



Comparison of Cognitive Behavioral Therapy with Acceptance and Commitment Therapy in the Enhancement of Marital Satisfaction and Sexual Intimacy in Couples Referring to Counseling Centers

Ameneh Rahimi¹, Hasan Amiri^{2*}, Karim Afsharriniya², Mokhtar Arefi²

¹ PhD Student, Department of Psychology and Counseling, Kermanshah Branch, Islamic Azad University, Kermanshah, Iran

² Associate Professor, Department of Psychology and Counseling, Islamic Azad University, Kermanshah Branch, Kermanshah, Iran

***Corresponding author:**

Hasan Amiri, Department of Psychology and Counseling, Kermanshah Branch, Islamic Azad University, Kermanshah, Iran
Tel: 09195172235
Email: ahasan.amiri@yahoo.com

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Abstract

Background and Objective: The assessment of young couples' marital relationship has received considerable attention in recent years. The present study aimed to make a comparison between the effectiveness of cognitive behavioral therapy (CBT) and acceptance and commitment therapy (ACT) in the enhancement of marital satisfaction and sexual intimacy in couples referring to counseling centers in Khorramabad, Iran.

Materials and Methods: This quasi-experimental study was conducted based on a pre-posttest design with a control group. For the purpose of the study, a total of 60 couples were selected out of the couples who referred to the counseling centers in Khorramabad due to marital disorders in 2018, using volunteer sampling technique. The couples were randomly assigned into three groups of ACT, CBT, and control, each of which contained 20 cases. The data collection tools included the ENRICH marital satisfaction inventory and Battalio sexual intimacy scale. Before the commencement of the intervention (i.e., independent variable), the three groups were provided with two questionnaires (pre-test stage). Thereafter, the intervention groups received eight two-hour sessions of either ACT or CBT. On the other hand, the control group did not receive any training. Upon the completion of the training sessions, marital satisfaction and sexual intimacy were assessed in the three groups (post-test stage). The data were analyzed in SPSS software (version 22) using the multivariate analysis of covariance.

Results: The obtained results were indicative of the significant effect of both treatments on the enhancement of marital satisfaction ($P < 0.001$) and sexual intimacy ($P < 0.001$) in couples. Moreover, it was found that CBT exerted a more profound effect on marital satisfaction and sexual intimacy, compared to ACT.

Conclusion: As evidenced by the obtained results, it can be concluded that both CBT and ACT were effective in the promotion of marital satisfaction and sexual intimacy among couples. Nonetheless, CBT demonstrated more dramatic effects, compared to ACT.

Keywords: Acceptance and commitment therapy, Cognitive-behavioral therapy, Marriage, Sexual behavior

Background

A family is formed through marriage; however, what is more important than marriage is marital satisfaction [1]. Marital satisfaction is defined as a situation in which the couples fulfill each other's needs, and the partner is understood, supported, and endorsed [2]. It can be considered a psychological condition that does not arise by itself, rather both parties should make their every effort [3]. Marital satisfaction is significantly unstable, especially in the first years of marriage, posing serious threats to relationships [4]. In some studies, mental health showed a significant and positive relationship with marital satisfaction and sexual

satisfaction [5, 6].

Moreover, marital satisfaction and sexual satisfaction increase intimacy between couples, their satisfaction with each other, and their mental health [7]. Consistent with the present study, multiple studies have reported a positive correlation between sexual intimacy and marital satisfaction. Sexual satisfaction affects satisfaction with marital relationships [6], and it is nowadays proven that many psychological disorders and marital disagreements are rooted in this satisfaction. Based on statistics, 20-30% and 15% of American men and women respectively end their marriage due to

sexual dissatisfaction. It has been pointed out that 40% of covert infidelity in Iranian spouses results from sexual dissatisfaction in couple relationships, which, in turn, may affect marital adjustment [5].

The effectiveness of cognitive behavioral therapy (CBT) and acceptance and commitment therapy (ACT) has been indicated in a wide range of problems, such as marital problems. Furthermore, these techniques are reported to encourage the couples to remain committed to a meaningful and value-based relationship [7]. Therefore, therapists can benefit from the interventions presented in CBT and ACT to decrease marital problems and improve the quality of couple relationship, marital satisfaction, and sexual intimacy. These interventions provide a context that can be effective in the promotion of couple satisfaction, intimate responses, and positive emotions. The defusion approach helps the couples connect with their internal experiences, as well as unpleasant thoughts and emotions. Moreover, this method prevents couples from engaging in negative communicative and behavioral patterns, thereby preventing from the creation of double negative emotions [8].

One of the psychological therapies that delve into the inevitable, different, and yet applicable problems is ACT. This method is one of the third wave treatments of behavioral therapy. The ACT can be defined as a functional contextual intervention based on the relational frame theory that relates the human suffering to psychological flexibility that is reinforced by cognitive fusion and experiential avoidance. This treatment aims to create psychological flexibility through the processes of flexible attention to the present moment, chosen values, self-as-context, defusion, acceptance, and the creation of a widespread pattern of committed action related to these values [9]. The main advantage of this treatment is to consider the motivational aspects along with the cognitive aspects to sustain the therapeutic effectiveness [10]. The results of a study conducted by Heidari et al. [11] demonstrated that couple therapy based on ACT could increase intimacy and forgiveness among couples with the aid of cognitive flexibility.

The CBT as a psychosocial intervention is another psychotherapeutic treatment, which is currently used to increase marital satisfaction and sexual intimacy. The CBT involves the review of the mutual and multifaceted effect of interactions and application of behavior tracking or re-framing techniques to facilitate changes in the perceptual state of events and behaviors. The core of the CBT approach is to focus on thoughts and perceptions, as well as their effects on emotions and behaviors

[12]. The results of a study carried out by Hummel et al. [13] revealed that cognitive-behavioral group therapy had a significant effect on marital attachment and its components, namely marital satisfaction and marital intimacy.

To the best of our knowledge, no studies have compared the efficacy of CBT and ACT in couples, especially in those with marital disruptions. Every year, numerous couples experience divorce, which exposes them to numerous life changes requiring new emotional adjustments. An increase in divorce rate and marital dissatisfaction, on the one hand, and the request of couples to enhance marital relationships, on the other hand, proved the overwhelming need for interventions and specialized education in this regard.

Objectives

The present study aimed to examine the efficacy of ACT and CBT in the enhancement of marital satisfaction and sexual intimacy among couples with marital disorders.

Materials and Methods

This quasi-experimental was conducted based on a pretest-posttest design with a control group. The study population included all couples with marital disorders who referred to the counseling center in Khorramabad, Iran, in 2018. The sample consisted of 60 couples who were selected from two counseling centers in Khorramabad using the voluntary sampling technique. Subsequently, the volunteer couples who referred to these centers for marital discord were asked to participate in the study.

Thereafter, the couples were randomly assigned into three groups of ACT, CBT, and control. Based on the estimated effect size (0.25), alpha (0.05), and power (0.80) in the two groups, the minimum number of samples to achieve the desired power was estimated at 20 couples in each group (i.e., 60 cases in total). The inclusion criteria entailed the absence of serious mental disorders, such as schizophrenia and bipolar disorder. On the other hand, the exclusion criteria were absence in training for more than two sessions, physical illness, and presentation of incomplete information. Before the intervention, emotion regulation, resilience, and self-control strategy tests were administered for both groups.

Before the commencement of the ACT and CBT interventions, the marital satisfaction and sexual intimacy of couples in both control and intervention groups were assessed through a questionnaire (pre-test stage). Thereafter, the intervention groups received eight two-hour

Table 1. Contents of acceptance and commitment therapy

Sessions	Contents
First	Familiarizing group members with one another and establishing a therapeutic relationship, familiarizing the members with the research subject, general measurement, and control method measurement, establishing creative inability, and responding to questionnaires
Second	Investigating the inner and outer world in the ACT, creating a willingness to quit inefficient programs and helping the members to realize that what matters is control, not solution, substituting something for control (i.e., willingness)
Third	Identifying the individual's values and specifying the goal, actions, and obstacles
Fourth	Examining the values of each person and deepening the previous concepts
Fifth	Helping the members to realize fusion and departure and doing exercises for departure
Sixth	Helping the members to realize fusion to the conceptualized self and training how to depart from it
Seventh	Enhancing mindfulness and emphasizing on living in the present
Eighth	Examining the story of life and committed action

sessions of either ACT or CBT. Upon the completion of training, sexual intimacy and marital satisfaction were measured again in both groups (post-test stage). This process yielded data on marital satisfaction and sexual intimacy of the subjects.

ENRICH Marital Satisfaction Scale

This questionnaire was developed by Olson and Fornier [14]. The main form of this tool consists of 115 items. However, this scale was standardized in Iran and shortened to a 47-items instrument in 12 subscales, namely idealistic distortion, marital satisfaction, personality issues, communication, conflict resolution, financial management, leisure activities, sexual relationship, children and parenting, family and friends, equalitarian roles, and religious orientation [14]. Each item is rated on a 5-point Likert scale (completely agree=5 to totally disagree=1). In this questionnaire, a higher total score indicates a higher degree of marital satisfaction. In this regard, the scores of > 70, 60-70, 40-60, 30-40, and < 30 are indicative of excellent satisfaction, high satisfaction, relative/medium satisfaction, relative dissatisfaction, and severe dissatisfaction, respectively. Olson [14] reported the reliability of 0.93 for the questionnaire using Cronbach's alpha coefficient test. The validity and reliability of the Persian version of the questionnaire were confirmed, rendering the Cronbach's alpha coefficients of 0.83 and 0.90, respectively [15].

Sexual Intimacy Questionnaire

Sexual intimacy questionnaire contains 30 multiple-choice items in four scales. In this instrument, each item is rated on a 4-point Likert scale (always=1, sometimes=2, rarely=3, and never=4). In this questionnaire, a higher total score indicates a higher degree of sexual intimacy. In this regard, the scores of 30-50, 50-100, and > 100 are representative of low, moderate, and high sexual intimacy, respectively [16]. Firouzi [17] confirmed the reliability of this questionnaire, reporting a Cronbach's alpha coefficient of 84%.

Before the commencement of the intervention (independent variable), marital satisfaction and sexual intimacy were assessed in both groups through the questionnaires. Thereafter, 60 subjects were randomly assigned into three groups (ACT, CBT, and control groups) of 20 cases. Prior to the intervention sessions, the informed consent was obtained from the participants of the three groups, and they were informed about the study objectives. The ACT was administered to the first group in 8 weekly sessions based on a study conducted by Hayes et al. [18]. Moreover, the second group underwent CBT sessions during eight sessions based on a study performed by Hofmann et al. [19]. However, the control group did not receive any training. Upon the completion of the sessions, a post-test was conducted on the three groups. Table 1 summarizes the description of the sessions of both groups.

The obtained data were analyzed in SPSS software (version 22) using descriptive and inferential statistics. Mean and standard deviation indices were used to describe the data, and multivariate covariance analysis was applied in inferential analysis after testing the validity of the underlying assumptions.

Results

The mean ages of the participants in the ACT, CBT, and control groups were reported as 6.7 ± 7.4 , 35.8 ± 7.9 , and 35.1 ± 6.7 years, respectively. The three groups were comparable in terms of age. Table 3 presents the mean values of sexual intimacy in the intervention and control groups at the pre-test and post-test stages.

The results of the covariance analysis showed that Shapiro-Wilk and Kolmogorov-Smirnov tests confirmed the assumption of data normality ($P < 0.05$). In addition, the equality and mean assumptions in the pre-test stage were approved ($P < 0.05$). The assumption of homogeneity of variances was confirmed during the study ($P < 0.05$). Furthermore, the assumption of linearity between pre-test and post-test was significant ($P < 0.05$). All

traits were also investigated in examining the assumption of homogeneity of the slope of the regression line. The results confirmed the homogeneity of the slope of the regression line so that the F value of interaction effect in trait pre-test score was not significant with group effect ($P < 0.05$).

As observed above, the pre-test effect is significant. A significant difference is observed between control and experimental groups if the pre-test effect is deleted. Considering the mean scores, it can be concluded that ACT has a significant effect on the sexual intimacy of couples. As it is illustrated, the pre-test effect is significant, and a significant difference is observed in the marital satisfaction of control and experimental groups if the pre-test effect is deleted. Considering the mean scores, it can be inferred that ACT treatment has a significant effect on marital satisfaction.

As displayed above, the pre-test effect is significant. A significant difference is observed between control and experimental groups if the pre-test effect is deleted. Considering the mean scores, it can be concluded that CBT has a significant effect on the sexual intimacy of couples. As it is observed, the pre-test effect is significant, and a significant difference is observed in the marital satisfaction of control and experimental groups if the pre-test effect is deleted. Considering scores mean, it can be argued that CBT has a significant effect on marital satisfaction. Therefore, regarding the mean scores in the post-test of both groups, it can be inferred that CBT and ACT differently affect marital intimacy. Based on the results obtained from the descriptive analysis, the mean scores of subjects in the sexual intimacy variable in the post-test were higher in the CBT method, compared to their scores in the ACT method.

Table 2. Content of cognitive-behavioral training courses

Session	Training courses
1	Welcoming, providing an overview of the structure of the meetings, its laws, and importance, raising issues concerning depression, providing members with information about depression, relaxation, and cognitive logic, obtaining feedback
2	Educating members about reality, perception, consciousness, and the difference between feelings and thoughts, providing homework, getting feedback
3	Reviewing assignments, performing the second stage of progressive relaxation training to get the members to think about "why they are upset," training members on the five cognitive errors, providing homework, getting feedback
4	Reviewing the assignments, performing the third stage of progressive relaxation training, training members on other cognitive errors, learning the techniques of distraction, focusing on an object, providing homework, getting feedback
5	Browsing assignments, performing the fourth stage of progressive relaxation training, starting discussions about recent emotional experiences, imagination, and role play, delivering sensory awareness and mental training, providing homework, getting feedback
6	Browsing assignments, starting discussions about emotional experiences and techniques learned from the past session, acquainting the members with fundamental words, such as love, success, and perfectionism, training memory techniques and imagination, providing homework, getting feedback
7	Browsing assignments, starting discussions about dos and don'ts as one of the identification techniques of fundamental schema, investigating the role of cognitive distortions in the creation and persistence of depression, presenting techniques to count opinions, delivering assignments, getting feedback
8	Reviewing assignments, summing up the meeting by the therapist and members in the group, donating gifts

Table 3. Mean values of sexual intimacy in pre- and post-test according to acceptance and commitment therapy

Variables	Groups	Pretest		Posttest	
		Mean	SD	Mean	SD
Sexual Intimacy	Control	87.07	3.796	85.67	4.992
	ACT	79.48	6.267	91.30	6.814
	CBT	89.93	8.10	101.93	6.43
Marital Satisfaction	Control	87.97	8.724	92.60	8.846
	ACT	91.27	5.065	103.73	7.705
	CBT	100.77	6.16	113.37	8.65

ACT: Acceptance and commitment therapy
CBT: Cognitive-behavioral therapy

Table 4. Covariance analysis related to acceptance and commitment therapy on sexual intimacy and marital satisfaction of couples in post-test stage

Variables	Source of changes	Sum squares	Df	Mean squares	F	P	Eta
Sexual Intimacy	Pre-test effect	647.872	1	647.872	25.986	0.0001	0.31
	Group	329.424	1	329.424	13.213	0.001	0.18
	Error	1421.094	57	24.931			
Marital Satisfaction	Pre-test effect	2010.550	1	2010.550	57.846	0.0001	0.50
	Group	1005.125	1	1005.125	28.928	0.0001	0.33
	Error	1980.517	57	34.746			

Table 5. Covariance analysis related to cognitive-behavioral therapy on sexual intimacy and marital satisfaction of couples in post-test stage

Variables	Source of changes	Sum squares	Df	Mean squares	F	Significance level	Squared Eta coefficient
Sexual Intimacy	Pre-test effect	2010.550	1	2010.550	57.864	0.000	0.504
	Group	1005.125	1	1005.125	28.928	0.000	0.377
	Error	1980.517	57	34.746	-	-	-
	Total	584052.000	60	-	-	-	-
Marital Satisfaction	Pre-test effect	526.369	1	526.369	21.793	0.000	0.277
	Group	549.894	1	549.894	22.767	0.000	0.285
	Error	1376.698	57	24.153	-	-	-
	Total	586650.000	60	-	-	-	-

Discussion

The present study aimed to make a comparison between the efficacy of ACT and CBT in the enhancement of marital satisfaction and sexual intimacy of couples with marital disorders. The results of the study indicated that ACT was effective in sexual intimacy. This finding is in line with a study conducted by Veehof et al. [20] in which ACT led to increased sexual intimacy. Moreover, these findings are consistent with research carried out by Basak Nejad [11] in which couple therapy based on ACT increased intimacy and forgiveness among the couples with the help of cognitive flexibility. Moreover, the results of a study conducted by Karimi et al. [13] denoted that cognitive-behavioral group therapy had a significant effect on marital attachment and its components, marital satisfaction, and marital intimacy.

The positive effect of ACT in the enhancement of sexual intimacy can be justified on the ground that this therapy increases sexual intimacy among couples by the reduction of psychological stress. ACT emphasizes that changes occur when the individual can relate his/her private events to an increased fault. Ultimately, this faulty reduces negative thoughts and reactions leading to an increase in psychological acceptance and reduction of the relationship between negative thoughts and behavior [15]. Increasing psychological error and awareness of one's thoughts and actions help one observe the negative relationships between their reactions and decide not to act like their avoidant and conflicting old patterns. This leads to a reduction in stress level, which in turn, increases intimacy in relationships.

Furthermore, the findings of the present study showed that ACT affects marital satisfaction. These findings are in accordance with a study carried out by Patterson et al. [21]. To explain these findings, it can be stated that ACT encourages people to accept thought processes as a necessary and real function of psychological adjustment, thereby reducing negative cognitive schemas in individuals. ACT enables people to handle difficult situations more effectively. In addition, individuals classify their values in ACT sessions. In doing so, the clients

choose a category of behavioral purposes that are more important or more valuable to them. In the ACT, values are the personal importance of a special act for the person, rather than a mere judgment. These values can include interpersonal relationships, self-care, and marital relationships [22]. It can be mentioned that by engaging the person in the affairs which are important to them, these values can help the relationships, thereby increasing marital satisfaction.

As evidenced by the obtained results, CBT affects marital satisfaction. This finding is consistent with the studies conducted by Hofmann et al. [23], Kazantzis et al. [24], and Dowlati et al. [25]. To explain the findings regarding the effectiveness of CBT, it can be stated that the main purpose of this program is to teach couples to be more aware of their thoughts and feelings. This method puts emphasis on the change of cognition and cognitive reconstruction (change of thoughts). This change reduces stress, which can eventually create a conceptual harmony for couples. Moreover, this method strives to reduce emotional distress with the help of different strategies. It targets couples' cognition, feelings, and behavior with different options and ultimately increases couples' marital satisfaction.

Furthermore, the results were indicative of the impact of CBT on marital satisfaction. This finding is in accordance with studies performed by Omid et al. [26] and Arch et al. [27]. It can be argued that CBT intervention uses the cognitive reconstruction of irrational sexual thoughts about self, spouse, and relationship, positive self-talk, focus-attention, and self-expression are used. All of these cognitive techniques lead to sexual intimacy between husbands and wives and their cognitive dimension in general. In addition, the findings showed that cognitive-behavioral techniques in this regard use increasing sexual awareness and sexual skills, imagination, increasing insight and understanding of systemic causes, decreasing sexual desire, as well as behavioral feelings and interventions, to affect women's sexual desire. This technique improves marital satisfaction with positive interactions on the spouse, especially in the relationship. One of the

aspects of marital satisfaction is the satisfaction with sexual relations in married life, sexual intercourse, and the reduction of sexual desire disorder. Therefore, marital conflicts are reduced leading to an increase in the quality of life and marital satisfaction.

The results of the current research suggested that CBT was more effective in marital satisfaction, compared to ACT. This finding is not in harmony with a study conducted by Arch et al. [27]. The CBT and ACT approaches have some similarities; nonetheless, different options in each treatment explain these similarities. Both methods emphasize a good therapeutic relationship and the role of cognition through different pathways. Nevertheless, CBT therapists put emphasis on changing the content of cognition (Table 2), while ACT therapists focus on the role of cognition to change the context in which thoughts occur. In other words, the CBT perspective emphasizes cognitive reconstruction; however, the concept of cognitive faulting is addressed in ACT therapy for couples. Moreover, both approaches place emphasis on the reduction of emotional distress using different strategies. However, CBT focuses on the event and event perception that produces the worst emotional outcome, while the ACT aims to evade experiential avoidance and strive to manage unpleasant emotions through acceptance. In other words, CBT supports the maintenance of some feelings, such as positive feelings, and it tries to prevent negative feelings using logical barriers. However, ACT regards both negative and positive feelings as natural behavior which should not be avoided [28].

In addition, it was reported that CBT was more effective in sexual intimacy, in comparison to ACT. No studies conducted so far are aligned with the current research. To explain these findings, it can be stated that both therapies apply behavior change, problem-solving skills, conflict resolution skills, and communication skills in couple therapy sessions. In ACT sessions, couples are encouraged by the skills as mentioned earlier to move toward values and commitment to behavioral changes. The ACT as one of the therapeutic approaches of the third-wave behavioral therapies benefits from the process of acceptance, faulting, commitment, and behavioral changes to create psychological flexibility. Therefore, CBT and ACT target cognition, feelings, and behaviors of couples in different ways. Furthermore, both interventions are in the couple-form and emphasize the establishment of a good therapeutic relationship, primary evaluation, determination of therapeutic purposes and techniques, closure, and follow-up [29].

Every study has some limitations which must be

addressed in the article. The remarkable limitations of the present study included voluntary sampling which might affect the results of statistical analysis and the internal validity of the study. On a final note, it is recommended that similar studies be conducted with the possibility of performing follow-up tests, and the obtained results should be compared to post-test scores. Moreover, it is suggested that the present study should also be carried out with the four-group design of Solomon, and the obtained results should be compared to the findings of the present study. On the other hand, due to the significant effect of ACT on marital satisfaction, it is recommended that counseling centers train classification of values, finding out the importance of marital relationship, acting based on values, and finally strengthening the relationship with the spouse to increase marital satisfaction. Furthermore, in terms of the significant effect of CBT on satisfaction and sexual intimacy of couples, it is suggested that therapists and counseling centers should devote special attention to this therapy. It is recommended that couples be provided with training facilities and workshops in order to increase their knowledge learn effective strategies for controlling negative excitements and emotions, thereby, to increase the quality of their marital life, degree of adaptation, and sexual intimacy.

Conclusions

As evidenced by the results of the present study, it can be concluded that both CBT and ACT were effective in the enhancement of marital satisfaction and sexual intimacy in couples. Nonetheless, it was found that CBT was more effective, compared to ACT.

Compliance with ethical guidelines

All ethical principles were considered in the current article. The participants were informed about the purpose of the research and its implementation stages and signed the informed consent. They were also assured about the confidentiality of their information. Moreover, they were allowed to leave the study whenever they wish, and if desired, the results of the research would be available to them. The present article was extracted from a doctoral dissertation approved by the ethical committee of Kermanshah University of Medical Sciences (IR.KUMS.REC.1397.5010).

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Conflicts of Interest

The authors declare that they have no conflict of interests regarding the publication of the present article.

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