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# Prevalence of sexual dysfunction among women using contraceptive methods

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**ABSTRACT**

*Introduction: The world health organization defines sexual health as a coordination and integration between mind, body and feelings which leads an individual towards personality improvement, relationship and love. The aim of this study was to determine the prevalence of sexual dysfunction among women referring health centers of Bandar Abbas in 2013 who used contraceptive methods. Method: In this descriptive study, 385 women aged between 16-45 years were included. A questionnaire was used for data collection. This questionnaire consisted of two sections; demographic data and Female Sexual Function Index (FSFI). The questionnaire was equally distributed among all health centers. Data were entered SPSS v. 19 and were analyzed using descriptive statistics (mean and standard deviation) and ANOVA. Results: There was no significant difference between contraceptive methods and questionnaire aspects. Significant associations were found between level of education and sexual function such as libido, orgasm, sexual satisfaction and age groups with libido, orgasm and vaginal lubrication. Conclusion: The participants of this study might have referred their sexual dysfunctions to other reasons other than contraception which needs further research. According to the results, it is suggested to increase couple knowledge using consultation and sex education and guide them into finding treatments for their sexual dysfunction.*

**Keywords:** sexual dysfunction, contraception, women

## INTRODUCTION

Sexual desire is one of the most private areas of life. The world health organization defines sexual health as a coordination and integration between mind, body and feelings which leads an individual towards personality improvement, relationship and love [1, 2].

Sexual health is the result of interactions between vascular, neural and hormonal factors which is affected by individual factors, interpersonal relations, family and social traditions, culture and religion. The prevalence of sexual dysfunction differs from one society to another. It is related to type of study, sample selection, beliefs, ethnic ideas, and methodology of the study [3].

Sexual dysfunction is a term that is used for describing sexual problems such as decreased libido or interest, orgasm problems and dyspareunia [4]. According to the studies, 40 percent of all women experience sexual dysfunction during their sexual life [5]. Also, 30 to 50 percent of women of developing countries suffer from it. Sexual dysfunction is referred to continuous or recurring dysfunctions in one's sexual cycle. Age, age difference with spouse, duration of marriage, economic status and contraceptive method are related to sexual satisfaction. Contraceptives have different effects on sexual desire [6]. Complications of hormonal contraceptives have not been studied well. According to previous studies, a small percentage of women using them experience and increase or decrease in sexual desire. However, most of them have reported no difference [7].

Most dysfunctions were seen among women who use permanent contraceptive methods. Also, type of contraception is reported to have associations with all aspects of sexual function, except for pain [8].

Tabaghdehi et al conducted a study to investigate the associations between sexual function and contraceptive method and found no relations. The urology society of Mersin society and Asghari Roudsari found no association between the two variables. Tabaghdehi et al showed that 45.2 percent of women referring to Sari health center had sexual dysfunction; 47.3 percent had dyspareunia, 47.7 percent had orgasmic dysfunction, 39.8 percent and lubrication dysfunction, 39.6 percent had dysfunction in libido, 39.6 percent had dysfunction in sexual desire and 35.5 percent had arousal dysfunction[9].

According to cultural beliefs, women have no desire to imply their sexual dysfunction. Thus, it can be concluded that the obtained statistics are much lower than the actual prevalence. Women constitute half of the population and their physical or mental problems affect their self-esteem, interpersonal relations, personal and social activities, because sexual desire is the result of a complicated process related to the nervous, vascular and endocrine systems [10].

The aim of this study was to determine the prevalence of sexual dysfunction among women referring to Bandar Abbas health centers who were using contraceptive methods in 2013.

## MATERIALS AND METHODS

This was a descriptive study that was conducted on women aged between 16 and 45 years old who referred to Bandar Abbas health centers in February 2013. Conventional sampling was used to select participants. The target population consists of all women who used contraceptives and those who were married, literate, had at least one child and used contraceptive methods were included in this study. The sample size was calculated according to previous studies using the following formula.

$$N = \frac{X^2_{1-\frac{\alpha}{2}} P(1-P)}{D^2}$$

All contraceptive methods that are used for contraception, even those that include men, were considered for this study. However, only female sexual function was evaluated in this study [8].Pregnant or postmenopausal women, those with underlying diseases (such as diabetes of hypertension), or depression were excluded from the study.
Questionnaires were used to collect data. Participants with lower educational levels were interviewed according to the questionnaire. The aim of the study was fully explained before the study and participants provided informed and written consent. All data remained private.

A two section questionnaire was used for this study. The first section included demographic questions such as age, level of education, and contraceptive method. The second questionnaire contained 19 questions related to sexual function. The questions were related to sexual desire, sexual arousal, lubrication, orgasm, pain and sexual satisfaction. The sexual desire section contained two questions with a score range of one to five. Arousal and lubrication section each had four questions with a score range of one to five. Section related to orgasm, pain and sexual satisfaction each had three questions with a score ranged between zero and five. The final score of each participant was calculated according to the sum of scores of each section and their coefficients. The coefficients of sexual desire and arousal were 0.6 and 0.4, respectively. The overall score was calculated by adding each section's score. The FSFI was designed by Rozen et al with a reliability of $\alpha$= 0.82 [1]. Data was entered SPSS v. 19 software and analyzed using descriptive statistics (mean and standard deviation), ANOVA, Scheffe test sequence and LSD.

In this study, participants were persuaded to complete the questionnaire honestly and were required not to mention their names.

## RESULTSAND DISCUSSION

The sample size of this study was 385. However, 12 were incomplete and excluded from the study. A total of 373 questionnaires were analyzed. Most participants were aged between 25 and 35 (52.5 percent), while few of them were aged between 15 and 25 (9.4 percent).

**Table 1. Age group**

| Age groups | count | percent |
|---|---|---|
| 15 to 25 years | 35 | 9.4 |
| 25 to 35 years | 196 | 52.5 |
| 35 to 45 years | 142 | 38.1 |
| Total | 373 | 100.0 |

The results showed that natural family planning was mostly used (37.9 percent) and spouse vasectomy was the least used method (1.6 percent).

**Table 2.Distribution of contraceptive methods**

| contraceptive methods | count | percent |
|---|---|---|
| Oral contraceptives | 49 | 13.2 |
| Condom | 90 | 24.2 |
| IUD | 32 | 8.6 |
| Spousevasectomy | 6 | 1.6 |
| Tubectomy | 42 | 11.3 |
| Withdrawal | 141 | 37.9 |
| Ampoule | 12 | 3.2 |
| Total | 373 | 100.0 |

The mean score and sexual function dimensions can be seen in the following table:

**Table 3.The mean areas of sexual function in terms of contraceptive methods**

| Sexual function dimensions / Contraceptive methods | Sexual desire Standard deviation ± mean | Sexual arouzal Standard deviation ± mean | lubrication Standard deviation ± mean | Orgasm Standard deviation ± mean | pain Standard deviation ± mean | Satisfaction ا Standard deviation ± mean |
|---|---|---|---|---|---|---|
| Oral contraceptives | 1.07±3.86 | 4.28±0.99 | 4.81±1.03 | 4.73±1.16 | 4.86±1.05 | 5.22±1.26 |
| Condom | 3.56±1.09 | 4.11±1.12 | 4.92±1.06 | 4.59±1.19 | 1.15±4.71 | 5.07±1.11 |
| IUD | 1.04±3.34 | 4.41±1.25 | 4.44±1.18 | 4.44±1.18 | 4.14±1.53 | 4.97±1.16 |
| Spousevasectomy | 3.60±0.85 | 3.95±0.90 | 4.35±1.10 | 4.60±1.10 | 4.20±1.40 | 4.93±1.18 |
| Tubectomy | 1.04±3.43 | 3.81±1.17 | 4.61±1.40 | 4.31±1.40 | 4.59±1.47 | 5.11±0.93 |
| Withdrawal | 3.60±1.09 | 4.12±0.95 | 4.81±0.97 | 4.70±0.94 | 4.55±1.20 | 5.09±0.94 |
| Ampoule | 3.45±1.38 | 3.90±1.06 | 4.57±1.40 | 4.80±1.26 | 5.23±0.99 | 5.27±0.93 |

According to the results of the study, no significant difference was seen in sexual function areas among different contraception groups. Other results showed significant association between educational levels and sexual desire, orgasm and satisfaction (confidence interval= 95 percent). Sexual desire score was higher among participants who had high-school diploma. They had significant difference compared with participants with educational levels below high-school ($p=0.032$), associate degree ($p=0.002$) and bachelor or higher ($p<0.001$).

Orgasm score was higher among participants with high-school diploma compared with associate degree ($p=0.032$) and level of education below high-school diploma ($p=0.016$)

The sexual satisfaction score was significantly higher among patients with high-school diploma compared with participants with educational degree below high-school diploma ($p=0.048$), associate degree ($p=0.013$), and bachelor degree or higher ($p=0.016$).

**Table 4.The mean areas of sexual function in terms of education level**

| Sexual function dimensions / educational level | Sexual desire Standard deviation ± mean | Sexual arousa Standard deviation ± mean | lubrication Standard deviation ± mean | Orgasm Standard deviation± mean | pain Standard deviation ± mean | Satisfaction Standard deviation ± mean |
|---|---|---|---|---|---|---|
| below high-school diploma | 1.10±3.59 | 4.06±1.09 | 1.26±4.71 | 4.45±1.24 | 4.43±1.46 | 1.14±5.05 |
| high-school diploma | 3.91±1.04 | 4.26±1.05 | 4.93±1.08 | 4.85±1.08 | 4.68±1.22 | 5.33±0.92 |
| associate degree | 3.40±1.10 | 3.88±1.01 | 4.49±1.09 | 4.47±1.08 | 4.56±1.11 | 4.93±1.04 |
| bachelor degree or higher | 3.30±1.03 | 3.97±1.04 | 4.80±0.93 | 4.59±1.05 | 4.76±1.11 | 4.99±1.05 |

Also, difference between age groups and sexual desire, lubrication and orgasm was significant (confidence interval = 95 percent)

**Table 5.The mean areas of sexual function in terms of age groups**

| Sexual function dimensions / age groups | Sexual desire Standard deviation ± mean | Sexual arousal Standard deviation ± mean | lubrication Standard deviation ± mean | Orgasm Standard deviation ± mean | Pain Standard deviation ± mean | SatisfactionStandard deviation ± mean |
|---|---|---|---|---|---|---|
| 15 to 25 years | 1.20±3.78 | 0.83±4.35 | 0.92±4.75 | 1.10±4.67 | 1.35±4.35 | 1.24±5.15 |
| 25 to 35 years | 1.06±3.77 | 1.06±4.21 | 1.10±4.89 | 1.10±4.73 | 1.22±4.17 | 1.07±5.17 |
| 35 to 45 years | 1.02±3.27 | 1.05±3.80 | 1.11±4.59 | 1.14±4.43 | 1.24±4.57 | 1.00±4.99 |

Sexual desire score was higher among participants of 15 to 25 age group compared with participants of 35 to 45 year age group ($p<0.001$) and 25 to 35 year age group ($p=0.010$).Sexual arousal score was also higher among participants of 15 to 25 year age group compared with 35 to 45 year age group ($p<0.001$) and 25 to 35 year age group ($p=0.005$).The lubrication score was significantly higher among patients of 25 to 35 year age group compared with 35-45 age group ($p=0.013$).The orgasm score of 25 to 35 year old age group was significantly higher than 35 to 45 year old age group ($p=0.015$)

## CONCLUSION

The results showed that the most common contraception method was natural contraception and spouse vasectomy was the least common method. This can be due to the safety, healthy, easy access and reversibility of natural contraception and cultural beliefs against vasectomy [8].

We found no significant difference between contraceptive methods and questionnaire dimensions. Smith et al reported negative effects of oral contraceptive pills (OCP) among female consumers [12]. Results showed that the prevalence of sexual dysfunction after IUD insertion was 50.9 percent [13]. Another study showed that OCP consumers had no negative effects on sexual function [14].

The participants of this study might have referred their sexual dysfunctions to other reasons other than contraception which needs further research.There was significant decrease in scores of sexual desire, vaginal lubrication and orgasm according to increase in age. Overall, sexual problems increase with aging [4].

This study was only conducted in Bandar Abbas city. Since sexual relations are among the most personal aspects of life, and due to cultural and religious limitations, people of this culture might not speak honestly about their sexual issues. Thus, noncooperation in filling the questionnaire was a problem of this study.

Regardless of reason, sexual dysfunction reduces quality of life and satisfaction [9]. Sexual desires are instinctive and innate while attitude and sexual behavior are teachable [2]. Thus, according to the results, it is suggested to increase couple knowledge using consultation and sex education and guide them into finding treatments for their sexual dysfunction.

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