



Original Article

## Comparing the effectiveness of mindfulness-based cognitive therapy training and cognitive-behavioral therapy on sexual satisfaction of women with vaginismus disorder

Zahra Omidvar<sup>1</sup>; \*Mohammad Hossein Bayazi<sup>2</sup>; Farhad Faridhosseini<sup>3</sup>

<sup>1</sup>PhD. Student of Psychology, Department of Psychology, Torbat-e-Jam Branch, Islamic Azad University, Torbat-e-Jam, Iran.

<sup>2</sup>Assistant Professor, Department of Psychology, Torbat-e-Jam Branch, Islamic Azad University, Torbat-e-Jam, Iran.

<sup>3</sup>Associate Professor of Psychiatry, Psychiatry and Behavioral Sciences Research Center, Mashhad University of Medical Sciences, Mashhad, Iran.

### Abstract

**Introduction:** Regarding the impact of vaginismus on sexual satisfaction and using effective treatments, the present study compared the effectiveness of mindfulness-based cognitive therapy training and cognitive-behavioral therapy training on sexual satisfaction of women with vaginismus disorder.

**Materials and Methods:** In the present study, forty-five women with vaginismus, who referred to Mashhad Rahiab Sexual Counseling Clinic in October-November of 2018, were selected by purposive sampling and randomly assigned to three groups: control, mindfulness-based cognitive therapy and cognitive-behavioral therapy. Then all participants fulfilled the Sex Satisfaction Questionnaire (SSQ) before and after the intervention. The experimental groups underwent intervention for 8 two-hour sessions per week. During this period, the control group did not receive any intervention. Data analyzed through descriptive indices, multivariate and univariate analysis of covariance.

**Results:** Results of comparing the effectiveness of mindfulness-based cognitive therapy and cognitive-behavioral therapy on marital satisfaction in all dimensions showed that mindfulness-based cognitive therapy has a greater impact on sexual satisfaction dimensions. Also, the results showed that both methods of mindfulness-based cognitive therapy and cognitive-behavioral therapy have an effect on sexual satisfaction.

**Conclusion:** Based on the results, it seems that mindfulness-based cognitive therapy has a greater effect on sexual satisfaction compared cognitive-behavioral therapy and it is recommended to be used in psychological clinics.

**Keywords:** Cognitive behavioral therapy, Mindfulness, Sexual satisfaction, Vaginismus.

### Please cite this paper as:

Omidvar Z, Bayazi MH, Faridhosseini F. Comparing the effectiveness of mindfulness-based cognitive therapy training and cognitive-behavioral therapy on sexual satisfaction of women with vaginismus disorder. *Journal of Fundamentals of Mental Health* 2021 Jul-Aug;267-271.

### Introduction

Vaginismus is one of the most common disorders among women. It included a major part of female genital dysfunction. These women have contractions in vaginal muscles, genital pain due to penetration, fear or distress

about vaginal pain, or vaginal penetration. These problems lead to significant psychological symptoms, sexual dysfunction, and relationship problems (1-3).

According to many kinds of research, sexual function is one of the effective fields of marital

### \*Corresponding Author:

Department of Psychology, Torbat-e-Jam Branch, Islamic Azad University, Torbat-e-Jam, Iran.

mhbayazi@iautj.ac.ir

Received: Mar. 10, 2021

Accepted: Jun. 15, 2021

satisfaction, and the existence of desirable sexual intercourse has an important and fundamental role in the continuity and success of marital and family life (4).

By creating a pleasant feeling in a person about intercourse, sexual satisfaction affects the couple's perception of each other and, in the next step, the duration of the marital relationship. Married people acknowledge that sexual intercourse is an essential component of intimacy and that it is important for personal satisfaction and the continuation of the couple's relationship.

On the other hand, it has been shown that low sexual satisfaction predicts several adverse effects on marital life, including the breakdown of the marital relationship and the reduction of general well-being in couples (5,6).

Also, some recent studies suggest that by using compressed exposure therapy in patients with vaginismus, up to 90% of them will have full sexual intercourse at the end of treatment (4). According to the psychological dimension of vaginismus (7), effective treatments should be emphasized on psychological aspects and physical management (8).

Mindfulness-based cognitive therapy is one of the cognitive therapies which developed in recent years. This treatment is used in marital conflicts and relationships between couples. Mindfulness techniques employ the exercises, pay attention, increase non-judgmental observations, and promote acceptance of physical feelings and emotions, perception, and cognition, reducing marital conflicts due to inappropriate sexual function, maladaptive schemas, and marital satisfaction (9-12). Regarding the mentioned issues, the present study aimed to compare the effect of mindfulness-based cognitive therapy and cognitive-behavioral therapy on sexual satisfaction of women with vaginismus.

### Materials and Methods

The statistical population of the present study included all women who had vaginismus disorder referred to Mashhad Rahiab Sexual Counseling Clinic in October-November of 2018. Using purposeful method, 45 women were selected.

Then, they were randomly divided into three equal groups. One group underwent mindfulness-based cognitive therapy

intervention for eight two-hour sessions. The second group underwent cognitive-behavioral therapy for eight two-hour sessions, and the control group did not receive any intervention and they were assigned in the waitlist.

Inclusion criteria included: having the DSM-5 criteria for the vaginismus diagnosis by a psychiatrist or gynecologist, not receiving psychological treatment before entering the study, no having addiction, having a minimum level of diploma education, aged 18-35 years, willingness to participate in research and signing the written consent, no history of mental illness, psychotic disorders and personality disorders, no taking psychiatric medicines, and no history of chronic physical illness. Exclusion criteria included: Unwillingness to continue and absence more than two sessions.

### Research instrument

*A) Sexual Satisfaction Questionnaire (SSQ):* This questionnaire was developed by Maryam Yavari-Kermani in 2007. It measures one's personal feelings and concerns about the sexual relationship with the partner. It reflects compassion satisfaction and expression statements, comfort level when discussing sexual issues, attitudes towards sex, intercourse, birth control decisions, and feelings about sexual fidelity. The higher scores in this scale indicate satisfaction and a positive tendency towards the function of sexuality in marriage.

This is a 17-item questionnaire and each items responded in a five degree Likert system. Eight specialists approve of its validity in psychology and counseling. The reliability coefficients for the questionnaire measured through the split method and obtained as 0.75 (13). This questionnaire is adapted to Iranian culture and it has a high correlation with Female Sexual Function Index and its subscales (14).

Data analyzed using SPSS software, the descriptive statistics, multivariate and univariate analysis of covariance

### Results

Table 1 presents the demographic data of the participants. The demographic data showed that no significant difference between the groups in age ( $P= 0.83$ ,  $F= 0.18$ ), and duration of vaginismus ( $P= 0.62$ ,  $F= 0.47$ ).

**Table 1.** Demographic data of the women with vaginismus

Group	Age (Year)		Duration of vaginismus (Year)	
	Mean	Standard deviation	Mean	Standard deviation
Mindfulness therapy	28.87	4.31	2.37	0.88
Cognitive-behavioral therapy	28.27	3.45	2.13	0.98
Control	29.13	4.10	2.47	0.99

Table 2 presents the descriptive data of the three groups of vaginismus patients. Based on the results, there was no significant difference between three groups in sexual satisfaction in pre-test phase, while the interventions

increased the score of sexual satisfaction in both experimental groups. The mindfulness therapy increased this variable more than the cognitive-behavioral therapy.

**Table 2.** The descriptive data of the three groups of vaginismus patients

Variable	Group	Pre-test		Post-test	
		Mean	Standard Deviation	Mean	Standard Deviation
Sexual satisfaction	Mindfulness therapy	24.67	3.42	34.40	4.76
	Cognitive-behavioral therapy	25.87	3.38	28.93	4.89
	Control	25.80	3.00	24.27	3.97

The Shapiro-Wilks test used to evaluate the normal distribution of the population due to the small sample size in each group ( $n < 50$ ). In interpreting the results of this test, if the significance level is higher than 0.001, the

distribution is normal, and if it is less than this value, the distribution is abnormal. The results of this test are presented in Table 3. The results of this table showed that the distribution of all variables by groups is normal.

**Table 3.** Shapiro-Wilks test and the normal distribution of variables

Variable	Group	Shapiro-Wilks test	Degrees of freedom	P
Sexual Satisfaction	Mindfulness therapy	0.89	15	0.07
	Cognitive-behavioral therapy	0.96	15	0.66
	Control	0.64	15	0.38

The Levene's test was used to evaluate the homogeneity of variances. The results of this test approved the homogeneity of variances ( $F = 2.17$ ,  $df_1 = 2$ ,  $df_2 = 42$ ,  $P = 0.13$ ).

The results of Table 4 showed that intergroup differences in sexual satisfaction ( $P = 0.0001$ ,  $F = 27.25$ ) are significant. Comparison of adjusted means also showed that the mindfulness group had a higher mean in sexual satisfaction than the group of cognitive-behavioral therapy and control. Subjects in the cognitive-behavioral therapy group also had a higher mean than the control group. Based on

this, it can be concluded that sexual satisfaction has increased in both intervention groups. The effectiveness of intervention methods is 57%. Comparisons between two groups with Bonferroni Post Hoc Test are presented in Table 5. The results showed that intergroup differences in sexual satisfaction are significant ( $P < 0.01$ ). This means that both methods of mindfulness-based cognitive therapy and cognitive-behavioral therapy affect sexual satisfaction. The mindfulness-based cognitive therapy method has a greater effect on sexual satisfaction.

**Table 4.** Univariate analysis of covariance in sexual satisfaction

Source of changes	Sum of squares	df	Mean of squares	F	P	Etha-squared
Pre-test	211.97	1	211.97	13.14	0.001	0.24
Group membership	879.20	2	439.60	27.25	0.0001	0.57

**Table 5.** Bonferroni Post Hoc Test to compare sexual satisfaction between two groups

Variable	Group 1	Group 2	Difference in means	Standard error	P
Sexual satisfaction	Mindfulness therapy	Cognitive-behavioral therapy	6.29	1.48	0.0001
	Mindfulness therapy	Control	10.91	1.48	0.0001
	Cognitive-behavioral therapy	Control	4.62	1.45	0.0001

## Discussion

The results showed that both methods of mindfulness-based cognitive therapy and cognitive-behavioral therapy affect sexual satisfaction vaginismus patients. The results also showed that the mindfulness-based cognitive therapy has a greater effect on sexual satisfaction. These results are consistent with the conducted studies by Hamid, Dehghanzadeh, Firuzi (16), Ramesh et al. (17), Hisasu et al. (18), Ter Kuile et al. (19,20), Nazemnia et al. (21), Masheb et al. (22), Mohamadizadeh and Moradijoo (23), and Babakhani et al. (24).

Also, Graziottin showed that the combination of pharmacological and psychological interventions in sexual dysfunction provides a suitable treatment to increase effectiveness of treatment and increase the satisfied relationships and reduce patient discontinuation, which is a type of combination intervention and is different from our type of intervention which is only psychological treatment (25). Also, in a study by Brotto et al., one-hundred and thirty women diagnosed with provoked vestibulodynia received eight weeks of group cognitive-behavioral therapy or eight weeks of group mindfulness-based cognitive-therapy. Data were gathered in phases of pre-treatment, post-treatment, and at 6- and 12-month follow-up periods. The variables included pain due to vaginal penetration, pain elicited with a vulvalgesiometer, and sex-related distress assessed.

The results showed that all variables were improved at 12-month follow-up, with no significant differences between the groups. It is considered that changes in mindfulness, self-criticism and self-compassion mediated improvements only in the mindfulness group. Finally, both mindfulness and cognitive therapies effectively improve symptoms in women with provoked vestibulodynia in 12-months follow-up (26).

The results of this study can be considered by general practitioners and obstetricians, midwives, and health care midwives in the

family physician team. Because vaginismus disorder has a psychological background, they must be referred to psychological counseling clinics. Psychiatrists and clinical psychologists use effective mindfulness-based cognitive therapy or cognitive-behavioral therapy to treat vaginismus.

It is suggested that vaginismus be examined in the social, cultural, and historical background of Iranian society to provide the necessary infrastructure, such as recognizing sex education programs for all as an important need to maintain sexual health in the community, holding sexual education courses for children and adolescents to empower parents in the sexual education of children and increasing the efficiency of pre-marriage training classes for couples, to prevent the occurrence of vaginismus.

Finally, by recognizing the factors affecting female vaginismus disorder, designing a structural model and using mindfulness-based cognitive and cognitive-behavioral therapies is suggested as a necessity for this disorder. It is suggested that to achieve comprehensive findings, more studies be conducted in other places and times, and different cultural and geographical backgrounds.

It is recommended to use interviews and observations in data collection to make findings more accurate. It is suggested that the mindfulness approach should be followed in future studies with other samples of different ages and educational level under diploma.

## Conclusion

According to the present study, mindfulness-based cognitive therapy has a greater effect on sexual satisfaction than cognitive-behavioral therapy in women with vaginismus.

## Acknowledgments

This study is resulted from a Ph.D. dissertation of Islamic Azad University, Torbat-e-Jam Branch. The authors declare any financial support and conflict of interests. They thank all participants and the involved managers.

## References

1. Bhatt JK, Patel VS, Patel AR. A study of vaginismus in patients presenting with infertility. *Int J Reprod Contracept Obstet Gynecol* 2017; 6: 5508-11.
2. Şafak Öztürk C, Arkar H. [Effect of cognitive behavioral therapy on sexual satisfaction, marital adjustment, and levels of depression and anxiety symptoms in couples with vaginismus]. *Turk Psikiyatri Derg* 2017; 28: 172-80. (Turkish)
3. Velayati A, Jahanian Sadatmahalleh S, Ziaei S, Kazemnejad A. Psychological predictors of sexual quality of life among Iranian women with vaginismus: A cross-sectional study. *Int J Sex Health* 2021; 2021: 1-9.
4. Ter Kuile MM, Melles R, De Groot HE, Tuijnman-Raasveld CC, van Lankveld JJ. Therapist-aided exposure for women with lifelong vaginismus: A randomized waiting-list control trial of efficacy. *J Cons Clin Psychol* 2013; 81: 1127-36.
5. Shindel AW, Nelson CJ, Naughton CK, Ohebshalom M, Mulhall JP. Sexual function and quality of life in the male partner of infertile couples: Prevalence and correlates of dysfunction. *J Urol* 2008; 179(3): 1056-9.
6. Basson R, Gilks T. Women's sexual dysfunction associated with psychiatric disorders and their treatment. *Women's Health (Lond)* 2018; 14: 1-16.
7. Yeganeh T, Farahani MN, Farzad V, Moghadasin M. [Identifying psychological factors associated with vaginismus in married women in 2018: A qualitative study]. *Journal of Rafsanjan University of Medical Sciences* 2019; 18: 997-1016. (Persian)
8. Velayati A, Jahanian Sadatmahalleh S, Ziaei S, Kazemnejad A. Can botox offer help women with vaginismus? A systematic review and meta-analysis. *Int J Sex Health* 2019; 31(3): 233-43.
9. Kimburgh E, Magyari T, Langenberg P, Chesney M, Berman B. Mindfulness intervention for child abuse survivors. *J Clin Psychol* 2010; 66(1): 17-33.
10. Newcombe BC, Weaver AD. Mindfulness, cognitive distraction, and sexual well-being in women. *Can J Hum Sex* 2016; 25(2): 99-108.
11. Lazaridou A, Kalogianni C. Mindfulness and sexuality. *Sex Relat Ther* 2013; 28(1-2): 29-38.
12. Bossio JA, Basson R, Driscoll M, Corriea S, Brotto LA. Mindfulness based group therapy for men with situational erectile dysfunction: a mixed-methods feasibility analysis and pilot study. *J Sex Med* 2018; 15(10): 1478-90.
13. Yavari-Kermani M. [Sexual Satisfaction Questionnaire]. Tehran: Pouya Azmoon-yar Institute; 2010. (Persian)
14. Shakerian A. [A survey of the relation between divorce-seeking women's sexual function and sexual Satisfaction and marital relationship problems; determining the impact of such variables in predicting marital relationship problems]. Research project. Islamic Azad University, Sanandaj Branch. Sanandaj: Iran, 2011. (Persian)
15. Shakerian A, Nazari AM, Masoomi M, Ebrahimi P, Danai S. Inspecting the relationship between sexual satisfaction and marital problems of divorce-asking women in Sanandaj city family courts. *Procedia Soc Behav Sci* 2014; 114: 327-33.
16. Hamid N, Dehghanizadeh Z, Firuzi A. [Effects of cognitive-behavioral therapy on sexual function in women with vaginismus disorder]. *The Iranian journal of obstetrics, gynecology and infertility* 2012; 15(20): 1-11. (Persian)
17. Ramesh S, Rostami R, Merghati Khoei EA, Hemmat Boland E. [Effectiveness of combination of cognitive-behavioral therapy and biofeedback on sexual function and marital status of patients with vaginismus]. *Applied counseling* 2016; 6(1): 1-22. (Persian)
18. Hisasue S, Kumamoto Y, Sato Y, Masumori N, Horita H, Kato R, et al. Prevalence of female sexual dysfunction symptoms and its relationship to quality of life: A Japanese female cohort study. *Urology* 2005; 65(1): 143-8.
19. Ter Kuile MM, van Lankveld JJ, de Groot E, Melles R, Neffs J, Zandbergen M. Cognitive-behavioral therapy for women with lifelong vaginismus: process and prognostic factors. *Behav Res Ther* 2007; 45(2): 359-73.
20. Ter Kuile MM, Both S, van Lankveld JJ. Cognitive behavioral therapy for sexual dysfunctions in women. *Psychiatr Clin North Am* 2010; 33: 595-610.
21. Nezamnia M, Irvani M, Sayah Bargard MS, Latify M. Effectiveness of cognitive-behavioral therapy on sexual function and sexual self-efficacy in pregnant women: An RCT. *Int J Reprod Biomed* 2020; 18(8): 625-36.
22. Masheb RM, Kerns RD, Lozano C, Minkin MJ, Richman S. A randomized clinical trial for women with vulvodynia: Cognitive-behavioral therapy vs. supportive psychotherapy. *Pain* 2009; 141: 31-40.
23. Mohamadizadeh S, Moradijoo M. [Effectiveness of mindfulness education on female sexual self-efficacy in breast cancer]. *Thought and behavior in clinical psychology* 2014; 31: 7-16. (Persian)
24. Babakhani N, Taravati M, Masoumi Z, Garousian M, Faradmal J, Shayan A. The effect of cognitive-behavioral consultation on sexual function among women: A randomized clinical trial. *J Caring Sci* 2018; 7(2): 83-88.
25. Graziottin A, Giraldi A. Anatomy and physiology of women's sexual function. In: Porst H, Buvat J. (editors). *ISSM (International Society of Sexual Medicine) Standard Committee Book, Standard practice in sexual medicine*. Oxford, UK: Blackwell; 2006: 289-34.
26. Brotto LA, Bergeron S, Zdaniuk B, Basson R. Mindfulness and cognitive behavior therapy for provoked vestibulodynia: Mediators of treatment outcome and long-term effects. *J Cons Clin Psychol* 2020; 88(1): 48-64.