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RESEARCH

Comparison of the prevalence of sexual dysfunction in panic disorder patients in terms of gender

Panik bozukluk hastalarında cinsel işlev bozukluğu sıklığının cinsiyet açısından karşılaştırması

Münevver Tünel[1]

[1]Başkent University Adana Dr. Turgut Noyan Research and Application Center Department of Mental Health and Diseases, Adana, Turkey

Abstract

Purpose: The aim of this study is to evaluate the frequency of sexual dysfunction in male and female panic disorder (PD) patients and to make a comparison between genders.
Materials and Methods: A total of 57 cases, including 33 females aged 36±6 years and 24 males aged 35±7 years, who were sexually active, did not use psychotropic drugs, with primary diagnosis of PD according to DSM-5, were included in the study. Individual information collection forms and the Arizona Sexual Experiences Scale (ASEX) were applied to all cases, and sexual dysfunctions (SD) were questioned.
Results: According to the suggested cut-off score of the Turkish version of the Arizona Sexual Experiences Scale, 77.2% of all participants had SD. SD was detected in 81.8% of women and 70.8% of men. There was a significant difference between men and women in terms of ASEX total scores. There was no significant difference between men and women in terms of sexual desire and orgasm satisfaction. Sub-dimension scores of arousal, lubrication/erection, and reaching orgasm were significantly higher in females. Sexual reluctance was the most common in both genders, with 30.4% of women and 36.5% of men.
Conclusion: Sexual dysfunction is common among PD patients. Sexual reluctance is the most common in male and female patients with PD. Arousal and orgasm problems are more common in female PD patients than in male PD patients.
Keywords:. Panic disorder, sexual dysfunction, sexual aversion

Öz

Amaç: Bu çalışmanın amacı kadın ve erkek panik bozukluk (PB) hastalarında cinsel işlev bozukluğunun sıklığını değerlendirmek ve cinsiyetler arası karşılaştırma yapmaktır.
Gereç ve Yöntem: DSM-5'e göre primer tanısı PB olan, cinsel olarak aktif, psikotrop ilaç kullanmayan, 36±6yaş aralığında olan 33 kadın, 35±7 yaş aralığında olan 24 erkek olmak üzere toplam 57 olgu çalışmaya alınmıştır. Tüm olgulara bireysel bilgi toplama formu ve Arizona Cinsel Yaşantılar Ölçeği (ACYÖ) uygulanmış ve cinsel işlev bozuklukları (CİB) sorgulanmıştır.
Bulgular: Arizona Cinsel Yaşantılar Ölçeği'nin Türkçe formunun önerilen kesim puanına göre; tüm katılımcıların %77,2 sinde CİB vardı. Kadınların %81,8'inde, erkeklerin %70,8 inde CİB saptandı. ACYÖ toplam puanları açısından kadın ve erkek arasında anlamlı bir fark vardı. Cinsel istek, orgazm tatmini açısından kadın ve erkek arasında anlamlı bir fark yoktu. Uyarılma, lubrikasyon/ereksiyon, orgazma ulaşabilme alt boyut puanları kadınlarda anlamlı olarak daha yüksekti. Kadınların %30,4'ünde, erkeklerin %36,5'inde olmak üzere her iki cinsiyette de en sık cinsel isteksizlik vardı.
Sonuç: PB hastalarında cinsel işlev bozukluğu sıktır. PB olan kadın ve erkek hastalarda en sık cinsel isteksizlik vardır. Kadın PB hastalarında erkek PB hastalarına göre uyarılma ve orgazm sorunları daha sık görülmektedir.

Anahtar kelimeler: Panik bozukluk, cinsel işlev bozukluğu, cinsiyet farklılıkları

Address for Correspondence: Münevver Tünel, Başkent University Adana Dr. Turgut Noyan Research and Application Center Department of Mental Health and Diseases, Adana, Turkey E- mail: munevvertunel@gmail.com
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INTRODUCTION

The sexual response cycle, which consists of four phases, namely arousal, plateau, orgasm and resolution, is affected by biological, psychological, social and cultural factors. Sexual dysfunction (SD) occurs as a result of physiological, cognitive, emotional and behavioral problems that cause problems in any of the sexual response stages and is a heterogeneous group of disorders that manifest themselves with a clinically significant impairment in the person's ability to respond sexually or experience sexual pleasure. According to the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5), sexual dysfunctions are classified as follows: 1- Female Sexual Interest/Arousal Disorder 2- Decreased Sexual Desire Disorder in Male 3- Erectile Dysfunction 4-Female Orgasmic Disorder 5- Premature Ejaculation 6-Delayed Ejaculation 7- Genitopelvic Pain/Insertion (Combination) Disorder 8- Substance/Drug-induced Sexual Dysfunction 9- Another Specified Sexual Dysfunction 10-Unspecified Sexual Dysfunction[1,2].

Physical diseases, physiological changes that occur with aging, continuous drug use, and hormonal deficiencies can cause sexual dysfunction. However, it is known that the most common factors in the etiology of male and female sexual dysfunctions are psychosocial factors. Intrapsychic conflicts, communication difficulties in relationships, insufficient sexual education and sexual myths, traumatic sexual experiences, accompanying psychiatric disorders, performance anxiety, and unrealistic expectations about sexual performance can act as initiators and maintainers of sexual dysfunction as well as predisposing to sexual dysfunction[3].

Anxiety plays an important role in the etiology of sexual dysfunction. It has been determined that patients with anxiety disorder (AD) are at higher risk of sexual dysfunction than 'normal' people, and sexual reluctance is particularly more frequent in anxiety disorder patients than in controls[4,5]. However, it is also suggested that different sexual disorders, such as desire and satisfaction disorder, and arousal disorder, may in fact be consequences of anxiety disorder[6,7]. It is reported that patients with panic disorder (PD) experience sexual dysfunctions at a significantly higher rate than people with other anxiety disorders, and that sexual dysfunctions are common and neglected complications of panic disorder[8].

Although it is generally thought that anxiety impairs sexual functions as a common result of social, biological and psychological stressors, the number of studies evaluating anxiety disorder subtypes in the context of sexual dysfunction is insufficient. The number of studies specifically examining the relationship between panic disorder and sexual dysfunction is very limited, and conflicting results have been reported. It has been reported in some studies that sexual desire disorder is notably common in patients with panic disorder[4,8,9]. In a study, it was found that the risk of developing sexual dysfunction is higher in women with panic disorder compared to healthy controls, and sexual reluctance is more common[5]. On the other hand, another study reported that there was no sexual reluctance in women with panic disorder; only orgasm problems were found[10].

We hypothesized that sexual dysfunction is observed more commonly in people experiencing panic disorder and that there is difference between genders in terms of its occurrence. The determination of this relationship could contribute to the literature by refining the approach towards patients with sexual dysfunction who also have panic disorder.

Considering this information, we planned to investigate the frequency of sexual dysfunction and whether there is a difference between male and female patients diagnosed with panic disorder who applied to our outpatient clinic.

MATERIALS AND METHODS

Sample

This study was conducted at Baskent University Adana Dr. Turgut Noyan Medical Center, an institution recognized as a reliable host of academic research and trustworthy file systems. The applications and psychiatric interviews were carried out by a competent specialist. This research is designed as quantitative research and is a cross-sectional study. Participants aged between 20-45 who were sexually active, and had no previous history of sexual dysfunction were evaluated. The following exclusion criteria were adopted: presence of comorbid psychiatric and organic disorders; usage of psychotropic medication; usage of any medication that may induce sexual dysfunction; and concomitant

medical conditions that could affect sexual functioning. Sixty two patients were interviewed, 5 of them were excluded: 2 due to psychotic disorders, 2 due to the use of psychotropic medication, and 1 due to an organic disorder. A total of 57 patients, 33 women and 24 men, were included in the study. The participants consisted of patients who applied to the psychiatry outpatient clinic for the first time, were diagnosed with PD according to the DSM-5 at the first interview, were aged 35±6 years, were sexually active, had no previous history of psychotropic drug use, and had no psychiatric comorbidity.

Procedure

Inform consent forms were obtained from all participants. This study was approved by the Baskent University Medical and Health Sciences Research Board on 28.06.2022 with the number E-94603339-604.01.02-139917 (Project no: KA22/284) and was supported by the Baskent University Research Fund.The Arizona Sexual Experiences Scale (ASEX) was applied to the participants in order to investigate the effects of PD which they were experiencing during the evaluation period on their sexual functions. The demographic information of all participants was recorded in the individual data collection form. The evaluation of participants was carried out by a specialist psychiatrist, and the evaluated participants consisted of people who applied to outpatient clinics. Additional organic pathologies of the participants were questioned from the history and retrospectively from the patient's file information, and those with additional medical diseases were excluded from the study. Interviews with the participants were conducted in the outpatient clinic in terms of both psychiatric diagnoses and sexual dysfunctions, and the interviews lasted an average of 40 minutes for each participant.

Clinical assessment tools

Sociodemographic data form

A sociodemographic information form developed by the researcher was used to determine the sociodemographic characteristics of the participants regarding age, marital status, gender, educational status, and employment status.

Arizona Sexual Experiences Scale (ASEX)

ASEX is a five-item self-report scale that evaluates sexual desire, arousal, vaginal lubrication/penile erection, reaching orgasm, and orgasm satisfaction. ASEX evaluates each sexual function on a scale ranging from Likert type 1 (no impairment) to 6 (complete dysfunction). The total possible score ranges from 5 to 30, with higher scores indicating increased SD. Patients with a total scale score of ≥19, or any sub-dimension score of "5" or higher (6), or three or more sub-dimension scores of "4" are more likely to present with SD[11]. The validity and reliability study of the scale in our country was conducted by Soykan (2004) and the cut-off score was found as "11"[12]. In the study, evaluation was made on the total score of the scale and the subscale scores.

Statistical Analysis

The IBM SPSS 25 package program was used in the statistical analysis of the data. Categorical measurements are expressed as numbers and percentages, and continuous measurements as mean and standard deviation (minimum-maximum where necessary). The categorical variables were analyzed with the chi-square test with Yates correction or Fishers' Exact Text. The continuous variables were analyzed with the *t* test of Student. The significance level was at $p< 0.05$.

The power analysis of the study was calculated using the G Power 3.1 program. A moderate effect was found with the post-hoc analysis in the comparison of the mean scores of the groups consisting of 33 and 24 participants (Cojen's d = 0,50). The sample size was measured as 0,58 with 0,05 error margin (p=0,05). Analyses were made single-ended.

RESULTS

57.9% of the participants were female (33 F), 42.1% were male (24 M). The mean age was 35±6. Elementary, high school, and university degrees were 2%, 16%, and 82%, respectively. 89% of the participants were married (Table 1). According to the recommended cut-off score of the Turkish version of the Arizona Sexual Experience Scale (11 points and above), 77.2% of all participants had SD. SD was detected in 81.8% of women and 70.8% of men (Table 2).

The mean ASEX total score for all participants was 14±5 (16±5 in females, 13±4 in males). The mean ASEX total score was found to be higher in women than in men (p=0.024) (Table 3).

Table 1. Sociodemographic characteristics of the participants

	Female	Male	Total
	n (%)	n (%)	n (%)
	33 (57,9)	24 (42,1)	57 (100)
Education			
Primary education	1 (3)	-	1 (2)
High school	8 (24)	1 (4)	9 (16)
University	24 (73)	23 (96)	47 (82)
Marital status			
Married	32 (97)	19 (79)	51 (89)
Single	1 (3)	5 (21)	6 (11)
Working Status			
Worker	27 (82)	24 (100)	51 (89)
Inoperative	6 (18)	-	6 (11)
Age (Mean±Sd)	36±6	35± 7	35±6

Table 2. Percentage distribution of participants with SD according to the cut-off scores of ASEX and its sub-dimensions

	Female (n=33)	Male (n=24)	Total (n=57)
	n (%)	n (%)	n (%)
ASEX total score ≥11	27 (%81.8)	17 (%70.8)	44 (%77.2)
Sexual desire≥5	10(%30.4)	9 (%36.5)	19 (%33.4)
Arousal≥5	5 (%15.2)	0 (%0)	5 (%8.8)
Lubrication/Erection≥5	5 (%15.2)	0 (%0)	5 (%8.8)
Achieving orgasm≥5	6 (%18.2)	1 (%4.2)	7 (%12.2)
Orgasm satisfaction≥5	3 (%9.13)	0 (%0)	3 (%5.3)

Table 3. Male and female differences according to ASEX total and subscale scores in panic disorder patients

	Female (n=33)	Male (n=24)	t	p	Total (n=57)
ASEX total	15.55±5.42	12.54±3.79	2.32	0.024	14.28±4.99
Desire	3.58±1.25	3.63±1.49	0.135	0.89	3.6±1.35
Arousal	3.09±1.18	2.33±0.96	2.57	0.013	2.77±1.15
Lubrication/Erection	2.94±1.27	2.17±0.76	2.65	0.011	2.61±1.15
reaching orgasm	3.21±1.31	2.21±1.02	3.11	0.003	2.79±1.30
Orgasm satisfaction	2.73±1.31	2.21±0.93	1.66	0.1	2.51±1.18

Sexual reluctance was the most common in both genders, found in 30.4% of women and 36.5% of men. There was no statistically significant difference between men and women in the subdimension of sexual reluctance. (p=0.89) (Table 2-3).

Points in the subdimension of arousal and lubrication/erection were significantly higher in women compared to men. 15.2% of the women had arousal and lubrication problems. Arousal and erection problems were not detected in men (Table 2-3). In the subdimension of reaching orgasm, 18.2% of women and 4.2% of men had problems. There was a statistically significant difference in this subdimension between men and women (p= 0.003) (Table 2-3).

There was no statistically significant difference between men and women in the subdimension of orgasm satisfaction (p=0.10) (Table 3).

DISCUSSION

When we looked at the recommended cut-off score of the Turkish version of the Arizona Sexual Experience Scale (11 points and above), 81.8% of women and 70.8% of men had SD. In the normal population, one in three people have had SD at any point in their lives, regardless of gender[13]. Considering this situation, we can say that SD is frequently seen in male and female patients with PD according to our results. In our study, the ASEX total score was found to be higher in women than in men.

This may be due to the fact that the subdimension scores of arousal, lubrication and reaching orgasm are higher in women than in men.

According to our results, sexual reluctance was the most common in PD patients. There was no significant difference between genders in terms of the sexual reluctance subdimension. Sexual reluctance was the most common in both genders, with 30.3% of women and 36.5% of men. Figura et al. reported that sexual reluctance was the most common in patients with PD, similar to our study, and the prevalence of sexual reluctance was 35.7% in men and 50.0% in women[8]. On the other hand, Mercan et al. reported that there was no sexual reluctance in women with PD unless there was accompanying depression[10]. Although it is difficult to exclude minimal signs of depression, our participants consisted of pure panic disorder patients. In addition, although the negative effects of depression on desire have been clearly reported, many studies have pointed out that anxiety disorders can also affect every phase of the sexual cycle, causing problems particularly in the first phase, which is desire[5,6,7].

In our study, the subdimension scores of arousal, lubrication/erection, and reaching orgasm were significantly higher in women than in men. 18.2% of women and 4.2% of men had orgasm problems, and 15.2% of women had subjective and genital arousal problems. None of the male participants had subjective arousal or erection problems. There are conflicting results in studies evaluating the relationship between erectile dysfunction (ED) and PD. According to some studies, it has been reported that the risk of developing ED in PD is higher than the normal population[14], and some studies showed no relationship between PD and ED[15]. In a study conducted on women, results that were partially consistent with our results were reported. In this study, it was determined that sexual reluctance was the most common (25.8%) in women with PD, orgasmic disorder was present in 12.9% of patients, but there was no arousal disorder in women with PD compared to the control group[9].

The mechanisms by which anxiety affects sexual arousal in women are not fully known. In laboratory studies in women, cognitive distraction has been shown to reduce both physiological and subjective arousal to erotic stimuli[16,17]. Women with dysfunction associated with the arousal phase often also have orgasm problems. Studies report that there is a significant overlap between subjective arousal and sexual desire for women, and arousal disorder is often seen together with low sexual desire[18,19]. In our study, we found that women with PD have more arousal and orgasm problems than men. Physiological responses caused by anticipatory anxiety and state anxiety in patients with PD may affect sexual functions in different categories, increasing the susceptibility to arousal and orgasmic disorders in women specific to gender. However, since we did not have a control group, it is difficult to distinguish whether these results are due to anxiety or to differences between normal male and female sexuality. In addition, it may be a matter of discussion how the results we determined in these subdimensions differ significantly from healthy controls.

Our results support studies reporting that sexual reluctance is the most common in PD[4,5,8,9]. The exact cause of the sexual reluctance seen in PD is not known. Some authors attribute this to avoidance due to fear of panic during sexual intercourse, while others explain it as decreased desire partly due to an accompanying depression[5,10,20]. Both acute anxiety and sexual arousal are mediated by changes in autonomic arousal. Therefore, avoidance behavior towards an activity that elicits the same feared sensation may partially explain the sexual reluctance seen in PD. However, self-focused attention to feared sensations common in PD can prevent sexually arousing stimuli and cognitive processing, resulting in sexual aversion[21].

The Arizona Sexual Experiences Scale is not a diagnostic test. Therefore, our findings show risky situations instead. The lack of a control group, the low sample size, and therefore the inability to generalize are the limitations of our study. Another limitation is that sexual dysfunction related to the severity of panic disorder was not evaluated in patients. However, although the participants were in the initial diagnosis process, had no previous psychiatric pathology, and the number of study groups was low, it is valuable that the patients were questioned about their sexual functions during the first onset of panic disorder. One of the strengths of our study is that it evaluated gender differences as well as the frequency of sexual dysfunctions in the initial diagnostic process.

In conclusion, it remains unclear whether the effect of PD on sexual functioning can be attributed to cognitive intervention, a physiological process, or both. However, according to the results of our study,

we can say that the risk of developing SD is high in PD patients, sexual reluctance is most common in both men and women in PD, arousal and orgasm problems are more common in female PD patients than in male PD patients.

In patients with sexual reluctance complaints, it should be considered that sexual dysfunction may develop secondary to panic disorder. Applying appropriate drug therapy to such patients in addition to sexual dysfunction therapy will facilitate the recovery of sexual dysfunctions. Further studies are needed to establish the relationship between SD and PD, with larger sample sizes and research designs that evaluate PD and control groups for SD.

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