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Original article

Sexual dysfunction in men seeking infertility treatment: The prevalence and associations

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Abstract

Background: Infertility is a major stressor in life and can cause disturbances in both sexual and marital relationships. Therefore, the objective of this study was to determine the frequency of sexual dysfunctions among infertile couples, who referred to the infertility center in Babol, Iran, and the identification of the factors associated with these problems.

Methods: A cross-sectional study was performed on 236 partners of infertile couples. A standard questionnaire named international classification DSM-IV was used to assess the frequency and the type of sexual dysfunction. The data were analyzed by descriptive statistics and adjusted odds ratios with their 95% CIs.

Results: According to the results, around 58% of men were found to suffer from sexual dysfunction. The most prevalent type of sexual dysfunction was premature ejaculation (34.7%), orgasm disorder (28.0%), desire sexual disorder (9.2%), delayed ejaculation (8.5%), retrograde ejaculation (6.8%), and erection dysfunction (5.5%). The men with a history of primary infertility had 3.61 fold risk of sexual dysfunction compared to women who had secondary infertility. Male Infertility (odds ratio, 3.61; 95% CI, 2.13-4.58) and idiopathic were (odds ratio, 3.43; 1.23-4.85) factors significantly associated with sexual dysfunction. There was 4.92 fold risk of sexual dysfunction observed in men whose wives had sexual dysfunction as compared with those whose wives had no sexual dysfunction.

Conclusion: This study shows a high prevalence of sexual dysfunction for male partners of infertile couples in a community in Babol, Iran. It would be beneficial to establish a sexual clinic in infertility centers for the professional staff to monitor infertile couples.

Keywords: Infertility, Sexual dysfunction, Sex

Introduction

Infertility is defined as the failure to conceive after 12 months of regular unprotected sex (1). Infertility is a common medical condition, affecting approximately 15.5% of couples in Babol, Iran (2). Several studies have shown that infertility and mandatory nature of its diagnostic are a particularly stressful state (3-6). In addition, assisted reproductive technology may cause stress in fertile couples (7). Similarly, stress may affect men's and women's desire for sex and play a role in causing Sexual dysfunction. It is pointed out that infertility might increase the risk of sexual dysfunction in men in infertile couples. Given that, sexual dysfunction in men is not only regarded as the cause of

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disorder in infertility treatment but also affects the marital relationships and the quality of life (8). Although this theory is supported by some scientific studies, there is an abundance of conflicting evidence with mixed results.

To our knowledge, little information is available about the sexual function of infertile Baboli couples. Thus it is critical to define the sexual function in infertile couples who referred to our infertility center for evaluation and possible treatment.

Materials and Methods

The research design of this study was a cross-sectional study, which was aimed at determining frequency of sexual dysfunction among infertile couples also identifying the factors associated with these problems. This study was performed on all patients with failure to conceive after 12 months of regular unprotected sex, who attended Infertility and Reproductive Health Research Center in Babol between March 2013 and April 2014 (North of Iran).

The study protocol was approved by the Ethics Committee of Babol University of Medical Science and written informed consent was also obtained from the participants prior to the implementation of the study.

The data collection tool was a questionnaire that was completed through interviews in private meetings by the researchers. The questionnaire was composed of two parts: demographic characteristics and information about infertility (such as frequency of sexual contacts per week, satisfaction with sexual and non-sexual relationships). Sexual dysfunction was measured on the basis of a diagnostic interview according to the International Classification DSM-IV in three parts including sexual desire disorder, erection disorder and orgasmic disorder over the course of at least three months before starting point of the study. To investigate the relationship between sexual function in men and that of their wife, a questionnaire was also prepared using DSM-IV method for the women in four parts: sexual desire disorder, sexual arousal disorder, orgasmic disorder and pain during intercourse.

The data obtained were statistically analyzed using the Statistical Package for Social Sciences (SPSS, Chicago, USA) software version 20 for Windows. Descriptive statistics and adjusted odds ratios with their 95% CIs were used to describe and assess the association study variables with sexual dysfunction. P value ≤0.05 was considered significant.

Results

A total number of 236 men, with the mean age of 30.8±6.1 years, participated in this study. The infertility causes were male factor (37.7 %), female factor (16.9 %), both male and female factors (11.9%) and idiopathic (35.5%), respectively. In 84.9 % of samples, there was primary infertility with the mean duration of infertility 60.2 ± 8.4 months. Table 1 shows the demographic characteristics of the infertile couples.

Among men seeking infertility treatment, the

Table 1. Characteristics of men seeking infertility treatment (n=236)

Variables	n (%)
Education level	
Illiterate	5 (2.2)
Primary/Secondary school	110 (46.6)
Secondary school diploma	86 (36.4)
College education	35 (14.8)
Job	
Unemployed	4 (1.7)
Worker	43 (18.2)
Employee	51 (21.6)
Business	115 (48.7)
Trucker	23 (9.8)
Work shift status	
Rotating shifts	42 (17.8)
Fixed shifts	194 (82.2)
Housing type	
Owner	139 (58.9)
Tenant	73 (30.9)
Living with relatives	24 (10.2)
Addiction[1]	
Narcotics	35 (14.8)
Cigarette	48 (20.4)
No addiction	153 (64.8)
Physical illness history[2]	
Yes	21 (8.9)
No	215 (91.1)
Mental illness history[3] *(Mean±SD)*	
Yes	12 (5.1)
No	224 (94.9)
Sexual contacts (number /weeks)	2.4 (1.0)
Family members	2.6 (1.4)

[1] Addiction to all those who had used all the days of narcotics or cigarettes.
[2] History of physical illness including diseases of the urinary - reproductive tract (n=15), diabetes (N=2), heart disease (N=1) and thyroid disease (N=3).
[3] Mental Illness History including depression (N=6), anxiety (N=4) and obsessive (N=2).

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Table 2. Sexual dysfunction using international classification DSM-IV of participants seeking infertility treatment (n=236)

	n	(%)
Men		
Sexual desire disorder[a]	22	9.3
Erection disorder	13	5.5
Orgasm disorder[b]	66	28
Premature ejaculation	82	34.7
Retarded ejaculation	20	8.5
Retrograde ejaculation	16	6.8
Sexual dysfunction	137	58.0
Women		
Sexual Desire Disorder	62	26.3
Lack of sexual arousal	32	13.6
Orgasm Disorder	62	26.3
Dysparunia	66	28
Vaginismus	36	15.3
Sexual dysfunction	131	55.5

frequency of sexual dysfunction was found to be 58.0%. Premature ejaculation, orgasm disorder, sexual desire dysfunction, retarded ejaculation, retrograde ejaculation, and erection dysfunction were also observed, which were around 34.7%, 28.0%, 8.5%, 9.3 %, 8.5%, and 6.8%, respectively. Around 55% of women reported to have sexual dysfunction. The most prevalent disorders were dysparunia (28.0%), sexual desire disorder (26.3%), and orgasm disorder (26.3%) in women (Table 2).

After adjusting for suspected confounding factors, an increase in the percentage of the occurrence of sexual dysfunction with type and cause of infertility was observed. The men with a history of primary infertility were 3.61 fold at the risk of sexual dysfunction as compared with the women who had secondary infertility. Male Infertility (odds ratio, 3.61; 95% CI, 2.13-4.58) and idiopathic were (odds ratio, 3.43; 1.23-4.85) factors significantly associated with sexual dysfunction. There was 4.92 fold risk of sexual dysfunction observed in men whose wives had sexual dysfunction as compared with those whose wives had no sexual dysfunction (Table 3).

Discussion

The importance of sexual function in human reproduction is obvious. Infertility can therefore be considered as one of the greatest sources of stress in life (8). Research indicated that stress can lead to high incidence of sexual dysfunction including the decreased libido, erection dysfunction and orgasm, and decreased sexual activity (9). In this study, we assessed 236 infertile couples. In men, the sexual dysfunction rate was around 58%. To the best of our knowledge, there is only one study conducted on the sexual dysfunction of infertile men in Iran, which reported the prevalence of 55.1% (10). This result is for sure consistent with what we found in our study.

In a study conducted by Oksuz and et al (2005) in Turkey, striving to determine the prevalence and the risk factors of sexual dysfunction in men, the prevalence of the disorder was 43.3, which was lower than that of the present study (58%) (11). In another study conducted by Yekeh Fallah et al (2009) on 175 married men in Qazvin, the prevalence of sexual dysfunction was reported to be 80.6%. The most common sexual dysfunction was sexual desire and ejaculation disorder (12). This is the highest prevalence of sexual dysfunction ever reported in the general population of men.

Another study conducted on men in Iran, investigating urology (13), family health care and psychiatric clinics, showed that the most common sexual dysfunction was premature ejaculation in urology clinic (3.4%) and were erection disorder (with an incidence of 49.1% and 76.2%, respectively), and after that premature ejaculation (32.7% and 35.6%) in other clinics (14, 15).

A research study by Saleh et al on sexual

Table 3. Adjusted odds ratio[1] for sexual dysfunction according infertility type infertility cause of participants, and sexual dysfunction in their spouses of men seeking infertility treatment (n=236)

	Odds Ratio [1]	95% CI	P-value
Infertility type			
Secondary	1.00		
Primary	3.61	(2.13-4.58)	0.001
Infertility cause			
Female	1.00		
Male	2.36	(1.20-3.95)	0.010
Both	1.50	(0.86-2.70)	0.700
Idiopathic	3.43	(1.23-4.85)	0.001
Sexual dysfunction in their spouses			
no	1.00		
yes	4.92	(2.89-6.62)	0.001

[1] Odds ratio for history of age of men, age of women, addiction, physical illness history

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dysfunction in men under infertility evaluation showed that when the cause of infertility is exclusively male factor, much stress will be exerted to them. Moreover, the incidence of depression can increase as compared to those without male factor or with the presence of both male and female factor in infertility (5). This result also confirmed the result of the present study, suggesting that the prevalence of sexual dysfunction in the presence of male factor was higher than other factors.

Yeoh and et al (2012) conducted a study with the similar aim in Malaysia. They found that male and female sexual function are correlated moderately (r=0.57) (16). Similarly, we found a significant association between the sexual dysfunction of men and that of women.

There are several limitations for this study: This study used the cross sectional design to determine the association of infertility with sexual dysfunction. There was not a control group to compare the sexual dysfunction rate. Future studies can use case-control study to provide stronger evidence on the association. In addition, the subjects were selected from only one infertility center, even though there are other infertility centers for infertility treatment in Babol. Thus, due to these limitations, it is not possible to make conclusion on causality. Although the relationship between sexual dysfunctional and infertility remains controversial, it is suggested that the most important factors leading to sexual dysfunction in infertile men may be forced sexual contact and the timing and the use of assisted reproductive technology that reduces sexual desire, erection dysfunction or orgasm (7).

Conclusion

This study shows that sexual dysfunction is one of the fundamental problems in infertile men, leaving negative effects on the sexual function of couples. Therefore, there is an urgent need to provide counseling and therapy services for these men. Medical staff of infertility centers should explore potential problems in sexual issues of the couples during the process of diagnosis and treatment of infertility and to inform them about maintaining intimacy in the marital life. Moreover, they should get couples' attention and shift it from mere reproduction to common life goals through training adaptation strategies and as well as beneficial changes in behavior.

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Conflicts of Interest

None declared.

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