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A Comparative Study of the Effectiveness of Sex Therapy Using Cognitive-Behavioral, Mindfulness-Based, and Integrative Approaches on Sexual Satisfaction and Sexual Desire in Married Women with Sexual Dissatisfaction

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Abstract*:* The aim of this research is to compare the effectiveness of sex therapy using cognitive-behavioral, mindfulness-based, and integrative approaches on sexual satisfaction and sexual desire in married women with sexual dissatisfaction. This study is a semi-experimental research with a pre-test and post-test design, classified as applied research in terms of its purpose. Data were collected through a survey using a validated questionnaire. The research population included all married women with sexual dissatisfaction who had sought counseling and psychological services through advertisements on the Divar website and social media networks and were selected through convenient sampling. After initial interviews and entry criteria assessment, which included being married, experiencing sexual dysfunction for at least six months, and being married for at least one year, a total of 40 participants were randomly divided into four groups (cognitive-behavioral, mindfulness-based, integrative, and control groups). The research instruments included the Sexual Desire Questionnaire (Apt & Halbert, 1992) with a Cronbach's alpha coefficient of 0.82 and the Hudson Index of Sexual Satisfaction Questionnaire (ISS) (1981) with a Cronbach's alpha coefficient of 0.87. Forty-five individuals volunteered to participate in the study, of which 42 attended in-person based on the advertisements, and 40 were selected based on entry and exit criteria. They were randomly assigned to four 10-member groups (cognitive-behavioral, mindfulness-based, integrative, and control groups). Subsequently, each experimental group received six 120-minute group therapy sessions. Initially, before any intervention, individuals received necessary explanations about the research objectives, and informed consent was obtained. In the first phase, a pre-test was administered before the intervention, and then the experimental groups underwent their respective interventions, with the first group receiving eight cognitive-behavioral sessions and the second group receiving six mindfulness-based sessions. After a 30-day interval following the interventions, a post-test was administered to all groups. For hypothesis testing, analysis of variance and post hoc tests were used. The results indicate that there are significant differences ($p < 0.05$) in sexual satisfaction and sexual desire among married women with sexual dissatisfaction in the integrative, cognitive-behavioral, and mindfulness-based groups compared to the control group, with the integrative group showing the highest improvement. However, there is no significant difference ($p > 0.05$) in sexual satisfaction and sexual desire between the mindfulness-based and cognitive-behavioral groups. Therefore, sex therapy in the treatment of generalized sexual dysfunction in sexual relationships, as well as reducing sexual dissatisfaction and increasing sexual desire and intimacy, is beneficial. Based on the findings of this research, psychologists and counselors

working in the field of family therapy can use practical guidelines to intervene in situations arising from sexual dissatisfaction as a supportive treatment.

Keywords: *Sex therapy, Cognitive-behavioral, Mindfulness-based, Sexual desire, Sexual satisfaction*

Introduction

The family is one of the most vital components of society, and maintaining its peace and stability plays a fundamental role in the progress, tranquility, and stability of society as a whole [1, 2]. Achieving a healthy society is possible when we ensure the well-being of families and the realization of healthy relationships among family members [3, 4]. Marriage, as the cornerstone of forming a family, has garnered significant attention in scientific research [5]. One crucial factor in marriage and its preservation is sexual satisfaction, which encompasses an individual's overall assessment of happiness and the degree of fulfillment in their marital relationship. It is associated with numerous positive benefits, including improved quality of life, higher overall satisfaction, greater happiness, better physical health, and well-being [6].

It appears that one of the influential factors on sexual satisfaction and dissatisfaction within marital relationships is the fulfillment of sexual desires. In successful marriages, mutual fulfillment of the partners' sexual needs, to an acceptable and expected extent, strengthens affectionate relationships between them. To some extent, it can be said that one of the principles of successful marriages is the satisfaction of sexual desires [7].

The initial approach to understanding sexual desire was through a biological and biopsychological perspective, assessing sexual desire as an internal motivational force within an individual. These intrinsic motivational forces include instincts, needs, desires, and wishes. In the second approach, which is the sociocultural and cultural theory, sexual desire is evaluated within a much broader framework. In this theory, sexual desire is regarded as a factor within a larger puzzle of social relationships and cultural aspects of societies [8].

In the biopsychological approach, sexual desire, like other sexual instincts, is regarded as a response to a biological need. It is, in fact, a biological need that drives an individual to engage in sexual activity. However, not all animal species, including humans, seek to fulfill their sexual desires in any possible way because attraction plays a crucial role in sexual arousal. This perspective asserts that the inclination towards sexual activity depends on the intensity of the stimulus, and the stronger the force, the greater the sexual inclination. The sexual drive is entirely dependent on biological factors such as chromosomes, genes, hormonal status, nutrition, general health, and age. In the sociocultural context, sexual attraction is considered primarily for its nature, which is sexual pleasure, physical satisfaction, and relief from bodily tension, and other non-sexual goals are not taken into account for engaging in sexual intercourse. However, sexual intercourse can serve other purposes unrelated to sexual pleasure, such as creating intimacy and closeness between individuals in a relationship. Sexual desire, like other desires, is not merely a physical attraction; rather, humans have the ability to control it. Social roles and the way culture and society perceive sexual desires can sometimes lead individuals to make changes in their sexual inclinations, which may result in disappointment [9].

Sex therapy is an approach to treating sexual dysfunctions and sexual desires that was developed during the sexual revolution by William Masters and Virginia Johnson. In its early principles, sex therapy was based on the assumption that most sexual problems result from the neglect of sexuality and performance anxiety. Contemporary sex therapy includes various dimensions for understanding and treating sexual problems. It focuses not only on pharmacological aspects of sexuality but also on the role of relationships, cultural factors, and increasing awareness of the complexity of sexual issues that individuals often face [10].

Sex therapy helps individuals experiencing sexual dissatisfaction to have an active sexual life.

One of the ways to increase intimacy between couples is sexual education within the context of the marital relationship. Sexual education is a process that contributes to healthy sexual development, sexual well-being, emotional intimacy, closeness, body awareness, and gender roles.

The transformative approach to sex therapy aims to understand the psychological, biological, pharmacological, rational, and behavioral aspects of sexual issues [11].

One of the theories that has been successful in the etiology of sexual problems in sex therapy is the cognitive-behavioral theories. According to these theories, methods have been developed to treat sexual dysfunctions. For example, Barlow (1986) suggests that irrational or incompatible beliefs about sexual activity and strong negative expectations can lead to more anxiety and negative emotions in sexual situations. Individuals, in order to predict and prevent failure in sexual dissatisfaction, monitor and control their performance and, consequently, pay attention to signs consistent with their negative expectations. Barlow also believes that anxiety arises due to selective attention to sexual performance and the lack of attention to appropriate sexual stimuli. As a result, by creating a dysfunctional cycle, sexual problems lead to an increase in patterns, beliefs, and negative sexual expectations, ultimately leading to a sense of hopelessness and dissatisfaction with sexual activity [12].

Based on this, cognitive-behavioral therapy has been considered as one of the treatment methods for sexual dissatisfaction. This therapeutic approach can be used as a criterion for comparing the effectiveness of modern treatments.

The goal of cognitive-behavioral therapy is to correct erroneous interpretations, regain a sense of control over life, increase positive and constructive self-talk, and enhance coping skills.

Another therapeutic approach that can be effective in addressing sexual problems is mindfulness. Bishop and colleagues (2004) defined mindfulness as directing one's attention to their current experiences, emphasizing the qualities of openness and acceptance. Mindfulness is a method for establishing a connection with all experiences, including positive, negative, and neutral ones, leading to a reduction in distress and an increase in individuals' psychological well-being. Mindfulness directs individuals' attention to the tasks at hand. When a person is mindful, their attention is not caught up in the past or future; instead, they accept and do not judge what is happening in the present moment (Bashiri & Vaziri, 2020). Mindfulness places a strong emphasis on paying attention to the experiences an individual is currently having and teaches individuals to experience events as they are, without engaging in thinking, judgment, or having specific expectations [6].

Mindfulness calms the mind that has been influenced by judgments, interpretations, and inner dialogues, allowing individuals to engage in observation and participation in their lives without getting entangled in them. These distractions and internal dialogues disrupt the focus on sexual pleasure, emotions, or intimacy, leading individuals to be trapped in non-arousing thoughts and behaviors, resulting in performance anxiety, evaluative dissatisfaction, and critical self-examination or criticism of their sexual partner [13]. By being in the present moment, sexual sensations, pleasures, and stimuli are less affected by inner dialogues and mental judgments [13].

Mindfulness instructs individuals to pay attention to all the events that occur during sexual intercourse, including sensory information and sexual feelings at that moment. It also teaches them that if their attention drifts away from sensory information and sexual feelings, it won't turn into a catastrophe [14]. There have been limited studies on the application of cognitive-behavioral and mindfulness approaches in the treatment of sexual problems. Considering that mindfulness and cognitive-behavioral therapy can be used for the first time in treating sexual dissatisfaction, the results of this research contribute significantly to understanding the etiology of this disorder. If these two therapeutic approaches prove effective in treating sexual dissatisfaction, they can guide further research into identifying the causes of this disorder and elucidating the mechanism of action of this type of treatment. Another important theoretical application of this research is the elucidation and determination of the consequences and negative effects of this disorder on individuals and interpersonal relationships. Consequently, the diagnostic and effective intervention value for this disorder becomes apparent. On the other hand, by assessing the level of mindfulness and cognitive-behavioral factors in individuals, predictions can be made about the likelihood of this disorder occurring. If this research demonstrates that mindfulness and cognitive-behavioral factors are related to sexual dissatisfaction and sexual desire, their assessment as a baseline can be used to determine the effectiveness of treatment for individuals with sexual dissatisfaction. Once the effectiveness of this approach is identified, it can be used in private counseling centers, and sexual therapists can employ mindfulness and cognitive-behavioral therapy as new therapeutic methods in sex therapy for individuals with this disorder. These therapeutic approaches can be used in educational packages in pre-marriage training. Therefore, in this study, the researcher aims to answer the question of whether sex therapy using cognitive-behavioral and

mindfulness approaches, alone or in combination, is effective in improving sexual satisfaction and sexual desire in married women with sexual dissatisfaction.

Research Methodology

The current research is a semi-experimental study with a pre-test and post-test design, classified as applied research based on its objectives. Data were collected using a survey method and a validated questionnaire. The study population consisted of all married women with sexual dissatisfaction who had sought counseling and psychological services through advertisements on the Divar website and social media networks, and who were readily available for selection. After conducting initial interviews and applying entry criteria (including being married, experiencing sexual dissatisfaction for at least six months since the onset, and having been married for at least one year), and exit criteria (such as suffering from psychiatric disorders, severe mental disorders, comorbidity with other psychiatric disorders, substance abuse, alcohol consumption, having a physical illness, taking medication with a direct impact on sexual function, and having disorders in the stages of the sexual cycle before orgasm, and having sexual dysfunction in their spouses), 40 individuals were randomly divided into four groups (cognitive-behavioral, mindfulness, combination, and control).

The research instruments used in this study were the Sexual Desire Inventory (SDI) by Apt and Halbert (1992) with a Cronbach's alpha coefficient of 0.82 and the Index of Sexual Satisfaction (ISS) questionnaire by Hudson et al. (1981) with a Cronbach's alpha coefficient of 0.87. The reliability of this questionnaire was reported as 0.81 in a study by Rezaei et al. (2018).

After completing relevant sex therapy courses based on mindfulness and reading several related books and watching instructional videos on the official mindfulness website (www.mindfulness.com), individuals were invited to participate in the therapy session through advertisements on the Divar website and social media networks. A total of 45 individuals expressed their willingness to cooperate, out of which 42 attended the in-person interviews, and 40 of them were selected based on the entry and exit criteria, then randomly assigned to four groups of 10 participants each (cognitive-behavioral, mindfulness, combination, and control). Subsequently, the experimental groups underwent six 120-minute group therapy sessions.

Initially, before any intervention, individuals were provided with necessary explanations about the research objectives, and informed consent was obtained. In the first stage, a pre-test was conducted before the intervention, and then the experimental groups received their respective interventions, with the first group undergoing eight cognitive-behavioral sessions and the second group receiving six mindfulness sessions. Finally, after a 30-day interval, a post-test was conducted for all groups. To test the research hypotheses, analysis of variance and follow-up tests were conducted as hypothetical testing methods.

Sex Therapy Protocol Based on Mindfulness by Kocsis and Newbury (2016):

This protocol is the result of research by Kocsis and Newbury in the field of adapting Mindfulness-Based Cognitive Therapy (MBCT) for solving various sexual problems and enhancing intimacy between couples. This protocol was piloted with 15 patients seeking treatment at a sexual disorders clinic. Based on the results of implementing this protocol, avoidance of experiential and behavioral aspects decreased, and individuals focused more on their sensory experience rather than merely achieving their sexual goals. The effectiveness of this protocol for various sexual problems was found to be acceptable and had positive outcomes for participants. This protocol was adapted to fit the specific context, culture, and societal norms of the Iranian population, and techniques and guidelines were reviewed and adjusted to align with the Iranian community.

Session 1: Introduction and Welcoming

- Introduction of participants and welcoming.

- Introduction to Mindfulness therapy and treatment procedures.

- Introduction to therapy sessions and conducting the pre-test.

- Emphasizing the confidentiality of participants' private lives.

- Teaching mindful movement techniques and body scanning.

- Introduction to the first three minutes of mindful breathing.

- Distributing instructional videos and handouts.

- Moving into the embodiment phase.

Session 2: Review and Mindful Listening

- Review of techniques taught in previous sessions.

- Evaluation of homework from the previous session.

- Teaching mindful listening to partners' movements and needs.

- Techniques for exploring sensory goals and discussion.

- Homework: A mindfulness and mindful listening exercise.

- Distributing instructional videos and handouts.

- Moving into the emotional exploration phase.

Session 3: Review and Mindful Sensuality

- Review of previously taught techniques.

- Discussion of experiences, emotions, and potential challenges in their practice.

- Teaching the technique of mindful listening and inquiry in couples (including reflection, assignments, and mindful listening to couples).

- Conducting a meditation session that involves question and answer about disputes, conflicts, admiration, and description.

- Homework: Meditation, moments of mindfulness, and practicing the mutual caressing technique with partners.

- Distributing instructional videos and handouts.

- Moving into the avoidance and intimacy phase.

Session 4: Mindful Movement and Sexual Meaning

- Conducting mindful movement exercises.

- Evaluating sexual dissatisfaction and discussing it in the meditation session.

- Teaching and performing a meaningful sexual exercise session.

- Homework: Mindfulness meditation, mindful moments (emotional sensations and mindful sexual experiences), and practicing the mutual caressing technique with partners.

- Distributing instructional videos and handouts.

- Moving into the recognition of automatic thoughts phase.

Session 5: Review and Sexual Distress

- Reviewing what has been covered in previous sessions.

- Discussing sexual distress and meditating on it.

- Teaching the exercise of intimate questions with active listening and discussion with partners.

- Homework: Meditation session, moments of mindfulness (sensory feelings and mindful sexual experiences), and the active listening technique for intimate questions with a focus on the three-minute breathing space.

- Distributing instructional videos and handouts.

- Attempting to teach techniques in this phase that can be used as a common daily practice by participants. Revisiting extensive awareness.

Session 6: Review and Problem Exploration

In this session, participants revisit the material covered in previous sessions. The focus is on a meditation session dedicated to examining the issues that participants brought into the group. Through one-on-one and group discussions, each participant's sexual performance and their interactions with their spouse are explored. During this phase, a personalized plan is also developed for the couples to successfully integrate what they have learned during the course into their daily lives. This phase involves extensive exploration of new learning and expanding their understanding (Phase 9).

Cognitive-Behavioral Sex Therapy Protocol by Masters and Johnson (2010):

This protocol is the result of research by Masters and Johnson in the field of adapting cognitive-behavioral therapy to address various sexual and intimate relationship problems. The protocol comprises eight sessions, and a summary of these sessions is provided below. The effectiveness of this protocol in addressing various sexual issues is considered acceptable, with positive outcomes reported for participants. The protocol has been adapted to align with the specific cultural norms and standards of the Iranian society, and techniques and guidelines have been reviewed and adjusted accordingly.

Session 1: Introduction and Establishing Rapport

- Welcoming and establishing appropriate and intimate communication with participants.

- Outlining the general educational goals.

- Raising open-ended questions about the educational and counseling needs of women regarding sexual matters.

- Introducing group members to each other.

- Emphasizing the ethical commitment to maintaining the confidentiality of therapy sessions.

- Describing the sexual disorder, its nature, course, duration, and intensity.

- Soliciting opinions and perspectives of the participants.

- Familiarizing participants with the physiology and anatomy of the female reproductive system.

- Explaining the functions of each reproductive organ.

- Reviewing previously discussed materials.

Session 2: Importance of Sexual Satisfaction and Psychological Aspects

- Discussing the significance of sexual satisfaction in marital life.

- Exploring various psychological and religious perspectives on different aspects of sexual relationships.

- Addressing interpersonal issues.

- Exploring sexual fantasies and dreams.

- Dealing with mental distraction issues.

Session 3: Correcting Misconceptions and Improving Sexual Awareness

- Correcting false beliefs about sexual relationships.

- Enhancing sexual awareness.

- Emphasizing the importance of verbal communication in sexual relationships.

- Providing guidance on sexual fantasies.
- Teaching concentration and attention skills.
- Discussing expectations related to sex.

Session 4: Physiological Synchronization and Desensitization

- Exploring the physiology of the sexual response cycle.
- Examining sexual desires.
- Interpretations of desires and neurophysiological responses in sexual relationships.
- Understanding differences in sexual desire and sexual stimuli in women and men.
- Addressing issues related to female sexual inhibition.
- Restructuring maladaptive self-narratives.
- Providing guidance on bodily exploration for individuals to slowly explore their own sexual arousal points.
- Conducting individual and group exercises.

Session 5: Understanding Female Sexual Function across Life Stages

- Familiarity with changes in female sexual function during different life stages.
- The impact of sexual health on sexual function.
- Self-enhancement techniques.
- Teaching problem-solving skills.
- Enhancing positive self-talk.

Session 6: Teaching Relaxation Techniques and Graded Assignments

- Providing relaxation training.
- Implementing graded assignments.
- Conducting individual and group exercises.

Session 7: Reinforcing Target Behaviors and Suppressing Undesirable Behaviors

- Reinforcing desired behaviors.
- Suppressing undesirable behaviors.
- Conducting individual and group exercises.

Session 8: Sexual Education and Creating a Timetable for Homework

- Delivering sexual education.
- Setting a timetable for homework assignments.
- Conducting individual and group exercises.

Four weeks after the final session, participants from all four groups will complete questionnaires [14].

Sex Therapy Protocol Based on Combination of both Mindfulness by Kocsis and Newbury (2016) and Cognitive-Behavioral by Masters and Johnson (2010) methods [15, 16]:

Session 1:

- Introduction of participants and welcoming.
- Introduction to Mindfulness therapy and treatment procedures.
- Introduction to therapy sessions and conducting the pre-test.
- Emphasizing the confidentiality of participants' private lives.
- Teaching mindful movement techniques and body scanning.
- Introduction to the first three minutes of mindful breathing.
- Distributing instructional videos and handouts.
- Moving into the embodiment phase.
- Raising open-ended questions about the educational and counseling needs of women regarding sexual matters.
- Introducing group members to each other.
- Emphasizing the ethical commitment to maintaining the confidentiality of therapy sessions.
- Describing the sexual disorder, its nature, course, duration, and intensity.
- Soliciting opinions and perspectives of the participants.
- Familiarizing participants with the physiology and anatomy of the female reproductive system.
- Explaining the functions of each reproductive organ.
- Reviewing previously discussed materials.
- Reviewing what has been covered in previous sessions.

Session 2:

- Review of techniques taught in previous sessions.
- Evaluation of homework from the previous session.
- Teaching mindful listening to partners' movements and needs.
- Techniques for exploring sensory goals and discussion.
- Homework: A mindfulness and mindful listening exercise.
- Distributing instructional videos and handouts.
- Moving into the emotional exploration phase.
- Discussing the significance of sexual satisfaction in marital life.
- Exploring various psychological and religious perspectives on different aspects of sexual relationships.
- Addressing interpersonal issues.
- Exploring sexual fantasies and dreams.
- Dealing with mental distraction issues.

Session 3:

- Review of previously taught techniques.
- Discussion of experiences, emotions, and potential challenges in their practice.
- Teaching the technique of mindful listening and inquiry in couples (including reflection, assignments, and mindful listening to couples).

- Conducting a meditation session that involves question and answer about disputes, conflicts, admiration, and description.

- Correcting false beliefs about sexual relationships.

- Enhancing sexual awareness.

- Emphasizing the importance of verbal communication in sexual relationships.

- Providing guidance on sexual fantasies.

- Teaching concentration and attention skills.

- Discussing expectations related to sex.

- Homework: Meditation, moments of mindfulness, and practicing the mutual caressing technique with partners.

- Distributing instructional videos and handouts.

- Moving into the avoidance and intimacy phase.

Session 4:

- Conducting mindful movement exercises.

- Evaluating sexual dissatisfaction and discussing it in the meditation session.

- Teaching and performing a meaningful sexual exercise session.

- Homework: Mindfulness meditation, mindful moments (emotional sensations and mindful sexual experiences), and practicing the mutual caressing technique with partners.

- Distributing instructional videos and handouts.

- Moving into the recognition of automatic thoughts phase.

- Exploring the physiology of the sexual response cycle.

- Examining sexual desires.

- Interpretations of desires and neurophysiological responses in sexual relationships.

- Understanding differences in sexual desire and sexual stimuli in women and men.

- Addressing issues related to female sexual inhibition.

- Restructuring maladaptive self-narratives.

- Providing guidance on bodily exploration for individuals to slowly explore their own sexual arousal points.

- Conducting individual and group exercises.

Session 5:

- Reviewing what has been covered in previous sessions.

- Discussing sexual distress and meditating on it.

- Teaching the exercise of intimate questions with active listening and discussion with partners.

- Homework: Meditation session, moments of mindfulness (sensory feelings and mindful sexual experiences), and the active listening technique for intimate questions with a focus on the three-minute breathing space.

- Distributing instructional videos and handouts.

- Attempting to teach techniques in this phase that can be used as a common daily practice by participants. Revisiting extensive awareness.

- Familiarity with changes in female sexual function during different life stages.

- The impact of sexual health on sexual function.

- Self-enhancement techniques.

- Teaching problem-solving skills.

- Enhancing positive self-talk.

Session 6:

In this session, participants revisit the material covered in previous sessions. The focus is on a meditation session dedicated to examining the issues that participants brought into the group. Through one-on-one and group discussions, each participant's sexual performance and their interactions with their spouse are explored. During this phase, a personalized plan is also developed for the couples to successfully integrate what they have learned during the course into their daily lives. This phase involves extensive exploration of new learning and expanding their understanding (Phase 9).

- Providing relaxation training.

- Implementing graded assignments.

- Conducting individual and group exercises.

Session 7:

- Reinforcing desired behaviors.

- Suppressing undesirable behaviors.

- Conducting individual and group exercises.

- Delivering sexual education.

- Setting a timetable for homework assignments.

- Conducting individual and group exercises.

Four weeks after the final session, participants from all four groups will complete questionnaires [14].

Research Findings

Table 1 - Mean and Standard Deviation of All Research Variables in Groups

Variable	Group	stage	Number	Mean	standard deviation	min	Max
Sexual Satisfaction	Control	pretest	40	88.25	15.214	60	115
		posttest	40	88.35	15.382	60	115
	Mindfulness	pretest	40	92.25	17.829	65	125
		posttest	40	130.40	22.741	100	245
	Cognitive Behavioral	pretest	40	94.25	17.488	65	125
		posttest	40	133.53	12.973	100	150
	Integrative	pretest	40	82.38	9.405	60	100
		posttest	40	140.63	6.811	130	150
Sexual Desire	Control	pretest	40	57.63	11.929	35	80

Variable	Group	stage	Number	Mean	standard deviation	min	Max
	Mindfulness	posttest	40	57.35	11.838	35	80
		pretest	40	58.50	10.077	45	90
	Cognitive Behavioral	posttest	40	00.91	5.213	75	100
		pretest	40	61.00	12.465	40	90
	Integrative	posttest	40	84.37	7.178	70	100
		pretest	40	54.00	9.884	35	75
		posttest	40	85.75	8.811	65	100

In Table 1, the descriptive statistics and central tendencies of the variables are presented, categorized by groups and stages.

Table 2- Shapiro-Wilk test results of research variables in groups

Variable	Group	stage	Number	Shapiro-Wilk	Sig.
Sexual Satisfaction	Control	pretest	40	0.960	0.171
		posttest	40	0.967	0.283
	Mindfulness	pretest	40	0.946	0.112
		posttest	40	0.959	0.189
	Cognitive Behavioral	pretest	40	0.927	0.106
		posttest	40	0.939	0.122
	Integrative	pretest	40	0.959	0.158
		posttest	40	0.861	0.191
Sexual Desire	Control	pretest	40	0.949	0.092
		posttest	40	0.957	0.128
	Mindfulness	pretest	40	0.987	0.501
		posttest	40	0.994	0.535
	Cognitive Behavioral	pretest	40	0.948	0.063
		posttest	40	0.949	0.061
	Integrative	pretest	40	0.952	0.099
		posttest	40	0.986	0.487

According to Table 2, the test results indicate that the data distribution for all variables in the pre-test and post-test is normal. Therefore, it is possible to use parametric tests for hypothesis testing.

Table 3. The results of the Levene's test for the variable "sexual satisfaction" in married women with sexual dissatisfaction across all groups.

Levene	Df1	Df2	Sig.
0.875	3	156	0.143

Table 4. the results of the covariance test comparing between groups for the variable "sexual satisfaction" in married women with sexual dissatisfaction.

Source	Sum of Squares	Degrees of Freedom	Mean Square	F	Sig.	Eta Squared
Modified Model	82474.703	4	20618.676	142.934	0.000	0.787
Effect	19222.801	1	19222.801	133.258	0.000	0.462
Sexual Satisfaction	15410.853	1	15410.853	106.832	0.000	0.408
Group	68880.339	3	22960.113	159.166	0.000	0.755
Error	22359.197	155	144.253			
Total	2534338	160				
Total Modified	104833.9	159				

As indicated by the information in Table 4, there is a significant difference in sexual satisfaction among the four groups of married women with sexual dissatisfaction ($p < 0.05$). Considering the "Group" row and the fact that the value is 0.000 (p) and 159.166 (F), we can conclude that the main effect of sex therapy using a integrative cognitive-behavioral and mindfulness approach on the sexual satisfaction of married women with sexual dissatisfaction in the post-test scores is statistically significant. Furthermore, sex therapy using a cognitive-behavioral approach and mindfulness has an impact on the sexual satisfaction of married women with sexual dissatisfaction, confirming the first hypothesis.

Table 5. The results of a follow-up Bonferroni test for the variable of sexual satisfaction in married women with sexual dissatisfaction in the various groups.

Group (I)	Group (J)	Difference Between Two Stages	Error deviation from mean	Sig.
Control	Mindfulness	-7.050	3.479	0.024*
	Cognitive Behavioral	-8.175	3.479	0.019*
	Integrative	-12.275	3.479	0.000*
Mindfulness	Cognitive Behavioral	-1.125	3.479	1.000
	Integrative	-3.225	3.479	0.123

Group (I)	Group (J)	Difference Between Two Stages	Error deviation from mean	Sig.
Cognitive Behavioral	Integrative	-3.800	3.479	0.258

Considering the significance in Table 4, a follow-up Bonferroni test in Table 5 was used to examine the changes in this significance. The results indicate that in the variable of sexual satisfaction in married women with sexual dissatisfaction, there is a significant difference between the integrative ($p = 0.000$), mindfulness ($p = 0.024$), and cognitive-behavioral ($p = 0.019$) groups compared to the control group, and they performed better in that order. However, there is no significant difference between the integrative, mindfulness, and cognitive-behavioral groups when compared to each other ($p > 0.05$).

Table 6. The results of the follow-up Bonferroni test for the variable of sexual desire in married women with sexual dissatisfaction in all groups.

Levene	Df1	Df2	Sig.
0.623	3	156	0.683

Table 7. The results of the covariance test comparing between groups for the variable of sexual desire in married women with sexual dissatisfaction.

Source	Sum Of Squares	Degrees Of Freedom	Mean Square	F	Sig.	Eta Squared
Modified Model	32264.177	4	8066.044	185.948	0.000	0.828
Effect	14424.997	1	14424.997	332.543	0.000	0.682
Sexual Satisfaction	4838.408	1	4838.408	111.541	0.000	0.418
Group	27520.035	3	9173.345	211.475	0.000	0.804
Error	6723.567	155	43.378			
Total	1053251	160				
Total Modified	38987.744	159				

As indicated by the information in Table 7, there is a significant difference among the participants in the four groups regarding the variable of sexual desire in married women with sexual dissatisfaction ($p < 0.05$). Considering the group row and the fact that the value is 0.000 (p) and 211.475 (F), we conclude that the primary effect of sex therapy using a cognitive-behavioral and mindfulness approach on the sexual desire of married women with sexual dissatisfaction is statistically significant in the post-test scores. Furthermore, sex therapy using a cognitive-behavioral and mindfulness approach has an impact on the sexual desire of married women with sexual dissatisfaction, thus confirming the second hypothesis.

Table 8. Follow-up Bonferroni Test Results for the Variable of Sexual Desire in Married Women with Sexual Dissatisfaction in Groups.

Group (I)	Group (J)	Difference Between Two Stages	Error deviation from mean	Sig.
Control	Mindfulness	-12.025	1.925	0.021*
	Cognitive Behavioral	-14.400	1.925	0.012*
	Integrative	-23.650	1.925	0.000*
Mindfulness	Cognitive Behavioral	0.250	1.925	0.843
	Integrative	-1.375	1.925	0.366
Cognitive Behavioral	Integrative	1.625	1.925	0.304

As indicated by the significance in Table 7, Bonferroni follow-up tests were performed to examine these significant changes, as shown in Table 8. The results indicate that there is a significant difference among the participants in the four groups regarding the variable of sexual desire in married women with sexual dissatisfaction ($p < 0.05$). Specifically, the cognitive-behavioral ($p = 0.000$) and mindfulness ($p = 0.012$) groups, when compared to the control group, show statistically significant differences, with the former having the best performance. However, there is no significant difference between the cognitive-behavioral and mindfulness groups when compared to each other ($p > 0.05$).

Discussion and Conclusion

The study of human sexual desires and behaviors is essential for marital satisfaction. Sexual desires are the innermost feelings and deepest desires of the human heart to create a meaningful connection. The World Health Organization considers sexual health as the integration and harmony between the mind and body, driving human social and intellectual aspects towards personal growth and fostering relationships and love. Women who enjoy complete physical, mental, and emotional health have strong foundations for a healthy family life, coupled with happiness. The suppression of natural and divine needs of women has adverse effects on sexual satisfaction and marital intimacy.

The findings of the current research indicate that cognitive-behavioral sex therapy, mindfulness, and the integrative approach have a positive and significant impact on the sexual satisfaction and sexual desire of married women with sexual dissatisfaction. The results demonstrate that, in terms of sexual satisfaction and sexual desire among married women with sexual dissatisfaction, there are significant differences between the integrative, cognitive-behavioral, and mindfulness therapy groups compared to the control group ($p < 0.05$), with the integrative therapy group showing the best performance. However, there is no significant difference between the cognitive-behavioral and mindfulness therapy groups when compared to each other ($p > 0.05$). These findings are in line with the results of studies conducted by Henrikson et al. (2020), Beykan-Tetik (2018), Moghadam and Kazerooni (2017), and Ismaeilzadeh and Akbari (2020).

One of the functions of marriage is sexual satisfaction, and many men consider marriage as an opportunity to satisfy their sexual desires. Therefore, the relationship serves the need for active sexual activity. Sexual intercourse

is a primary factor in completing the marriage process, although it can also be the main cause of marital problems. Thus, if both spouses value each other's sexual needs, most marital problems can be easily resolved, ensuring marital stability. Marital instability occurs when one of the spouses experiences unsatisfactory sexual intercourse. The presence of sexual misconduct in one of the spouses leads to a decrease in sexual satisfaction and overall marital satisfaction. The unmet natural sexual needs can lead to conflicts that can cause anxiety in individuals. One of the factors that contributes to the effectiveness of the three therapeutic approaches in this study is the increase in communication opportunities and its improvement between spouses. Completing household tasks, needing to get closer, and establishing a connection with a spouse are key aspects. These exercises provide more opportunities for couples to communicate with each other about existing problems and household duties. This can reduce conflicts in marital relationships and provide an opportunity for improving their relationship. It seems that improving communication and sexual skills in men can reduce negative feedback from their spouse about their sexual performance and increase the level of positive feedback. Positive feedback provided by the spouse can increase sexual satisfaction in men. Therefore, it appears that all three therapies have resulted in mutual rewards for individuals in the relationship, leading to an increase in marital satisfaction [17].

In the present exposition, it can be stated that cognitive-behavioral therapy (CBT) counseling significantly influences the improvement of marital satisfaction, particularly in areas such as enhancing communication, conflict resolution skills, and sexual desire of couples. In other words, increasing sexual knowledge and facilitating sexual counseling within a cognitive-behavioral framework leads to awareness of the dynamics of the marital relationship, which can be fruitful. In essence, improving sexual knowledge, expressing one's sexual beliefs, and enhancing the sexual skills of couples can help increase the sexual desire of reserved women [18].

Furthermore, cognitive-behavioral therapy has educational capacities for identifying cognitive distortions, which is therapeutic in itself. It helps recognize cognitive errors within the context of a couple's relationship and guides their interactions towards greater richness. Additionally, CBT is noted to have a fundamental impact on individuals' emotional states, as it teaches individuals to seek, identify, and analyze abnormal patterns of thought and behavior. It also instructs them on how to challenge and reconstruct their thoughts and behaviors [18].

Another factor that significantly influences marital satisfaction and sexual desire is mindfulness therapy. Acceptance without conditions of existing circumstances has a profound impact on marital satisfaction. In a study conducted by Kappen, Karremans Berek and Beykan-Tetik (2018) on the impact of mindfulness on sexual satisfaction in marriage, they found that increasing one partner's acceptance in the long term could affect the other partner's acceptance, thus leading to effective sexual satisfaction. However, it should be noted that this research was conducted on only one of the spouses (women) and provided only brief educational materials on mindfulness and communication techniques to their partners, making it difficult to discern a significant difference in marital satisfaction [19].

The research by McGill Adler-Baeder and Rodriguez (2016) demonstrated that mindfulness had an impact on how couples reacted to negative emotions and destructive emotions, thus helping to improve their sexual relationship. This achievement will continue to improve over time due to an increasing use of mindfulness. These results align with the findings of the current research [20].

In a preliminary study by Moghaddam and Kazerooni (2017), it was concluded that mindfulness contributes to a better understanding of reality. It indicates that although thoughts reflect reality, they do not encompass the entirety of it. Individuals, with the help of mindfulness techniques, learn to distance themselves from cognitive distortions and irrational interpretations during their relationship and make more rational decisions, which is consistent with the findings of this research. Mindfulness techniques are not limited to behavior alone; rather, they require a change in our thought processes and lifestyle, which takes time to achieve [21]. Additionally, mindfulness helps individuals be more present in the moment, reducing cognitive rumination and enabling individuals to fully experience each moment with their spouse. This leads to improved communication, affection, and complete attention to one another, resulting in a better relationship [22].

The research by Ismaeilzadeh and Akbari (2020) demonstrates that one of the primary reasons for dissatisfaction in marital life and sexual dissatisfaction is the failure to resolve their issues and delaying doing so. Mindfulness,

by improving the relationships between couples, encourages them to communicate more transparently, address issues, and learn to resolve them. This aligns with the findings of the current research [23]. Additionally, according to the research by Pasandideh and Abol-Maali (1395), teaching and applying mindfulness techniques leads to increased psychological and social well-being through the components of acceptance, enhanced mutual understanding, and personal growth. It also helps individuals respond non-judgmentally to various events and not get entangled in the thoughts and emotions arising from them [24]. Based on scientific knowledge of mindfulness, individuals who have reached mindfulness do not pass by experiences without interest or react strongly based on previous experiences. Instead, they make an effort to look at the experience in a new way and trust their feelings and emotions in the moment. This makes them more capable in handling daily issues. For this reason, they use problem-solving strategies more often, refrain from passing judgment on their experiences, and view situations as new opportunities. Conversely, other individuals tend to consider their current experiences in light of past encounters and, if they have previously failed in similar situations, believe they will fail again. Therefore, they tend to choose avoidance or escape. Mindful individuals, on the other hand, view each situation as a new one and actively engage in problem-solving. This ability also helps them in resolving issues and problems in marital life, freeing them from the repetitive cycle of life that arises due to judgment of every experience. Recent findings also indicate that mindfulness remains continuous and ongoing throughout a person's entire life.

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