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RESEARCH ARTICLE

Evaluation of Sexual Function and Satisfaction Before and After Therapy in Couples Who Applied With The Diagnosis of Vaginismus

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Abstract

Introductıon: The aim was to evaluate changes in sexual function and satisfaction after therapy in couples who applied with a provisional diagnosis of vaginismus.
Methods: : From December 2017 to December 2018, couples who applied with a provisional diagnosis of vaginismus at the Sexual Dysfunction Polyclinic of Hospital were assessed before and after therapy with the Female Sexual Function Scale (FSFI), the International Erectile Function Form (IIEF), and the Golombok-Rust Sexual Satisfaction Scale (GRISS), as well as the Beck Depression and Anxiety Form, and the results were recorded.
Results: Forty-one couples who presented to the sexual dysfunction outpatient clinic with a diagnosis of vaginismus participated in the study. After treatment, there was significant improvement in GRISS scores in men and women, FSFI scores in women, and IIEF scores in men.
Beck's depression scores decreased significantly in both men and women. In addition, Beck anxiety scores decreased significantly in women ($p < 0.01$, $p < 0.01$, $p < 0.01$, $p < 0.01$, $p < 0.01$, $p < 0.01$, respectively).
Conclusıon: After sex therapy, there was a significant improvement in GRISS scores in both men and women, FSFI scores in women, and IIEF scores in men. Depression scores decreased significantly in both men and women. In addition, anxiety scores decreased significantly in females. The improvement in male sexual function in sex therapy during vaginismus treatment compared to pretreatment is new information in the literature

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Introduction

Vaginismus is the inability to have sexual intercourse as a result of irregular or continuous involuntary contraction of the vaginal muscles during sexual activity. In the new American Psychiatric Association (APA) guideline (DSM-5), vaginismus was identified as a genito-pelvic penetration disorder and included in the guideline.[1] Although the prevalence is reported in the literature to be approximately 0.5-6% [2,3] different prevalences have been found in many studies conducted in different countries. This suggests that vaginismus is a disorder influenced by cultural differences.

Vaginismus affecting couples was described many years ago. Trotula of Salerno, in her 1547 work The Diseases of Women, is said to have given the earliest description of vaginismus: 'a tightness of the vulva, so that even a seduced lady may look like a virgin." However, Sims was the first to describe vaginismus as it is known today .[4] This can affect the sexual compatibility of many couples and lead to stress, anxiety, and relationship problems in the partnership. Vaginismus has a complex etiology and can result from a combination of psychological, physiological, and relationship factors. Despite its complexity, vaginismus is a condition that is easily treated. A meta-analysis found that 80% of patients benefit from treatment.[5]

Vaginismus is attempted to be treated with methods such as cognitive behavioral sex therapy (CBT), pelvic floor training, and pharmacological therapy.[6] Behavioral therapy (IMB) is a relaxation-based pelvic floor sex therapy developed by Fisher.[7] The goal of this study is to compare the degree of sexual satisfaction in couples with vaginismus before and after treatment, as well as to look at the effects of the IMB-based therapy program on sexual satisfaction. This study will help us understand how sexual satisfaction changes in couples treated for vaginismus and evaluate the success of treatment strategies.

Material And Methods

This is a prospective study in which the sexual functions of couples who had registered at the Sexual Dysfunction Outpatient Clinic of Hospital between December 2017 and December 2018 with a provisional diagnosis of vaginismus were evaluated before and after therapy. Before therapy, all patients underwent gynecological examination and it was found that there was no anatomical problem, after which therapy was initiated accordingly. Sexual therapy was performed on the patients in the presence of the same psychologist (N.B.) and obstetrician (S.Y.E.) and was completed after 8 sessions. To assess sexual function, the Female Sexual Function Scale (FSFI) and the International Erectile Function Form (IIEF) were employed, and to assess sexual satisfaction, the male and female forms of the Golombok-Rust Sexual Satisfaction Scale (GRISS) were utilized. Before and after therapy, patients' anxiety and depression levels were assessed using the Beck Depression and Anxiety Form.

For each patient, age, body mass index (BMI), work status, education level, presence of an unwanted child, previous sexual abuse, parental separation situation, smoking, drinking and drug habits, masturbation, premarital sexual experience, coital frequency, vulvodynia, vaginismus symptoms, and previous treatments were recorded. The Helsinki Declaration was followed in this study, which was authorized by the institutional review board (approval number: 27/12/2017/7). All participants provided verbal and written informed consent.

GRISS, a test developed by Rust and Golombok and approved in Turkey[8,9], is the first test we used. The test consists of 28 items and is used to assess sexual dysfunction in heterosexual couples. The form used for women contains scales with titles such as vaginismus, anorgasmia, female emotionality, and dissatisfaction. The form prepared for men contains several titles. Impotence, Premature Ejaculation, Frugality, Male Avoidance, Male Apathy, and Male Dissatisfaction are the symptoms. The index can have a maximum score of 9.0 and a minimum value of 1.0. Higher scores imply a worsening in sexual function and relationship quality.

FSFI; It is a test developed by Rosen et al.[10] to assess female sexuality. The scale assesses sexual function over the past four weeks using six subcategories. Sexual desire, arousal, lubrication, orgasm, satisfaction, and pain are examples of these. The smaller the loss of function, the better the score. On the scale, the maximum possible score is 36.0, and the lowest possible score is 2.0. The cut-off point is 26.55, and anything below implies sexual dysfunction. This test has been translated into Turkish.[11,12]

The International Index of Erectile Function (IIEF) is an erectile dysfunction questionnaire. Rosen et al. established the IIEF's overall dependability. The index's 15 items, which are divided into

five categories of sexual function (erectile function, orgasmic function, sexual desire, satisfaction with sexual intercourse, and general satisfaction), shown adequate validity, sensitivity, and specificity. The index can have a maximum score of 75.0 and a minimum value of 5.0. The smaller the loss of function, the higher the questionnaire score. Based on the scores, the IIEF scale categorizes erectile dysfunction as severe (1-10), moderate (11-16), moderate to mild (17-21), light (22-25), and no erectile dysfunction. (26-30).[13] The Turkish Andrology Society has validated the IIEF's validity and reliability.[14]

The Beck Depression Inventory is a 21-item questionnaire that examines depression's presence and severity.[15] The survey items were chosen to represent symptoms often linked with depression disorder, such as melancholy, pessimism, crying bouts, guilt, self-hatred and self-reproach, irritability, social withdrawal, work inhibition, sleep and eating disorders, and loss of libido. The Turkish version's validity and dependability were proved. The total score ranges from 0 to 63, with a cut-off number of 17.[16]

The Beck Anxiety Inventory is a self-report questionnaire with 21 items that largely measures somatic anxiety symptoms such as palpitations, uneasiness, inability to relax, and dizziness or light-headedness.[17] Thirteen items are graded on a four-point scale ranging from 0 (not at all) to 3 (very severe: I could hardly stand it). Ulusoy et al. 18 assessed the Turkish version's validity and reliability[18].

Statistical analysis

The SPSS 23.0 program was used for the statistical analysis of the investigation. To summarize the data, descriptive statistics were employed. The mean and standard deviation of categorical variables were reported. The Shapiro-Wilk test was used to determine the normal distribution of continuous variables. The paired sample t test was employed if the seasonal changes were regularly distributed. For nonparametric paired samples, the Wilcoxon signed rank test was utilized. For statistical significance, a p 0.05 significance level was chosen.

Result

Forty-one couples presenting to the sexual dysfunction outpatient clinic with a diagnosis of vaginismus were included in the study. The mean age was 26 (18-40) years in women and 27 (18-42) years in men. The mean BMI was 29.5±4.4 in the women and 29.7±2 in the men. 56.1% of women (n=23) and 12.2% of men were not employed, which was statistically significant (p=0.01). While the educational level of women was the highest (34.1%), the majority of men had a college degree (48.8%) (p=0.03). For both genders, 12.2% (n=5) had unwanted child status and 2.4% (n=1) had a history of sexual abuse. 48.8% of men (n=20) smoked statistically significantly more than women ($p < 0.01$). 87.8% (n=36) of men masturbated statistically significantly more than women, and 58.5% (n=24) had premarital sexual experiences ($p < 0.01$ and $p < 0.01$, respectively). Frequency of sexual intercourse was once per week or less in 61% (n=25). Vulvodynia was noted in 43.9% (n=18) of women and vaginismus in 100% (n=41). 70.7% (n=29) of women had not previously received treatment (Table 1). After 8 therapy sessions, 35 couples had vaginal penetration and 6 couples were encouraged to continue sessions.

Table 1. Sociodemographic and clinical characteristics of couples.

	Female n=41 (%)	**Male n=41 (%)**	**p**
Age (year, median (min-max))	26(18-40)	27(18-42)	1.0
BMI (kg/m2)	29.5 ±4.4	29.7±2	0.79
Working status			**0.01**
Working	23(56.1)	36(87.8)	
Not working	18(43.9)	5(12.2)	
Graduated, % (n)			0.03
Primary school	12(29.3)	7(17.1)	
Elementary school	14(34.1)	6(14.6)	
High school	6(14.6)	8(19.5)	
University	9(22)	20(48.8)	
Unwanted child	5(12.2)	5(12.2)	1.0
History of sexual abuse	1(2.4)	1(2.4)	1.0
Parents separate	5(12.2)	3(7.3)	0.71
Smoking habit	4(9.8)	20(48.8)	**<0.01**
Drinking habit	5(12.2)	7(17.1)	0.532
Recreational drug use	1(2.4)	1(2.4)	1.0
Masturbation	7(17.1)	36(87.8)	**<0.01**
Premarital sexual experience	2(4.9)	24(58.5)	**<0.01**
Coit frequency			
No coit	9(22)	-	
once week	25(61)	-	
≤ 3 a week	4(9.8)	-	
>3 a week	3(16.7)	-	
Vulvodynia	18(43.9)	-	
Vajinismus	41(100)	-	
Previous treatment	-		
No treatment	29(70.7)	-	
Vaginal examination	6(14.6)	-	
Psychotherapy	2(4.9)	-	
Botox application	3(7.3)	-	
Vaginal operations	1(2.4)	-	

Chi square test performed. BMI, Body mass index. Data is a given as mean± Standard deviation. Results were accepted as 95% confidence interval and p value <0.05 significant.

It was found that when sexual function was assessed using the FSFI score before and after therapy, there was a statistically significant change in desire, arousal, lubrication, orgasm, satisfaction, pain, and total FSFI score (respectively p < 0.01, p < 0.01, p < 0.01, p). =0.01, p < 0.01, p < 0.01, p < 0.01, Table 2). When assessing men's sexual function with the IIEF score before and after therapy, a statistically significant change was observed in erectile function, orgasmic function, sexual desire, satisfaction with sexual intercourse, overall satisfaction, and total IIEF score (respectively p < 0.01, p < 0.01, p < 0.01, p < 0.01, p < 0.01, p < 0.01, Table 2).

Table 2. Couples' depression, anxiety, sexual satisfaction and functional scores before and after therapy.

	Female before therapy (Mean± standard deviation)	Female after therapy (Mean± standard deviation)	Z	P	Male before therapy (Mean± standard deviation)	Male after therapy (Mean± standard deviation)	Z	P
FSFI score								
Desiree	2.85±1.71	3.8±1.6	-5.30a	**<0.01**	-	-	-	-
Arousal	2.5±1.4	3.7±1.7	-4.93a	**<0.01**	-	-	-	-
Lubrication	2.8±1.5	3.4±1.6	-3.88a	**<0.01**	-	-	-	-
Orgasm	3.2±1.5	3.8±1.8	-2.54a	**0.01**	-	-	-	-
Satisfaction	3.3±1.6	3.7±1.4	-316a	**<0.01**	-	-	-	-
Pain	2.7±1.6	3.7±1.4	-5.16a	**<0.01**	-	-	-	-
Total	21.04±3.8	29.8±3.8	-5.41a	**<0.01**	-	-	-	-
IIEF score								
EF	-	-	-	-	25.4±3.4	27.8±2.1	-5.27a	**<0.01**
OF	-	-	-	-	7.2±2.5	8.9±1.2	-5.08a	**<0.01**
SD	-	-	-	-	6.6±2.2	8.5±1.3	-5.306 a	**<0.01**
IS	-	-	-	-	10.3±3.08	13.1±1.6	-5.34 a	**<0.01**
OS	-	-	-	-	6.7±2.1	8.6±1.1	-5.302 a	**<0.01**
Total	-	-	-	-	49.9±7.0	52.3±7.2	-5.62 a	**<0.01**
GRISS score								
Infrequency	5.48±1.81	3.46±2.3	-3.6b	**<0.01**	5.7±1.9	4.5±5.1	-2.82b	**0.005**
Non-communication	4.78±1.87	4.70±1.9	-0.14b	0.88	4.8±2.0	4.2±1.8	-1.37b	0.171
Female/male dissatisfaction	4.46±1.97	4.78±1.4	-0.81a	0.41	5.1±2.0	4.2±1.5	-2.36b	**0.018**
Female/male avoidance	4.09±2.14	4.78±1.8	-1.52a	0.12	4.6±2.3	4.2±1.7	-1.06b	0.28
Female/male non-sensuality	4.63±1.85	4.63±2.2	-0.91b	0.92	4.9±1.9	4.1±2.1	-1.72b	0.85
Vaginismus/ Impotence	4.56±2.1	5.31±1.6	-1.87a	0.06	5.0±2.2	4.7±1.8	-0.48b	0.62
Anorgasmia /Premature ejaculation	4.4±1.7	5.6±1.9	-2.53a	**0.01**	5.2±1.9	4.9±2.1	-0.80b	0.42
Total	7.04±0.94	5.9±1.4	-3.87b	**<0.01**	7.1±1.0	5.5±1.5	-4.54b	**<0.01**
Beck depression score	24±16.3	8.6±5.26	-5.32b	**<0.01**	16.5±13.4	12.4±11.7	-3.209b	**0.01**
Beck anxiety score	14.8±9.9	11.5±9.1	-2.93b	**0.003**	11.8±8.7	10.3±7.2	-0.6 b	0.549

Summary of Wilcoxon signed rank test results. Results were accepted as 95% confidence interval and p value <0.05 significant. a based on negative ranks. b based on positive ranks. FSFI, Female Sexual Function Index; IIEF, International Index of Erectile Function; EF, erectile function; OF, orgasmic function; SD, sexual desire; IS, intercourse satisfaction; OS, overall satisfaction; GRISS, Golombok Rust Inventory of Sexual Satisfaction

When assessing sexual satisfaction with the women's GRISS score before and after therapy, a statistically significant change was found in frequency, anorgasmia, and GRISS total score (respectively p < 0.01, p=0.01, p < 0.01, Table 2). When assessing men's sexual satisfaction with the GRISS score before and after therapy, a statistically significant change was found in frequency, male dissatisfaction and GRISS total score (respectively p=0.005, p=0.018, p < 0.01, Table 2). It was found that there was a statistically significant change in the depression scores of women and men with the Beck depression score before and after therapy (respectively p < 0.01, p=0.01, Table 2). It was found that there was a statistically significant change in anxiety scores with the Beck Anxiety Score before and after therapy in females (p=0.003), although there was a decrease in the score in males, but it was not statistically significant (Table 2).

Discussion

This study objectively demonstrates the effectiveness of sex therapy and counseling in vaginismus patients. After therapy, there was a significant improvement in GRISS scores in both men and women, FSFI scores in women, and IIEF scores in men. Depression scores decreased significantly in both women and men. Anxiety scores also decreased significantly in women. When sex therapy was provided during treatment for vaginismus, men's sexual functioning improved compared to before treatment. This is a point that has not been mentioned in the literature before and is very important for couples who have problems with vaginismus.

When penetration is not attempted or expected in women with vaginismus, the normal female sexual response does not change. Many authors report that sexual functions such as pleasure, arousal, and orgasm are not affected, and sexual satisfaction is quite high.[19-21] In our study, scores for pleasure, arousal, lubrication, orgasm, satisfaction, and pain on the FSFI test were statistically higher after therapy than before. This objectively proves that therapy is effective for female sexual function. Sexual dysfunction, adequate and appropriate sex It is known that sexual problems are resolved with greater satisfaction thanks to counseling.[22] According to a study by Kabakçı et al, improvements in vaginismus, anorgasmia, frequency, communication, satisfaction and avoidance were observed in all GRISS subscale scores due to sex therapy.[23] In our study, there was a significant improvement in all GRISS scores for sexual satisfaction after therapy compared to before therapy, both in men and women.

It is known that IIEF scores improve during sex therapy for erectile dysfunction.[24] When sex therapy was given during treatment for vaginismus, this score improved compared to before therapy. This is a point that has not been mentioned in the literature before and is important for

couples who have problems with vaginismus. According to a study by Yıldırım et al, the prevalence of depression and anxiety was found to be higher in women with vaginismus than in the general population, suggesting that these patients are more vulnerable to psychiatric disorders.[25] In our study, a significant decrease in depression scores was found in both men and women after therapy in couples complaining of vaginismus. Anxiety scores in women also decreased significantly. This situation objectively demonstrates the importance of couples therapy and a holistic approach in the assessment of couples complaining of vaginismus.

Reissing et al [26] reported in a study comparing patients with vaginismus to healthy controls that in women with vaginismus, desire, arousal, and pleasure were impaired and masturbation rates were low. The fact that men masturbate statistically significantly more often than women and have more experience with premarital sex suggests that women are less knowledgeable and accepting of their own sexual organs. In this case, we assume that the cultural and geographic influence is quite large.

The fact that smoking is significantly more common in men than in women suggests that, contrary to popular belief, vaginismus is a stressor for both men and women, and that they are as obsessed as women. Therefore, it is entirely appropriate to treat vaginismus as a couple's problem in our clinic and to treat it as a couple.

One of the limitations of the study is that not all couples who registered in the outpatient clinic agreed to participate in the study, resulting in a small number of patients.

Conclusion

As a result, after sexual counseling and therapy, depression and anxiety were observed to decrease, while sexual satisfaction and sexual functioning improved in both men and women, Vaginismus is a couple's problem, and sex therapy is very important in this disease. Further studies on this topic are needed.

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