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RESEARCH ARTICLE

Mental Health in Women with Vaginismus

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Abstract:

Introduction:

Vaginismus disorder is one of the most common sexual disorders in women, which is characterized by involuntary muscle spasms of the outer third of the vagina and interferes with vaginal intercourse.

Objective:

The present study aimed to assess self-esteem, sexual self-concept, and irrational beliefs in vaginismus women with other women who do not have sexual problems.

Methods:

This study was a cross-sectional analytical study conducted on 60 married women aged 18 to 35 years old (vaginismus=30, control=30) by convenient sampling in 2020. The samples were selected from a sexual disorders' clinic. The written informed consent forms were obtained. It took 30 to 40 minutes to complete the questionnaires The Multidimensional Sex Questionnaire (MSQ), The Sexual Self-esteem Inventory for Women (SSEI-W) and Jones' Irrational Beliefs Test (IBT-40). The data were analyzed using statistical methods at the levels of descriptive and inferential statistics of chi-square and t-test with SPSS 23.

Results:

According to the calculated mean for each group, it can be said that the women with vaginismus vs. control had lower score in sexual self-concept (113.33 ± 21.66 vs. 125.26 ± 24.32). Further, the mean of Self-esteem and irrational belief in the vaginismus and control groups were 261.40 ± 49 vs 223.36 ± 46.53 and 122.26 ± 22.49 vs 118.333 that of the control group, indicating a significant statistical difference ($p=0.003$).

Conclusion:

The present study showed that women with vaginismus have lower sexual self-concept and self-esteem, but their non-sexual irrational beliefs have no difference with those of non-affected women though their non-sexual beliefs are different. Therefore, it seems that medical and educational programs must focus on changing these variables.

Keywords: Vaginismus, Mental health, Sexual health, Women, Sexual self-concept, Sexual problems.

Article History

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1. INTRODUCTION

Vaginismus disorder is one of the most prevalent sexual disorders in women, which is characterized by an involuntary muscle spasm of the outer third of the vagina and interferes with vaginal intercourse [1]. The prevalence of sexual dysfunctions, including vaginismus, varies in different societies

and is influenced by various racial, cultural, socio-economic, psychological, and medical factors. Traditional beliefs, mostly derived from cultural aspects related to the values of virginity, should be considered in the management of vaginismus [2]. The frequency of the disease in the community has been reported to be between half to one percent [3], but its prevalence in clinicians in western societies has been 5-17% [4]. Problems such as the couple's sexual satisfaction, mental health problems, and sexual dysfunction of spouses, such as erectile dysfunction and premature ejaculation are more

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common in these patients than the general population [5, 6]. Although the etiology of vaginismus is not known, it is expected to be multifactorial [7]; this means that psychological aspects, such as misconceptions and inadequate sexual education in childhood and adolescence, are involved in the etiology of this disease. In many cases, sexual dysfunctions can be considered the result of a lack of knowledge about the fundamental reality of the sexual response system or a misconception about sexual issues. The self-critical cognitions, resulting in negative spontaneous thoughts, raise negative emotions such as sadness, confusion, guilt, lack of pleasure and satisfaction, and sexual response dysfunction [8, 9]. Since the sexual dysfunction of vaginismus is a relatively common disorder and lack of knowledge about its psychological aspects, we consider to compare the irrational beliefs and level of sexual self-esteem, sexual self-concept in women who suffer from vaginismus with women who do not have vaginismus.

2. METHODS

2.1. Patients

This study was a cross-sectional analytical study conducted on 60 married women aged 18 to 35 years old in 2020 by convenient sampling. Inclusion criteria were diploma educational levels and possessing no mental and physical illnesses.

2.1.1. Study Setting

30 women with vaginismus and 30 women without vaginismus, referred to one of the polyclinics in Tehran participated in the study.

2.1.2. Sample Size

The sample size was calculated using proportion formula considering 95% and 80% power coefficients, $P=50\%$, $q=50\%$, and $d=0.05$, accordingly, 30 were placed in each group and due to the unspecified spread of vaginismus in the study population p and q were considered 0.5.

2.1.3. Implementation

The women who had the willingness and the criteria to participate in the study were included in the projects (60 out of 85 participated). The written informed consent forms were obtained. 30 other women with other gynecologic diseases (just vaginitis) were assigned to the control group.

The inclusion criteria were Iranian nationality, minimal literacy for writing and reading, minimum age of 18, married women, absence of any psychological illness (no history of taking psychiatric medications and without any sexual dysfunction in their spouse. Exclusion criteria were unwillingness to continue participation in the project and failure to complete the questionnaire.

Explaining the purposes of the study, the questionnaires were provided to the participants in the clinic. It took 30 to 40 minutes to complete the questionnaires and the subjects read the items and answered them. The vaginismus was diagnosed by a sexologist using the criteria of the Fifth Guide to

Diagnostic and Statistics of Mental Disorders (American Psychiatric Association, 2013).

2.1.4. Collecting Data Tools

The Multidimensional Sex Questionnaire (MSQ) by Snell, Fisher, and Walters (199) was used in the study. It assesses the psychological tendencies related to sexual relations, which reflect some components of sexual self-concept with 60 items. It is scored on a 5-option Likert scale (from 0 to 4). It is a self-assessment objective tool including 12 subscales of sexual dignity, sexual mind occupation, internal sexual control, sexual awareness, sexual motivation, sexual anxiety, sexual assertiveness, sexual depression, external sexual control, sexual monitoring, sexual fear, and sexual satisfaction. Other results showed that all 12 subscales had acceptable reliability (alpha coefficient ranged from 71% to 94% with the mean of 85%, the retest reliability coefficients ranged from 50% to 86% with the mean of 0.78) [10].

The Sexual Self-esteem Inventory for Women (SSEI-W) was another questionnaire used in the study. The questionnaire consisted of 81 items and 5 subscales of skill and experience (the ability to enjoy sexual partner), attractiveness (beauty and self-attractiveness), control (the ability to manage thoughts), moral judgement (the ability to evaluate sexual feelings and behaviors with moral standards), and adaptability (the ability to adapt sexual behavior experiences to the other person's goals). This questionnaire was developed by Zina and Schwarz (1996) [11]. In Iran, Farrokhi *et al.* determined its reliability and validity and it has been used and researched [12]. Jones' Irrational Beliefs Test (IBT-40) with four factors of helplessness against change, expecting approval from others, problem avoidance, and emotional irresponsibility was another questionnaire used in this study. The scoring of this test is on a 5-option Likert scale. This test has also been used in Iran [13].

2.1.5. Statistical Analysis

The data were analyzed using statistical methods at the levels of descriptive and inferential statistics of chi-square, Fisher – exact test and t-test with SPSS 23.

2.1.6. Ethical Considerations

This study was approved by the ethical committee of Islamic Azad University. The participants in this study signed the written informed consent forms, moreover, women had the right to participate or leave the study.

3. RESULTS

3.1. Demographic Characteristic

For demographic analysis, chi-square was used. As seen in Table 1, in terms of educational degree, the highest degree in the vaginismus group was Master's Degree obtained by 16 people (53.3%) and the lowest degree was Diploma obtained by 5 (16.7%). The highest degree in healthy group was Master Degree (7 (23.3%)) and the lowest degree was Diploma (12 (40%)). The mean age was 25.37 ± 4.19 and 23.96 ± 3.25 in the vaginismus and in control ($p=0.04$), respectively.

Table 1. Demographic characteristics in vaginismus and control women.

		Women Group		P value
		Control N(%)	Vaginismus N(%)	
Education level	Diploma	12(40)	5(16.7)	*0.03
	Associated degree	11(36.7)	9(30)	
	Master degree	7(23.3)	16(53.3)	
Income (Million Tooman)	Less than 5	5(17)	6(20)	*0.94
	5 and 10	11(37)	9(30)	
	10 to 15	7(23)	8(27)	
	More than 15	7(23)	7(23)	
Job	employed	11(37)	13(43)	*0.39
	Housewife	19(63)	17(57)	
Mean age	-	25.37±4.19	23.96±3.25	**0.04

Note: *Chi-square-test, **T-test

3.2. Sexual Concept

With reference to normal distribution data, t-test was implemented to compare the means of sexual concepts in both groups. Women with vaginismus vs. control had lower score in sexual self-concept (113.33 ± 21.66 vs. 125.26± 24.32). On the other hand, the mean of sexual depression (5.967± 3.73 vs. 11.93± 5.98), sexual anxiety (4.86±4.96 vs. 13.73±5.22), and fear of relationship (7.16±3.89 vs. 11.23±3.56) were higher

than control women (Table 2).

3.3. Self-esteem

With reference to normal distribution data, t-test was implemented to compare the means of self-esteem in both groups. Other results are presented in Table 2. Furthermore, the mean of self-esteem in the vaginismus group was 261.40±49 and that of the control group was 223.367± 46.53, indicating a significant statistical difference (p=0.003).

Table 2. The mean of sexual concept and its subgroups in vaginismus and control groups.

	Group (n=30)	Mean	SD	*P value
Sexual Dignity	Control	14.86	4.67	0.001
	Vaginismus	9.40	4.51	
Sexual mental occupation	Control	8.70	2.83	0.255
	Vaginismus	9.70	3.82	
Internal sexual control	Control	12.06	4.59	0.398
	Vaginismus	11.13	3.86	
Sexual motivation	Control	12.26	5.44	0.261
	Vaginismus	13.80	5.00	
Sexual awareness	Control	14.33	4.34	0.099
	Vaginismus	12.56	3.81	
Sexual depression	Control	3.86	5.08	0.001
	Vaginismus	11.93	5.98	
Extrenal sexual control	Control	5.96	3.73	0.739
	Vaginismus	6.33	4.70	
Sexual monitoring	Control	3.86	5.19	0.096
	Vaginismus	6.20	5.47	
Sexual anxiety	Control	4.86	4.96	0.001
	Vaginismus	13.73	5.22	
Sexual assertiveness	Control	11.53	3.11	0.616
	Vaginismus	12.00	3.99	
Fear of sex	Control	7.16	3.89	0.001
	Vaginismus	11.23	3.56	
Sexual satisfaction	Control	13.83	5.32	0.001
	Vaginismus	7.23	4.97	
Sexual self- concept	Control	113.33	21.66	0.049
	Vaginismus	125.26	24.32	

Note: *T-test

Table 3. The mean of Sexual Self-esteem, Irrational believes and their subgroups in vaginismus and control groups.

-	-	Group(n=30)	Mean	SD	*P value
Sexual self- esteem	Skill/Experience	Control	47.30	13.46	0.001
		Vaginismus	64.23	16.27	
	Attractiveness	Control	51.66	11.53	0.58
		Vaginismus	53.40	12.84	
	Control	Control	48.53	3.86	0.48
		Vaginismus	49.33	4.88	
	Moral Judgement,	Control	36.46	13.20	0.306
		Vaginismus	40.06	13.78	
	Adaptation	Control	37.23	13.2657	0.001
		Vaginismus	52.33	13.6188	
Total	Control	223.36	46.53	0.003	
	Vaginismus	261.40	49.01		
Irrational believes	helplessness against change	Control	43.033	8.34	0.111
		Vaginismus	46.667	9.02	
	Expecting approval from others	Control	33.433	5.52	0.967
		Vaginismus	33.35	6.66	
	Avoiding problems	Control	14.26	4.76	0.602
		Vaginismus	13.70	3.52	
	Emotional irresponsibility	Control	27.60	6.59	0.604
		Vaginismus	28.53	7.26	
	Total	Control	118.333	19.60	0.473
		Vaginismus	122.26	22.49	

Note: *T-test

3.4. Irrational Beliefs

With reference to normal distribution data, t-test was implemented to compare the means of irrational beliefs in both groups. The irrational beliefs means are shown in Table 3. The results illustrated that there was no significant difference in irrational beliefs between the two groups.

4. DISCUSSION

The present study showed that the women with vaginismus felt low sexual dignity, high sexual anxiety and felt more depressed in comparison with healthy women. Similarly, subscale self-conception showed that these women were more afraid of intercourse and they had low sexual satisfaction. Ziaei et al. concluded in their study on 79 women referring to medical health centers to find that there is an inverse relationship between sexual self-concept and sexual dysfunction, i.e., the lower the self-concept, the higher the pain of dyspareunia [14]. A systematic review study indicated that the biological, mental, and social factors affect sexual self-concept and one of the biological factors is a person's inability [15]. Since vaginismus is a woman's inability to have sex, it can be said that this inability affects her sexual self-concept compared to other women. Sexual self-concept, which is different in every person and can be positive or negative, affects the person's sexual performance or behavior. Women with positive sexual self-concept are more motivated for sex and experience more romantic relationships. Moreover, they have more successful, pleasurable, and satisfactory sexual experiences. They are also more likely to have sex with their partners. Therefore, negative self-concept in women with

vaginismus reduces their tendency to have sex [16]. Yazdani's study showed that counseling via smartphone in infertile women can increase the positive aspects of self-concept and decrease the negative aspects such as fear and anxiety [17]. Therefore, we recommend counseling interventions in order to improve self-concept in women with vaginismus. Other results of the present study showed that sexual self-esteem of women with vaginismus was lower than that of the health group. People with high self-esteem are more able to express their sexual desires [18] and are confident that they will be accepted for sex. High sexual self-esteem and appropriate sexual performance play a key role in increasing marital satisfaction and hence increasing quality of life. People with high self-esteem have the ability to have a happy and successful relationship with their partners [19, 20]. There was no significant difference between the affected and healthy women with vaginismus in terms of irrational beliefs and the subscales of helplessness against change, expecting approval from others, problem avoidance, and emotional irresponsibility. The studies showed that women with vaginismus suffer from cognitions that sexual relationships are shameful and dangerous, and cognitive-behavioral therapies have had a positive effect on these cognitions and the treatment of vaginismus [21]. A study showed that women with vaginismus suffer from misconceptions such as fear of pain due to genital penetration, fear of bleeding during intercourse, fear of penis size, hatred of looking or touching the genitals, fear of vaginal mismatch, and hatred of semen more than healthy women. As compared to healthy women, the women with vaginismus showed considerably higher general anxiety, higher level of education, and low self-confidence [22]. The present study showed that

there was no difference between women with vaginismus and healthy women in irrational beliefs in general aspects; however, their sexual beliefs are different, and this can be influenced by their low sexual self-concept and self-confidence. This is in line with what Cherner and Racing showed that women with vaginismus have lower positive cognitions and beliefs and higher negative cognitions and beliefs in vaginal intercourse [23].

RESEARCH LIMITATIONS

One of the limitations of the study was the small sample size. In addition, the patients were selected from the women who were referred to the clinic, consequently, the results cannot be generalized.

The researchers suggest to perform further studies with a larger population on other intermediate psychological variables in relation to patients with vaginismus.

CONCLUSION

The present study showed that women with vaginismus have lower sexual self-concept and self-esteem. Therefore, it seems that psychological interventions, educational and counseling programs must focus on improving the self-concept and self-esteem variables.

ETHICS APPROVAL AND CONSENT TO PARTICIPATE

The study was conducted complying with the following ethical code (IR.IAU.ARAK.REC.1399.038) which was obtained from the Islamic Azad University form.

HUMAN AND ANIMAL RIGHTS

No animals were used in this research. All human research procedures followed were in accordance with the ethical standards of the committee responsible for human experimentation (institutional and national) and with the Helsinki Declaration of 1975, as revised in 2013.

CONSENT FOR PUBLICATION

Written informed consent and assent were obtained from each participant.

STANDARDS OF REPORTING

STROBE guidelines were followed.

AVAILABILITY OF DATA AND MATERIALS

The data and materials used to support the findings of this study are available from the corresponding author [M.M.J] and we were not allowed to attach the data by Islamic Azad University.

FUNDING

This Master's Degree Thesis was approved by the Islamic Azad University of Mahallat and was funded under the code: 2002905330619701398118046 for implementation.

CONFLICT OF INTEREST

There was no conflict of interest between the authors.

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