Mental Health and Lifestyle Journal

Year 2024
Volume 2
Issue 3

Comparison of the Effectiveness of Schema Therapy and Mindfulness on Sexual Infidelity and Marital Burnout

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Article type:
Original Research

Article history:
Received 06 June 2024
Revised 20 August 2024
Accepted 23 August 2024
Published online 01 September 2024

ABSTRACT

The present study aimed to compare the effectiveness of schema therapy and mindfulness-based intervention on reducing sexual infidelity and marital burnout among couples seeking psychological counseling. This quasi-experimental study employed a pretest–posttest control group design with a two-month follow-up. The statistical population consisted of 276 clients attending counseling centers in Isfahan in 2021, from which 45 participants were selected using Cohen's sampling table and randomly assigned to schema therapy, mindfulness intervention, and control groups. The schema therapy program included eight 90-minute group sessions, while the mindfulness intervention consisted of nine 80-minute group sessions. Data were collected using the Marital Burnout Questionnaire and the Sexual Infidelity Questionnaire at three stages: pretest, posttest, and follow-up. Repeated-measures analysis of covariance and Bonferroni post-hoc tests were applied using SPSS-22. Repeated-measures ANCOVA revealed significant group effects for both sexual infidelity and marital burnout at posttest and follow-up ($p < .001$), with large effect sizes. Bonferroni comparisons indicated that both schema therapy and mindfulness interventions produced significantly greater reductions in sexual infidelity and marital burnout than the control group ($p < .001$), while no significant difference was observed between the two experimental groups ($p = 1.000$), indicating comparable therapeutic effectiveness. Both schema therapy and mindfulness-based intervention were found to be equally effective in significantly reducing sexual infidelity tendencies and marital burnout, and these improvements were maintained over time, supporting the use of either approach as a viable evidence-based intervention for enhancing marital functioning.

Keywords: Schema therapy; mindfulness; sexual infidelity; marital burnout; couples therapy; psychological intervention

How to cite this article:
Agha Tehrani, N., Bahreinian, S.A., & Shahabizadeh, F. (2024). Comparison of the Effectiveness of Schema Therapy and Mindfulness on Sexual Infidelity and Marital Burnout. *Mental Health and Lifestyle Journal, 2*(3), 107-119. https://doi.org/10.61838/mhlj.2.3.11

Introduction

Marital relationships represent one of the most influential interpersonal systems shaping individuals' psychological well-being, emotional security, and sexual health across the lifespan. Among the core dimensions of marital functioning, sexual intimacy plays a pivotal role in sustaining emotional connection, relational satisfaction, and long-term commitment between partners. Disturbances in sexual functioning and emotional closeness are consistently associated with elevated conflict, erosion of trust, and progressive deterioration of marital stability, ultimately increasing vulnerability to phenomena such as marital burnout and sexual infidelity. Contemporary research has increasingly conceptualized these outcomes not merely as

behavioral deviations but as complex psychological syndromes emerging from deep-seated cognitive, emotional, and relational processes rooted in individuals' developmental histories and current relational contexts (1-3).

Marital burnout constitutes a multidimensional state of physical, emotional, and psychological exhaustion that arises from prolonged exposure to unresolved marital stressors, emotional neglect, communication breakdowns, and unmet relational needs. This syndrome progressively weakens partners' emotional engagement, intimacy, and relational investment, leading to emotional detachment, reduced sexual responsiveness, and impaired conflict resolution. Empirical studies demonstrate that marital burnout is strongly associated with deficits in emotional regulation, diminished sexual satisfaction, and lower relational resilience, creating a self-perpetuating cycle of dissatisfaction and withdrawal that undermines marital stability (4, 5). Over time, such conditions heighten susceptibility to extramarital involvement and sexual infidelity, as individuals seek emotional validation, sexual fulfillment, or psychological escape outside the marital bond (2, 6).

Sexual infidelity represents one of the most devastating relational events within marriage, frequently resulting in severe emotional trauma, erosion of trust, and long-lasting relational instability. Rather than arising from isolated moral failures, contemporary models increasingly identify sexual infidelity as the outcome of interacting cognitive schemas, emotional vulnerabilities, attachment patterns, and maladaptive coping mechanisms. Research indicates that early maladaptive schemas significantly predict individuals' tendencies toward legitimization of infidelity, susceptibility to seduction, normalization of extramarital relations, heightened sexual impulsivity, sensitivity to social influences, and sensation seeking, thereby providing a coherent cognitive-emotional framework for understanding infidelity risk (2, 7). Moreover, childhood trauma and dysfunctional family environments foster maladaptive schemas that disrupt emotional expression and sexual intimacy, further increasing vulnerability to relational instability and infidelity in adulthood (8).

Schema theory offers a comprehensive explanation for the persistence of dysfunctional relational patterns across the lifespan by positing that individuals develop core cognitive-emotional structures, or schemas, during early life in response to unmet emotional needs and adverse experiences. These schemas subsequently shape perception, emotional processing, interpersonal behavior, and coping strategies in intimate relationships. When activated within marital interactions, maladaptive schemas distort partners' interpretations of each other's behavior, intensify emotional reactivity, and promote dysfunctional coping styles such as avoidance, overcompensation, or surrender, thereby undermining intimacy and relational security (3, 7). Conversely, early adaptive schemas contribute to healthier relational functioning, emotional openness, and sustained intimacy, highlighting the critical role of schema-based processes in marital health (3).

Empirical evidence strongly supports the clinical utility of schema therapy in addressing sexual and relational dysfunctions. Schema-based interventions have demonstrated significant efficacy in improving sexual function, sexual self-efficacy, and relationship attributions among women affected by marital infidelity (9). Similarly, schema therapy has been shown to reduce marital exhaustion while enhancing sexual self-efficacy, emotional regulation, and psychological resilience among nurses experiencing marital burnout (5). Additional research confirms the effectiveness of schema therapy in alleviating sexual aversion and

strengthening sexual self-efficacy, thereby contributing to improved marital satisfaction and relational stability (10). These findings collectively underscore the capacity of schema therapy to modify deep-rooted cognitive-emotional structures that sustain marital distress, burnout, and infidelity-related behaviors.

Parallel to schema-based approaches, mindfulness-based interventions have gained substantial empirical support as powerful tools for enhancing psychological flexibility, emotional regulation, and relational awareness. Mindfulness cultivates nonjudgmental attention to present-moment experiences, enabling individuals to observe thoughts, emotions, and bodily sensations without reactive judgment, thereby reducing emotional reactivity and improving interpersonal responsiveness. In the context of sexual health, mindfulness-based therapies have demonstrated consistent benefits for sexual satisfaction, sexual self-efficacy, emotional connection, and overall sexual functioning across diverse populations (11-13). Mindfulness enhances individuals' capacity to remain emotionally present within intimate interactions, facilitating deeper emotional bonding and sexual responsiveness (14).

Mindfulness interventions have also shown efficacy in reducing extramarital involvement, sexual sensation seeking, and marital disillusionment among couples, suggesting their potential role in mitigating sexual infidelity risk and strengthening marital commitment (6). Moreover, mindfulness contributes to improved emotional regulation and cognitive processing, which are essential for navigating relational stressors and sustaining long-term marital satisfaction (15). Clinical studies further confirm that mindfulness-based counseling enhances sexual self-efficacy and psychological well-being among women experiencing chronic health challenges and relational stress (16, 17).

The theoretical integration of schema theory and mindfulness reveals complementary mechanisms of change. Schema therapy directly targets entrenched maladaptive cognitive-emotional structures, while mindfulness enhances metacognitive awareness, emotional regulation, and acceptance processes that weaken schema activation and reduce maladaptive coping responses. Empirical comparisons indicate that both schema therapy and mindfulness-based cognitive interventions produce significant improvements in sexual self-esteem, sexual self-expression, and relational self-confidence among women, highlighting their clinical relevance for sexual and marital functioning (18). Furthermore, the adaptation and validation of culturally appropriate sexual mindfulness measures for Iranian married populations demonstrate the growing relevance and applicability of mindfulness constructs within diverse sociocultural contexts (19).

Despite the growing body of research supporting both schema therapy and mindfulness-based approaches, important gaps remain in understanding their comparative effectiveness in addressing the dual challenges of sexual infidelity and marital burnout. Most existing studies have focused on isolated outcomes such as sexual self-efficacy, sexual satisfaction, or emotional regulation, while fewer investigations have simultaneously examined both sexual infidelity tendencies and marital burnout within a unified experimental framework. Moreover, cultural contexts exert powerful influences on sexual attitudes, marital norms, emotional expression, and relational expectations, necessitating localized research that accounts for sociocultural dynamics shaping marital functioning and therapeutic responsiveness (10, 19).

The Iranian sociocultural context presents unique relational dynamics characterized by strong family norms, religious influences, and evolving marital expectations, which collectively shape couples' experiences of intimacy, conflict, burnout, and infidelity. Within this context, marital burnout and sexual infidelity represent particularly sensitive and consequential phenomena, often associated with profound emotional

distress, social stigma, and limited access to specialized psychological interventions. Therefore, systematic investigation of empirically supported therapeutic approaches capable of addressing these complex relational challenges is both scientifically and socially imperative.

Furthermore, motivational and self-regulatory processes play a crucial role in sustaining behavioral change following therapeutic intervention. Goal-directed self-regulation, future-oriented cognition, and motivational clarity influence individuals' commitment to relational growth and behavioral transformation. Contemporary motivational frameworks emphasize the importance of integrating cognitive restructuring, emotional awareness, and self-regulatory capacities to sustain long-term therapeutic gains (7). Both schema therapy and mindfulness interventions align with these principles by fostering deeper self-awareness, emotional coherence, and adaptive behavioral patterns that support enduring marital health.

Collectively, the extant literature indicates that both schema therapy and mindfulness-based interventions offer powerful mechanisms for modifying the cognitive-emotional foundations of sexual dysfunction, marital burnout, and infidelity-related behaviors. However, direct empirical comparison of these two approaches within a controlled experimental design remains limited, particularly in relation to their long-term effects on sexual infidelity tendencies and marital burnout. Addressing this gap is essential for refining evidence-based marital interventions and informing clinical decision-making within culturally diverse settings.

Accordingly, the present study aimed to compare the effectiveness of schema therapy and mindfulness-based intervention on sexual infidelity and marital burnout among couples attending counseling centers in Isfahan.

Methods and Materials

Study Design and Participants

The present study employed a quasi-experimental design with a pretest–posttest control group and a two-month follow-up period. The statistical population consisted of all couples seeking psychological and marital counseling services in the city of Isfahan during the year 2021, totaling 276 individuals. From this population, participants were recruited during the summer of 2021 from two counseling centers, Hemayat and Pardis. Sample size determination was conducted using Cohen's table with a medium effect size of 0.50, statistical power of 70%, and Type I error rate of 0.05, yielding a required sample of 45 participants. Considering the quasi-experimental nature of the study, the optimal group size was set at 15 participants per group, consistent with methodological recommendations for experimental behavioral research.

Participants included 24 married individuals and 21 married women, who were randomly assigned to two experimental groups (schema therapy and mindfulness intervention) and one control group. Inclusion criteria comprised receiving a clinical diagnosis of marital problems such as sexual infidelity, sexual coldness, high-risk behaviors, and marital burnout, verified through initial clinical interviews and relevant questionnaires; absence of psychotropic medication use; non-participation in any concurrent psychological intervention; and voluntary written consent to participate in the research program. Exclusion criteria included absence from more than two treatment sessions, presence of medication-induced mood disturbances or biological disorders affecting psychological functioning, and withdrawal of consent at any

stage of the study. Ethical principles of confidentiality, voluntary participation, and the right to withdraw were strictly observed throughout the research process.

Data Collection

Marital Burnout was assessed using the Marital Burnout Questionnaire, a self-report instrument developed by Pines (1996). This scale contains 13 items organized into three dimensions: physical exhaustion, emotional exhaustion, and psychological exhaustion. Responses are recorded on a five-point Likert scale ranging from 1 (never true) to 5 (always true). Subscale scores are calculated by dividing the total score of each dimension by the number of items in that dimension, and the overall burnout score is computed as the average of the three subscale scores. Possible scores range from 3 to 15, with higher scores indicating greater marital burnout. Scores between 3–6 represent mild burnout, 7–9 moderate burnout, and 10–15 severe burnout. The instrument demonstrated strong psychometric properties, with test–retest reliability coefficients of 0.89 for one month, 0.76 for two months, and 0.66 for four months, and Cronbach's alpha values between 0.91 and 0.93. In the current study, internal consistency reliability was calculated at 0.88, confirming satisfactory reliability for the sample.

Sexual infidelity tendencies were measured using the Sexual Infidelity Questionnaire, developed by Yeniseri and Kokdemir (2006). This self-report measure consists of 24 items rated on a five-point Likert scale from 1 (strongly disagree) to 5 (strongly agree). The scale evaluates six components: legitimization of infidelity, seduction, normalization, sexual desire, social context, and sensation seeking. Total scores range from 24 to 120, with higher scores reflecting greater tendency toward sexual infidelity. Previous validation studies confirmed the content, face, and criterion validity of the instrument, and reported a Cronbach's alpha coefficient of 0.92. In the present research, reliability analysis yielded a Cronbach's alpha of 0.90, indicating high internal consistency.

Intervention

The schema therapy intervention implemented in this study consisted of a structured therapeutic program derived from the theoretical framework of Young and colleagues (2003; translated by Hamidpour & Andouz, 2019), and was delivered in the form of eight weekly group sessions, each lasting 90 minutes, conducted by the principal investigator. The initial two sessions were dedicated to assessment and psychoeducation, during which participants were introduced to the principles of schema therapy, the objectives and rules of group work were clearly explained, and the schema model was presented in a simple and comprehensible manner, enabling participants to develop an initial conceptualization of their marital difficulties within the schema framework; at the conclusion of these sessions, individual and relational dysfunctions were collaboratively formulated according to schema theory. Sessions three through six focused on the identification, education, and application of cognitive techniques for challenging maladaptive schemas, including systematic evaluation of schema validity, redefinition of schema-confirming evidence, establishment of internal dialogues between healthy and maladaptive schema modes, development of schema flashcards, and completion of positive schema forms, all of which were designed to weaken dysfunctional core beliefs and strengthen adaptive coping responses. The final two sessions emphasized behavioral pattern-breaking techniques, with participants being encouraged to relinquish maladaptive

coping styles and actively practice more functional behavioral strategies within their marital relationships; mindfulness-based exercises were also integrated at this stage to enhance participants' awareness of maladaptive beliefs and behaviors, facilitate emotional regulation, and promote more constructive problem-solving in the context of marital conflicts, intimacy difficulties, and relational dissatisfaction.

The mindfulness-based intervention applied in this study was implemented as a structured group program adapted from the protocol developed by Karami and colleagues (2019), with the primary aim of enhancing mindfulness in marital life and reducing problems associated with sexual coldness, high-risk marital behaviors, marital burnout, and sexual infidelity, and was delivered across nine group sessions, each lasting 80 minutes, facilitated by the principal investigator. The first session focused on assessment and foundational mindfulness training, including evaluation of participants' baseline mindfulness levels and instruction in core mindfulness principles and techniques. The second session emphasized continued mindfulness skill development, with extensive practice of breathing exercises and sustained attention to present-moment sensory and emotional experiences. The third session addressed the identification of maladaptive thoughts and their influence on marital functioning, during which participants practiced mindfulness-based cognitive awareness strategies to modify negative and harmful thought patterns. The fourth session targeted dysfunctional beliefs related to marital relationships, guiding participants to recognize rigid and distorted belief systems and apply mindfulness techniques to facilitate belief change. Sessions five and six concentrated on coping with stressful events and marital challenges by teaching adaptive coping strategies and strengthening participants' capacity to respond mindfully to relational stressors. The seventh and eighth sessions were devoted to emotion regulation, focusing on the development of emotional awareness, acceptance, and regulation skills within the marital context through continuous mindfulness practice, enabling participants to manage emotional reactivity more effectively and cultivate healthier interpersonal interactions.

Data analysis

Data were analyzed using SPSS version 22. Descriptive statistics including frequency, percentage, mean, standard deviation, and standard error were computed to summarize participant characteristics and variable distributions. For inferential analysis, repeated-measures analysis of covariance (ANCOVA) was conducted to examine changes across pretest, posttest, and follow-up stages while controlling for baseline differences. The Bonferroni post-hoc test was employed to determine the specific locations of statistically significant differences between groups across measurement stages. All statistical analyses were performed at a significance level of 0.05.

Findings and Results

The demographic characteristics of the participants indicated that out of the total sample of 45 individuals, 18 participants (40.0%) were between 20 and 30 years of age, 15 participants (33.3%) were between 31 and 40 years, and 12 participants (26.7%) were between 41 and 50 years, reflecting a relatively balanced age distribution across early, middle, and later adulthood. With respect to gender, the sample was predominantly female, with 33 women (73.3%) and 12 men (26.7%). Regarding educational attainment, 6 participants (15.0%) had a high school diploma or lower, 28 participants (62.3%) held a bachelor's degree,

and 11 participants (12.7%) possessed a master's degree, demonstrating that the majority of participants had at least undergraduate-level education.

Table 1. Descriptive Statistics of Sexual Infidelity and Marital Burnout Across Groups and Measurement Stages

Variable	Group	Pretest Mean	Pretest SD	Posttest Mean	Posttest SD	Follow-up Mean	Follow-up SD
Sexual Infidelity	Schema Therapy	74.50	1.79	37.60	3.82	36.23	3.68
	Mindfulness	70.26	1.39	38.70	3.70	39.01	2.85
	Control	72.33	3.29	63.06	3.64	63.44	3.29
Marital Burnout	Schema Therapy	41.26	1.77	14.46	0.93	14.39	0.95
	Mindfulness	40.20	1.71	14.06	0.85	14.19	0.91
	Control	40.06	1.76	39.33	1.22	39.18	1.25

As shown in Table 1, at the pretest stage the three groups demonstrated relatively comparable mean scores for both sexual infidelity and marital burnout, indicating baseline homogeneity prior to intervention. Following treatment, substantial reductions were observed in both experimental groups across both dependent variables. For sexual infidelity, the schema therapy group showed a decrease from a pretest mean of 74.50 to a posttest mean of 37.60 and a follow-up mean of 36.23, while the mindfulness group exhibited a decline from 70.26 at pretest to 38.70 at posttest and 39.01 at follow-up; in contrast, the control group demonstrated only a modest reduction from 72.33 to 63.06 at posttest and 63.44 at follow-up. A similar pattern emerged for marital burnout, where the schema therapy group's mean score decreased from 41.26 at pretest to 14.46 at posttest and remained stable at 14.39 at follow-up, and the mindfulness group declined from 40.20 to 14.06 and 14.19 across the same stages, whereas the control group showed minimal change, decreasing only from 40.06 at pretest to 39.33 at posttest and 39.18 at follow-up. These trends indicate strong and sustained treatment effects for both schema therapy and mindfulness interventions, with negligible improvement observed in the control condition.

Prior to conducting the main inferential analyses, all statistical assumptions underlying repeated-measures analysis of covariance were systematically examined. The normality of the dependent variables at each measurement stage was assessed using the Shapiro–Wilk test and inspection of skewness and kurtosis indices, all of which fell within acceptable ranges, supporting the assumption of normal distribution. Homogeneity of variances across groups was evaluated through Levene's test and yielded non-significant results at all stages, confirming equality of error variances. The assumption of homogeneity of regression slopes was verified by testing the interaction between the covariate and group membership, which was not statistically significant, indicating that the relationship between pretest scores and posttest outcomes was consistent across groups. Sphericity was examined using Mauchly's test, and when minor violations were detected, the Greenhouse–Geisser correction was applied to adjust degrees of freedom. Additionally, inspection of residual plots confirmed linearity and absence of multicollinearity. Collectively, these findings demonstrated that the data met all required assumptions for the application of repeated-measures ANCOVA, supporting the validity and reliability of the subsequent inferential conclusions.

Table 2. Results of Repeated-Measures ANCOVA for Sexual Infidelity and Marital Burnout

Variable	Stage	Source	SS	df	MS	F	p	η^2
Sexual Infidelity	Posttest	Corrected Model	6220.319	3	2073.44	25.279	< .001	.649
		Intercept	3123.144	1	3123.144	38.077	< .001	.482
		Pretest	10.586	1	10.586	0.129	.721	.003
		Group	6213.196	2	3106.598	37.875	.001	.649
		Error	3362.881	41	82.021			
Sexual Infidelity	Follow-up	Corrected Model	6124.102	3	2041.36	24.316	< .001	.652
		Intercept	3024.500	1	3024.500	37.120	< .001	.512
		Pretest	9.560	1	9.560	0.114	.314	.012
		Group	610.186	2	305.093	35.020	.001	.754
		Error	33210.520	41	810.010			
Marital Burnout	Posttest	Corrected Model	3684.847	3	1228.282	83.414	< .001	.859
		Intercept	944.240	1	944.240	64.124	< .001	.610
		Pretest	48.269	1	48.269	3.278	.078	.074
		Group	3590.099	2	1795.050	121.904	.001	.856
		Error	603.731	41	14.725			
Marital Burnout	Follow-up	Corrected Model	3652.412	3	1217.470	81.398	< .001	.910
		Intercept	935.310	1	935.310	63.100	< .001	.630
		Pretest	46.200	1	46.200	3.120	.062	.085
		Group	3493.040	2	1746.520	120.782	.001	.890
		Error	598.420	41	14.590			

As presented in Table 2, the repeated-measures ANCOVA revealed statistically significant effects of group membership on both sexual infidelity and marital burnout at the posttest and follow-up stages after controlling for pretest scores. For sexual infidelity, the corrected model was significant at posttest, $F(3, 41) = 25.28$, $p < .001$, $\eta^2 = .649$, and remained significant at follow-up, $F(3, 41) = 24.32$, $p < .001$, $\eta^2 = .652$, indicating large effect sizes. The group effect was highly significant at both posttest, $F(2, 41) = 37.88$, $p = .001$, $\eta^2 = .649$, and follow-up, $F(2, 41) = 35.02$, $p = .001$, $\eta^2 = .754$, demonstrating that the interventions produced substantial and stable reductions in sexual infidelity relative to the control condition. Similarly, for marital burnout, the corrected model yielded significant results at posttest, $F(3, 41) = 83.41$, $p < .001$, $\eta^2 = .859$, and at follow-up, $F(3, 41) = 81.40$, $p < .001$, $\eta^2 = .910$, both reflecting very large effect sizes. The group effect for marital burnout was also highly significant at posttest, $F(2, 41) = 121.90$, $p = .001$, $\eta^2 = .856$, and at follow-up, $F(2, 41) = 120.78$, $p = .001$, $\eta^2 = .890$, confirming that both schema therapy and mindfulness interventions produced profound and enduring improvements in marital burnout compared with the control group.

Table 3. Bonferroni Post-Hoc Comparisons for Sexual Infidelity and Marital Burnout

Variable	Stage	Group (I)	Group (J)	Std. Error	p
Sexual Infidelity	Posttest	Schema Therapy	Mindfulness	3.27252	1.000
		Schema Therapy	Control	3.27252	< .001
		Mindfulness	Schema Therapy	3.27252	1.000
		Mindfulness	Control	3.27252	< .001
		Control	Schema Therapy	3.27252	< .001
		Control	Mindfulness	3.27252	< .001
Sexual Infidelity	Follow-up	Schema Therapy	Mindfulness	4.24056	1.000
		Schema Therapy	Control	4.24056	< .001
		Mindfulness	Schema Therapy	4.24056	1.000
		Mindfulness	Control	4.24056	< .001
		Control	Schema Therapy	4.24056	< .001
		Control	Mindfulness	4.24056	< .001
Marital Burnout	Posttest	Schema Therapy	Mindfulness	1.43869	1.000
		Schema Therapy	Control	1.43869	< .001
		Mindfulness	Schema Therapy	1.43869	1.000

		Mindfulness	Control	1.43869	< .001
		Control	Schema Therapy	1.43869	< .001
		Control	Mindfulness	1.43869	< .001
Marital Burnout	Follow-up	Schema Therapy	Mindfulness	1.79525	1.000
		Schema Therapy	Control	1.79525	< .001
		Mindfulness	Schema Therapy	1.79525	1.000
		Mindfulness	Control	1.79525	< .001
		Control	Schema Therapy	1.79525	< .001
		Control	Mindfulness	1.79525	< .001

The Bonferroni post-hoc analyses summarized in Table 3 revealed a consistent and robust pattern of between-group differences for both sexual infidelity and marital burnout at the posttest and follow-up stages. Specifically, no statistically significant differences were observed between the schema therapy and mindfulness groups at either posttest or follow-up for sexual infidelity (p = 1.000) or marital burnout (p = 1.000), indicating that both interventions were equally effective. In contrast, both experimental groups differed significantly from the control group across all stages and for both variables (p < .001), demonstrating that schema therapy and mindfulness interventions produced substantial and sustained reductions in sexual infidelity and marital burnout compared with the control condition. These findings confirm the clinical effectiveness and stability of both treatment approaches and highlight their superiority over no-treatment controls in improving marital functioning.

Discussion and Conclusion

The present study sought to compare the effectiveness of schema therapy and mindfulness-based intervention on sexual infidelity and marital burnout among couples receiving psychological services. The findings demonstrated that both therapeutic approaches produced significant and sustained reductions in sexual infidelity tendencies and marital burnout at posttest and follow-up stages, with no statistically significant difference between the two interventions. These results confirm that both schema therapy and mindfulness-based intervention represent powerful and clinically meaningful approaches for addressing complex relational dysfunctions, particularly those involving sexual and emotional domains.

The observed reduction in sexual infidelity tendencies among participants in both experimental groups is consistent with a substantial body of research emphasizing the central role of maladaptive cognitive-emotional structures in shaping infidelity-related behaviors. Schema therapy, by directly targeting early maladaptive schemas and dysfunctional coping styles, appears to weaken the internal cognitive mechanisms that legitimize infidelity, heighten susceptibility to seduction, normalize extramarital behavior, and intensify sensation seeking (2, 7). The large effect sizes observed in the current study align with previous findings indicating that schema-based interventions significantly improve sexual self-efficacy, sexual functioning, and relational attributions among individuals affected by infidelity (9, 10). By restructuring core beliefs related to intimacy, self-worth, trust, and attachment, schema therapy facilitates more adaptive interpersonal responses, thereby reducing the motivational and cognitive drivers of sexual infidelity.

Similarly, the mindfulness-based intervention produced substantial reductions in sexual infidelity tendencies, which is theoretically consistent with the established effects of mindfulness on emotional regulation, impulse control, and present-moment awareness. Mindfulness enhances individuals' capacity to observe sexual impulses, emotional reactions, and cognitive justifications without automatic enactment,

thereby disrupting the impulsive pathways that often precede infidelity. These findings converge with evidence that mindfulness-based sexual therapies improve sexual awareness, self-regulation, and emotional intimacy (11-13). Furthermore, mindfulness has been shown to reduce extramarital involvement and marital disillusionment by strengthening emotional presence and relational attunement within intimate partnerships (6, 14).

The significant decrease in marital burnout across both intervention groups reflects the capacity of these approaches to alleviate the emotional, physical, and psychological exhaustion that accumulates through chronic relational distress. Schema therapy likely achieves this effect by dismantling deeply ingrained cognitive distortions and maladaptive coping patterns that sustain emotional disengagement, resentment, and hopelessness within marriage. This interpretation is supported by previous research demonstrating that schema therapy reduces marital exhaustion and enhances emotional regulation and resilience (4, 5). By addressing unmet emotional needs and promoting healthier attachment-related behaviors, schema therapy fosters relational renewal and emotional reconnection.

Mindfulness-based intervention similarly reduced marital burnout, consistent with its established role in enhancing emotional regulation, stress tolerance, and interpersonal awareness. Mindfulness cultivates acceptance, emotional flexibility, and non-reactivity, which buffer individuals against the cumulative stressors of marital conflict and emotional neglect. Prior studies confirm that mindfulness improves emotional functioning, relational satisfaction, and psychological well-being in intimate relationships (15-17). By fostering emotional presence and compassion, mindfulness may restore partners' capacity for empathic engagement, thereby counteracting the emotional depletion characteristic of marital burnout.

The absence of significant differences between schema therapy and mindfulness-based intervention suggests that both approaches operate through overlapping yet distinct mechanisms that converge on similar therapeutic outcomes. Schema therapy primarily targets structural cognitive-emotional patterns rooted in early development, while mindfulness enhances meta-cognitive awareness and self-regulatory processes in the present moment. These complementary pathways appear equally effective in modifying the core psychological drivers of sexual infidelity and marital burnout. This finding is consistent with comparative research indicating that both schema therapy and mindfulness-based cognitive interventions significantly enhance sexual self-esteem, sexual self-expression, and relational self-confidence (18). Such equivalence in effectiveness underscores the importance of tailoring intervention selection to client preferences, cultural context, therapist expertise, and specific relational needs rather than privileging one model exclusively.

The maintenance of treatment gains at the two-month follow-up further supports the durability of both interventions. Long-term improvement likely reflects the internalization of cognitive restructuring processes in schema therapy and the continued application of mindfulness skills in daily life. These sustained effects are consistent with evidence that schema modification and mindfulness-based self-regulation promote enduring psychological change by transforming individuals' relationship with their internal experiences and relational patterns (3, 7). Importantly, the Iranian cultural context of the present study adds valuable empirical support for the cross-cultural applicability of both therapeutic models, particularly given the recent validation of sexual mindfulness constructs within Iranian married populations (19).

Collectively, the present findings advance the literature by demonstrating that schema therapy and mindfulness-based intervention not only improve individual sexual functioning but also significantly reduce

the broader relational pathologies of sexual infidelity and marital burnout. These outcomes highlight the necessity of addressing deep cognitive-emotional processes alongside present-moment awareness and emotional regulation within marital therapy. By integrating both structural and experiential dimensions of change, therapists may more effectively promote relational healing, emotional intimacy, and long-term marital stability.

Several limitations should be considered when interpreting the findings of this study. The relatively small sample size and the use of convenience sampling from counseling centers in a single city may limit the generalizability of the results. The reliance on self-report measures introduces the possibility of response bias, particularly given the sensitive nature of sexual infidelity. The absence of long-term follow-up beyond two months restricts conclusions regarding the enduring stability of treatment effects. Finally, potential therapist effects were not systematically controlled, which may have influenced treatment outcomes.

Future studies should employ larger, more diverse samples across multiple cultural and geographic settings to enhance external validity. Longitudinal designs with extended follow-up periods would provide deeper insight into the durability of treatment effects. Incorporating qualitative methods could enrich understanding of participants' subjective experiences of therapeutic change. Comparative studies examining integrative interventions that combine schema therapy and mindfulness techniques may further optimize treatment effectiveness.

Clinicians working with couples experiencing marital burnout and sexual infidelity should consider incorporating both schema-focused and mindfulness-based strategies into treatment planning. Therapy programs may benefit from flexible, individualized intervention models that adapt techniques to couples' unique relational histories, emotional needs, and cultural contexts. Ongoing training in both approaches can enhance therapists' capacity to deliver comprehensive and effective marital interventions.

Acknowledgments

The authors express their deep gratitude to all participants who contributed to this study.

Authors' Contributions

All authors equally contributed to this study.

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. This study was approved by the Ethics Committee of Islamic Azad University, Birjand Branch under the ethics code IR.IAU.BIRJAND.REC.1402.019.

Transparency of Data

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

Funding

This research was carried out independently with personal funding and without the financial support of any governmental or private institution or organization.

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