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Original Article

The Effect of Cognitive-Behavioral Consultation on Sexual Function among Women: a Randomized Clinical Trial

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ABSTRACT

Introduction: Sexual dysfunction is one of the most common causes of family breakdowns. In recent years, various approaches have been proposed to resolve this issue. The present study was carried out in order to examine the effect of cognitive-behavioral consultation on sexual function among women who had referred to health centers in Hamadan.

Methods: A randomized clinical trial was conducted in two groups. It focused on 198 qualified women who had referred to selected health centers of Hamadan in 2016. The participants were selected by simple random sampling (99 people in each group).The intervention group received four 2-hour sessions of cognitive-behavioral group consultation. The required data were collected using a questionnaire of demographic characteristics and Female Sexual Function Index (FSFI). For ethical considerations, by the end of the study, sexual counseling for the control group was provided. To analyze the collected data, SPSS 13 was employed; t-test was used for independent samples. ANCOVA was also utilized. The significance level was set at 0.05.

Results: The results showed that the two groups were not significantly different in terms of mean pretest scores in all domains, except for sexual satisfaction and total sexual function. However, after cognitive-behavioral consultation sessions, the intervention group experienced a significant increase in all behavioral domains and total sexual function as compared to the control group.

Conclusion: Cognitive-behavioral consultation among women can play a positive and effective role in improving sexual relationships. Therefore, the effectiveness of this type of consultation can be confirmed with more certainty.

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Introduction

Sexual health is a part of mental health, and its dysfunction can seriously affect physical health. In other words, healthy sexual function in family can bring about satisfaction with life and mental health.[1]

Sexual function is a part of human life and behavior, and is so intertwined with the individual's personality that it seems impossible to discuss it as an independent phenomenon.[2] Since human sexual function was systematically studied, it has become clearer that sexual disorders are more prevalent than what was believed earlier.[3,4] In fact, whatever their cause may be, such disorders can have serious negative consequences,[5] and any disorder that leads to imbalance and thus dissatisfaction with sexual function can cause sexual dysfunction. Sexual dysfunction may remain unnoticed under the influence of personality, social, cultural, and family factors, and in some cases, it appears through other symptoms and signs including physical discomfort, depression, and dissatisfaction with marital life. Sometimes, it leads to severe family conflicts and separation.[2]

On the other hand, sexual dysfunctional status undeniably affects the self-confidence of women in marital life and their quality of life, and the inability to have a healthy and pleasurable relationship with their sexual partners will do physical, psychological, and even social harms.[6]

Based on DSM-IV, sexual disorder refers to disruption in sexual desire and psychosocial changes which affect human sexual response cycle and lead to numerous interpersonal problems and conflicts.[7]

Statistics indicates that 50% of couples experience sexual dysfunction in some stages of their lives.[8] The results of a study on successful couples indicated that 77% of women have sexual dysfunction; therefore, even successful individuals may have problems.[9] Studies carried out in Iran show that 6.1% of couples have low sexual dysfunction, 47.2% experience average sexual dysfunction, and 46.7% are faced with severe sexual dysfunction.[10] In another investigation, it is reported that the prevalence of sexual disorders is 31%, with 33% related to sexual desire, 16.5% related to sexual arousal, 25% related to orgasm, and 45.5% related to dyspareunia.[2]

Statistics regarding newly married women indicate that 21.2% of these women have sexual dysfunction; the most common disorder in orgasm (16%) and it has a meaningful relationship with variables such as income. Only 41% of these women seek treatment, and unfortunately most of them do not ask for help for their sexual problems.[11]

Nowadays, different methods like cognitive-behavioral consultation, yoga, pharmacotherapy, modification of individual lifestyle, and psychiatric interventions are employed to treat such disorders.[12-18] Cognitive-behavioral treatments are among the most famous and common methods to treat sexual dysfunction.[16-18] The results of different studies have indicated that cognitive tasks, cognitive processing, sex education, behavioral tasks, and cognitive restructuring are effective techniques in treating such disorders.[15,19] Moreover, training sexual skills (cognitive-behavioral) is effective in reducing anxiety and depression and increasing sexual satisfaction and marital function among women.[20] Due to the importance of relationship between couples to the preservation of family, and lack of necessary information on providing women with training sexual issues, it seems necessary to conduct a systematic study to resolve such problems. Therefore, given the effect of sex education and counseling on the one hand, and the importance of cognitive-behavioral therapy on the other, the present study set out to determine the effectiveness of cognitive-behavioral consultation on sexual function among women who had referred to Hamadan's health centers affiliated with Hamadan University of Medical Sciences.

Materials and methods

A randomized clinical trial including two groups with a pretest and a posttest was conducted. Qualified women who had referred to selected health centers of Hamadan, entered the study after their informed consent was obtained.

Inclusion criteria included married women being within the age bracket of 15-45 (childbearing age) and literate, having had at least 6 months elapsed time their marriage, living in Hamadan, having an age difference of less than 10 years from their spouses, and having no history of significant physical or mental disease such as psychotic disorders like schizophrenia and severe depression requiring special diet or medicine. Exclusion criteria included unwillingness to continue the cooperation, being pregnant or becoming pregnant during the study, and age difference of over 10 years.

The statistical population included all 15-45-year-old married sexually active women who had referred to health centers in Hamadan from March 20 to May 20 2016. The study sample participants were selected randomly, leading to the selection of 198 women. Given α=0.05 and β=0.20, the sample size was determined. Based on this information, the sample size was determined to be 99 in each group, and the final sample size became 198 due to the given loss of 20%. In the calculation of the sample size, the proportion of a characteristic (sexual function) in the two groups (intervention and control) was used with a ratio of P_0 = 46.5% Accordingly, the sample size was determined to be able to detect a difference of at least 20% growth in sexual activity in the intervention group compared to the control group with a potency of 80% (1-β) and a 95% confidence level (1-α). Therefore, considering the expected ratio in the intervention group, P_1 = 66.5%, the sample size was calculated. Accordingly, the number of samples in each group was 88 and in groups 176. Considering at least 10% of the missing, this number increases to 198 in both groups.[10] To select the samples, first, the six health centers were randomly divided into an intervention group and a control group; therefore, the relationship between the two groups was completely broken. Three pairs of health centers (each pair consisted of two health centers that were near each other and similar in social, economic, cultural, and geographical terms) were selected by a stratified random sampling method (the strata indicated the place of the clinics: a pair uptown, a pair in city center, and a pair downtown). Among the selected three pairs of centers, a center was assigned as the intervention group and one as a control group. The sample size in each center was 28, and given the probable loss of 20%, 33 individuals were selected from each center, and the final sample size was 33×6=198 (99 in the intervention group and 99 in the control group) (Figure 1).

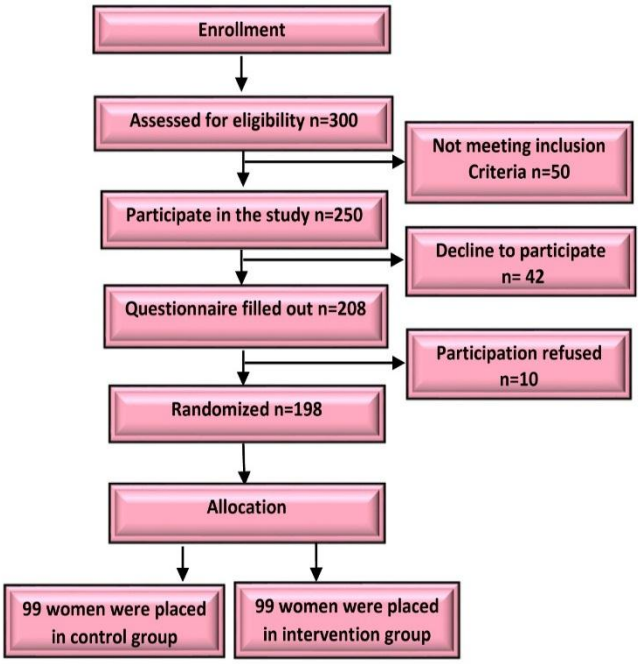

Figure 1. Consort flow chart

At each center, qualified individuals were given a number, and the individuals were selected based on the random numbers. To blind the individual's study who collected the information and the person who performed the statistical analysis of the data, there was no information about the intervention and control group. All participants were assured that participation in the study was completely voluntary and they could quit at any stage without any restrictions. In the beginning of the

study, all of the individuals completed a demographic characteristics questionnaire (FSFI). Afterwards, the intervention group was provided with four 2-hour sessions of group consultation.[21] In each center, the sessions were held weekly in the three groups of 11 people. Each session included questions and answers, lectures, group discussions (in groups with a maximum of 10 people), and educational slides (Table 1).

Table 1. Educational content of meetings

Session 1: Identifying inefficient beliefs and explaining negative thoughts regarding sexual function
Psychological training: Examining the cognitive behavioral model and introducing cognitive distortion regarding sexual function and its unfavorable quality
Homework: Revising cognitive distortions
Session 2: Examining the homework
Psychological training: Examining the methods to deal with cognitive distortions
Homework: Practicing identification of cognitive distortions using thoughts recording sheets
Session 3: Examining the homework
Psychological training: Introducing coping methods of behaviors and thoughts leading to sexual dysfunction
Homework: Cognitive reconstructing, completing the sheets of recording thoughts, practicing coping, and preventing inappropriate behaviors and thoughts
Session 4: Examining the homework
Psychological training: Discussing and examining the factors, preventing approaches, returning from sexual dysfunction and improving it
Homework: Practicing preventing approaches to deal with return

The sessions were held in the training class, and the intervention participants were informed about the date of attending the sessions through phone calls. Moreover, one day before the sessions, the individuals were reminded about the sessions in order to prevent sample loss as much as possible. Consultation sessions were held by the researchers along with a clinical psychologist. After the fourth session, both groups took the post-test in which the data of sexual function were measured again. At the end of the study, a session of teaching about sexual issues was held for the control group, and they were provided with educational CDs and booklets. The control group received the routine care. In order to analyze the collected data, t-test, chi-square test, and analysis of covariance or change analysis were utilized. All of the tests were carried out at the confidence level of 95%.

In the present study, the required data were collected using the questionnaire of demographic characteristics and FSFI. The demographic characteristics questionnaire examines characteristics such as age, education level, job, addiction, and income level. The examinations were carried out before the intervention (cognitive-behavioral consultation) and 4 weeks after the intervention.

It should be noted that Mohammadi et al.,[22] calculated the reliability and validity of the Persian version of FSFI through the clients who had referred to two sexual counseling centers in Tehran. Using Cronbach's Alpha, the reliability was measured ≥0.7 which is an appropriate acceptable reliability. Examining the reliability and validity of the Persian version of the index, a significant difference was indicated between the intervention and the control groups in terms of mean total scores and each domain (P≤0.001). The scores obtained from the scale, subscale, and psychiatric diagnosis were analyzed using Receiver Operating Characteristic Curve (ROC) and Area under the Curve (AUC). According to the cut-off point of 28 to determine sexual dysfunction, 83% of the women had sexual dysfunction and 82% were classified as not having sexual disorders.[22]

This standard questionnaire has nineteen 4-choice questions and measures six dimensions of sexual function (sexual desire, orgasm, arousal, dyspareunia, lubrication, and sexual satisfaction) over late 4 weeks. Sexual desire disorder, arousal disorder, lubrication disorder, orgasm disorder, and sexual satisfaction disorder are respectively related to scores below 4.28, 5.08, 5.45, 5.05, and 5.04. The minimum score of this questionnaire is 2 and the maximum 36. Questions 1 and 2 are related to sexual desire with a cut-off point of below 4.28, , questions 3, 4, and 5 to sexual arousal with a cut-off point of 5.08, questions 7, 8, 9, and 10 to lubrication with a cut-off point of 5.45, questions 11, 12, and 13 to orgasm with a cut-off point of 5.05, questions 14, 15, and 16 to sexual satisfaction with a cut-off point of 5.04, and questions 17, 18, and 19 to dyspareunia with a cut-off point of 5.51. In any subscale, the minimum score is 0, and the maximum is 6. The score of each section is obtained by adding up the score of that section and multiplying the sum by the weights of each section. The minimum score for sexual desire domain is 1.2, for sexual arousal, lubrication, orgasm, and dyspareunia, it is 0, for sexual satisfaction it is 0 or 0.8, and for the whole scale it is 2. The maximum score for each section is 6. Individuals whose scores are below 65% of the maximum score in each domain are categorized as having disorders in that domain. The cut-off point of determining sexual dysfunction is 26 or less, such that individuals whose total sexual function score is 28 or less are considered to have sexual dysfunction. It is obvious that the total score is obtained by adding up the scores of the 6 six domains. Score 0 indicates lack of sexual activity over the last month, and those with no sexual activity over the last month will be crossed out from the study.[23] Internal consistency of the whole questions of the scale (in all domains) is 0.92.[10]

Results

The mean age in the intervention group was 35.04 (7.91) years and in the control group 32.58 (7.54) years. Both groups were matched for demographic characteristics (spouse age, number of children, spouse addiction, education level, and sexual function), except for their income level (Table 2).

Moreover, in order to modify the effect of income, the income was integrated as over and below 10,000,000 Rials. After the heterogeneous variables were modified, the score of sexual function was calculated using the analysis of covariance.

After intervention, improvement in all subdomains of sexual function except for dyspareunia was observed in

Table 2. Comparing the demographic variables in the control and intervention groups

Variable	Control group N (%)	Intervention group N (%)	P
Wife's education level			
Primary	11(11.1)	8(8.1)	0.060
Secondary	16(16.2)	10(10.1)	
Under diploma	28(35.4)	26(26.3)	
Diploma	35(28.3)	33(33.3)	
Academic	9(9.1)	22(22.2)	
Husband's education level			
Primary	10(9.1)	7(7.1)	0.050
Secondary	17(17.2)	14(14.1)	
Under diploma	27(27.3)	19(19.2)	
Diploma	37(37.4)	36(36.4)	
Academic	8(8.1)	23(23.2)	
Husband's addiction			
Yes	21(21.2)	26(26.3)	0.404
No	78(78.8)	73(73.7)	
Addiction			
Yes	1(1)	1(1)	1
No	98(99)	98(98)	
Income status			
<10,000,000 (Rials)	46(55.4)	40(40.4)	<0.001
>10,000,000 (Rials)	53(56.3)	59(59.6)	

Table 3. Comparing total sexual function and subdomains in the intervention and control groups after intervention

Sexual function	Control group N (%)	Intervention group N (%)
Sexual desire		
No change	97(97.9)	95(95.9)
Decrease	2(2.1)	0(0)
Increase	0(0)	4(4.1)
Sexual arousal		
No change	96(96.9)	91(91.9)
Decrease	0 (0)	0 (0)
Increase	3(3.1)	8(8.1)
Lubrication		
No change	99(100)	97(97.9)
Decrease	0(0)	0(0)
Increase	0(0)	2(2.05)
Orgasm		
No change	97(97.9)	84(84.8)
Decrease	1(1.05)	0(0)
Increase	1(1.05)	15(15.2)
Satisfaction		
No change	95(95.9)	85(84.8)
Decrease	2(2.05)	0(0)
Increase	2(2.05)	14(15.2)
dyspareunia		
No change	99(100)	91(91.9)
Decrease	99(100)	91(91.9)
Increase	0(0)	0(0)
Total sexual function		
No change	97(97.9)	85(84.8)
Decrease	1(1.05)	0(0)
Increase	1(1.05)	14(15.2)

the intervention group (Table 3).

Before the intervention, analysis of covariance seemed to yield no significant differences between the two groups, and in each group in all domains of sexual function with analysis of covariance (P>0.05) (Table 4).

After the intervention, the control group obtained very low levels of function improvement in domains of sexual desire or arousal, while the total function was constant in other domains. In the intervention group, however, the total sexual function score and scores of all other domains seemed to had been increased, indicating the effectiveness of consultation in identifying problems among women, and thus leading to a significant difference between the two groups (P<0.001)(Table 4).

According to the cut-off points determined based on the sexual function questionnaire, a decrease was seen in the mean and standard deviation in total sexual function in the intervention group after the intervention (P<0.001), while no changes were observed in the control group(P>0.05) (Table 4).

Discussion

The present study was carried out in order to examine the effect of cognitive-behavioral consultation on sexual function among 15-45-year-old sexually active women. The results of the present study showed that there was no significant difference between the two groups, and they were homogeneous with regard to the variables of age, education, job, and income.

Four weeks after cognitive-behavioral intervention, there was a significant increase in mean scores of sexual function in the intervention group, and it was confirmed that cognitive-behavioral consultation can determine the level of sexual function.

In this regard, Pereira et al., carried out a review study and examined 27 references. In their study, they focused on sexual function and introduced cognitive-behavioral consultation as a successful treatment.[16] In another study, Bakhtiari et al., examined the effect of cognitive-behavioral therapy. The study of the effect of cognitive-behavioral therapy on reducing sexual desire and sexual satisfaction of women showed that this type of counseling is a suitable method for coping with sexual desire disorders and the use of this method by clinical psychologists in the treatment of inappropriate sexual function, It is also effective with the findings of this study.[24]

Salehzadeh et al., examined the effectiveness of cognitive-behavioral therapy on the level of sexual disorders among women. In the experimental group, eight weekly sessions of cognitive-behavioral consultation were held, while the control group received no intervention. The results showed that cognitive-behavioral therapy significantly improved sexual disorders in the experimental group compared to the control group (P<0.01),[25] which is in line with the results of the present study.

Moreover, Rahimi et al., carried out a study entitled, "An investigation into the effect of cognitive-behavioral training on knowledge, attitude, and self-confidence among women in Shiraz in 2009". The experimental group was provided with eight cognitive-behavioral sessions, while the control group received no intervention. The results of their study revealed that the experimental women's knowledge, attitude, and sexual self-confidence differed significantly after the

Table 4. Comparing mean scores of different dimensions of sexual function among women of the two groups before and after the intervention

Different dimensions of sexual function	Before intervention*			After intervention**			Sig.
	Mean (SD)	Min	Max	Mean (SD)	Min	Max	P
Sexual desire							
Control	2.26(0.94)	1.3	5.4	2.2(1.22)	1.2	5.4	0.274
Intervention	2.6 (0.99)	1.2	4.8	3.36 (0.9)	1.2	5.4	<0.001
P		0.015		<0.001			
Sexual arousal							
Control	2.22(1.08)	0	5.4	2.11(0.89)	0	5.1	0.013
Intervention	3.7(0.99)	0	5.7	2.53(1.09)	1.5	6	<0.001
P		0.009		<0.001			
Lubrication							
Control	2.16(1.18)	0	5.7	2.11(1.08)	0	6	0.274
Intervention	2.53(1.09)	0	5.1	3.8(0.81)	2.1	5.7	<0.001
P		0.21		<0.001			
Orgasm							
Control	2.11(1.36)	0	6	2.11(1.16)	0	6	1.000
Intervention	2.49(1.31)	0	5.6	4.04(0.9)	2	6	<0.001
P		0.39		<0.001			
Sexual satisfaction							
Control	2.88(1.36)	0.8	6	2.15(0.9)	0.8	5.2	0.566
Intervention	2.5(1.26)	0.8	6	4.16(1.03)	1.2	6	<0.001
P		<0.001		<0.001			
Dyspareunia							
Control	2.48(0.94)	0.4	4.8	2.56(0.8)	0.8	5.2	0.215
Intervention	2.99(1.4)	0	6	4.25(0.99)	2	6	<0.001
P		<0.003		<0.001			
Total sexual function							
Control	13.37(5)	3.6	30.1	13.27(4.7)	4.3	30.9	0.563
Intervention	16.2(6.47)	2	31.3	23.3(4.34)	13.1	32.5	<0.001
P		<0.001		<0.001			

*The control group and the intervention group were compared through independent t-test. **After the intervention, the groups were compared using analysis of covariance and by modifying the effect of income and age. Moreover, before the intervention, the two groups were different regarding domains of sexual desire, arousal, satisfaction, dyspareunia, and total sexual function, and these factors were modified before the intervention

intervention compared to the control group (P<0.001).

It was concluded that cognitive-behavioral consultation on sexual issues could improve the components under investigation and sexual disorders among women.[26] Hummel carried out a randomized clinical trial entitled, "Internet-based cognitive-behavioral therapy on sexual function among 160 women with breast cancer in the Netherlands". They used FSFI and observed an increase in the total score of sexual function and all its six domains,[27] confirming the effectiveness of this type of consultation. In the present study, group sexual consultation was held, and it was concluded that sexual consultation can improve sexual function among women and thus among their spouses.

Cognitive-behavioral counseling will have a major impact on the individual's emotions. This method, based on regulated principles, allows the individual to find and analyze abnormal patterns of his behavior. After identifying these inappropriate patterns, the counselor will teach the person how to fight these useless patterns and to rebuild his thoughts and behavior. After rebuilding, behavior-based thinking relies on reality and logic, and negative statuses heal.[28]

Among the strengths of the present study are its large sample size and presence of women in childbearing age referring to health centers in the city. The limitation of the study might be the fact that it only focused on the short-term effects of the intervention, but failed to consider them in the long run. Moreover, due to cultural and religious restrictions in our society, individuals do not probably respond comfortably to questions about their sexual affairs; hence, there is a probable lack of honesty of some individuals in answering the questions, so the women were ensured that their information would remain confidential. Another limitation was failure to provide the due to the effectiveness of the findings, consulting methods are recommended to be used to improve sexual function and resolve marital conflicts among couples. Applied sexual skills and practices should be provided to couples in the form of training sessions, workshops, films, and pamphlets to enhance their sexual function and prevent marital conflicts. Moreover, in order to enhance the level of sexual function among couples, consultation classes are suggested to be held in the family health centers for all couples before marriage.

Conclusion

In view of the role of sexual relations in stabilizing the individuals' marital life, group sexual consultation is effective in enhancing sexual function and can be used in health centers in order to improve the couples'relationship, decrease divorce rate, and stabilize family basis.

Acknowledgments

The present study was carried out in 2016, having been approved of by the Ethics Committee of Hamadan University of Medical Sciences: IR.UMSHA.REC.1395.50.

It was also registered in register basis for clinical trials of Ministry of Health (No. IRCT201610209014N124). The present study is the result of a research project by the faculty. Moreover, the researchers would like to thank all of the women who participated in the study.

Ethical issues

None to be declared.

Conflict of interest

The authors declare no conflict of interest in this study.

References

1. Garousian M, Khani S, Shayan A, Taravati M, Babakhani N, Faradmal F, et al. The effect of cognitive behavioral consultation on marital quality among women. National Journal of Physiology, Pharmacy and Pharmacology2018; 8 (5): 1-7.
2. Mazinani R, Akbari Mehr M, Kaskian A, Kashanian M. Evaluation of prevalence of sexual dysfunctions and its related factors in women. Razi Journal of Medical Sciences 2013; 19 (105): 59-66. (Persian)
3. Hodo DW. Kaplan and Sadock's comprehensive textbook of psychiatry. American Journal of Psychiatry 2006; 163 (8): 1458.
4. Sadock BJ. Kaplan HI SV. Kaplan and Sadochs synopsis of psychiatry.9th ed. Philadelphia: Lippincott Williams & Wilkins; 2009.
5. Rajabizadeh G, Yazdanpanah F, Ramezani MA. The evaluation of relationship between sexual self-concept and sexual dysfunction in individuals undergoing methadone maintenance treatment. Addict Health 2017; 9 (2): 88-95.
6. Jafarpour M, Maroufi M, Molaeinezhad M. Relationship between sexual self-concept and sexual performance in married women referring to Mobarakeh health centers, Iran. Journal of Research Development in Nursing & Midwifery 2016; 12 (3): 40-7.
7. Keith A. Sexual desire disorders. Psychiatry (Edgmont) 2008; 5 (6): 50–55.
8. Krawariti V, Gonidakis F. Eating disorders and sexual function. Psychiatriki 2016; 27 (2): 136-43.
9. Tavakolizadeh J, HajiVosogh NS. The effect of cognitive behavioral teaching on marital satisfaction of women having hypoactive of sexual disorder. Scientific Journal of Ilam University of Medical Sciences 2013; 21 (5): 44-50.
10. Tahmasebi H, Abasi E. Sexual function and its relation with depression in referring women to health centers affiliated to medical science university in Sari Township. Journal of Health Breeze 2013; 1 (3): 40-4.
11. Khaki RZ, Mirghafourvand M, Malakouti J, Mohammadi ACS, Asghari JAM, Ghanbari S. Sexual dysfunction and help seeking behaviors in newly married women in Sari, Iran: a cross-sectional study. Payesh 2015; 14 (6): 677-86. (Persian)
12. Dhikav V, Karmarkar G, Gupta R, Verma M, Gupta R, Gupta S, et al. Yoga in female sexual functions. J Sex Med 2010; 7 (2pt2): 964-70. doi: 10.1111/j.1743-6109. 2009. 01580.x.
13. Khera M. Testosterone therapy for female sexual dysfunction. Sex Med Rev 2015; 3 (3): 137-44. doi: 10.1002/smrj.53.
14. Labrie F, Derogatis L, Archer DF, Koltun W, Vachon A, Young D, et al. Effect of intravaginal prasterone on sexual dysfunction in postmenopausal women with vulvovaginal atrophy. The Journal of Sexual Medicine 2015; 12 (12): 2401-12. doi: 10.1111/jsm.13045
15. McCabe MP. Evaluation of a cognitive behavior therapy program for people with sexual dysfunction. J Sex Marital Ther 2001; 27 (3): 259-71.
16. Pereira VM, Arias-Carrión O, Machado S, Nardi AE, Silva AC. Sex therapy for female sexual dysfunction. Int Arch Med 2013; 6 (1): 37. doi: 10.1186/1755-7682-6-37.
17. ter Kuile MM, Both S, van Lankveld JJ. Cognitive behavioral therapy for sexual dysfunctions in women. Psychiatr Clin North Am 2010; 33 (3): 595-610. doi: 10.1016/j.psc.2010.04.010.
18. Tsai TF, Yeh CH, Hwang TIS. Female sexual dysfunction: physiology, epidemiology, classification, evaluation and treatment. Urological Science 2011; 22 (1): 7-13. doi: 10.1016/S1879-5226(11)60002-X.
19. Kabakçi E, Batur S. Who benefits from cognitive behavioral therapy for vaginismus? J Sex Marital Ther 2003; 29 (4): 277-88. doi: 10.1080/00926230390195515.
20. Shayan A,Taravati M, Garousian M, Babakhani N, Faradmal J, Masoumi Z. The effect of cognitive behavioral therapy on marital quality among women. International Journal of Fertility & Sterility 2018; 12 (2): 99-105. doi:10. 22074/ijfs.2018.5257
21. Brotto LA. Mindfulness-based CBT and women's sexual dysfunction: applications for low desire, sexual distress, and provoked vestibulodynia. The Journal of Sexual Medicine 2011; 8: 94.
22. Mohammadi K, Rahnama P, Mohseni SM, Sahraian MA, Montazeri A. Determinants of sexual dysfunction in women with multiple sclerosis. BMC Neural 2013; 13 (1): 83. doi: 10.1186/1471-2377-13-83.
23. Khosravi Z. Sexual function in women after vaginal delivery and cesarean section compared to health centers of Mashhad. Iran: Mashhad University of Medical Sciences. 2000.
24. Bakhtiari M, Sheidaei H, Bahrainian A, Nouri M. The effect of cognitive-behavioral therapy on low sexual desire and marital satisfaction. Thought & Behavior in Clinical Psychology 2015; 9 (36):7-17. (Persian)
25. Salehzadeh M, Kajbaf MB, Moulavi H, Zolfaghari M. Effectiveness of cognitive – behavior therapy on sexual dysfunction in women. Psychological Studies 2011; 7 (1): 11-31.
26. Rahimi E, Shafiabadi A, Yunesi F. The effect of sexual cognitive-behavioral therapy on females' sexual knowledge, sexual attitude, and sexual self-confidence: a case study in Shiraz, Iran. Armaghane Danesh 2009; 14 (3): 103-11. (Persian)
27. Hummel SB, van Lankveld JJ, Oldenburg HS, Hahn DE, Broomans E, Aaronson NK. Internet-based cognitive behavioral therapy for sexual dysfunctions in women treated for breast cancer: design of a multicenter, randomized controlled trial. BMC Cancer 2015; 15: 321. doi: 10.1186/s12885-015-1320-z.
28. Saeidi M, Shamsalizadeh N, Yousefi F. The effectiveness of cognitive behavior therapy on sexual dysfunction after hysterectomy in women referred to Besat hospital in Sanandaj. Shenakht Journal of Psychology and Psychiatry 2016; 3 (4): 39-47. (Persian)