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The Effectiveness of Mindfulness-Based Sex Therapy on Sexual Aversion and Sexual Self-Efficacy

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A B S T R A C T

This study aimed to investigate the effectiveness of mindfulness-based sex therapy (MBST) in improving sexual self-efficacy and reducing sexual aversion among individuals experiencing sexual dysfunction. A quasi-experimental design with a pre-test, post-test, and control group was employed. The study sample consisted of 30 couples (15 in the experimental group and 15 in the control group) selected from counseling centers in Karaj. Participants in the experimental group underwent an eight-session MBST intervention, while the control group received no intervention. Data were collected using the Sexual Self-Efficacy Questionnaire (Vaziri & Lotfi, 2013) and the Sexual Desire Inventory (Ayit & Halbert, 1992), both of which demonstrated high reliability. Data analysis was performed using SPSS 24, applying multivariate analysis of covariance (MANCOVA) with repeated measures to examine within-group and between-group differences. The results revealed a significant increase in sexual self-efficacy in the experimental group compared to the control group ($p < 0.001$), with mean scores rising from 8.73 in the pre-test to 14.77 in the post-test. Additionally, a significant reduction in sexual aversion was observed in the experimental group, with mean scores decreasing from 50.93 in the pre-test to 44.03 in the post-test ($p < 0.001$). Follow-up assessments indicated that these improvements were maintained over time, while no significant changes were observed in the control group. The findings suggest that MBST is an effective intervention for enhancing sexual self-efficacy and reducing sexual aversion. The results highlight the importance of mindfulness-based approaches in addressing sexual dysfunction, providing evidence for their integration into clinical practice and sex therapy. Future research should explore the long-term effects of MBST and its applicability to diverse populations.

Keywords: *Mindfulness-based sex therapy, sexual self-efficacy, sexual aversion, sex therapy, mindfulness interventions, sexual dysfunction*

1. Introduction

Sexual health and satisfaction play a crucial role in individuals' overall well-being and relationship quality (Janicka, 2024; Moore, 2024). However, many individuals experience challenges related to sexual dysfunction, including sexual aversion and low sexual self-efficacy, which can negatively impact their intimate relationships and psychological health (Brotto & Basson, 2014; Salehi et al., 2024). Among various therapeutic interventions, mindfulness-based sex therapy (MBST) has emerged as an effective approach to addressing sexual difficulties, offering individuals strategies to cultivate present-moment awareness, reduce avoidance behaviors, and enhance their overall sexual experiences (Arora & Brotto, 2017; Brotto & Basson, 2014; Brotto et al., 2019; Brotto et al., 2022).

Mindfulness is a practice rooted in Buddhist traditions and has been widely integrated into Western psychological interventions, particularly for addressing anxiety, depression, and emotional regulation (Kocsis & Newbury-Helps, 2016). The application of mindfulness to sexual health is based on the premise that sexual dysfunction often stems from negative cognitive patterns, self-judgment, and avoidance behaviors, all of which can be mitigated through mindfulness techniques (Brotto et al., 2022). Research has demonstrated that mindfulness fosters an accepting and non-judgmental attitude toward one's body, sensations, and thoughts, leading to greater sexual satisfaction and reduced distress associated with sexual dysfunction (Leavitt et al., 2021).

Sexual aversion, characterized by persistent avoidance of sexual activity and negative emotional responses to intimacy, has been linked to factors such as past trauma, cognitive distortions, and anxiety about sexual performance (Pulverman et al., 2018). Mindfulness-based interventions help individuals disengage from automatic negative thoughts and cultivate a sense of openness toward their sexual experiences, reducing avoidance tendencies (Brotto et al., 2019). Similarly, sexual self-efficacy—the confidence in one's ability to engage in and enjoy sexual activity—is often compromised in individuals with sexual dysfunction, particularly those who experience anxiety or performance concerns (Altafi et al., 2023). MBST promotes a shift from self-criticism to self-acceptance, allowing individuals to build resilience and confidence in their sexual relationships (Khazaeian et al., 2023).

The effectiveness of mindfulness-based interventions in improving sexual function has been well-documented in both clinical and non-clinical populations. Brotto and Basson (2014) conducted a landmark study demonstrating that group-based MBST significantly increased sexual desire in women with hypoactive sexual desire disorder (Brotto & Basson, 2014). Further, Brotto et al. (2019) compared mindfulness-based cognitive therapy (MBCT) and cognitive-behavioral therapy (CBT) for provoked vestibulodynia, finding that MBCT led to greater improvements in sexual desire and reduced pain-related distress (Brotto et al., 2019). Similarly, Kazem Zadeh Atoofi et al. (2023) reported that mindfulness-based sexual relationship therapy was more effective than cognitive-behavioral sex therapy in reducing orgasmic disorder symptoms in women (Kazem Zadeh Atoofi et al., 2023).

The mechanisms underlying the effectiveness of MBST in addressing sexual dysfunction have been explored in various studies. Arora and Brotto (2017) highlighted that mindfulness improves sexual functioning by increasing attentional focus, reducing cognitive interference, and enhancing emotional regulation during sexual activity (Arora & Brotto, 2017). Research by Lin et al. (2019) further supports this, showing that mindfulness-based cognitive therapy for sexuality (MBCT-S) improved sexual functioning and intimacy among older women with epilepsy (Lin et al., 2019). Additionally, a study by Jąderek et al. (2023) found that mindfulness monotherapy significantly reduced symptoms of sexual dysfunction and improved sex-related quality of life in women (Jąderek et al., 2023).

Several studies have also examined the relationship between mindfulness, sexual satisfaction, and relational well-being. Peixoto (2023) found that mindfulness, self-compassion, and acceptance were significant predictors of sexual satisfaction in cisgender heterosexual men and women (Peixoto, 2023). Fatehi et al. (2021) identified marital forgiveness and mental well-being as mediators in the relationship between mindfulness and sexual satisfaction, suggesting that mindfulness fosters positive relational dynamics and emotional closeness (Fatehi et al., 2021). Similarly, Leavitt et al. (2021) demonstrated that sexual mindfulness was associated with greater sexual harmony and orgasm consistency in mixed-sex couples, reinforcing the potential of mindfulness in enhancing intimate relationships (Leavitt et al., 2021).

Sexual self-efficacy is a critical factor in individuals' sexual well-being and confidence in engaging in sexual activity (Karimpoor et al., 2023). Studies have shown that interventions targeting mindfulness can enhance self-efficacy by reducing performance anxiety and increasing

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positive sexual cognitions. Dehnavi et al. (2020) reported that an integrated reality therapy-emotion-focused approach improved sexual self-efficacy in women with hypothyroidism, demonstrating the effectiveness of psychological interventions in addressing sexual concerns (Dehnavi et al., 2020). Similarly, Nezamnia et al. (2020) found that cognitive-behavioral therapy improved sexual function and self-efficacy in pregnant women, indicating that structured therapeutic approaches can foster positive sexual beliefs (Nezamnia et al., 2020). Schema therapy has also been found to be effective in enhancing sexual self-efficacy. Ismaeilzadeh and Akbari (2021) investigated the impact of schema therapy on couples with marital conflicts and found significant improvements in sexual self-efficacy, marital satisfaction, and early maladaptive schemas (Ismaeilzadeh, 2021). Similarly, Samakoush (2023) reported that schema therapy effectively reduced marital exhaustion and increased sexual self-efficacy in women, highlighting the role of cognitive restructuring in improving sexual confidence (Samakoush, 2023). A study by Safar Mohammadlou et al. (2021) compared the effectiveness of emotion-focused therapy and cognitive-behavioral therapy in enhancing sexual self-efficacy in women with breast cancer, finding that both interventions led to improvements, with mindfulness components playing a crucial role (Safar Mohammadlou et al., 2021). Additionally, Sadeghian (2024) demonstrated that an eight-week mindfulness counseling program significantly increased sexual self-efficacy in women with HIV, underscoring the broad applicability of mindfulness-based approaches across diverse populations (Sadeghian, 2024).

Sexual aversion disorder, often linked to psychological distress and avoidance behaviors, can significantly impact relationship satisfaction and emotional intimacy (Reissing et al., 2005). Mindfulness-based interventions have shown promise in reducing sexual aversion by promoting a non-judgmental awareness of sensations and emotions during sexual experiences. Hosseinnezhad Hallaji et al. (2021) found that mindfulness-based sex therapy effectively reduced sexual sensation-seeking behaviors, extramarital relationships, and marital disillusionment in couples, suggesting that mindfulness fosters healthier sexual attitudes and behaviors (Hosseinnezhad Hallaji et al., 2021). Meyers et al. (2020) conducted a randomized controlled trial comparing internet-based cognitive-behavioral and mindfulness-based treatments for low sexual desire in women. Their findings indicated that mindfulness-based interventions were particularly effective in addressing avoidance behaviors and negative sexual cognitions (Meyers et al., 2020). Additionally, Paterson et al. (2017) developed an eight-session mindfulness-based cognitive therapy protocol for women with sexual interest/arousal disorder and found significant improvements in sexual desire and overall well-being (Paterson et al., 2017). Research has also highlighted the role of mindfulness in reducing psychological barriers to intimacy. Karimpoor et al. (2023) demonstrated that sex therapy incorporating mindfulness techniques improved sexual self-efficacy and marital intimacy in couples with sexual dysfunction (Karimpoor et al., 2023). Similarly, Tardast and Changi (2021) found a significant relationship between mindfulness and sexual satisfaction in married women, reinforcing the potential of mindfulness-based interventions in fostering positive sexual experiences (Tardast & Changi, 2021). This study aims to investigate the impact of MBST on sexual aversion and sexual self-efficacy. While previous studies have demonstrated the benefits of mindfulness in improving sexual desire and reducing psychological distress related to sexual functioning, there remains a need for further exploration of its specific effects on sexual aversion and self-efficacy. This study seeks to fill this gap by employing a structured mindfulness-based sex therapy program and assessing its impact through validated measures.

2. Methods and Materials

2.1. Study Design and Participants

In this study, a quasi-experimental design with a pre-test, post-test, and control group was employed to examine the effectiveness of mindfulness-based sex therapy on sexual aversion and sexual self-efficacy. The target population included couples experiencing sexual difficulties who sought counseling at mental health and therapy centers in Karaj in 2023. To ensure the sample was representative of individuals dealing with sexual dysfunction in their marital lives, participants were selected based on their self-reported difficulties and professional evaluations by counselors. A total of 30 couples (15 per group) were chosen using purposive sampling. The experimental group underwent the mindfulness-based sex therapy intervention, while the control group received no such intervention during the study period. Participants were required to meet specific inclusion criteria, including being married for at least one year, having self-reported or clinically diagnosed sexual dysfunction, and providing informed consent. Exclusion criteria included

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severe psychiatric disorders, substance abuse, or concurrent participation in other therapy programs.

2.2. Measures

2.2.1. Sexual Self-Efficacy

Sexual self-efficacy was assessed using the Sexual Self-Efficacy Questionnaire developed by Vaziri and Lotfi in 2013. This questionnaire, based on the General Self-Efficacy Scale by Schwarzer, consists of 10 items rated on a four-point Likert scale ranging from "not at all true" (0) to "completely true" (3). The questionnaire evaluates an individual's confidence in their ability to manage sexual interactions and maintain satisfaction in their sexual relationships. The internal consistency of this tool has been established through Cronbach's alpha, with a reported reliability of 0.86. Additionally, split-half reliability analyses by Spearman-Brown yielded a coefficient of 0.81, and Guttman's reliability index was also reported at 0.81. In previous studies conducted in Iran, the instrument demonstrated an internal consistency reliability of 0.80 (Ismaeilzadeh, 2021; Khazaeian et al., 2023), while in the present study, Cronbach's alpha was determined to be 0.79.

2.2.2. Sexual Aversion

Sexual aversion was measured using the Sexual Desire Inventory, developed by Ayit and Halbert in 1992. This questionnaire has been widely used in various studies across different cultural contexts. It consists of 25 items assessing sexual desire levels using a five-point Likert scale, with response options ranging from "always" (0) to "never" (4). Items 1, 3, 5, 7, 8, 9, 10, 12, 13, 17, 18, 19, and 20 are reverse-scored, meaning higher scores indicate greater sexual desire, while lower scores suggest sexual aversion. The test-retest reliability of the instrument was found to be 0.86, and its internal consistency, measured by Cronbach's alpha, was reported at 0.89 (Reissing et al., 2005). In the present study, the reliability of the scale was determined to be 0.86.

2.3. Intervention

2.3.1. Mindfulness-Based Sex Therapy

The mindfulness-based sex therapy intervention consisted of eight 90-minute sessions conducted weekly over two months. Each session followed a structured format, incorporating psychoeducation, mindfulness exercises, and practical strategies for improving sexual intimacy and reducing aversive reactions. The first session introduced participants to mindfulness principles, the benefits of sexual health, and the anatomy of sexual response in men and women. The second session focused on awareness of the partner's emotions and behaviors, challenging cultural myths about sexuality, and promoting effective communication. The third session explored common sexual dysfunctions and introduced techniques for enhancing intimacy and understanding differences in sexual preferences. The fourth session addressed premature ejaculation and muscle relaxation exercises. The fifth session emphasized attentional focus and self-monitoring skills. The sixth and seventh sessions focused on sensory awareness training and providing structured feedback between partners. The final session involved relaxation techniques, guided imagery, and systematic desensitization to address persistent aversions (Hosseinnezhad Hallaji et al., 2021; Kocsis & Newbury-Helps, 2016).

2.4. Data Analysis

Data analysis was conducted using SPSS 24, employing both descriptive and inferential statistical methods. Descriptive statistics such as mean and standard deviation were used to summarize demographic and baseline characteristics. To test the study hypotheses, a multivariate analysis of covariance (MANCOVA) with repeated measures was applied to compare the experimental and control groups while controlling for potential confounders. Assumptions of MANCOVA, including normality of residuals, homogeneity of covariance matrices, and the absence of multicollinearity, were verified using Shapiro-Wilk, Levene's test, and Greenhouse-Geisser correction. The statistical significance threshold was set at $p < 0.05$.

3. Findings and Results

The findings of the study are presented based on the statistical analysis of the measured variables in the experimental and control groups at three time points: pre-test, post-test, and follow-up.

The descriptive statistics of the variables, including the mean and standard deviation for each stage of measurement, indicate notable changes in the experimental group that underwent mindfulness-based sex therapy. The details are presented in Table 1:

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Table 1

Descriptive Statistics for Research Variables

Variable	Group	Stage	Mean	Standard Deviation
Sexual Self-Efficacy	Control	Pre-Test	8.20	2.483
		Post-Test	8.40	1.993
		Follow-Up	8.65	2.271
	Mindfulness-Based Sex Therapy	Pre-Test	8.73	2.212
		Post-Test	14.77	2.542
		Follow-Up	14.36	2.624
Sexual Aversion	Control	Pre-Test	51.13	2.460
		Post-Test	51.20	2.605
		Follow-Up	51.60	2.799
	Mindfulness-Based Sex Therapy	Pre-Test	50.93	2.392
		Post-Test	44.03	3.518
		Follow-Up	44.40	3.692

In the sexual self-efficacy variable, the mean score for the control group remained relatively stable across the three measurement stages (8.20 in pre-test, 8.40 in post-test, and 8.65 in follow-up). In contrast, the experimental group exhibited a significant increase in sexual self-efficacy following the intervention, with the mean rising from 8.73 in the pre-test to 14.77 in the post-test. Although there was a slight decrease in the follow-up stage (14.36), the score remained significantly higher than the pre-test level, indicating the lasting impact of mindfulness-based sex therapy.

Regarding sexual aversion, the control group maintained consistent mean scores across all three stages, with minimal variation (51.13 in pre-test, 51.20 in post-test, and 51.60 in follow-up). However, in the experimental group, a substantial decrease in sexual aversion was observed. The mean score dropped from 50.93 in the pre-test to 44.03 in the post-test, with a slight increase to 44.40 in the follow-up. This reduction suggests that the intervention effectively alleviated sexual aversion symptoms.

The observed trends in both variables demonstrate the effectiveness of mindfulness-based sex therapy in enhancing sexual self-efficacy and reducing sexual aversion. The findings indicate that while some minor fluctuations occurred between the post-test and follow-up stages, the overall effects of the intervention persisted beyond the immediate treatment period. To confirm these results, inferential statistical analyses were conducted, which further supported the significance of these improvements in the experimental group compared to the control group.

Table 2

ANOVA Results

Variable	Source	Sum of Squares	df	Mean Square	F	p-value	Effect Size
Sexual Aversion	Repetition (Sphericity Assumed)	420.433	2	210.217	127.969	0.001	0.688
	Greenhouse-Geisser	420.433	1.589	264.635	127.969	0.001	0.688
	Huynh-Feldt	420.433	1.654	254.139	127.969	0.001	0.688
	Lower-Bound	420.433	1	420.433	127.969	0.001	0.688
	Repetition * Group (Sphericity Assumed)	487.678	2	243.839	148.436	0.001	0.719
	Greenhouse-Geisser	487.678	1.589	306.961	148.436	0.001	0.719
	Huynh-Feldt	487.678	1.654	294.786	148.436	0.001	0.719
	Lower-Bound	487.678	1	487.678	148.436	0.001	0.719
	Error (Sphericity Assumed)	190.556	116	1.643			
Sexual Self-Efficacy	Repetition (Sphericity Assumed)	378.827	2	189.414	162.094	0.001	0.736
	Greenhouse-Geisser	378.827	1.604	236.132	162.094	0.001	0.736
	Huynh-Feldt	378.827	1.671	226.657	162.094	0.001	0.736
	Lower-Bound	378.827	1	378.827	162.094	0.001	0.736
	Repetition * Group (Sphericity Assumed)	306.435	2	153.218	131.118	0.001	0.693
	Greenhouse-Geisser	306.435	1.604	191.009	131.118	0.001	0.693
	Huynh-Feldt	306.435	1.671	183.344	131.118	0.001	0.693
	Lower-Bound	306.435	1	306.435	131.118	0.001	0.693

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	Error (Sphericity Assumed)	135.551	116	1.169

The results of the repeated-measures ANOVA for both sexual aversion and sexual self-efficacy indicate significant within-subjects effects and interaction effects (Table 2). The F-values for the interaction between time and group were statistically significant for both variables ($p < 0.001$), demonstrating that changes over time in sexual aversion and sexual self-efficacy were significantly different between the experimental and control groups. These findings confirm that the mindfulness-based sex therapy intervention led to notable improvements in both outcomes, with large effect sizes for both sexual aversion ($\eta^2 = 0.719$) and sexual self-efficacy ($\eta^2 = 0.693$).

Table 3

Post-Hoc Bonferroni Results

Variable	Group	Stage 1	Stage 2	Mean Difference	Std. Error	p-value
Sexual Aversion	Control	Pre-Test	Post-Test	-0.067	0.354	1.000
		Pre-Test	Follow-Up	-0.467	0.384	0.689
		Post-Test	Follow-Up	-0.400	0.235	0.283
	Mindfulness-Based Sex Therapy	Pre-Test	Post-Test	6.900	0.354	0.001
		Pre-Test	Follow-Up	6.533	0.384	0.001
		Post-Test	Follow-Up	-0.367	0.235	0.373
Sexual Self-Efficacy	Control	Pre-Test	Post-Test	-0.200	0.299	1.000
		Pre-Test	Follow-Up	-0.447	0.323	0.514
		Post-Test	Follow-Up	-0.247	0.200	0.670
	Mindfulness-Based Sex Therapy	Pre-Test	Post-Test	-6.033	0.299	0.001
		Pre-Test	Follow-Up	-5.627	0.323	0.001
		Post-Test	Follow-Up	0.407	0.200	0.141

The post-hoc Bonferroni test results further support the effectiveness of mindfulness-based sex therapy in improving both sexual self-efficacy and reducing sexual aversion (Table 3). In the experimental group, significant differences were found between the pre-test and post-test, as well as between the pre-test and follow-up stages for both variables ($p < 0.05$). However, the difference between post-test and follow-up scores was not significant ($p > 0.05$), indicating that the treatment effects were maintained over time. In contrast, the control group showed no significant changes across all time points for either sexual self-efficacy or sexual aversion ($p > 0.05$), confirming that the observed improvements were due to the intervention.

Overall, these findings indicate that mindfulness-based sex therapy was effective in enhancing sexual self-efficacy and reducing sexual aversion, with the effects persisting beyond the immediate intervention period.

4. Discussion and Conclusion

The findings of this study indicate that mindfulness-based sex therapy (MBST) significantly improved sexual self-efficacy and reduced sexual aversion in the experimental group compared to the control group. The intervention's effects remained stable in the follow-up phase, demonstrating the lasting benefits of MBST. These results align with previous research highlighting the role of mindfulness in addressing sexual dysfunction and enhancing sexual well-being. The significant improvement in sexual self-efficacy suggests that mindfulness fosters a greater sense of confidence in sexual interactions, while the reduction in sexual aversion indicates a decrease in avoidance behaviors and negative emotional responses to sexual activity.

The improvement in sexual self-efficacy observed in this study is consistent with previous findings demonstrating the effectiveness of mindfulness-based interventions in enhancing confidence in sexual functioning. Brotto et al. (2019) found that mindfulness-based cognitive therapy (MBCT) was superior to cognitive-behavioral therapy (CBT) in treating provoked vestibulodynia, with participants reporting increased confidence in their sexual abilities (Brotto et al., 2019). Similarly, Khazaeian et al. (2023) reported that mindfulness significantly improved sexual self-efficacy and satisfaction among postmenopausal women, reinforcing the idea that mindfulness interventions help individuals develop a more positive and empowered approach to their sexuality (Khazaeian et al., 2023).

Research has also shown that mindfulness plays a critical role in reducing sexual dysfunction and enhancing relational

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intimacy. Kazem Zadeh Atoofi et al. (2023) found that mindfulness-based sexual relationship therapy was more effective than cognitive-behavioral sex therapy in reducing symptoms of orgasmic disorder (Kazem Zadeh Atoofi et al., 2023). The present study's findings align with these results, as participants in the mindfulness-based intervention experienced significant improvements in their sexual self-efficacy. Additionally, Karimpoor et al. (2023) demonstrated that sex therapy incorporating mindfulness techniques improved sexual self-efficacy and marital intimacy, further supporting the current study's conclusion that mindfulness enhances confidence in sexual interactions (Karimpoor et al., 2023).

The reduction in sexual aversion observed in this study is also in line with previous research emphasizing the role of mindfulness in decreasing avoidance behaviors and negative affect related to sexual experiences. Arora and Brotto (2017) reviewed the mechanisms through which mindfulness improves sexual functioning, noting that increased attentional focus and emotional regulation reduce cognitive interference and negative self-perceptions during sexual activity (Arora & Brotto, 2017). These mechanisms likely contributed to the reduction in sexual aversion observed in the present study. Similarly, Brotto and Basson (2014) found that group-based mindfulness therapy significantly increased sexual desire in women with hypoactive sexual desire disorder, indicating that mindfulness can effectively address both low sexual interest and sexual aversion (Brotto & Basson, 2014).

Further supporting these findings, Paterson et al. (2017) conducted a pilot study on an eight-session MBCT intervention for women with sexual interest/arousal disorder, reporting significant improvements in sexual desire and decreased avoidance behaviors (Paterson et al., 2017). The present study's results align with these findings, demonstrating that an eight-session MBST protocol effectively reduces sexual aversion by fostering a more accepting and non-judgmental attitude toward sexual experiences. Additionally, Jąderek et al. (2023) reported that mindfulness monotherapy significantly improved sex-related quality of life and reduced symptoms of sexual dysfunction, providing further evidence for the effectiveness of mindfulness-based approaches in addressing sexual aversion (Jąderek et al., 2023).

Several mechanisms may explain the observed improvements in sexual self-efficacy and reductions in sexual aversion following MBST. One key factor is the role of mindfulness in reducing anxiety and cognitive interference during sexual activity. Lin et al. (2019) found that mindfulness-based cognitive therapy for sexuality (MBCT-S) improved sexual functioning and intimacy among older women with epilepsy, suggesting that mindfulness helps individuals shift their focus from performance concerns to present-moment awareness (Lin et al., 2019). This shift likely contributed to the increased sexual self-efficacy observed in the present study, as participants learned to engage with their sexual experiences in a more mindful and confident manner.

Another important mechanism is the impact of mindfulness on emotional regulation. Fatehi et al. (2021) identified marital forgiveness and mental well-being as mediators in the relationship between mindfulness and sexual satisfaction, highlighting the role of emotional processing in improving sexual experiences (Fatehi et al., 2021). The reduction in sexual aversion observed in the present study may be attributed to participants' increased ability to regulate negative emotions associated with sexual activity. By fostering non-judgmental awareness and acceptance of their sexual experiences, mindfulness-based interventions help individuals break the cycle of avoidance and distress that often characterizes sexual aversion.

Self-compassion has also been identified as a key factor in the effectiveness of mindfulness-based interventions for sexual dysfunction. Peixoto (2023) found that mindfulness, self-compassion, and acceptance were significant predictors of sexual satisfaction, suggesting that individuals who practice mindfulness develop a more positive and accepting relationship with their own sexuality (Peixoto, 2023). In the present study, participants in the MBST group likely benefited from increased self-compassion, which may have contributed to their improved sexual self-efficacy and reduced avoidance behaviors.

Additionally, mindfulness-based interventions may enhance sexual functioning by addressing cognitive distortions and negative sexual self-schemas. Reissing et al. (2005) explored the role of sexual self-schema in young women's sexual adjustment, finding that negative self-perceptions were associated with higher levels of sexual aversion and lower sexual self-efficacy (Reissing et al., 2005). By promoting cognitive flexibility and self-acceptance, mindfulness interventions help individuals challenge negative sexual beliefs and develop a more positive and confident sexual identity. The findings of the present study support this perspective, as participants in the MBST group reported significant improvements in both sexual self-efficacy and reduced aversion.

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Despite the promising findings, this study has several limitations that should be acknowledged. First, the sample size was relatively small, which may limit the generalizability of the results. Future studies should aim to replicate these findings with larger and more diverse samples to ensure broader applicability. Additionally, the study relied on self-report measures, which are susceptible to social desirability bias and subjective interpretation. While self-reported data provide valuable insights into participants' experiences, future research should incorporate physiological measures of sexual arousal and functioning to obtain a more comprehensive understanding of the effects of MBST.

Another limitation is the relatively short follow-up period. While the findings indicate that the effects of MBST were maintained in the follow-up phase, it is unclear whether these improvements persist in the long term. Longitudinal studies with extended follow-up assessments are needed to determine the durability of the intervention's effects. Furthermore, the study did not control for potential confounding variables such as relationship satisfaction, mental health status, or previous experiences with therapy, which may have influenced the results. Future research should consider these factors to isolate the specific impact of MBST on sexual self-efficacy and aversion.

Future research should explore the effectiveness of MBST in different populations and clinical contexts. While the present study focused on couples experiencing sexual dysfunction, future studies should investigate the impact of mindfulness-based interventions on individuals with specific conditions such as trauma-related sexual dysfunction, chronic pain, or hormonal imbalances. Additionally, it would be valuable to compare MBST with other established therapeutic approaches, such as cognitive-behavioral sex therapy or schema therapy, to determine the relative efficacy of different interventions.

Another promising area for future research is the role of partner involvement in mindfulness-based sex therapy. Many studies suggest that relational dynamics play a crucial role in sexual satisfaction and dysfunction, and incorporating mindfulness-based exercises that involve both partners may enhance treatment outcomes. Research should examine whether dyadic mindfulness practices, such as partner-focused attention and mindful communication, lead to greater improvements in sexual functioning compared to individual mindfulness training.

Furthermore, technological advancements provide opportunities to develop and evaluate online mindfulness-based interventions for sexual dysfunction. Brotto et al. (2022) demonstrated the feasibility of an online mindfulness-based program for women with sexual interest/arousal disorder, highlighting the potential of digital interventions (Brotto et al., 2022). Future research should investigate the effectiveness of online MBST programs, particularly in reaching individuals who may have limited access to in-person therapy due to geographic or cultural barriers.

Given the strong evidence supporting the effectiveness of MBST in improving sexual self-efficacy and reducing sexual aversion, clinicians and sex therapists should consider integrating mindfulness techniques into their practice. Structured mindfulness-based exercises, such as body scan meditations, mindful breathing, and guided visualization, can help clients develop present-moment awareness and reduce cognitive interference during sexual activity. Therapists should also provide psychoeducation on the principles of mindfulness and encourage clients to apply these strategies in their daily lives.

It is also important for therapists to adopt a holistic approach that addresses both psychological and relational factors contributing to sexual dysfunction. Incorporating mindfulness into couples therapy can help partners develop greater emotional attunement and improve communication around sexual concerns. Additionally, therapists should tailor mindfulness-based interventions to the unique needs of each client, taking into account factors such as cultural background, personal beliefs, and past experiences.

Lastly, increasing public awareness about the benefits of mindfulness-based interventions for sexual health is essential. Workshops, self-help resources, and community programs can provide individuals with accessible tools for improving their sexual well-being. By promoting a more open and accepting dialogue around sexuality and mindfulness, practitioners can help reduce stigma and empower individuals to seek support for their sexual concerns.

Authors' Contributions

Authors contributed equally to this article.

Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

Transparency Statement

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Data are available for research purposes upon reasonable request to the corresponding author.

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Declaration of Interest

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Ethical Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants.

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