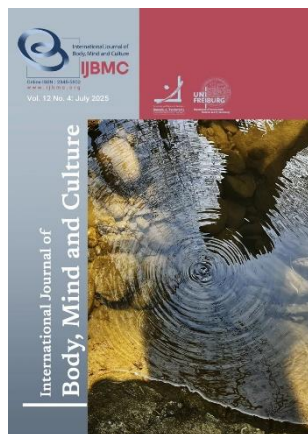


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Comparing Schema Therapy and Dialectical Behavior Therapy on Body Image and Sexual Self-Concept in Women with Vaginismus

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ABSTRACT

Objective: This study aimed to compare the effectiveness of Dialectical Behavior Therapy (DBT) and Schema Therapy (ST) on improving multidimensional self-body relations and sexual self-concept in women with vaginismus.

Methods and Materials: A randomized controlled trial was conducted with 45 women diagnosed with vaginismus in Mashhad, Iran. Participants were randomly assigned to three groups: DBT (n = 15), ST (n = 15), and a waitlist control (n = 15). Both intervention groups received eight weekly sessions of treatment. Outcome measures included the Multidimensional Body-Self Relations Questionnaire (MBSRQ) and the Multidimensional Sexual Self-Concept Questionnaire (MSSCQ), administered at pre-test, post-test, and a five-month follow-up. Data were analyzed using repeated measures ANOVA with Bonferroni post-hoc comparisons via SPSS-27.

Findings: Results indicated significant improvements in both self-body relations and sexual self-concept across time and group ($p < .001$). Schema Therapy demonstrated the greatest improvement in sexual self-concept from pre-test to follow-up (Mean Difference = 13.48), while DBT produced significant gains in self-body awareness and emotional regulation. The interaction effects of time \times group were statistically significant for both outcome variables ($p < .001$), indicating differential treatment effects. Bonferroni post-hoc tests showed that both experimental groups outperformed the control group at post-test ($p < .001$), and Schema Therapy yielded significantly greater effects than DBT on sexual self-concept ($p = .007$) and self-body relations ($p = .041$).

Conclusion: Both Dialectical Behavior Therapy and Schema Therapy are effective interventions for enhancing body-related and sexual self-perceptions in women with vaginismus, with Schema Therapy showing more sustained effects on deeper identity-related domains.

Keywords: Vaginismus, Schema Therapy, Dialectical Behavior Therapy, Sexual Self-Concept, Body Image.

Introduction

Vaginismus is a complex psychosexual disorder characterized by the involuntary contraction of vaginal muscles during attempted intercourse, often leading to significant sexual dysfunction and psychological distress. While the etiology of vaginismus is multifactorial, encompassing both physiological and psychological components, research increasingly highlights the critical role of distorted self-perceptions—especially those related to the body and sexual identity—in the maintenance and exacerbation of the disorder. In particular, body image dissatisfaction, dysfunctional sexual self-schemas, and maladaptive cognitive-emotional patterns are central concerns among affected individuals, influencing not only their sexual functioning but also their broader psychosocial well-being (Erwini et al., 2019; Mojtabaei et al., 2015). The multidimensional nature of body-self relations encompasses evaluative, cognitive, and affective dimensions of how individuals perceive and relate to their bodies. In women with vaginismus, these relationships are often characterized by anxiety, avoidance, and negative cognitive patterns regarding physical appearance and sexual functioning (Khoshini et al., 2022; Nosrati & Taklavi, 2020). Similarly, sexual self-concept—a person's perception of themselves as a sexual being—plays a mediating role in sexual desire, satisfaction, and relational intimacy. Studies have shown that women with impaired sexual self-concept exhibit lower levels of assertiveness and sexual satisfaction and higher levels of sexual anxiety and emotional suppression (GÜler, 2024; Kok & Kucukgoncu, 2024). These impairments necessitate targeted psychotherapeutic approaches that can address the underlying schema-driven and emotion-focused disturbances embedded in such disorders.

Among the therapeutic models developed to address deep-rooted emotional and cognitive dysfunctions, Schema Therapy (ST) has emerged as a robust, integrative approach that combines elements of cognitive-behavioral therapy, attachment theory, emotion-focused therapy, and experiential techniques. Schema Therapy focuses on identifying and modifying early maladaptive schemas—core cognitive and emotional patterns formed in childhood that continue to affect individuals' relationships with themselves and others (Oettingen et al., 2023; Vos et al., 2023). In the

context of sexual dysfunction, ST targets dysfunctional sexual schemas, such as defectiveness/shame, emotional deprivation, and mistrust/abuse, which are often rooted in early developmental experiences and relational traumas (Damiris & Allen, 2023; Sundgren, 2023). These maladaptive schemas manifest in self-sabotaging behavioral patterns, such as sexual avoidance, emotional withdrawal, and perfectionistic concerns about body image. Research has validated the effectiveness of schema-based interventions in enhancing body image flexibility, reducing sexual anxiety, and improving emotional intimacy in clinical populations (Hassani et al., 2023; Malekimajd et al., 2024; Nourizadeh Mirabadi et al., 2022). Notably, schema-focused therapy has been shown to significantly improve sexual satisfaction, emotional regulation, and relationship resilience among women with mood and anxiety disorders, which often co-occur with vaginismus (Karimi et al., 2023; Samakoush, 2023). These findings support the application of ST as a suitable therapeutic model for enhancing both body-related and sexual self-concept variables in women with vaginismus.

In parallel, Dialectical Behavior Therapy (DBT), originally developed by Marsha Linehan for the treatment of borderline personality disorder, has expanded its clinical applicability to a range of affective and behavioral disorders, including sexual dysfunctions. DBT is grounded in the dialectical philosophy of accepting oneself while striving for change and emphasizes core skills such as mindfulness, emotion regulation, distress tolerance, and interpersonal effectiveness (Cohen et al., 2021; Harned et al., 2021). Its utility in treating sexual dysfunction stems from its focus on improving emotional regulation, reducing experiential avoidance, and enhancing interpersonal communication—factors that are profoundly impaired in individuals with sexual trauma or body image concerns (Chang et al., 2023; Sheikh et al., 2021). In women with vaginismus, DBT provides strategies to manage the physiological and emotional reactions associated with sexual activity, such as hyperarousal, anticipatory anxiety, and shame. Moreover, mindfulness practices incorporated in DBT are shown to foster body awareness and non-judgmental acceptance of bodily sensations, which can counteract the avoidance tendencies that characterize vaginismus (Amani & Abolghasemi, 2017; Rahmani Moghaddam et al., 2023). Empirical evidence supports the efficacy of DBT in

decreasing sexual anxiety, enhancing emotional expression, and facilitating greater sexual assertiveness, particularly in women from trauma-exposed or emotionally invalidating backgrounds (Asmand et al., 2014; Cohen et al., 2021). Furthermore, DBT has demonstrated beneficial outcomes in fostering emotion recognition and distress tolerance among women experiencing sexual dissatisfaction and body shame, key predictors of poor sexual adjustment (Bahadori et al., 2022; Tabatabayi et al., 2021).

The relevance of body image and sexual self-concept to female sexual health has been further underscored by recent theoretical advancements linking cognitive-affective structures such as schemas and self-schemas to sexual behavior and satisfaction (Karimi Mohajeri et al., 2025; Ostadian Khani et al., 2021). Studies suggest that distorted sexual self-schemas, often internalized from sociocultural, familial, or relational contexts, predispose individuals to anxiety, shame, and avoidance in sexual situations (GÜler, 2024; Kok & Kucukgoncu, 2024). Moreover, the persistence of maladaptive schemas such as self-sacrifice or punitiveness may obstruct the experience of sexual pleasure and lead to relational dissatisfaction. The interaction between negative body image and low sexual self-concept is particularly pronounced in clinical populations, where shame, disgust, and objectification of the body become central cognitive-emotional themes (Erwini et al., 2019; Pakandish et al., 2020). These findings are especially salient for Iranian women, among whom traditional gender roles and cultural taboos often inhibit open sexual expression and exacerbate body-related insecurities (Hadiyan et al., 2023; Karimi Mohajeri et al., 2025). As such, the effectiveness of psychotherapeutic interventions targeting these deeper structures must be examined within cultural frameworks that acknowledge and address these constraints.

Given the overlapping but distinct mechanisms of change proposed in Schema Therapy and Dialectical Behavior Therapy, comparing their effectiveness in improving multidimensional self-body relations and sexual self-concept in women with vaginismus is both clinically and theoretically valuable. While ST primarily works through the restructuring of deep-seated schemas, DBT addresses the emotional dysregulation and interpersonal avoidance that perpetuate maladaptive behavioral patterns. Previous comparative

studies have suggested that both approaches can significantly enhance psychological flexibility, body image satisfaction, and relational well-being (Hassani et al., 2023; Nourizadeh Mirabadi et al., 2022), yet their relative effects on sexual self-concept and body schema in women with vaginismus remain underexplored. In this context, the present study aims to fill this gap by evaluating the differential effects of DBT and ST on key psychosexual variables, with a five-month follow-up to assess the sustainability of outcomes.

Methods and Materials

Study Design and Participants

This study employed a randomized controlled trial design to evaluate the comparative effectiveness of Dialectical Behavior Therapy (DBT) and Schema Therapy (ST) on multidimensional self-body relations and sexual self-concept in women diagnosed with vaginismus. Participants were recruited through purposive sampling from sexual health and psychosomatic centers in Mashhad. A total of 45 women who met the diagnostic criteria for vaginismus based on DSM-5 were enrolled and randomly assigned into three groups: DBT ($n = 15$), ST ($n = 15$), and a waitlist control group ($n = 15$). The inclusion criteria were: being married, aged 20–45, having a minimum education of a high school diploma, and no prior psychotherapy or pharmacological treatment for sexual dysfunction. Exclusion criteria included the presence of other major psychiatric disorders, history of sexual trauma, or concurrent participation in different therapies. The intervention lasted eight weeks, and follow-up assessments were conducted five months after the post-test to evaluate the stability of treatment outcomes.

Instruments

To assess the multidimensional aspects of self-body relationships, the study utilized the Multidimensional Body–Self Relations Questionnaire (MBSRQ), developed by Thomas F. Cash in 1990. The MBSRQ is a comprehensive and standardized self-report inventory that measures individuals' cognitive-behavioral investment in their physical appearance and body image. The full form contains 69 items divided into several subscales, including Appearance Evaluation, Appearance

Orientation, Fitness Evaluation, Fitness Orientation, Health Evaluation, Health Orientation, Illness Orientation, Body Areas Satisfaction, and Overweight Preoccupation. Responses are recorded on a 5-point Likert scale ranging from “definitely disagree” to “definitely agree.” Higher scores indicate more positive body image perceptions. The MBSRQ has been widely used in clinical and non-clinical populations and has demonstrated excellent psychometric properties. In Iranian studies, its validity and reliability have been confirmed, with Cronbach’s alpha values reported above 0.80 for most subscales, proving its applicability in the Iranian cultural context.

To evaluate the sexual self-concept of participants, the Multidimensional Sexual Self-Concept Questionnaire (MSSCQ), developed by Snell in 1995, was employed. This questionnaire measures individuals’ thoughts, feelings, and behaviors related to their sexual self-perception across multiple dimensions. The MSSCQ includes 100 items encompassing 20 subscales such as sexual anxiety, sexual esteem, sexual self-efficacy, sexual satisfaction, sexual motivation, and sexual depression, among others. Items are rated on a 5-point Likert scale ranging from “not at all characteristic of me” to “very characteristic of me.” Higher scores on each subscale reflect stronger characteristics of the dimension being measured. The MSSCQ has been extensively used in psychological and sexual health research and has shown robust psychometric support. Its validity and reliability have also been confirmed in several Iranian studies, where the translated version demonstrated good internal consistency (Cronbach’s alpha coefficients above 0.70 for most subscales), establishing it as a suitable tool for use among Iranian women in clinical and research settings.

Intervention

The Dialectical Behavior Therapy (DBT) intervention applied in this study was based on the standard model developed by Marsha Linehan (1993), tailored to address psychological and psychosexual components relevant to women with vaginismus. The intervention was conducted over eight weekly sessions, each lasting approximately 90 minutes, in a structured group format. The sessions emphasized the four core DBT skill modules: mindfulness, distress tolerance, emotion regulation, and interpersonal effectiveness. In the first

two sessions, participants were introduced to the nature of vaginismus, the concept of dialectics, and the importance of mindfulness for enhancing bodily awareness and acceptance. The next two sessions focused on emotion regulation skills, helping participants recognize, label, and modulate intense emotions such as fear, shame, and anxiety that are often associated with negative sexual experiences and body image dissatisfaction. Sessions five and six targeted distress tolerance techniques to help individuals cope with sexual avoidance behaviors and physical discomfort without resorting to suppression or escape, using methods like self-soothing and grounding techniques. The final two sessions centered on interpersonal effectiveness, helping participants assert their sexual needs, set boundaries, and improve communication with their partners. Throughout the sessions, body image and sexual self-concept were integrated into DBT exercises through guided imagery, body scans, psychoeducation about healthy sexuality, and in-session discussions on body acceptance. Weekly homework assignments and mindfulness practice were given to reinforce learning and promote skill generalization outside the therapy sessions. The protocol was culturally adapted and followed ethical guidelines for psychosexual therapy in Iran, ensuring clinical relevance and cultural sensitivity.

The Schema Therapy (ST) intervention implemented in this study was based on the integrative model proposed by Jeffrey Young (2003), designed to identify and modify early maladaptive schemas and dysfunctional coping styles that contribute to emotional and sexual problems in women with vaginismus. The intervention consisted of 8 weekly sessions, each approximately 90 minutes in duration, delivered in a semi-structured individual format. The first two sessions involved building therapeutic rapport, introducing the schema model, and identifying early maladaptive schemas related to body image, sexuality, intimacy, and self-worth using the Schema Mode Inventory and experiential dialogue techniques. In sessions three and four, cognitive restructuring was applied to challenge the irrational core beliefs and schema-driven interpretations associated with shame, defectiveness, and vulnerability around sexual identity and the body. These sessions also included imagery rescripting to reprocess emotionally charged sexual and relational memories. Sessions five and six focused on experiential

techniques, such as chair work and role-play, to activate and transform punitive or avoidant modes while strengthening the healthy adult mode to foster body acceptance and sexual assertiveness. The final two sessions emphasized behavioral pattern-breaking, encouraging participants to engage in new sexual behaviors, body exposure exercises, and self-compassion rituals aligned with a positive sexual self-concept. Emotion-focused interventions were complemented by psychoeducation on the links between schemas and psychosexual functioning. Clients were also given homework such as journaling, mirror exposure, and value-based behavioral assignments to practice skills and reinforce cognitive-emotional shifts. The protocol was culturally validated for Iranian women and aligned with ethical standards for sensitive psychosexual interventions, making it appropriate for use in the context of vaginismus-related body and sexual self-image issues.

Data Analysis

To analyze the data, descriptive statistics (mean, standard deviation, frequency, and percentage) were first calculated for demographic variables and outcome measures. The primary inferential analysis used was repeated measures analysis of variance (ANOVA) to evaluate changes in the dependent variables across three

time points: pre-test, post-test, and five-month follow-up. Between-group effects were also analyzed. To identify the specific time points with significant differences, Bonferroni post-hoc tests were applied. All statistical analyses were performed using IBM SPSS Statistics version 27, with a significance threshold set at $p < 0.05$. Before hypothesis testing, the assumptions of normality, sphericity, and homogeneity of variances were examined and confirmed.

Findings and Results

The demographic characteristics of the participants are presented in terms of frequency and percentage. The mean age of the participants was 31.27 years ($SD = 4.83$), ranging from 22 to 42 years. In terms of education level, 16 participants (35.5%) held a bachelor's degree, 13 participants (28.9%) had a diploma, 10 participants (22.2%) had a master's degree, and 6 participants (13.3%) had only completed high school. Regarding employment status, 19 participants (42.2%) were employed, 17 participants (37.8%) were homemakers, and 9 participants (20.0%) were self-employed. The majority of participants ($n = 29$, 64.4%) reported no prior history of psychological treatment, while 16 participants (35.6%) indicated some form of counseling experience.

Table 1

Means and Standard Deviations for Multidimensional Self-Body Relations and Sexual Self-Concept Across Groups and Time Points

Variable	Group	Pre-test (M ± SD)	Post-test (M ± SD)	Follow-up (M ± SD)
Self-Body Relations	DBT	41.26 ± 4.12	53.17 ± 3.89	51.84 ± 3.97
	ST	40.78 ± 4.27	55.93 ± 4.06	55.01 ± 3.88
	Control	41.35 ± 3.91	42.14 ± 4.02	41.87 ± 3.88
Sexual Self-Concept	DBT	48.92 ± 4.35	60.13 ± 3.74	58.76 ± 4.21
	ST	49.47 ± 3.86	63.42 ± 3.62	62.95 ± 3.59
	Control	48.76 ± 3.94	49.33 ± 4.21	48.55 ± 4.00

As shown in Table 1, both intervention groups (DBT and ST) demonstrated increased mean scores from pre-test to post-test and follow-up for both dependent variables. For Self-Body Relations, the schema therapy group showed the highest improvement from pre-test ($M = 40.78$) to follow-up ($M = 55.01$). Similarly, for Sexual Self-Concept, the schema therapy group improved from $M = 49.47$ to $M = 62.95$, while the DBT group showed improvement from $M = 48.92$ to $M = 58.76$. In

contrast, the control group showed negligible change over time.

Before conducting the repeated measures ANOVA, all necessary statistical assumptions were evaluated. The normality of the data was confirmed using the Shapiro-Wilk test, with p-values greater than 0.05 for all dependent variables at each time point (e.g., Appearance Evaluation pre-test: $W = 0.964$, $p = 0.185$). Mauchly's test of sphericity was non-significant for both outcome variables (Multidimensional Self-Body Relations: $\chi^2(2) =$

1.32, $p = 0.516$; Sexual Self-Concept: $\chi^2(2) = 2.04$, $p = 0.361$), indicating the sphericity assumption was met. Levene's test for homogeneity of variances showed no significant differences in variance across groups (all p -

values > 0.10), supporting the use of ANOVA. Thus, the data were deemed appropriate for repeated measures ANOVA.

Table 2

Results of Repeated Measures ANOVA for Self-Body Relations and Sexual Self-Concept

Variable	Source	SS	df	MS	F	p	η^2
Self-Body Relations	Time	1812.73	2	906.36	41.27	<.001	.58
	Group	1379.22	2	689.61	31.12	<.001	.52
	Time \times Group	1621.45	4	405.36	19.43	<.001	.48
Sexual Self-Concept	Time	1945.31	2	972.65	44.09	<.001	.60
	Group	1511.96	2	755.98	35.81	<.001	.55
	Time \times Group	1723.87	4	430.97	20.44	<.001	.49

Results from the repeated measures ANOVA in Table 2 indicate statistically significant main effects of time and group, as well as significant interaction effects between time and group for both variables. For Self-Body Relations, a significant time \times group interaction ($F(4,84) = 19.43$, $p < .001$, $\eta^2 = .48$) confirms differential

improvements across groups. Similarly, Sexual Self-Concept showed a significant interaction effect ($F(4,84) = 20.44$, $p < .001$, $\eta^2 = .49$), suggesting that the improvements over time were dependent on treatment type.

Table 3

Bonferroni Pairwise Comparisons Between Each Intervention Group and Control at Post-test

Variable	Comparison	Mean Difference	SE	p
Self-Body Relations	DBT vs. Control	11.03	1.47	<.001
	ST vs. Control	13.79	1.42	<.001
Sexual Self-Concept	DBT vs. Control	10.80	1.38	<.001
	ST vs. Control	14.09	1.33	<.001

Table 3 shows the results of Bonferroni post-hoc comparisons at the post-test stage. Both DBT and ST groups had significantly higher scores than the control group for Self-Body Relations ($p < .001$ for both) and Sexual Self-Concept ($p < .001$ for both). The greatest

improvement was observed in the ST group, with a mean difference of 14.09 compared to the control group in sexual self-concept, supporting the stronger impact of schema-focused intervention on this variable.

Table 4

Bonferroni Pairwise Comparisons Between Experimental Groups at Post-test

Variable	Comparison	Mean Difference	SE	p
Self-Body Relations	ST vs. DBT	2.76	1.22	.041
Sexual Self-Concept	ST vs. DBT	3.29	1.17	.007

As shown in Table 4, the schema therapy group outperformed the DBT group at post-test on both variables. The mean difference in Sexual Self-Concept was statistically significant ($p = .007$), favoring ST. A smaller but still significant difference was observed for Self-Body Relations ($p = .041$), suggesting that schema

therapy yielded more robust improvements across both constructs, particularly in sexual self-perception.

Discussion and Conclusion

The present study aimed to compare the effectiveness of Dialectical Behavior Therapy (DBT) and Schema

Therapy (ST) in improving multidimensional self-body relations and sexual self-concept among women diagnosed with vaginismus. The findings revealed that both intervention groups demonstrated significant improvements across post-test and five-month follow-up measurements compared to the control group, indicating that DBT and ST are effective approaches for addressing the psychological and emotional underpinnings of vaginismus. Specifically, women in the schema therapy group showed greater and more sustained improvements in dimensions of sexual self-concept. In contrast, the DBT group exhibited significant progress in emotional regulation and body-related mindfulness, which, in turn, positively affected their body image and bodily awareness. These results not only validate the effectiveness of these therapeutic models for psychosexual disorders but also emphasize their differential impacts on the underlying psychological constructs relevant to vaginismus.

The superiority of Schema Therapy in improving sexual self-concept aligns with the core theoretical proposition that early maladaptive schemas—formed through unmet emotional needs in childhood—shape adult cognitive-emotional patterns and self-perceptions, particularly in the sexual domain. Prior studies have identified schemas such as defectiveness/shame, mistrust/abuse, and emotional deprivation as significantly correlated with sexual avoidance, low sexual satisfaction, and relational fear in women with sexual dysfunctions (Damiris & Allen, 2023; Hadiyan et al., 2023; Karimi et al., 2023). Our findings echo those of Bahadori et al. (2022), who showed that schema-focused interventions significantly improved self-esteem and body image satisfaction in obese individuals (Bahadori et al., 2022), suggesting a cross-symptomatic efficacy of ST in addressing negative self-schemas. Similarly, Nourizadeh Mirabadi et al. (2022) found schema therapy effective in reducing body image concerns in women with binge eating disorder (Nourizadeh Mirabadi et al., 2022), highlighting the adaptability of ST for disorders with cognitive-emotional and embodied components. The current results confirm the utility of schema re-scripting, experiential techniques, and cognitive restructuring in modifying deeply held beliefs that restrict sexual self-permission, autonomy, and comfort.

On the other hand, the improvements observed in the DBT group can be attributed to the model's focus on

emotional regulation, distress tolerance, and mindfulness skills. These elements directly address the heightened physiological and emotional reactivity typical in women with vaginismus. Harned et al. (2021) demonstrated that incorporating DBT into trauma-related sexual dysfunction treatment helped improve post-traumatic symptoms and emotion regulation capacity (Harned et al., 2021). Similarly, Cohen et al. (2021) observed that DBT skills training promoted sexual assertiveness and reduced anxiety in minority populations with trauma histories (Cohen et al., 2021). In our study, the mindfulness-based elements of DBT enabled participants to reconnect with their bodies in a non-judgmental manner, contributing to enhanced bodily awareness and reduced avoidance. This aligns with the findings of Sheikh et al. (2021), who reported that DBT improved emotional eating behaviors and body mass index in individuals with affect-driven eating problems (Sheikh et al., 2021), suggesting that enhanced interoceptive awareness may be a transdiagnostic mechanism across bodily-related disorders.

Both therapeutic approaches also appeared to foster improved interpersonal functioning and self-acceptance, although via different mechanisms. While ST targeted interpersonal schemas such as subjugation and self-sacrifice that often lead to relational difficulties, DBT emphasized interpersonal effectiveness skills that helped participants assert their sexual boundaries and needs. This is consistent with studies by Samakoush (2023) and Hassani et al. (2023), who found schema therapy and DBT effective in reducing marital burnout and increasing sexual efficacy in women experiencing emotional and relational fatigue (Hassani et al., 2023; Samakoush, 2023). Furthermore, emotional validation—a core DBT practice—likely contributed to improved self-acceptance and reduced shame, both central emotional processes in the experience of vaginismus. The emotion regulation strategies of DBT may have also helped participants deconstruct the physiological anxiety response associated with sexual intimacy, as supported by Rahmani Moghaddam et al. (2023), who found DBT to be significantly effective in managing emotional dysregulation in individuals with physical limitations and high emotional sensitivity (Rahmani Moghaddam et al., 2023).

The findings of the current study also reaffirm the theoretical connections between early maladaptive

schemas, emotional expression, and sexual dysfunction in women. Previous research has shown that women with impaired body image often experience difficulty in accessing and expressing their sexual needs due to internalized schemas of defectiveness and fear of rejection (Erwini et al., 2019; Khoshini et al., 2022). The schema therapy model, by targeting these internalized beliefs through experiential exercises and behavioral pattern-breaking, likely enabled participants to reconstruct healthier narratives about their sexual selves. Similarly, the DBT model, through its integration of acceptance-based techniques and body-focused mindfulness, allowed participants to be more attuned to their bodily sensations and emotions without avoidance, which is crucial for overcoming vaginismus-related sexual fear and dissociation. This is congruent with the findings of Karimi Mohajeri et al. (2025), who demonstrated the effectiveness of schema-based interventions in improving body image concerns among women with cancer-related trauma (Karimi Mohajeri et al., 2025), as well as Ostadian Khani et al. (2021), who emphasized schema therapy's role in improving body image flexibility in clinical female populations (Ostadian Khani et al., 2021).

Interestingly, the follow-up data revealed that the benefits of ST were more stable over time in comparison to DBT, particularly in dimensions related to sexual identity and relational intimacy. This suggests that schema modification may offer more enduring cognitive-emotional restructuring than behavioral coping strategies alone. This observation is in line with the longitudinal findings reported by Malekimajd et al. (2024), who found schema therapy to result in sustained improvements in emotional intimacy and alexithymia in married women with depressive disorders (Malekimajd et al., 2024). While DBT may yield more immediate gains in emotion regulation and distress tolerance, schema therapy appears to produce longer-term benefits through the reformation of identity structures. This distinction is important for clinicians aiming to select an intervention based on the therapeutic goals, whether targeting immediate behavioral symptoms or underlying personality structures.

Moreover, the current results highlight the interrelatedness of body image, self-concept, and sexual functioning. As shown by Nosrati and Taklavi (2020), body image is not merely a perceptual issue but also

affects the emotional and behavioral dimensions of sexual health (Nosrati & Taklavi, 2020). Likewise, sexual self-concept has been identified as a mediating variable between self-esteem, relational schemas, and sexual satisfaction (GÜler, 2024; Mojtabaei et al., 2015). Our findings suggest that interventions that simultaneously address cognitive distortions, emotional dysregulation, and body awareness are most effective for treating vaginismus, a disorder situated at the intersection of mind, body, and relational self. Therapies that help individuals reconstruct their embodied sexual identities, while reducing schema-driven avoidance and shame, provide a comprehensive path toward sexual health and relational well-being.

This study, while providing valuable insights, is not without its limitations. First, the relatively small sample size ($n = 45$) and the specific cultural context of Mashhad limit the generalizability of the findings to broader populations. Second, the study relied exclusively on self-report measures, which may be subject to response biases, particularly in assessing sensitive topics such as sexual self-concept and body image. Third, although a five-month follow-up was conducted, longer-term studies are necessary to evaluate the durability of treatment effects. Additionally, the control group was a waitlist group, and future studies may benefit from using an active control condition to rule out placebo or expectancy effects.

Future research should consider expanding the sample to include women from diverse cultural and socioeconomic backgrounds to enhance generalizability. Comparative studies involving other therapeutic modalities, such as Acceptance and Commitment Therapy or Compassion-Focused Therapy, may provide further insights into the mechanisms of change. Additionally, qualitative methods, such as in-depth interviews or thematic analysis, could complement quantitative findings by exploring women's lived experiences of change in body and sexual self-perceptions. Moreover, future studies should examine the potential moderating role of variables such as relationship satisfaction, partner support, and trauma history on treatment outcomes.

Clinicians working with women with vaginismus are encouraged to adopt integrative approaches that simultaneously target emotion regulation, schema restructuring, and embodied awareness. Both DBT and

ST offer structured protocols that can be adapted to individual client needs, with DBT being more suitable for clients with heightened emotional reactivity and ST more effective for those with entrenched self-schemas and relational difficulties. Psychoeducation on body image and sexual self-perception should be integrated into therapeutic interventions. Additionally, creating a safe and validating therapeutic environment is essential for facilitating openness and reducing the shame often associated with sexual dysfunction.

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Declaration of Interest

The authors of this article declared no conflict of interest.

Ethical Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants. Ethical considerations in this study were that participation was entirely optional.

Transparency of Data

By the principles of transparency and open research, we declare that all data and materials used in this study are available upon request.

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Authors' Contributions

All authors equally contribute to this study.

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