ORIGINAL ARTICLE

The effect of treatment on sexual satisfaction in patients with polycystic ovary syndrome referred to the clinic of Kosar Hospital in Semnan, 1397

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ABSTRACT

Introduction: Polycystic ovary syndrome is a common disorder and its clinical symptoms can affect sexual function. It seems that the effect of treatment on the sexual satisfaction of these patients has not been studied so far. This study was designed to investigate the effect of treatment on the sexual satisfaction of women with PCOD.

Materials and Methods: In the present cross-sectional descriptive-analytic study, 100 patients with polycystic ovaries including two treated and non-treated groups, who referred to the endocrinology clinic of Kosar Hospital in Semnan, were studied.

Results: The mean and standard deviation of the score of sexual satisfaction was 12.62 ± 9.33, and there was no significant relationship between treatment and sexual satisfaction, as well as age, marriage, duration of diagnosis of the disease affecting the sexual satisfaction of patients (p <0/05). In addition, there was no significant relationship between marital satisfaction and age, also, there was no significant relationship with the increase in educational qualification, occupation of patients and their place of residence.

Conclusion: Considering the importance of sexual satisfaction in women, which helps to strengthen the foundation of the family, and due to the lack of a significant relationship between treatment and sexual satisfaction, treatment does not seem vital to increase sexual satisfaction and should not be considered as a method to increase sexual satisfaction, and it should only be used to improve fertility.

Key words: Polycystic ovary syndrome, Sexual satisfaction

INTRODUCTION

Polycystic ovary syndrome (PCOS) is a form of ovarian hyperandrogenism. Impairment of androgen production by the ovaries is evident in adolescence, but has its roots in childhood or even in the fetal period [1]. PCOS affects 6-8% of women of childbearing age and is a common cause of approximately 75% of infertility due to anovulation [2].

The prevalence of PCOS has been reported from 4 to 25% depending on the definition used [3]. The prevalence of this complication according to Rotterdam criteria in Iran has been reported to be 14.6% [4].

PCOS is one of the most common endocrine disorders, affecting one in 15 women worldwide [5]. This syndrome is manifested by various clinical manifestations such as amenorrhea, dysfunctional uterine bleeding, ovulation, and obesity [6]. However, PCOS has no effect on the abortion rate [7]. In addition to infertility, PCOS is associated with insulin resistance, hyperinsulinemia, and hyperandrogenism [2]. Most patients with this syndrome are obese and have insulin resistance and 46% of them have all the indicators of metabolic syndrome [8].

The prevalence of PCOS is increasing along with obesity [9]. Polycystic ovary syndrome is a multifactorial disorder that results from the interaction of genetic and environmental disorders [10]. The exact cause is not completely known, but it is a hormonal disorder that is associated with increased androgen and decreased function of the reproductive system [11]. Also, due to impaired glucose tolerance, the risk of type 2 diabetes, abnormal increase in blood lipids, high blood pressure, and cardiovascular diseases, increases in these patients [12]. Since polycystic ovary syndrome is a chronic disease and due to having different symptoms, it affects different aspects of people's lives [13].

Mood disorders and drug treatments make these people vulnerable in terms of sexual function. Following physical, physiological, and psychological changes, women with polycystic ovary syndrome experience reduced quality of life, lack of self-confidence, impaired social relationships, and impaired marital and sexual function [6, 13-15]. Usual treatments for this disease include lifestyle changes with increased exercise and weight loss, drug treatments such as metformin for type 2 diabetes problems in patients, treatment of hirsutism, treatment of infertility of patients, and surgical treatments [16]. Infertility, which is one of the associated consequences of polycystic ovary syndrome, is known as a stressful factor in the lives of affected couples that can have negative effects on their quality of life, marital relationships, and sexual function [17].

The effect of polycystic ovary syndrome on sexual function has been studied in few studies. Hahn et al. showed that symptoms commonly associated with PCOS impair sexual function, [18] while others reported similar sexual function scores in women with and without PCOS. Contrary to the effect of PCOS symptoms on women's identity, studies have shown that the social and individual conditions of people depend on their cultural and religious backgrounds [17, 19-22]. However, if polycystic ovary syndrome is a common disorder and its clinical symptoms can affect sexual function, the studies in this regard are scarce. On the other hand, researchers believe that the different prevalence of sexual dysfunction in women in different societies is related to the influence of race, culture, and religion [23, 24].

Since different studies had different results in this regard and no similar study has been seen to evaluate the effect of treatment, this study examines the factors that affect the sexual function of patients with polycystic ovary syndrome and the effect of treatment on their satisfaction.

PATIENTS AND METHODS

In the present cross-sectional descriptive-analytical study, 100 women with PCOD referred to the endocrinology clinic of Kosar Hospital in 1397 were included in the study by census method. 52 patients with polycystic ovary syndrome were untreated and 48 patients with polycystic ovary syndrome were treated. Demographic and clinical information of patients was collected based on medical records, and in order to measure the sexual satisfaction of patients, Female Sexual Function Index Questionnaire (FSFI) was used and the validity and reliability of this index have formerly been proven [25]; this questionnaire includes 19 questions and examines different dimensions of sexual satisfaction, and its scores are based on a 5 or 6 point scale. A higher score means more satisfaction. Questions include evaluations of desire, sexual arousal, orgasm, vaginal moisture, and pain, and sexual satisfaction with a score of zero indicates that the patient had no sexual activity in the last 4 weeks.

Confirmation of the diagnosis was done by an endocrinologist and if the diagnosis was confirmed, patients were included in the study. Individuals with certain physical illnesses that reduced patients' sexual satisfaction were excluded from the study; these diseases included diabetes, hypothyroidism and hyperthyroidism, premarital sexual dysfunction in both couples, sexual dysfunction in the patient's spouse, age under 14, history of mental illness under treatment, and heart and lung diseases.

Tables and graphs are used to describe the data. For data analysis, the Chi-Square test of independence was implemented, and SPSS 16 software was used; the significance level for all tests was less than five percent.

The principle of confidentiality was maintained at all stages of the project. The original questionnaires were only available to the researcher and the research team, to prevent the disclosure of patients' private information.

RESULTS

In this study of 100 patients with polycystic ovary syndrome who referred to the endocrinology clinic of Kosar Hospital were studied, and the patients were divided into two groups, including 52 patients without treatment and 48 patients who received treatment; the mean and standard deviation of their sexual satisfaction score was 12.62 ± 9.33.

In the study of the relationship between sexual satisfaction of patients with polycystic ovary syndrome and age, a significant relationship was found ($p < 0.05$), and it was observed that the level of sexual satisfaction is significantly lower in patients under the age of 21 (Table 1).

There was no significant relationship between sexual satisfaction score and treatment of polycystic ovary patients ($p = 0.072$). However, the satisfaction of patients increased after treatment and this rate may become significant as the number of samples increases (Table 1).

Assessment of the relationship between sexual satisfaction and marital status of the patients with polycystic ovary syndrome demonstrated a significant relationship ($p < 0.05$), and this rate was considerably lower in single people (Table 1).

There was also a significant relationship between the sexual satisfaction of people with polycystic ovary syndrome and the age of marriage ($p < 0.05$); the average sexual satisfaction was higher in people who were married after the age of 22 (Table 1).

In examining the relationship between sexual satisfaction and occupation of patients with polycystic ovary syndrome, a significant relationship was found ($p < 0.05$), and the rate of satisfaction was significantly lower among students (Table 1).

There was no significant relationship between the area of residence and sexual satisfaction ($p = 0.313$). However, the mean score of sexual satisfaction was higher among patients living in the city (Table 1).

In examining the relationship between sexual satisfaction and education, no significant relationship was found ($p = 0.791$). However, the average sexual satisfaction increases with higher levels of education (Table 1).

Table 1. Comparison of mean sexual satisfaction in patients based on demographic factors

Demographic factors	Sexual satisfaction score		P Value
	Mean	SD	
Age			
<21 years	4.90	6.42	<0.05
21-28 years	12.34	10.11	
>28 years	15.46	8.05	
Occupational status			
Housewife	4.16	5.91	<0.05
Student	18.11	7.07	
Employee	17.40	6.89	
Marital status			
Single	13.76	9.21	<0.05
Marriage age less than 22	4.90	7.28	
Marriage age more than 22	14.78	8.72	
Location of residence			
City	9.17	6.66	0.313
Village	12.88	9.48	
Level of education			
Diploma or less	11.94	9.54	0.791
Bachelors degree	12.85	9.13	
Masters degree or more	13.51	9.49	

Table 2. Comparison of mean sexual satisfaction in patients based on the duration of diagnosis and treatment

Clinical factors	Sexual satisfaction score		P value
	Mean	Mean	
Treatment status			
With treatment	11.00	9.32	0.072
Without treatmenr	14.37	9.12	
Duration of the disease from the time of diagnosis			
<6 years	11.55	9.49	0.015
6-10 years	12.84	9.15	
>10 years	20.54	2.39	
Duration of treatment			
no treatment	11.00	9.32	0.057
less than 3 years	13.89	8.88	
more than 3 years	16.92	8.93	

In examining the relationship between the sexual satisfaction of patients with polycystic ovary syndrome and the duration of diagnosis, a significant relationship was found (p = 0.015), which demonstrated that the satisfaction of patients increases with the increase in the years after the diagnosis (Table 2).

There was no significant relationship between sexual satisfaction and duration of treatment in patients with polycystic ovary syndrome (p = 0.057). In these patients, the rate of satisfaction increases with the increase in the years of treatment, but this amount was not significant (Table 2).

DISCUSSION

Polycystic ovary syndrome (PCOS) is one of the most common endocrine disorders, affecting one in 15 women worldwide. Women with PCOS suffer from overt hyperandrogenisms, such as hirsutism, acne, anovulation, obesity, menstrual irregularities and infertility, and an increased risk of endometrial and breast cancer.

Mood disorders and drug therapies make these patients sexually vulnerable. Following physical, physiological, and psychological changes, women with polycystic ovary syndrome experience decreased quality of life, lack of self-confidence, impaired social and marital life, and impaired sexual function.

However, if polycystic ovary syndrome is a common disorder and its clinical symptoms can affect sexual function, the studies in this regard are scarce. On the other hand, researchers believe that the different prevalence of sexual dysfunction in women in different societies is related to the influence of race, culture, and religion.

Although various studies have been performed on the effect of this disease on patients' sexual satisfaction, it seems that the effect of treatment on the sexual satisfaction of these patients has not been studied so far, and this study was performed to evaluate this matter.

In this study, the relationship between age and sexual satisfaction in polycystic ovary patients was examined, which demonstrated that the rate of satisfaction was significantly lower in patients under 21 years of age (p <0.05). Of course, this is because people under 21 years are mainly single and, because of culture and religion in Iran, sexual relations between unmarried people is less common, also, because of shame among Iranian girls, some answers to the questionnaires may have not been quite honest, but this issue among the educated and married people was honestly studied and affected the obtained amounts.

A study by Hashemi et al. (2014) indicated that about two-thirds of women with PCOS have sexual dysfunction and infertility is the most influential clinical symptom of this syndrome. Infertile women experience less sexual satisfaction and orgasm than fertile women and this is one of the issues to be considered in providing sexual counseling to PCOS women [26].

In the present study, the effect of treatment on the sexual satisfaction of patients with polycystic ovary syndrome was investigated, but no significant relationship was found (p = 0.072); however, this rate was very close to being significant and is likely to be significant by increasing the number of samples. These results were consistent with a study by Elsenbruch et al., which found that sexual satisfaction in patients with polycystic ovary syndrome was lower than others, although the effect of treatment was not studied in their study [27]. However, the results were inconsistent with a study by Hahn et al., which showed a significant improvement in the sexual satisfaction of patients. This discrepancy seems to be due to the inconsistency of the questionnaires of the two studies, and in their study, only the use of metformin was considered [28].

In the present study, there was a significant relationship between marital status and patients 'sexual satisfaction (P<0.05); A study by Ziaee et al. (2014) indicated that Marital satisfaction was significantly associated with sexual satisfaction [29].

Also, there was a significant relationship between the age of marriage and patients' sexual satisfaction (P<0.05), and it was observed that the average sexual satisfaction was higher in people who were married after the age of 22.

Also, in the study of the effect of occupation among women with polycystic ovary syndrome, the results showed that there was a significant relationship between the occupation and sexual satisfaction of patients, and patients who were students had less sexual satisfaction.

In the study of the effect of patients' location of the residence on their sexual satisfaction, it was found that there was no significant relationship between these variables (p = 0.313), but this rate was higher among people in the city.

In this study, the effect of degree on the sexual satisfaction of patients with polycystic ovary syndrome was also investigated, which demonstrated no significant relationship (p = 0.791), however, the average score of

sexual satisfaction of patients increased with higher levels of education.

In addition, in this study, the effect of the duration of diagnosis and treatment on the sexual satisfaction of patients was investigated and it was observed that there was a significant relationship between the duration of diagnosis and patients' sexual satisfaction score ($p = 0.015$), but there was no significant association between the duration of treatment and the sexual satisfaction if patients ($p = 0.057$), however, this rate was very close to being significant, and may become significant with an increase in the number of samples.

One of the limitations of this study is that in Iran, unmarried girls have fewer sexual relations or may not answer honestly to the questions due to modesty or shame; also, their information is not completely logical due to lack of relationship.

In addition, due to the fact that some patients did not have a clear understanding of the questions and their value, they filled out the questionnaires without attention and explanation, and this distorted the information of this study.

CONCLUSION

Considering the importance of sexual satisfaction in women, which helps to strengthen the foundation of the family, and due to the lack of a significant relationship between treatment and sexual satisfaction, treatment does not seem vital to increase sexual satisfaction and should not be considered as a method to increase sexual satisfaction, and it should only be used to improve fertility.

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