	
Both (normal + cesarean)	10 (11.0)	7 (6.4)	
Deciding the method			
Partner	10 (10.9)	10 (9.1)	
With her partner	59 (64.1)	86 (78.2)	0.059
Herself	23 (25.0)	14 (12.7)	
Contraceptive method			
Traditional	27 (29.3)	22 (20.0)	0.123
Modern	65 (70.7)	88 (80.0)	

In our study, there was no relationship between sexual dysfunction and age, education level, marital status, and alcohol use and smoke. In the systematic reviews of McCool-Myers et al. (3) related to the factors that may cause sexual dysfunction, the relationship between sexual dysfunction and age, educational status, marital status, and alcohol use and smoke was stated as not certain. Since the sexual function may be affected by many physical and emotional conditions, it would be more useful to evaluate the effects of the risk factors investigated on sexual function in multivariate analyses.

In our study, deciding by herself to which contraception method to use, determined as a risk factor for sexual dysfunction. In their study, Wallwiener et al. (20) concluded that emotional intimacy and long-term relationship with sexual partner positively affect sexual function. Deciding together with the partner in the method of contraception may be part of the emotional closeness between the couple. In addition, taking an important decision together with the partner, such as the decision to protecting against pregnancy, may make women feel more comfortable and this may have a positive impact on their sexual experience (20).

At the end of our study, we found that modern contraceptive methods protect women from sexual dysfunction. The number of studies investigating the effect of contraceptive methods on sexual function is quite limited in the literature. There was no significant difference in terms of sexual dysfunction in the study of Koseoğlu et al. (14) comparing the women who use IUDs and who do not use any methods. It is known that every contraceptive method may have different characteristics that affect the sexual function (pelvic pain in the use of IUD, tension, and anxiety in the use of COCP and etc.)

(14,21). Since using a traditional method of contraception means not to use a medical method (eg, COC, IUD, subcutaneous implant, etc.), it may increase the anxiety about unexpected pregnancies and this may adversely affect sexual function.

Limitations

It is a limitation that the study is conducted only on patients who apply to a tertiary care facility. Investigation of the effects of the protection methods used by the women in their daily lives on the sexual functions of the other health care providers will contribute to the elucidation of the issue. Another limitation of the study was that the data were collected only from a tertiary care hospital. For this reason, the data we achieved at the end of the study that shows the relationship between methods of protection and sexual dysfunction may not be enough in a statement for Turkey in general.

CONCLUSION

As a result of our study, the use of modern contraceptive method protects women from sexual dysfunction; low-income level, the presence of chronic disease, the presence of vaginal discharge, and making the decision on contraceptive method by herself were found to increase the risk of sexual dysfunction. In order to protect women from sexual dysfunction, it might be more beneficial to protect them from pregnancy through modern contraceptive methods. The question of whether the women who apply to the health institution for any reason, the methods of contraception, the problems with the method and especially how they affect their sexual lives and offering solutions to them will positively affect the lives of the patients.

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