



The Effect of Behcet's Disease on Female and Male Sexual Functions

Alireza Khabbazi ¹, Ali Reza Shafiee-Kandjani ^{2,*}, Hadise Kavandi ¹, Morteza Asadi ² and Maryam Panahzadeh ²

¹Connective Tissue Diseases Research Center, Tabriz University of Medical Sciences, Tabriz, Iran

²Research Center of Psychiatry and Behavioral Sciences, Tabriz University of Medical Sciences, Tabriz, Iran

*Corresponding author: Department of Psychiatry, Razi Mental Hospital, Tabriz, Iran. Email: sh_amiri1348@yahoo.com

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Abstract

Background: Behcet's disease (BD) is a chronic disease with adverse effects on sexual function and some likely effects on marital satisfaction, thereby posing some problems in family dynamics.

Objectives: This study aimed to determine the effects of BD on sexual function in females and males and determine the relationship between the clinical manifestations of BD and sexual function.

Methods: Fifty-one patients with BD and 50 healthy controls were included in this study. Inclusion criteria were married, aged 18 - 55 years, sexually active, and having sex during the past four weeks. Sexual function was assessed for the groups using the female sexual function index (FSFI) for women and the international index of erectile function (IIEF) for men.

Results: Sexual dysfunctions were observed in 82.9% of the females with BD and 14.3% of the healthy females. The total score of sexual performance and its subscales were significantly lower in the female patients with BD than the controls. No significant difference was observed between the males with BD and the controls regarding the total score of the IIEF and its subscales.

Conclusions: Sexual dysfunction in BD patients seems to pose a significant problem; hence, it is recommended to be assessed by physicians during routine examinations.

Keywords: Behcet's Disease, Female Sexual Function Index (FSFI), International Index of Erectile Function (IIEF), Sexual Dysfunction

1. Background

Behcet's disease (BD) is a chronic, episodic, and multisystemic inflammatory disease characterized by recurrent oral aphthous and/or genital ulcers, skin lesions, and uveitis. It may involve other organs such as the musculoskeletal system, vessels, gastrointestinal tract, nervous system, and epididymis. In patients with BD, it accounts for significantly higher rates of morbidity and mortality. The most common causes of morbidity in BD are uveitis and neurological and vascular involvement. However, BD can lead to other morbidities such as psychiatric problems and sexual dysfunction (SD).

Sexual satisfaction is an essential indicator of sexual health and is defined as an emotional response to an individual's assessment of the positive and negative dimensions of their sexual relationship. Sexually satisfied individuals claim that they meet one's and their partners' expectations. According to the DSM-5 and based on Mastes and Johnson's work on human sexual response, sexual disorders include sexual desire/aversion disorders (lack of sexual desire), arousal disorders (inability to obtain

arousal during the sexual act), orgasmic disorders (absence of orgasm), and pain disorders (pain during intercourse). SD may be caused by physiological and/or psychological problems (1). Sexual dysfunctions may arise from several medical conditions like as neurological diseases, hormonal imbalances, vascular diseases, renal failure, alcoholism, and side effect of medications. From psychiatric points of view, job stress, anxiety, concern about sexual performance, marital discord or relational problems, depression, guilt feelings, distorted body image, and a history of sexual traumas may develop SD. It may be common in patients with rheumatic diseases due to arthralgia, fatigue, hormonal imbalance, drug side effects, and psychiatric problems (2). The effect of rheumatic diseases on sexual function may differ in each gender.

Although most patients with BD are at the age of maximum sexual activity (3), the impact of this disease on sexual function, especially in women in the Middle East, has not been adequately addressed and has been overlooked by patients and health professionals.

2. Objectives

This case-control study aimed to determine the effects of BD on sexual function in females and males and determine the relationship between the clinical manifestations of BD and sexual function.

3. Methods

3.1. Study Group

This cross-sectional study included 51 Azeri patients with BD who met the International Criteria of Behcet's disease (ICBD) and 50 healthy control counterparts through convenience sampling method (4). Inclusion criteria were married, aged 18 - 55 years, and sexually active. The exclusion criteria were the current use of antidepressants, antipsychotic medications, or any other medications affecting sexual function, alcoholism, substance use disorder, pregnancy or postmenopausal status for women, suffering from chronic diseases such as diabetes, chronic renal failure, cardiovascular disease, and neurological diseases that may negatively affect sexual function, and having communication difficulties, including deafness, loss of vision, or dysarthria. The study design was approved by the local ethics committee (Code: TBZMED.REC.1394.1203). Written informed consent forms were obtained from all participants.

3.2. Data Collection

A questionnaire was used to collect the experimental group's demographic characteristics and clinical manifestations, which encompassed information about gender, age, duration of the disease, and the clinical manifestations of the disease. The duration of BD was set as the time passed since the first manifestation of the disease. A demographic questionnaire was also used to collect the control group's demographic characteristics. Sexual function was assessed in the studied groups using FSFI for women and IIEF for men. Moreover, Symptom Checklist-90-Revised (SCL-90-R) was also used to determine psychological symptoms and distress.

The FSFI assesses sexual functioning in six domains, including sexual desire, arousal, orgasm, satisfaction, pain, and lubrication during the last four weeks (5). It provides six separate scores for the above domains and a total score for sexual performance (total FSFI), with higher scores indicating better sexual functioning (5). Patients with the desire, lubrication, orgasm, and satisfaction scores < 3.6, arousal scores < 3.9, and pain scores < 4 were considered as having SD in the concerned sub-scale (6).

The IIEF assesses sexual functioning in five domains, including erectile function, orgasmic function, sexual desire, intercourse satisfaction, and overall satisfaction for the last four weeks in men (7). Higher scores show better sexual functioning (7). Patients with erectile function, orgasmic function, sexual desire, and overall satisfaction scores ≥ 8 and intercourse satisfaction score ≥ 12 were considered as having SD in the concerned sub-scale (8).

The SCL-90-R is a self-report instrument assessing nine sub-classes of psychiatric symptoms, including somatization, obsessive-compulsive, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, and psychoticism (9). Higher scores represent more severe psychological symptoms (9). Patients with scores ≥ 1 were considered as having SD in the concerned sub-scale (9).

The SCL-90-R, FSFI, and IIEF questionnaires are translated into Farsi, and their validity and reliability have been approved in many studies (10-12). The BD activity was measured using Iranian Behcet's Disease Dynamic Activity Measure (IBDDAM) (13, 14), Total Inflammatory Activity Index (TIAI) (13, 14), and Behcet's disease current activity form (BDCAF) (15).

3.3. Statistical Analysis

SPSS software version 16 was used to analyze the collected data. Descriptive statistics for continuous variables were expressed as mean \pm standard deviation (SD), and categorical variables were expressed as frequencies. Independent *t*-test and chi-squared test were used to compare differences between the groups and between continuous and categorical variables, respectively. Pearson's correlation was used to assess the strength of the relationship among continuous variables. In this study, $P \leq 0.05$ was set as the significance level for all tests.

4. Results

Fifty-one (51) patients with BD and 50 healthy individuals were included in the study. The two groups were homogenous in terms of age, gender, and level of education. Table 1 presents the clinical characteristics of the BD patients. Sexual function was compared in the female participants using the FSFI. According to the total FSFI scores, SD was found in 81.3% of the females with BD and 13.3% of the healthy ones (Table 2). The total score of sexual function and the scores of its subscales were significantly lower in the female patients with BD than the controls (Table 2). Sexual function was assessed in the male participants using the IIEF. No significant difference was observed between males with BD and the controls regarding the total scores of IIEF and the scores of its subscales (Table 3).

Table 1. Demographic and Clinical Characteristics of Research Groups^a

	Males with BD (N = 35)	Healthy Males (N = 35)	P-Value	Females with BD (N = 16)	Healthy Females (N = 15)	P-Value
Age (y)	39.3 ± 7.2	38.4 ± 6.1	0.125	38.3 ± 8.4	37.9 ± 8.6	0.468
Level of Education	10.2 ± 3.1	9.8 ± 3.7	0.302	9.6 ± 4.5	10.1 ± 3.7	0.527
Disease duration (y)	13.52 ± 6.5	-	-	14.4 ± 8.5	-	-
Clinical manifestations						
Oral aphthous ulcer	33 (94.3)	-	-	14 (93.3)		
Genital ulcer	23 (65.7)	-	-	7 (46.7)		
Uveitis	15 (42.8)	-	-	9 (60)		
Skin lesions	12 (34.3)	-	-	2 (13.3)		
Phlebitis	13 (37.1)	-	-	4 (26.7)		
Arthritis	3 (5)	-	-	1 (6.7)		
Epididymitis	3 (8.6)	-	-	-		
Medications						
Prednisolone	45.7 (58.9)	-	-	10 (62.5)		
Cytotoxic drugs	21 (60)	-	-	11 (68.8)		
Colchicine	9 (25.7)	-	-	5 (31.3)		
Biologics	2 (5.7)	-	-	1 (6.3)		
NSAIDs	2 (5.7)	-	-	1 (6.3)		

Abbreviations: BD; Behcet's disease; SD; standard deviation; NSAIDs; nonsteroidal anti-inflammatory drugs.

^a Values are expressed as mean ± SD or No. (%).

Table 2. Comparison of Sexual Performance in Female Patients with BD and Controls by FSFI^a

	Number of Participants with Sexual Dysfunction			FSFI Scores		
	Females with BD (N = 16)	Healthy Control Females (N = 15)	P-Value	Females with BD (N = 16)	Healthy Control Females (N = 15)	P-Value
FSFI desire	12 (75)	4 (26.7)	0.017	2.45 ± 1.4	3.88 ± 0.9	0.004
FSFI arousal	10 (82.9)	7 (46.7)	0.050	2.72 ± 1.8	4.01 ± 0.9	0.024
FSFI lubrication	11 (68.8)	1 (6.7)	0.002	2.85 ± 1.5	4.42 ± 0.6	0.001
FSFI orgasm	7 (43.8)	2 (13.3)	0.040	3.20 ± 2.4	4.96 ± 1.1	0.017
FSFI satisfaction	8 (50)	1 (6.7)	0.016	2.80 ± 1.9	5.15 ± 0.9	0.001
FSFI pain	8 (50)	4 (26.7)	0.199	3.20 ± 2.1	4.93 ± 1.2	0.013
FSFI total	13 (81.3)	2 (13.3)	0.0001	17.23 ± 9.3	27.34 ± 4.3	0.001

Abbreviations: BD; Behcet's disease; FSFI, female sexual function index; SD, standard deviation.

^a Values are expressed as mean ± SD or No. (%).

The relationship between the clinical manifestations of BD and sexual function was assessed in the females and males, and no significant relationship was revealed (Table 4). Total satisfaction in the male BD patients with phlebitis was significantly lower (Table 5). There was no significant relationship between the other clinical manifestations of BD and sexual performance in the males (Table 5). The correlation between BD activity and sexual function in the males and females was assessed using Pearson's correla-

tion. In this regard, intercourse satisfaction in the males only had a significantly negative correlation with BDCAF ($r = -0.512$, $P = 0.025$) and IBDDAM ($r = -0.528$, $P = 0.020$).

Psychological symptoms in the BD and control groups were compared using SCL-90-R. No significant differences were observed between the BD and control groups in the global severity index (GSI) and the nine sub-scales of psychiatric symptoms (Tables 4 & 5). Then, the psychiatric symptoms were compared in the males and females with

Table 3. Comparison of Sexual Performance in Male Patients with BD and Control Group Using IIEF^a

IIEF Domains	Number of Participants with Sexual Dysfunction			IIEF Score		
	Males with BD (N = 35)	Healthy Control Males (N = 35)	P-Value	Males with BD (N = 35)	Healthy Control Males (N = 35)	P-Value
IIEF erection	15 (42.9)	13 (37.1)	0.404	19.37 ± 6.1	20.51 ± 6.1	0.431
IIEF orgasm	9 (25.7)	13 (37.1)	0.220	7.80 ± 2.9	7.60 ± 2.1	0.383
IIEF desire	15 (42.9)	15 (42.9)	0.595	6.61 ± 1.8	7.06 ± 2.5	0.201
IIEF intercourse satisfaction	20 (57.1)	19 (54.3)	0.443	8.45 ± 2.6	9.41 ± 3.4	0.083
IIEF total satisfaction	7 (20.0)	11 (31.4)	0.099	8.27 ± 2.1	7.89 ± 2.1	0.809

Abbreviations: BD, Behcet's disease; IIEF, international index of erectile function; SD, standard deviation.

^a Values are expressed as mean ± SD or No. (%).

Table 4. Relationship Between Clinical Manifestations and Sexual Performance in Female Patients with BD

	FSFI Total	P-Value	FSFI Desire	P-Value	FSFI Arousal	P-Value	FSFI Lubrication	P-Value	FSFI Orgasm	P-Value	FSFI Satisfaction	P-Value	FSFI Pain	P-Value
Genital ulcer		0.261		0.120		0.960		0.835		0.994		0.741		0.092
Yes	19.76 ± 11.7		3.16 ± 1.8		2.82 ± 1.6		2.94 ± 2.2		3.22 ± 2.2		3.12 ± 2.3		4.02 ± 1.8	
No	14.94 ± 9.2		2.11 ± 0.5		2.88 ± 1.8		2.70 ± 1.1		3.24 ± 2.4		2.56 ± 2.4		2.98 ± 0.8	
Uveitis		0.480		0.394		0.567		0.781		0.355		0.197		0.918
Yes	15.3 ± 8.4		2.30 ± 0.8		2.55 ± 1.6		2.95 ± 1.1		2.53 ± 2.5		2.07 ± 1.8		2.93 ± 1.8	
No	20.37 ± 10.3		3.15 ± 2.1		3.31 ± 2.3		2.61 ± 2.4		4.21 ± 2.8		4.01 ± 2.4		3.12 ± 2.8	
Skin lesions		0.605		0.952		0.642		0.617		0.204		0.180		0.702
Yes	21.06 ± 11.7		2.71 ± 1.2		3.45 ± 1.9		2.25 ± 1.2		4.44 ± 2.6		4.32 ± 2.3		2.42 ± 1.8	
No	16.14 ± 9.2		2.62 ± 1.5		2.71 ± 1.4		2.96 ± 1.7		3.64 ± 1.9		2.86 ± 2.4		3.18 ± 0.8	
Phlebitis		0.261		0.120		0.960		0.835		0.994		0.741		0.101
Yes	20.36 ± 12.7		3.61 ± 1.8		2.80 ± 1.6		3.31 ± 2.2		3.33 ± 2.2		3.33 ± 2.8		3.51 ± 2.2	
No	16.05 ± 7.9		2.29 ± 0.5		2.87 ± 1.8		2.67 ± 1.1		3.14 ± 2.4		2.62 ± 2.1		2.97 ± 2.3	

Abbreviations: BD, Behcet's disease; FSFI, female sexual function index.

Table 5. Relationship Between Clinical Manifestations and Sexual Performance in Male Patients with BD

	IIEF Total	P-Value	IIEF Erection	P-Value	IIEF Orgasm	P-Value	IIEF Desire	P-Value	IIEF Intercourse Satisfaction	P-Value	IIEF Total Satisfaction	P-Value
Genital ulcer		0.339		0.361		0.501		0.494		0.091		0.079
Yes	8.56 ± 2.5		9.18 ± 3.8		9.18 ± 4.6		6.95 ± 2.7		7.74 ± 2.5		7.82 ± 2.3	
No	9.33 ± 3.2		7.72 ± 3.0		8.01 ± 6.8		7.65 ± 2.3		9.36 ± 4.8		9.83 ± 2.4	
Uveitis		0.133		0.773		0.895		0.599		0.998		0.729
Yes	9.43 ± 3.1		5.08 ± 1.8		7.16 ± 3.3		7.71 ± 3.3		8.37 ± 3.5		8.02 ± 3.1	
No	8.35 ± 2.7		5.41 ± 2.7		9.02 ± 5.7		7.15 ± 2.2		8.28 ± 3.6		8.33 ± 2.7	
Skin lesions		0.820		0.306		0.120		0.735		0.546		0.929
Yes	8.89 ± 3.4		5.51 ± 2.2		10.17 ± 4.1		7.01 ± 2.5		8.84 ± 3.6		8.17 ± 2.2	
No	8.67 ± 2.7		5.27 ± 3.7		8.07 ± 3.9		7.05 ± 2.7		7.95 ± 3.5		8.25 ± 2.6	
Phlebitis		0.953		0.372		0.585		0.599		0.291		0.408
Yes	8.76 ± 3.6		4.72 ± 4.2		8.41 ± 3.1		6.70 ± 3.8		7.34 ± 2.9		7.81 ± 1.7	
No	8.72 ± 3.1		5.76 ± 2.5		9.17 ± 4.7		7.10 ± 1.7		8.89 ± 3.2		8.51 ± 1.9	

^z Abbreviations: IIEF, international index of erectile function; BD, Behcet's disease.

Table 6. Comparison of Males with BD and Control Groups Regarding Psychological Symptoms Using SCL-90-R

SCL-90-R sub-scales	No. (%)			Scores (Mean \pm SD)		
	BD (N = 35)	Control (N = 35)	P-Value	BD (N = 35)	Control (N = 35)	P-Value
Global severity index	9 (25.7)	11 (31.4)	0.396	0.69 \pm 0.3	0.74 \pm 0.4	0.773
Somatization	10 (28.6)	10 (28.6)	0.604	0.67 \pm 0.3	0.84 \pm 0.4	0.446
Obsessive-compulsive	12 (34.3)	15 (42.9)	0.312	0.93 \pm 0.4	0.95 \pm 0.5	0.887
Interpersonal sensitivity	10 (28.6)	11 (31.4)	0.500	0.73 \pm 0.4	0.74 \pm 0.3	0.927
Depression	8 (22.9)	10 (28.6)	0.393	0.68 \pm 0.3	0.67 \pm 0.3	0.962
Anxiety	8 (22.9)	8 (22.9)	0.612	0.59 \pm 0.3	0.67 \pm 0.3	0.574
Hostility	8 (35.3)	16 (45.7)	0.038	0.68 \pm 0.3	0.98 \pm 0.4	0.132
Phobic anxiety	4 (13.7)	8 (22.9)	0.171	0.33 \pm 0.1	0.46 \pm 0.2	0.412
Paranoid ideation	13 (47.1)	16 (45.7)	0.314	0.86 \pm 0.4	0.95 \pm 0.5	0.637
Psychoticism	10 (28.6)	11 (31.4)	0.500	0.60 \pm 0.3	0.83 \pm 0.4	0.697
Additional questions	10 (28.6)	13 (37.1)	0.306	0.71 \pm 0.4	0.74 \pm 0.4	0.442

Abbreviations: BD, Behcet's disease; SCL-90-R, symptom checklist-90-revised; SD, standard deviation.

BD. The scores of GSI, somatization, obsessive-compulsive, depression, anxiety, psychoticism, and additional questions domains of SCL-90-R in female patients were higher than healthy counterparts (Table 6). Moreover, the other domains of SCL-90-R were higher in women than men; however, they did not reach a significant level (Table 7).

5. Discussion

The present study revealed the relationship between BD and SD in 83% of the females with BD. On the other hand, SD was not prominent in the males with BD, and no relationship was observed between the clinical manifestations of BD and SD in the females with BD. However, phlebitis in the male patients with BD was correlated with less intercourse satisfaction. Moreover, a negative correlation was observed between BD activity and intercourse satisfaction in males. The comparison of the women and men with BD in terms of psychological symptoms showed a higher GSI for these symptoms in women. The scores of somatization, obsessive-compulsive, depression, anxiety, and psychoticism were significantly higher in women than in men.

BD is a chronic disease with some episodes of exacerbation, which can negatively affect the patient's sexual life by causing transient or permanent physical and psychiatric conditions. Psychiatric illness, side effects of medications, physical problems like arthralgia and genital ulcer, endothelial dysfunction, and decreased vasodilator neurotransmitter levels in genital organs are considered as potential underlying etiologies (16-18).

A few studies have addressed SD in the BD patients. Aksu et al. reported two cases of BD with erectile dysfunction;

however, no neurologic involvement was noticed (19). Moreover, penile electrophysiological tests showed venous leak in these patients. In a cohort of 24 patients with neuro BD, Erdogru et al., evaluated erectile dysfunction and compared the results with the control group (20). In their study, 63% of the patients had erectile dysfunction, and mixed vasculogenic impotence was the most common type. Moreover, arterial insufficiency, venous-occlusive dysfunction, and neurogenic impotence were the other types. Kaul et al. reported a man with BD whose sexual function assessment by the IIEF revealed erectile dysfunction (21) but no history of vascular or neurological symptoms. Penile color Doppler ultrasonography revealed no vascular abnormality. Moreover, the psychological assessment by Hamilton's Anxiety and Depression Scale revealed moderate levels of depression and anxiety disorder. Hiz et al., in a study on 42 male BD patients, revealed that the mean scores of the IIEF for erectile function were significantly lower in the BD group (20.6 ± 4) than in the control group (29.2 ± 0.8) (22). There was no significant relationship between the skin lesion, oral ulceration, genital ulceration, and uveitis with the IIEF scores. However, the IIEF score was significantly lower in BD patients with articular involvement (19.7 ± 3.1) than those without articular involvement (22.5 ± 5.3).

In contrast to the present study, Yildiz et al. studied male patients with BD and observed SD in all IIFE parameters. Moreover, they found a relationship between SD and the patients' psychological status (23). In a study on 25 sexually active females with mucocutaneous BD, SD was diagnosed using FSFI in 56 and 41% of the BD and control groups, respectively (24). Regarding the FSFI domains, the

Table 7. Comparison of Females with BD and Control Groups Regarding Psychological Symptoms Using SCL-90-R

SCL-90-R sub-scales	No. (%)			Scores (Mean \pm SD)		
	BD (N=16)	Control (N=15)	P-Value	BD (N=16)	Control (N=15)	P-Value
Global severity index	10 (62.5)	9 (60.0)	0.610	1.36 \pm 0.8	1.36 \pm 0.8	0.481
Somatization	13 (81.3)	6 (40.0)	0.035	1.73 \pm 0.9	1.11 \pm 0.7	0.048
Obsessiv-compulsive	11 (68.8)	11 (73.3)	0.426	1.53 \pm 0.9	1.55 \pm 0.8	0.927
Interpersonal sensitivity	9 (56.3)	9 (60.0)	0.471	1.19 \pm 0.8	1.16 \pm 0.7	0.926
Depression	10 (62.5)	7 (46.7)	0.374	1.83 \pm 1.1	1.28 \pm 0.8	0.134
Anxiety	11 (68.8)	11 (73.3)	0.426	1.44 \pm 0.8	1.42 \pm 0.8	0.946
Hostility	8 (50)	9 (60.0)	0.398	1.06 \pm 0.7	1.28 \pm 0.6	0.409
Phobic anxiety	3 (18.8)	4 (26.7)	0.419	0.66 \pm 0.4	0.51 \pm 0.3	0.505
Paranoid ideation	11 (68.8)	10 (66.7)	0.596	1.26 \pm 0.7	1.14 \pm 0.6	0.694
Psychoticism	8 (50)	5 (33.3)	0.334	1.09 \pm 0.7	0.86 \pm 0.4	0.400
Additional questions	9 (56.3)	9 (60.0)	0.471	1.17 \pm 0.7	1.35 \pm 0.8	0.551

Abbreviations: BD, Behcet's disease; SCL-90-R, symptom checklist-90-revised; SD, standard deviation.

only significant difference was higher pain scores in the BD group compared to the control group. SD was more common in the BD patients with depression than the patients with no depression. No significant relationship was revealed between the FSFI score and the presence of genital ulceration. In a study on 50 patients with BD, Gul et al. found SD in 80% of the BD group and 30% of the control group (25). The total scores of the Arizona Sexual Experiences Scale (ASEX) and Golombok Rust Sexual Satisfaction Scale (GRISS), and the scores of the dissatisfaction, avoidance, vaginismus, and anorgasmia sub-scales in the GRISS were significantly higher in the female BD patients than in the control group. No significant difference was observed between the groups in terms of infrequency, noncommunication, and female nonsensuality sub-scales. The ASEX score and the scores of the impotence, premature ejaculation, dissatisfaction, and infrequency sub-scales were higher in the male patients with BD. The scores of nonsensuality, avoidance, and noncommunication problems were not different in the studied groups. They also assessed the participants' psychological status using the Hamilton Depression Rating Scale (HDRS) and Hamilton Anxiety Rating Scale (HARS) and reported a positive relationship between the HDRS and HARS scores with SD in the BD patients. They reported that the rate of SD in the BD patients with depression is twice as large as that of the BD patients without depression. The comparison of the females and males in the BD and control groups regarding the HARS, HDRS, ASEX, and GRISS total scores showed higher scores for all scales in the female patients. Kocak et al. studied the sexual function and the presence of depression using the FSFI and Beck Depression Inventory (BDI) in 71 women

with BD and 63 healthy individuals (16). In their study, the BDI scores were higher in the BD group. SD in the BD group was twice as much as SD in the control group. Diminished arousal (69.0%), diminished sexual desire (45.1%), and lubrication problems (50.7%) were the most common sexual problems in the patients with BD. They found a negative correlation between the BDI and FSFI scores in the BD group and no relationship between genital ulceration and the frequency of SD.

To the best of our knowledge, our study was the first report on SD in BD patients in the Azeri population. However, this study had some limitations. We studied a relatively small number of patients. Moreover, this cross-sectional study did not consider the role of sexual function in the course of the disease.

5.1. Conclusions

BD is a chronic disease with adverse effects on sexual function, including all aspects of sexual function in female patients with BD, and only sexual desire and intercourse satisfaction in males with BD. SD is associated with the psychological status of females with BD. In conclusion, SD in patients with BD seems to raise a major problems; hence, it should be assessed by physicians during routine examinations.

Footnotes

Authors' Contribution: Ali Reza Shafiee-Kandjani: Drafting the manuscript, assessing patients' sexual function and psychological status; Maryam Panahzadeh: Assessing patients' sexual function and psychological status,

data collection; Hadise Kavandi: Assessing patients' sexual function and psychological status; Morteza Asadi: Data collection and analysis; Alireza khabbazi: Supervision of the study, Critical revision of the manuscript for important intellectual content.

Conflict of Interests: The results of this article are derived from the General Practitioner thesis of Maryam Panahzadeh registered in the Tabriz University of Medical Sciences. There Is No Conflict of Interest.

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Ethical Approval: The study design was approved by the local ethics committee (Code: TBZMED.REC.1394.1203).

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