



Effectiveness Acceptance and Commitment Therapy on Improvement Dimensions of Sexual Function and Increasing Sexual Self-Efficacy of Couples

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ARTICLE INFO	ABSTRACT
<p>Article History: Received 10 June 2020 Received in revised form 3 September 2020 Accepted 25 September 2020 Available online 28 September 2020</p>	<p>The present research aimed to determine the effectiveness of Acceptance and Commitment Therapy (ACT) on improving sexual functioning and enhancing sexual self-efficacy in couples. This study employed a semi-experimental design with a pretest-posttest control group. The statistical population of the research included all couples attending clinics and counseling centers in Tehran in 2018. A total of 16 couples were selected conveniently and randomly assigned to two groups: experimental (8 couples) and control (8 couples). Sexual functioning and sexual self-efficacy were measured before and after the intervention using the Sexual Self-Efficacy and Functioning Scale for Women (SSES-F) and the Sexual Self-Efficacy and Functioning Scale for Men (SSES-M). The intervention, based on Acceptance and Commitment Therapy, was implemented in eight group sessions, each lasting 90 minutes, over one month for the experimental group, while the control group received no educational intervention during this period. A follow-up assessment was conducted after one month. The results were analyzed using repeated measures analysis of variance. Findings indicated a significant difference between the two groups in terms of sexual functioning dimensions. The Acceptance and Commitment Therapy led to improvements in sexual functioning and sexual self-efficacy in couples. This research demonstrated that Acceptance and Commitment Therapy is an effective approach for enhancing sexual functioning and sexual self-efficacy dimensions.</p>
<p>Keywords: Acceptance and Commitment Therapy, Sexual Functioning, Sexual Self-Efficacy.</p>	

1. INTRODUCTION

Sexual dysfunction and related issues are prevalent among couples, affecting approximately 40-45% of women and 20-30% of men in the general population, often leading to diminished relationship satisfaction and overall quality of life [1]. These problems encompass various dimensions of sexual function, including desire, arousal, orgasm, and pain, as outlined in diagnostic criteria for sexual disorders [2]. Furthermore, sexual self-efficacy,

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defined as an individual's confidence in their ability to engage in and enjoy sexual activities, plays a crucial role in mitigating these challenges and fostering positive sexual experiences within partnerships [3].

Traditional therapeutic approaches, such as cognitive-behavioral therapy, have shown promise in addressing sexual concerns, but emerging third-wave therapies offer innovative strategies by emphasizing mindfulness, acceptance, and value-driven behaviors [4]. Acceptance and Commitment Therapy (ACT), a contextual behavioral intervention, aims to enhance psychological flexibility through processes like cognitive defusion, acceptance of uncomfortable thoughts and feelings, and commitment to actions aligned with personal values [4]. Meta-analytic evidence up to 2015 indicates that ACT is effective for a range of mental and physical health issues, with moderate effect sizes compared to control conditions, suggesting its potential applicability to relational and sexual domains [5].

In the context of couples, preliminary studies have demonstrated ACT's utility in improving marital satisfaction, which is closely intertwined with sexual well-being [6]. Additionally, interventions targeting self-efficacy, such as those based on social cognitive theory, have been associated with enhancements in sexual self-efficacy and quality of sexual life among women, highlighting the need for couple-focused adaptations [7]. However, limited research has specifically examined ACT's effectiveness on multidimensional sexual function and sexual self-efficacy in couples, representing a gap in the literature.

The present study investigates the effectiveness of Acceptance and Commitment Therapy in improving dimensions of sexual function and increasing sexual self-efficacy among couples, with implications for clinical practice and relationship health.

1.1. Research Methodology

The present research employed a semi-experimental design with a pre-test and post-test control group, conducted on couples in Tehran during the academic year 97-98. The sampling method was voluntary with random substitution. The sample size included 16 couples who had referred to clinics and counseling centers in Tehran in the second half of the year 2018. Participants were selected through convenient and purposeful sampling based on the inclusion criteria: residing in Tehran, not having sexual intercourse with their spouse in the past 4 weeks, being married for a maximum of 5 years, not suffering from any major psychiatric disorders in Axis I, age range between 25 to 30 years, satisfaction, and sufficient time to participate in the research and attend counseling sessions regularly.

The instruments used in this study included the Sexual Self-Efficacy - Sexual Response Scale for Women (SSES-F) and the Sexual Self-Efficacy - Erectile Response Scale (SSES-E).

The Sexual Self-Efficacy - Sexual Response Scale for Women was developed by Rajabi et al. (2014) [8]. This scale consists of four factors: readiness for sexual intercourse, progress of the relationship and self-stimulation, non-coital relationship, and orgasm with a tool. It predicts behavioral, cognitive, and emotional aspects. It has 37 five-choice items (from very much=5 to very little=1) measuring four cycles of women's sexual responses (interest, desire, arousal, and orgasm). The Cronbach's alpha coefficient for the Sexual Self-Efficacy - Sexual Response Scale for Women in 131 women (25-68 years old) was 0.90, and in other studies, it was 0.87 and 0.70. The test-retest coefficients for the eight subscales were 0.83 and 0.93 for 4 weeks apart. The reliability coefficient for the Sexual Self-Efficacy - Sexual Response Scale for Women and the scores of their partners was 0.46. The internal consistency coefficient using Cronbach's alpha for all items and four factors was acceptable [9].

The Sexual Self-Efficacy - Erectile Response Scale was developed by Hayes and colleagues (2011) [10]. This scale, based on Bandura (1977) [11] goal-setting questionnaire for sexual treatment, Lobitz & Baker (1979) [12] sexual belief questionnaire, and Reynolds' (1978) [13] erectile difficulty questionnaire, consists of 25 five-choice items (from very much=5 to very little=1). It is a five-dimensional tool (pleasurable and anxiety-free sexual relationship, maintaining an erection during sexual contact, confidence in sexual confrontation, reaching sexual pleasure climax, and sexual desire again). The total score is obtained by summing the scores of the items and dividing them by their number. The scores range from 25 to 125. Higher scores indicate more confidence, competence, and competence in male erectile response. This scale allows spouses to rate their sexual functioning

and beliefs about male self-confidence in sexual situations in the same graded manner. The Cronbach's alpha reliability coefficient for the Sexual Self-Efficacy - Erectile Response Scale in the total sample was 0.95, and for the first to fifth factors, it was 0.85, 0.86, 0.82, 0.86, and 0.91, respectively. These findings indicated satisfactory internal consistency for the first to fifth factors and all items. Libman et al. (1985) reported reliability coefficients for men and women with sexual dysfunction as 0.88 and 0.94, and for normal men and women as 0.62 and 0.75, respectively. The test-retest coefficients for men and women were 0.98 and 0.97, respectively [14].

Data collection was carried out in two stages, before and after the intervention, simultaneously for both the experimental and control groups. Before the intervention, both groups completed the aforementioned questionnaires. The members of the experimental group underwent an 8-session, 90-minute training in Acceptance and Commitment Therapy. This training took place over one month, with two sessions per week. After completing the sessions, to collect post-test scores, members of both groups once again completed the two questionnaires. The data obtained from the pre-test and post-test stages for both experimental and control groups were analyzed using repeated measures analysis of variance (ANOVA) with SPSS-22 software.

In developing the treatment protocol, the treatment protocol of Lev, A., & McKay, M. (2017), which is based on psychological intervention educational programs, was used. The structure of the 8-session educational sessions for the experimental group was as follows [15]:

Table 1: Summary of Acceptance and Commitment Therapy Sessions:

Training content	meeting
Establishing a therapeutic relationship and getting to know the group members	First
Description of the reference change program and its effectiveness	Second
Helping clients to control personal events	Third
Explanation about avoiding painful experiences	Fourth
Teaching the steps of acceptance by explaining the concepts of passion and obstacles	the fifth
Explanation of the concepts of role and context - creation of self-observer	the sixth
Clarifying the values of references	the seventh
Teaching commitment to action	the eighth

2. FINDINGS

After implementing the Acceptance and Commitment Therapy, post-tests and follow-ups were conducted for both experimental and control groups. Relevant data from pre-test, post-test, and follow-up were extracted. Tables 1 and 2 present the descriptive statistics (means and standard deviations) for the experimental and control groups in pre-test, post-test, and follow-up conditions for both women and men.

Table 2. Mean and Standard Deviation of the dimensions of sexual self-efficacy in women in the research groups.

tracking	post-test	pre-test	group	Variable
Mean ± standard deviation	Mean ± standard deviation	Mean ± standard deviation		
22.13 ± 2.80	21.63 ± 3.33	19.62 ± 3.11	test	Preparation for sex
20.25 ± 3.41	20.38 ± 2.66	20.00 ± 2.56	Control	
19.75 ± 3.61	18.25 ± 3.61	16.13 ± 3.90	test	Development of relationships and self-stimulation
15.63 ± 5.09	15.88 ± 5.43	16.00 ± 5.23	Control	

14.75 ± 2.60	13.25 ± 2.71	11.38 ± 2.87	test	Relationship without intercourse
11.75 ± 2.12	11.50 ± 1.77	11.25 ± 2.18	Control	
13.00 ± 2.50	12.50 ± 2.00	10.50 ± 1.41	test	Orgasm with tools
11.13 ± 1.45	10.88 ± 1.35	10.63 ± 1.99	Control	

Table 3. Mean and Standard Deviation of the dimensions of sexual self-efficacy in men in the research groups.

tracking	post-test	pre-test	group	Variable
Mean ± standard deviation	Mean ± standard deviation	Mean ± standard deviation		
13.37 ± 2.97	12.75 ± 2.49	11.12 ± 2.53	test	Enjoyable sex without fear
11.00 ± 1.51	11.12 ± 1.95	11.00 ± 2.44	Control	
12.50 ± 2.56	11.37 ± 1.99	9.12 ± 1.45	test	Maintaining erection during intercourse
9.62 ± 1.40	9.50 ± 1.19	9.25 ± 1.66	Control	
11.37 ± 1.59	10.50 ± 1.77	8.87 ± 1.35	test	They are confident about their gender
9.25 ± 1.48	9.62 ± 1.06	9.00 ± 1.06	Control	
12.12 ± 1.64	10.87 ± 1.88	9.25 ± 1.75	test	Reaching the peak of sexual pleasure
10.00 ± 0.92	9.37 ± 1.30	9.50 ± 1.30	Control	
1/50 ± 13/62	1/60 ± 12/00	10.37 ± 1.68	test	Sexual desire again
0/83 ± 10/87	1/69 ± 10/50	1/48 ± 10/25	control	

In Table 2, the mean and standard deviation of scores for the pre-test, post-test, and one-month follow-up dimensions of sexual responsiveness and sexual self-efficacy in women are presented for both the experimental and control groups. It is observed that in the dimensions of readiness for sexual relationship, development of intimacy and autonomy, non-coital relationship, orgasm with a partner, and overall sexual self-efficacy, the mean scores of the experimental group were higher in the post-test phase. Additionally, in sexual responsiveness and sexual self-efficacy in men within the experimental and control groups, the mean scores of the experimental group were higher in the post-test phase concerning pleasurable and non-disturbing sexual relationship, maintaining ejaculation during sexual contact, confidence in sexual confrontation, reaching the peak of sexual pleasure, and sexual desire. Both in women and men, scores in the post-test and follow-up stages showed a greater increase compared to the pre-test in the experimental group than in the control group.

To adhere to the research assumptions, the Kolmogorov-Smirnov test was used to examine the normality of variables. Given that the significance level for the research variables in both women and men in the experimental and control groups was greater than 0.05, the assumption of normality is not rejected.

Table 4. Summary of Analysis of Variance to investigate the effect of Acceptance and Commitment Therapy on the improvement of sexual responsiveness dimensions and sexual self-efficacy in women.

Effect size	level Significance	F	mean square	degree of freedom	sum of squares	Source of changes	changeable
.29	.007	5.94	5.39	2	10.79	Group effect	Preparation for sex
.62	.000	23.70	22.51	1.42	32.16	Group effect	Development of relationships and self-stimulation
.38	.006	8.75	13.55	1.22	16.62	Group effect	Relationship without intercourse
.22	.02	4.03	4.75	2	9.50	Group effect	Orgasm with tools

Table 5. Summary of Analysis of Variance to Examine the Effect of Acceptance and Commitment-Based Treatment on Improving Sexual Responsiveness and Sexual Self-Efficacy Dimensions in Men

Effect size	level Significance	F	mean square	degree of freedom	sum of squares	Source of changes	changeable
.356	.002	7.737	5.250	2	10,500	Group effect	Enjoyable sex without fear
.367	.007	8.124	14.710	1.269	18.667	Group effect	Maintaining erection during intercourse
.345	.003	7.362	5.083	2	10.167	Group effect	Ensuring gender equality
.327	.004	6.790	6.063	2	12.125	Group effect	Reaching the peak of sexual pleasure
.377	.001	8.456	6.896	2	13.792	Group effect	Sexual desire again

Findings at the inferential level, regarding the effectiveness of acceptance and commitment-based treatment on sexual responsiveness and sexual self-efficacy in the post-test and follow-up stages, demonstrated a significant relationship between pre-test, post-test, and follow-up dimensions of sexual responsiveness and sexual self-efficacy. The results indicate that acceptance and commitment-based treatment led to improvements in sexual responsiveness dimensions and increased sexual self-efficacy in the experimental group.

3. CONCLUSION

Based on the results of the present study, education in acceptance and commitment-based treatment improves sexual responsiveness and sexual self-efficacy dimensions in couples. The results align with the research of Ziaei et al. (2014), Namatzadeh (2010), and Kalal Quchan Atigh and Sarayi (2016) [16-18]. In explaining the effectiveness of acceptance and commitment-based treatment in improving sexual responsiveness and increasing sexual self-efficacy dimensions in couples, it can be said that one of the types of influential factors on sexual performance is individuals' thoughts and feelings about sexual relationships and their understanding of their sexual aspects [19]. Considering that the source of sexual dissatisfaction lies in a person's thoughts, acceptance and commitment-based treatment guides clients towards recognizing their thoughts as independent entities, encouraging individuals to strive for change in their thoughts and, ultimately, their feelings about sexual relations during the program [18].

Acceptance and commitment-based treatment teaches clients, during educational sessions, that if they are not satisfied with the conditions in life or are dissatisfied with their sexual relationship, which depends on the satisfaction of the partner and the personal relationships with others, there is no need to change external conditions. They can regard it as conditional on the partner's agreement and satisfaction with the situation. They can strive to find their values and take the right steps without being influenced by these conditions towards their values without being influenced by these conditions. The foundation of acceptance and commitment-based treatment is mindfulness. Mindfulness exercises help us understand that unpleasant emotions, thoughts, and bodily sensations may occur, but they are not part of our constant and permanent existence. Mindfulness allows us to face them openly, accept them, and respond to them consciously and compassionately. However, to have a rich, meaningful, and complete life, more than mindfulness is needed, namely, acting towards values. This approach makes the individuals' sense of the value of life stronger and then, by restoring their sense of the value of life, provides the groundwork for increasing sexual satisfaction that has emerged due to dry and inflexible behavioral patterns [18].

Limitations of the study include the taboo nature of the research topic and cultural issues such as hijab and shame, which had their own specific sample collection challenges. It is recommended that in future research, the effectiveness of this intervention be implemented on different populations with different cultural backgrounds. Also, since acceptance and commitment-based treatment is an effective method for improving sexual responsiveness dimensions and increasing sexual self-efficacy, it is recommended to use this treatment in counseling sessions for couples experiencing sexual problems.

Transparency Statement

The data supporting this study are available upon reasonable request to the corresponding author, subject to ethical and confidentiality considerations.

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Declaration of Interest

The authors declare that they have no competing interests.

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REFERENCES

- [1] Laumann, E. O., Paik, A., & Rosen, R. C. (1999). Sexual dysfunction in the United States: Prevalence and predictors. *JAMA*, 281(6), 537–544. <https://doi.org/10.1001/jama.281.6.537>
- [2] American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). American Psychiatric Publishing. <https://doi.org/10.1176/appi.books.9780890425596>
- [3] Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84(2), 191–215. <https://doi.org/10.1037/0033-295X.84.2.191>
- [4] Hayes, S. C., Strosahl, K. D., & Wilson, K. G. (1999). *Acceptance and commitment therapy: An experiential approach to behavior change*. Guilford Press.
- [5] A-Tjak, J. G. L., Davis, M. L., Morina, N., Powers, M. B., Smits, J. A. J., & Emmelkamp, P. M. G. (2015). A meta-analysis of the efficacy of acceptance and commitment therapy for clinically relevant mental and physical health problems. *Psychotherapy and Psychosomatics*, 84(1), 30–36. <https://doi.org/10.1159/000365764>
- [6] Kavousian, J., Harifi, H., & Karimi, K. (2017). The efficacy of acceptance and commitment therapy (ACT) on marital satisfaction in couples. *Journal of Health and Care*, 19(1), 75–87.
- [7] Alimohammadi, L., Zarei, F., & Mirghafourvand, M. (2019). The effect of counseling based on Bandura's self-efficacy theory on sexual self-efficacy and quality of sexual life. *Women & Health*, 60(4), 473–486. <https://doi.org/10.1080/03630242.2019.1662871>
- [8] Rajabi, G., Dastan, N., & Shahbazi, M. (2011). Reliability and validity of the Sexual Self-Efficacy–Erectile Behavior Scale. *Iranian Journal of Psychiatry and Clinical Psychology*, 18(1), 74–82.
- [9] Rajabi, G., & Jelodari, A. (2015). Validity and reliability of the Persian Sexual Self-Efficacy Scale Functioning in females. *Practice in Clinical Psychology*, 3(4), 267–272.
- [10] Bond, F. W., Hayes, S. C., Baer, R. A., Carpenter, K. M., Guenole, N., Orcutt, H. K., ... & Zettle, R. D. (2011). Preliminary psychometric properties of the Acceptance and Action Questionnaire-II: A revised measure of psychological inflexibility and experiential avoidance. *Behavior Therapy*, 42(4), 676–688. <https://doi.org/10.1016/j.beth.2011.03.007>

- [11] Bandura, A., Adams, N. E., & Beyer, J. (1977). Cognitive processes mediating behavioral change. *Journal of Personality and Social Psychology*, 35(3), 125–139. <https://doi.org/10.1037/0022-3514.35.3.125>
- [12] Lobitz, W. C., & Baker, E. L. Jr. (1979). Group treatment of single males with erectile dysfunction. *Archives of Sexual Behavior*, 8(2), 127–138. <https://doi.org/10.1007/BF01541233>
- [13] Reynolds, J. C. (1978, January). Syntactic control of interference. In *Proceedings of the 5th ACM SIGACT-SIGPLAN Symposium on Principles of Programming Languages* (pp. 39–46). <https://doi.org/10.1145/512760.512766>
- [14] Libman, E., Fichten, C. S., & Brender, W. (1985). The role of therapeutic format in the treatment of sexual dysfunction: A review. *Clinical Psychology Review*, 5(2), 103–117. [https://doi.org/10.1016/0272-7358\(85\)90017-0](https://doi.org/10.1016/0272-7358(85)90017-0)
- [15] Lev, A., & McKay, M. (2017). *Acceptance and commitment therapy for couples: A clinician’s guide to using mindfulness, values, and schema awareness to rebuild relationships*. New Harbinger Publications.
- [16] Kalal Qochan Atiq, Y., & Saraei, F. (2015). The effectiveness of therapy based on acceptance and commitment on marital compatibility, sexual satisfaction, and life satisfaction of women. *Journal of Principles of Mental Health*, 18(3), 527–533.
- [17] Nematzadeh Khamsi, P. (2010). The effect of marital skills training on increasing sexual performance and sexual self-efficacy of women. *The First National Student Conference on Social Factors Affecting Health*, Tehran, 21–22 September.
- [18] Ziai, P., Sepehri Shamlou, Z., & Mashhadhi, A. (2013). The effectiveness of sexual skills training focused on cognitive schemas on improving the sexual activity of married female students. *Evidence-Based Care Quarterly*, 4(11), 70–80.
- [19] Jafarpour Qahnoweh, M., Maroufi, M., & Melaynejad, M. (2014). The relationship between sexual self-concept and sexual performance of married women referring to health and treatment centers in Mobarakeh city. *Mental Health Special Issue*, 12(3), 40–47.