

# The Effectiveness of Cognitive Acceptance and Commitment Therapy on Improving Family Functioning, Marital Life Satisfaction, and Rumination in Women with Obsessive-Compulsive Disorder

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## Abstract

**Background and Objectives:** This research aimed to investigate the effectiveness of Cognitive Acceptance and Commitment Therapy on family functioning, marital life satisfaction, and rumination in married women with obsessive-compulsive disorder.

**Methods:** The research method was semi-experimental with pretest-posttest and group control. The statistical population includes all married women with obsessive-compulsive disorder referred to Bojnoord Counseling Centers in 2023. A sample of 40 people was selected through the purposeful sampling method. The Hodgson and Rachman Obsessive-Compulsive Questionnaire (1977), McMaster Family Functioning Questionnaire (1950), Olson Marital Life Satisfaction Questionnaire (1998), and Nolen Hoeksema rumination scale (1991) were used to collect data. The experimental group underwent 8 sessions of 90-minute cognitive acceptance and commitment therapy, while the control group received no intervention throughout the study. Data were analyzed using analysis of covariance with repeated measures in SPSS23 software.

**Results:** The results show that cognitive acceptance and commitment therapy was effective in improving family functioning, marital life satisfaction, and rumination in married women with obsessive-compulsive disorder.

**Conclusion:** Cognitive acceptance and commitment therapy led to the improvement of family functioning, satisfaction with married life, and rumination by reducing emotional, cognitive, and behavioral symptoms.

**Keywords:** Cognitive acceptance and commitment therapy, family functioning, marital life satisfaction, rumination, obsessive-compulsive disorder.

## 1. Background

Obsessive-compulsive disorder (OCD) is a mental disorder in which a person repeatedly experiences certain thoughts or feels the need to repeatedly perform certain actions. A person is unable to control obsessive thoughts and actions except for a short period (1). Obsessive-compulsive disorder is defined in two ways: mental and practical. Common practical

obsessions include washing hands, counting objects, and checking the locked doors. These obsessions occur to such an extent that the person's daily life is affected so that often more than an hour a day is spent dealing with these obsessions. Most adult patients find that these behaviors are not rational. This disease is associated with tic disorder, anxiety disorder, and an increased risk of suicide (2).

According to the Diagnostic and Statistical Manual of Mental Disorders (DSM-5), Obsessive-Compulsive Disorder (OCD) is a condition characterized by the presence of specific thoughts and the need to engage in repetitive behaviors or rituals. The symptoms of OCD are severe enough to cause distress and impairment in an individual's functioning and daily life. Despite the short periods, individuals with OCD are unable to effectively manage or control them (3). OCD sufferers experience significant distress due to unwanted and intrusive thoughts that constantly come into their minds (4). One of the obvious symptoms of this disorder is rumination. Rumination in psychology is defined as the compulsive focus on the symptoms, causes, and consequences of a distressing experience rather than focusing on solutions. Rumination is similar to anxiety but differs in that it focuses on negative emotions and past experiences, whereas anxiety centers around potential negative events in the future. Both rumination and anxiety are associated with nervousness and negative emotional states. Rumination has been extensively studied as a cognitive vulnerability factor and as a ground for depression (5).

A person suffering from obsessive-compulsive disorder not only suffers from this disorder but also affects the family and surrounding people and causes dissatisfaction in family life (6). The family is considered a social-cultural system that, in addition to other characteristics, has a set of rules, and each member plays a specific role. Additionally, family members share a common background, shared internal perceptions, assumptions, and a collective understanding of life goals (7). In such a system, individuals are interconnected to one another through strong emotional interests and attachments. Although the intensity and strength of these interests and attachments may diminish over time, they continue to persist throughout family life (8). For the primary functions of the family to be fulfilled effectively, it needs to have a healthy and efficient structure and functioning. From a

functional perspective, families can be divided into functional and dysfunctional categories. Functional families address their problems at different levels and timeframes; in other words, they are an open system where members are emotionally connected while also encouraged to develop their identities. The atmosphere in such families is filled with unconditional love and acceptance. As a result, they tolerate conflicts and willingly respond to each other's requests for help. On the other hand, dysfunctional families are closed off, with emotionally detached members who are separate from each other. The boundaries between family members are rigid and even ambiguous, conditional love exists, and family members are not encouraged to develop their identities. Dysfunctional families resist accepting their problems or seeking help, and it appears that the problems persist or manifest in other forms (9).

The mental health of generations of the society depends on ensuring the mental health of the family and its optimal functioning, and any damage to it will not protect the future generation from its harmful effects and will engage many social organizations (10). Various factors can affect the functioning of the family. In this field, countless researches have shown that many mental disorders of people are rooted in their families (11). One of these issues is marital dissatisfaction, which in recent years has become an important social problem with the increase in its statistics (12). To the extent that marital dissatisfaction is increasing in family life, its effects and consequences are threatening the life of the society and the health of the members of the society every day more than in the past (13). Marital dissatisfaction not only disrupts marital relations but also affects the relationship between parents and children (14).

Most experts call marital dissatisfaction as the most important and serious social problem that can have disastrous consequences. Consequences of marital dissatisfaction include mood disorders,

anxiety disorders, substance abuse, changes in lifestyle and self-image, weakening of job performance, changes in social relationships, and reduction of social support. Although the negative consequences of marital dissatisfaction affect both couples, undoubtedly, according to previous research in this field, the vulnerability of women following marital dissatisfaction is more than that of men (15). According to Stone and Chalk Ford, "Marital satisfaction is a psychological state that reflects the perceived benefits and costs of being with a particular person. The more a person feels that he/she has paid a lot of expenses in their marriage with his/her life partner, the less satisfaction he/she will have with that person or partner and his/her marriage; on the contrary, if he/she thinks that there are more advantages in marrying his/her life partner, he/she will be more satisfied with their life together (16)". Marital satisfaction is defined by the happy and long life of couples as well as the general health of individuals (17). Marital satisfaction is also interpreted as the individuals' overall evaluation of their marriage (18).

It seems that training and intervention programs can be effective in improving the functioning of families and increasing marital satisfaction in people with obsessive-compulsive disorder (19). One of these approaches is cognitive acceptance and commitment therapy, which is known as the third wave of cognitive behavioral therapy. In this approach, an attempt is made to increase a person's psychological connection with her thoughts and feelings instead of changing cognitions (20). Acceptance and Commitment Therapy (ACT) was developed by Hayes in the late 1980s from behaviorist approaches to therapy (21). ACT is rooted in behaviorism but is analyzed through cognitive processes (22). By integrating acceptance and mindfulness interventions into commitment and change strategies, this therapy helps clients achieve a vibrant, purposeful, and meaningful life. The

goal of cognitive acceptance and commitment therapy is to reduce, regulate, or eliminate emotional problems and reduce the emotional, cognitive, physical, and behavioral symptoms of problems, which ultimately leads to an increase in well-being and helps in family functioning (23). From this perspective, the development and maintenance of distress, conflict, and emotional distance in couples is caused by the combination of firm and useless controls and experimental avoidance strategies in the relationship between women and men, which can improve marital satisfaction (24). Satisfaction with married life, which is the main goal of education based on acceptance and commitment, can be very effective in the family. It means developing the ability to choose an action that is more suitable among different options and not to do an action that is only to avoid disturbing thoughts, feelings, memories, or desires. This method emphasizes choosing actions based on values rather than avoiding distressing thoughts, leading to improved marital satisfaction (25). Unlike traditional psychotherapies, ACT considers motivational aspects alongside cognitive elements, enhancing treatment effectiveness and durability (20). The main advantage of this treatment method compared to other psychotherapies is to consider motivational aspects along with cognitive aspects to have a greater effect and continuity of the effectiveness of the treatment (22).

The results of Rahmani et al.'s (26) study showed that cognitive therapy acceptance and commitment are effective in empathy and interpersonal relationships in patients with obsessive-compulsive disorder. Ashley et al.' (27) research showed that cognitive acceptance and commitment therapy improved quality of life, improved symptoms of anxiety and depression, and the psychological flexibility in infertile women. Mousavi et al.'s (28) study showed that cognitive acceptance and commitment therapy (ACT) and integrative behavioral couple therapy (IBCT) improved intimacy and family functioning in couples

applying for divorce. Maliki Pirbazari et al. (29) conducted research in this field and found that cognitive acceptance and commitment therapy were effective in improving symptoms and increasing the quality of life in patients with obsessive-compulsive disorder. Safari et al. (30) and Dahoui et al. (31) in their studies showed that cognitive acceptance and commitment therapy improve interpersonal relationships. Naderi Moghaddam et al. (32) showed that cognitive acceptance and commitment therapy, considering the frequent occurrence of psychological problems in patients with obsessive-compulsive disorder, is superior to other treatments.

In summary, OCD is a common and often debilitating disorder that significantly impacts daily life, relationships, and mental well-being. Reseraches highlight gender may play a role in how OCD presents itself. cognitive acceptance and commitment therapy, with its capabilities and characteristics, helps individuals with obsessive-compulsive disorder to overcome their obsessions by learning to manage their thoughts and behaviors. It also assists couples in experiencing emotions, feelings, experiences, and thoughts in new and different ways, reducing the conflict with negative thought patterns, increasing thought acceptance, and employing methods that continuously focus on emotional connection and intimacy between partners, thereby enhancing family functioning and increasing marital satisfaction. While cognitive acceptance and commitment therapy has shown promise in treating OCD, there is a significant research gap in understanding its effectiveness in improving family functioning, marital life satisfaction, and reducing rumination specifically among married women with OCD. To date, few studies have examined the impact of cognitive acceptance and commitment therapy on these outcomes in this population, and further research is needed to establish its effectiveness. Researching the effectiveness of ACT in improving family functioning, marital life satisfaction, and reducing rumination among women with OCD

is essential for advancing our understanding of effective interventions, enhancing the well-being of affected individuals and their families, and contributing to the evidence base for mental health treatment. Based on the above-mentioned information, this study aimed to address this research gap by investigating the effectiveness of cognitive acceptance and commitment therapy on improving family functioning, marital satisfaction, and rumination in married women with obsessive-compulsive disorder.

## 2. Methods

The methodology employed in this research was a semi-experimental design, utilizing a pretest-posttest control group format. The aim was to evaluate the efficacy of cognitive acceptance and commitment therapy on married women diagnosed with obsessive-compulsive disorder (OCD) in Bojnord city.

### *Population and Sample*

The statistical population comprised all married women suffering from OCD who were referred to counseling centers in Bojnord in 2023. Diagnoses were confirmed through clinical interviews conducted by both a psychiatrist and a clinical psychologist. From this population, a sample of 40 individuals was selected using a purposive sampling technique. Participants were then randomly assigned to either the experimental group or the control group, with 20 individuals in each.

The inclusion criteria entailed being a woman, aged between 20 and 40 years, diagnosed with OCD and achievement of the cut-off score in Hodgson and Rachman Obsessive-Compulsive questionnaires (1977). On the other hand, the exclusion criteria were missing more than two therapy sessions, initiation of other psychological treatments concurrent with the study intervention, withdrawal from the study, and presence of severe medical or psychiatric conditions other than OCD.

On the other hand, the exclusion criteria were women who are pregnant or breastfeeding, missing more than two therapy sessions, initiation of other psychological treatments concurrent with the study intervention,

### **Sample Size Determination**

An a priori power analysis for a repeated-measures analysis of variance that examined main effects and interactions with two groups and five repeated-measures showed that 15 participants in each group would provide greater than 80% power ( $\alpha = .05$ ) to detect a medium effect ( $\eta^2_p = .05$ ) in our dependent measures of interest (33). By selecting 20 participants for each group instead of the initially planned 15, the study aims to enhance its ability to detect significant effects and account for any potential participant attrition during the research process (34).

### **Research Tools**

**Obsessive-Compulsive Questionnaire (OCQ):** was developed by Hodgson and Rachman (1977) to investigate the nature and scope of obsessive problems. The 30-item questionnaire elicits true or false responses and is particularly useful for assessing treatment outcomes. Hodgson and Rachman (1977) demonstrated the sensitivity of the OCQ to therapeutic changes in a study of 40 patients. The questionnaire is a suitable tool for examining the etiology, course, and prognosis of various obsessive complaints. The OCQ has satisfactory convergent validity and test-retest reliability, with a reported Cronbach's alpha of 0.85. In an Iranian study, Mohammadkhani and Farjad (2020) confirmed the content validity of the OCQ and reported a reliability coefficient of 0.75.

**Family Functioning Questionnaire:** It is a 60-question tool developed to measure family functioning based on McMaster's family functioning model for people over 12 years. The family assessment tool was prepared in

1950 by Epstein, Baldwin, and Bishop (1950) to describe the organizational and structural characteristics of the family, which measures and evaluates the family's ability to adapt to family tasks with a self-report scale. This model specifies the structural, occupational, and interactive characteristics of a family and measures seven dimensions of family functioning (6 family dimensions and 1 dimension of overall family functioning). The subscales include problem-solving with 6 items (1-8-15-22-29), Interaction with 9 items (2-9-16-23-30-37), roles with 11 items (3-10-17-24-31-38-44-48), emotional responsiveness with 6 items (4-11-18-25-32-40), emotional intercourse with 7 items (5-12-19-26-33-41-45), behavioral control with 9 items (6-13-20-27-34-42-46-49-51), and overall family functioning with 12 items (7-14-21-28-35-36-39-43-47-50-52-53). The scoring of the family scale is from 1 to 4 (1: completely agree, 2: agree, 3: disagree, and 4: completely disagree). The average response to the questions, which ranges from 1 (healthy) to 4 (unhealthy), is calculated to obtain the scores for each subscale. Therefore, in this questionnaire, the higher the score in each subscale, the greater disturbance and unhealthy functioning are shown in this subscale. The validity and reliability of this questionnaire have been examined and validated with a Cronbach's alpha of 0.80.

**Marital Life Satisfaction Questionnaire:** The Marital Satisfaction Questionnaire, whose 47-question form was developed by Olson (1998), has 12 scales, including contractual response, marital satisfaction, personality issues, marital relationship, conflict resolution, financial supervision, leisure activities, sexual relationships, children and parenting, relatives and friends, egalitarian roles, and ideological orientation. The scoring is based on a five-point Likert scale (1= completely agree, 2= agree, 3= Neither agree nor disagree, 4= disagree, 5= completely disagree), each of which is given from one to five points. The alpha coefficient for the subscales of the

questionnaire in the Fowers and Olson (1993) report were 0.9, 0.81, 0.73, 0.68, 0.75, 0.74, 0.76, 0.48, and 0.77 for idealization distortion, marital satisfaction personality issues, marital relationship, conflict resolution, financial management, leisure activities, sexual relationships, children and parenting, relatives and friends, and, egalitarian roles, respectively. The alpha coefficient for the subscales of the Enrich questionnaire in different studies ranges from 0.68 (for egalitarian roles) to 0.86 (for marital satisfaction), with an average of 0.79. The test-retest reliability of the questionnaire at a 4-week interval ranges from 0.77 (for leisure activities) to 0.92 (for sexual relationships and idealization distortion), with an average of 0.86. In Iran, Soleymanian (1994) for the first one calculated and reported the internal reliability of the questionnaire, with a coefficient of 0.93 for the long form and 0.95 for the short form.

**Rumination scale:** This scale was developed by Nolen Hoeksema in 1991 and includes 22 items in 3 subscales of subjective feeling rumination, symptom rumination, and consequence rumination scoring based on four options, 1= never, 2= sometimes, 3= often, 4= always. The scores range from 22 to 88. In this tool, the higher the participants' score, the higher their rumination is. Internal consistency

for measuring reliability has been reported as 0.75 based on five measurements. The reliability of this scale is within the range of 0.88 to 0.92 using Cronbach's alpha coefficient, indicating high reliability for this scale. In addition, the test-retest correlation for an interval longer than 12 months has been reported as 0.67. The Cronbach's alpha coefficient obtained in the Iranian sample is 0.90. In this study, Cronbach's alpha coefficient was calculated for the overall rumination scale, 0.86 for the distraction scale, 0.84 for the contemplation scale, and 0.86 for the preoccupation scale.

### **Procedure**

A sample of 40 subjects was selected through purposive sampling and randomly assigned into two experimental and control groups. In the pre-test stage, both groups answered the research questionnaires. Then, the experimental group was subjected to the intervention of cognitive acceptance and commitment therapy (35) in a group for 8 sessions of 90 minutes, and the control group did not receive any training (Table 1). After the end of the intervention period, all the subjects answered the questionnaires again in the post-test stage.

**Table 1. Training protocol based on acceptance and commitment**

Session	Content
First	The introduction and agenda of the treatment session, providing an opportunity for clients to get to know the therapist and the goals of the treatment. Establishing a therapeutic relationship and evaluating the severity of problems and training based on awareness, called (concentration training)
Second	Changing behavior and mindfulness, creating creative helplessness over past solutions through metaphors and questions from clients, mindfulness practice
Third	Values, Acceptance of values, homeworks
Fourth	Clarifying values and the goals of clarifying values, examining the obstacles, setting goals and introducing committed action and mindfulness practice "body scan", and completing the form of valuable paths
Fifth	Detachment, reviewing assignments of language threats, mindfulness, homeworks
Sixth	Committed practice, reviewing treatment of committed practice, mindfulness, and self-observation practice, homeworks
Seventh	Satisfaction of primary and secondary suffering, commitment and obstacles to the formation of satisfaction, mindfulness in walking, homeworks
Eighth	Ending meetings and conclusions, clarifying values, recurrence and events - preparation, not prevention, saying goodbye, lifelong homeworks

**Ethics Code**

The study was conducted following ethical guidelines. Ethical approval was obtained from the relevant ethics committee (IR-pnu-rec-1399-58). Participants were informed about the study's purpose, procedures, and their right to withdraw at any time without consequence. Written informed consent was obtained from all participants. To maintain the privacy of the patient's information, the researchers ensured that their data would remain confidential.

**3.Results**

Data analysis was done in the descriptive statistics section in the forms of mean and standard deviation and in the inferential statistics section using the statistical method of analysis of covariance with repeated measurements by the use of SPSS23 software. Table 2 shows the mean and standard deviation and Cronbach's alpha coefficients in the pre-test and post-test stages of the rumination variable in the two experimental groups.

**Table2. Descriptive statistics and research variables**

Groups	Variable	Test	Mean	Standard Deviation
Experimental	Rumination	Pre-test	59.73	4.809
		Post-test	21.90	2.598
Control		Pre-test	54.61	2.606
		Post-test	51.19	2.371
Experimental	Marital satisfaction	Pre-test	121.95	2.828
		Post-test	169.14	0.957
Control		Pre-test	121.08	2.240
		Post-test	122.63	2.950
Experimental	Family functioning	Pre-test	138.17	3.649
		Post-test	195.80	3.908
Control		Pre-test	139.72	3.475
		Post-test	139.79	3.47

To check the assumptions of covariance analysis, the Shapiro-Wilk test, Levine's test,

and homogeneity of regression slope were used.

**Table 3. The results of the Shapiro-Wilk test for research variables**

Dependent variables	Pre-test		Post-test	
	Statistic	Sig.	Statistic	Sig.
Rumination	0.93	0.51	0.91	0.58
Marital Satisfaction	0.89	0.53	0.88	0.51
Family Functioning	0.91	0.57	0.92	0.54

According to the results shown in Table 3, due to the lack of significance and the level of significance higher than 0.05, the distribution of the research variables is normal. Another

assumption is the homogeneity of variances. For this purpose, Levin's test was used, whose results are shown in Table 4.

**Table 4. The results of Levine's test for the assumption of homogeneity of variances**

Variable	F	df. 1	df. 2	Sig. level
Rumination	0.67	1	37	0.83
Marital Satisfaction	0.69	1	37	0.86
Family Functioning	0.70	1	37	0.80

As shown in Table 4, the assumption of

homogeneity of variances is maintained due to

the non-significance of the F value. The third assumption of covariance analysis is to check the homogeneity of slopes within the group. Table 5 shows the slope of each group

separately. Considering the findings and the fact that the regression slopes within the group are homogeneous, covariance analysis can be used.

**Table 5. The results of the regression slope homogeneity test**

Variable	Variance source	F	Sig. level
Rumination	The effect of group interaction and pre-test	1.152	0.318
Marital Satisfaction	The effect of group interaction and pre-test	1.169	0.240
Family Functioning	The effect of group interaction and pre-test	1.298	0.265

Covariance analysis was used to investigate the effectiveness of cognitive acceptance and commitment therapy on improving family

functioning, marital life satisfaction, and rumination in married women with obsessive-compulsive disorder.

**Table 6. Results of covariance analysis with repeated measures to compare pre-test, post-test, and follow-up research variables**

Test	Value	F	df Hypothesis	Df Error	Sig. level	Effect size	Statistical power
Pillai's effect	0.642	3	37	36.13	0.001	0.70	1
Wilks Lambda	0.633	3	37	61.44	0.001	0.70	1
Hotelling's effect	0.579	3	37	51.56	0.001	0.70	1
The largest root	0.715	3	37	34.26	0.001	0.70	

The findings shown in Table 6 indicate that there is a significant difference between the experimental and control groups in terms of dependent variables at the  $P < 0.0001$  level. Accordingly, it can be stated that there is a significant difference between the two groups in at least one of the dependent variables (rumination, marital satisfaction, and family

functioning), and the effect coefficient shows that 70% of the difference between the two groups is related to the experimental intervention. In Table 7, the results of the analysis of variance of repeated measurements to check the difference between the research samples in the pre-test, post-test, and follow-up stages are reported.

**Table 7. The results of effects between subjects in terms of scores (pre-test-post-test)**

Dependent variabl	Sum of squar	df.s	Mean of squares	F	Sig. level	Eta coefficient	Statistical power
Rumination	39.71	1	16.21	18.96	0.001	0.15	0.74
Marital Satisfaction	59.19	1	75.11	7.26	0.001	0.23	0.71
Family Functioning	65.25	1	85.09	12.55	0.001	0.18	0.75

According to the findings shown in Table 7, there is a significant difference between the mean differences of the subjects in the control group and the experimental group in terms of dependent variables, so it can be concluded that acceptance and commitment therapy had a significant effect on family functioning, marital life satisfaction, and rumination in married women with obsessive-compulsive disorder.

### 5. Discussion

The present study aimed to investigate the effectiveness of Cognitive Acceptance and Commitment Therapy (CACT) on family functioning, marital life satisfaction, and rumination in married women with Obsessive-Compulsive Disorder (OCD). The results of the data analysis indicated that this intervention was effective in improving family functioning, marital life satisfaction, and

reducing rumination in these women. Research by Pseftogianni et al. (36) indicates that ACT, along with Mindfulness-Based Cognitive Therapy (MBCT), has demonstrated effectiveness in treating OCD and depressive symptoms. Additionally, Grove et al. (37) suggest that ACT, being a transdiagnostic acceptance-based behavioral therapy, may be well-suited for treating co-occurring OCD and Post-Traumatic Stress Disorder (PTSD) due to the similar avoidant nature of their behaviors. Furthermore, Bürkle et al. (38) highlight that mindfulness-based and acceptance-based programs, including ACT, have shown promise in reducing symptom severity in OCD. Acceptance and commitment therapy (treatment based on acceptance and commitment) is a model born from the third wave of behavioral therapy. The main goal of this model is to perform an effective action, an action that is conscious attention with complete presence of mind and values (39). This model differs from traditional cognitive-behavioral therapy, which almost tries to teach people how to control their thoughts, feelings, memories, and other events. So, it helps clients get in touch with a transcendent sense of self (the observing self) and step towards a rich and valuable life that brings vitality. Generally, in the third wave of behavior therapy, the main emphasis is on awareness of emotions and thoughts. Although the third wave is not oblivious to the change in cognition, it does not make it a direct goal, and the change happens indirectly. In acceptance and commitment therapy, the therapist aims to increase the clients's psychological flexibility. Psychological flexibility is the ability to return to the present moment, be aware to observe one's thoughts and emotions, step away from rigid beliefs, and do what is important despite unpleasant events (40).

In explaining the results, it can be said that the effective procedure of this treatment is the introduction of an alternative for controlling, i.e. willingness and acceptance. The component of

willingness and acceptance makes the client likely to accept unpleasant internal experiences without trying to control them, and doing this makes those experiences and ruminations seem less threatening and have less impact on the person's life. In this approach, by using constructive despair, people are shown that the solutions they have used to solve the problems of the inner world up to now have caused problems, and after giving up these solutions, using the warning monitor metaphor, they come to the understanding that whatever they want to control in the inner world, thoughts, memories, feelings, desires, and physical sensations in their minds becomes more permanent, and with the avoidance work, they do about the inner world, they make inner events more stable. In the next step, by defining the mind from Act's point of view, which states that a healthy mind is a mind that creates diverse thoughts, the subjects start creating alternative thoughts and experience less rumination (41).

The results of the research showed that the treatment based on acceptance and commitment is effective on rumination in married women with obsessive-compulsive disorder. The results of this study are in line with the results of the research of Priede et al. (42) that discussed the efficacy of ACT in reducing depressive and anxiety symptoms, which are often associated with rumination. The findings of Ebrahimi (43) demonstrated that both CBT and ACT have a significant impact on reducing cognitive distortions and rumination in adolescents. In explaining the obtained results, we can state that usually, people who have rumination spend a lot of time conceptualizing their experiences, attempting to analyze their emotional problems and finding solutions for them, while the content of rumination processes is often related to self and self-criticism. Considering the problematic conditions that rumination creates, in this research, based on acceptance and commitment therapy, the sessions began with awareness to familiarize one with being in the

moment. We also explained to the participants that internal events, thoughts, feelings, and emotions are not problematic by themselves, but the way we relate to these events should be changed. For this purpose, the component of acceptance was introduced in this treatment, and metaphors were used by participating in group discussions. Among the metaphors used in this case was being stuck in the swamp. It was explained to the participants that the more they struggle in this swamp, the more they get stuck in the trap of the swamp and this can be a symbol of their condition during repetition and rumination (44).

In addition, the results showed that the treatment based on acceptance and commitment is effective in marriage satisfaction in women with obsessive-compulsive disorder. The results obtained from this research are in line with the results of Asadpour (45) that demonstrated the efficacy of ACT on marital satisfaction, indicating that individuals undergoing effective ACT treatment experienced increased marital satisfaction. This finding is further supported by the study conducted by Rossman et al., (46), which highlighted the positive effects of partner acceptance on relationship satisfaction. Additionally, Finnes et al. (47) emphasized that ACT is a transdiagnostic psychological approach that can address common maintaining processes across various problems within one treatment protocol, which can include issues affecting marital satisfaction. In the explanation of the obtained results, we can state that in the intervention based on acceptance and commitment therapy, the cultivation of mindfulness is done to neutralize excessive involvement with cognitions and specify personal values related to behavioral goals. The people are encouraged to connect with their experiences fully and without resistance while moving toward their valued goals and accept them as they arise without judging their rightness or wrongness. It increases their motivation to change despite

unavoidable obstacles and motivates them to strive towards the realization of the worthwhile goals of their life. Acceptance and commitment therapy, clarifying communication values, and reflecting on acting consistently, gives people the opportunity to act in a way that leads them to life satisfaction. This treatment has two goals: a) Increasing acceptance of unhelpful and problematic thoughts and feelings that cannot be controlled or are not required to be controlled, and b) Committing and acting in life based on chosen values. ACT teaches clients skills to accept unpleasant thoughts and feelings as they are (48). Less avoidance and more flexibility in responding to anxiety and other unpleasant emotions create space for people to act based on their goals even when they have unpleasant thoughts and feelings. Accepting thoughts, emotions, and sensations as they are, weakens cognitive fusion and, alongside that, accepting internal events when a person is not in conflict with their distress and turmoil allows them to develop their behavioral repertoire. Then, they can use the acquired time to do valuable activities and commit themselves to a valuable and purposeful life. In this way, they can achieve the purpose and meaning that they consider for life and the values they pursue in life, leading to an increase in their life satisfaction (49).

The results also show that Acceptance and Commitment Therapy (ACT) is effective in improving family functioning in married women with obsessive-compulsive disorder. These findings align with Taleshi (50), who suggested that Acceptance and Commitment Therapy (ACT) is effective in improving family functioning and reducing inefficient attitudes in women in second marriages. The study's results are consistent with the broader literature on the effectiveness of cognitive-behavioral therapies, including "third wave" approaches like ACT, in managing OCD symptoms. Bragdon et al. (51) supports this by stating that "cognitive-behavioral

therapies, including metacognitive therapy and ACT, are effective interventions for OCD". In explaining the results, we can conclude that the treatment techniques based on acceptance and commitment can target thinking about the stages of overcoming negative event well. Using faulting and acceptance techniques reduces the discomfort of the situation in patients. The technique of cognitive breakdown is based on the process of gradually weakening the functions of behavioral regulation and the verbal effects of internal events. The goal of acceptance and commitment therapy is to change the functions of thoughts by manipulating the verbal context in which the thought occurs. In this therapy method, increasing the individual's desire to experience internal events as they are emphasized. The core processes of cognitive commitment and acceptance therapy teach clients how to let go of thought inhibition, disengage from disturbing thoughts, strengthen their self-observer instead of self-conceptualized, accept internal events instead of controlling them, and align with their values. From the aforementioned, it can be inferred that acceptance training leads mothers to accept their emotions, and physical and psychological symptoms, resulting in reduced attention and excessive sensitivity to these symptoms compared to their reported levels. Consequently, their social and emotional adaptability improves, leading to enhanced family functioning.

## 6. Conclusion

Human beings, as the most complex and perfect creations, have diverse and endless needs and motivations that affect their goals and activities. Life satisfaction expresses the degree of satisfaction of basic desires and needs of human beings, and in this way, the concept of satisfaction is linked to needs. Life satisfaction can be considered the satisfaction of human needs and the positive perception and pleasant feeling of people towards the

realms of life. Feeling satisfied with life has both emotional and cognitive components. People with high life satisfaction experience mainly positive emotions and have a positive evaluation of the events around them. People with low life satisfaction rate their life events and situations as unfavorable and experience more negative emotions such as anxiety, depression, and anger. Finally, the results of the research showed that cognitive acceptance and commitment therapy are effective in improving family functioning, marital life satisfaction, and rumination in married women with practical obsessions.

One of the limitations of this study is the absence of a follow-up period, which restricts the long-term assessment of the intervention's effectiveness. Additionally, the data collection relied solely on self-report questionnaires, and the statistical population was limited to married women residing in Bojnord city. Therefore, it is recommended that future studies incorporate follow-up periods of 2 and 6 months to evaluate the sustainability of the treatment outcomes. Furthermore, it is suggested that future research should also investigate the effects of Cognitive Acceptance and Commitment Therapy on men and replicate similar studies in other cities to enhance the generalizability of the findings.

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## References

- Coelho DRA, Salvi JD, Vieira WF, Cassano P. Inflammation in obsessive-compulsive disorder: A literature review and hypothesis-based potential of transcranial photobiomodulation. *Journal of Neuroscience Research*. 2024;102(3):e25317. <https://doi.org/10.1002/jnr.25317> PMID:38459770
- Tonna M, Ottoni R, Borrelli DF, Gambolò L, Dell'Uva L, Di Donna A, et al. The association between childhood trauma and motor structure in obsessive-compulsive rituals: An ethological and evolutionary approach. *Psychological trauma: theory, research, practice, and policy*. 2023;10.1037/tra0001525. <https://doi.org/10.1037/tra0001525> PMID:37199984
- Tudder A, Lemay Jr EP, Peters BJ. "Let's go over it again": Examining the intra-and interpersonal processes that perpetuate co-rumination in close relationships. *Emotion*. 2023;10.1037/emo0001297. <https://doi.org/10.1037/emo0001297> PMID:37768571
- Ralston AL, Holt NR, Andrews III AR, Huit TZ, Puckett JA, Woodruff N, et al. Mental health and marginalization stress in transgender and gender diverse adults: Differences between urban and non-urban experiences. *Psychology of Sexual Orientation and Gender Diversity*. 2022;10.1037/sgd0000595. <https://doi.org/10.1037/sgd0000595> PMID:38577413
- Kam JW, Wong AY, Thiemann RF, Hasan F, Andrews-Hanna JR, Mills C. On the relationship between unprompted thought and affective well-being: A systematic review and meta-analysis. *Psychological Bulletin*. 2024;10.1037/bul0000428. <https://doi.org/10.1037/bul0000428> PMID:38619477
- Tapias E, Vila-Badia R, Cárdenas M, Ardévol I, Lacasa F, Ribalta T, et al. KidsTime: A multifamily prevention approach for parents with a mental illness and their children and relatives. *Journal of Family Therapy*. 2024;10.1111/1467-6427.12451. <https://doi.org/10.1111/1467-6427.12451>
- Chen P, Rao S-Y, Zhang W, Jiang Y-Y, Xiang Y, Xiang NX, et al. Mental health status among children and adolescents in one-child and multichild families: a meta-analysis of comparative studies. *Current Opinion in Psychiatry*. 2024;10.1097/yco.0000000000000935:10.1097. <https://doi.org/10.1097/YCO.0000000000000935> Mid:38415684
- Wiley JD, Reynolds J, Strate L, Porter A, Seymour P, Beach R, Patel R. Medicare inclusion of licensed mental health counselors and marriage and family therapists. 2024;10.1037/rmh0000262. <https://doi.org/10.1037/rmh0000262>
- Taylor ZE, Carrizales A, Carlo G, Herrera F, Reyes O, Escobedo J, et al. The impact of COVID-19 on mental health and well-being of Latine youth from rural and agricultural families in the Midwest. *Journal of Community & Applied Social Psychology*. 2024;34(2):e2788. <https://doi.org/10.1002/casp.2788>
- Pan T, Chen D, Yu Z, Liu Q, Chen Y, Zhang A, Kong F. Analysis of current situation and influencing factors of marital adjustment in patients with Crohn's disease and their spouses. *Medicine*. 2024;103(11):e37527. <https://doi.org/10.1097/MD.00000000000037527> PMID:38489689 PMID:PMC10939668
- Vivek K, Kamal R, Perera E, Gupte CM. Vitamin D Deficiency Leads to Poorer Health Outcomes and Greater Length of Stay After Total Knee Arthroplasty and Supplementation Improves Outcomes: A Systematic Review and Meta-Analysis. *JBJS reviews*. 2024;12(4):e23. <https://doi.org/10.2106/JBJS.RVW.23.00150> PMID:38574186 PMID:PMC10990007
- Kerney MA, Hargons CN, Peterson R, Cannon B, Stevens-Watkins D, Burnett C, Higgins-Hord L. "The State of Your Psyche": Black Conceptualizations of Mental Health. *The Counseling Psychologist*. 2024;10.1177/00110000241230556:00110000241230556. <https://doi.org/10.1177/00110000241230556>
- Ashkinazi M, Wagner SA, Cunningham K, Mattson RE. Body image satisfaction and body-related partner commentary link to marital quality through sexual frequency and satisfaction: A path model. *Couple and Family Psychology: Research and Practice*. 2022;10.1037/cfp0000216. <https://doi.org/10.1037/cfp0000216>
- Wang Z, Chen X, Zhou J, Lin C, Zhao J, Li Q. The effect of a couple-based posttraumatic growth intervention in supporting couples coping with colorectal cancer: A randomized controlled study.

- Psycho-Oncology. 2024;33(3):e6326. <https://doi.org/10.1002/pon.6326> PMID:38498049
15. Hosseinpoor M, Masoumi SZ, Kazemi F, Soltani F, Ahmadpanah M. Investigating the effect of couple-centered counseling by Gottman method on the intimacy of infertile couples referring to the infertility Ward of Fatemeh hospital, Hamadan, Iran in 2020: a quasi-experimental study. *BMC psychiatry*. 2022;22(1):581. <https://doi.org/10.1186/s12888-022-04228-z> PMID:36050679 PMCid:PMC9434942
  16. Hwang W, Cakirsoy-Aslan AD, Brown MT, Silverstein M. Husband-wife religious denomination homogamy and marital satisfaction over time: The moderating role of religious intensity. *Family Relations*. 2021;70(5):1498-513. <https://doi.org/10.1111/fare.12521>
  17. Lee YG, Kelley HH. Financial perceptions and financial behaviors across marital status and gender. *Family and Consumer Sciences Research Journal*. 2023;52(2):86-101. <https://doi.org/10.1111/fcsr.12493>
  18. Hodge AS, Norton J, Karwoski LT, Yoon J, Hook JN, Kansiewicz K, et al. The experience of, and beliefs about, divine grace in mainline protestant Christianity: A consensual qualitative approach. *Archive for the Psychology of Religion*. 2023;45(3):285-307. <https://doi.org/10.1177/00846724231197241>
  19. Ferreira S, Pêgo JM, Morgado P. A systematic review of behavioral, physiological, and neurobiological cognitive regulation alterations in obsessive-compulsive disorder. *Brain sciences*. 2020;10(11):797. <https://doi.org/10.3390/brainsci10110797> PMID:33138023 PMCid:PMC7692269
  20. Davies R, Price Tate R, Taverner NV. What next for "counseling" in genetic counseling training: A reflection on how CBT and ACT approaches can contribute to the genetic counseling toolkit. *Journal of Genetic Counseling*. 2024; <https://doi.org/10.1002/jgc4.1873> PMID:38342751
  21. Morais J, Roque M, Martins FS, Fonseca S, Moreira R. Suicide risk in obsessive-compulsive disorder: a case report. *Cureus*. 2023;15(3). <https://doi.org/10.7759/cureus.36863>
  22. Evey KJ, Steinman SA. A Systematic Review of the Use of Acceptance and Commitment Therapy (ACT) to Treat Adult Obsessive-Compulsive Disorder (OCD). *Behavior Therapy*. 2023; <https://doi.org/10.1016/j.beth.2022.02.009> PMID:37863582
  23. van Reekum EA, Woo JJ, Petropoulos JA, Samaan Z, Mbuagbaw L. Association between the COVID-19 pandemic and psychiatric symptoms in people with preexisting obsessive-compulsive, eating, anxiety, and mood disorders: a systematic review and meta-analysis of before-after studies. *Psychiatry and Clinical Neurosciences*. 2023;77(11):583-91. <https://doi.org/10.1111/pcn.13582> PMID:37565691 PMCid:PMC11488625
  24. Matsumoto K, Nonaka M, Arai K, Nakamura M. Cognitive behavioral therapy for a Japanese woman with olfactory reference disorder (ORD) comorbid with schizophrenia: A case study. *Psychiatry and Clinical Neurosciences Reports*. 2024;3(1):e179. <https://doi.org/10.1002/pcn5.179> PMID:38868464 PMCid:PMC11114287
  25. Peteet JR. The Moral Dimension of Mental Health Treatment. *Journal of Psychiatric Practice®*. 2024;30(2):157-61. <https://doi.org/10.1097/PRA.0000000000000775> PMID:38526404
  26. Rahmani F, Gowhari H, Jolfai Fotouhi M, Saedi S. The Effectiveness of Acceptance and Commitment Therapy on Empathy and Interpersonal Relationships in Obsessive-Compulsive Patients. *Iranian Evolutionary Educational Psychology Journal*. 2024;6(1):94-105. doi:10.22034/6.1.94
  27. Balsom AA, Klest B, Sander B, Gordon JL. Acceptance and commitment therapy adapted for women with infertility: a pilot study of the Infertility ACTION program. *Reproductive Health*. 2024;21(1):43. <https://doi.org/10.1186/s12978-024-01766-5> PMID:38576027 PMCid:PMC10996141
  28. Mousavi Haghghi SE, Rishetri P, Mousavi SA. Effectiveness of acceptance and commitment therapy and integrated behavioral couples therapy on intimacy and family functioning in divorce-seeking couples. *Journal of research and health*. 2022;12(3):167-76. <https://doi.org/10.32598/JRH.12.3.1972.1>
  29. Maleki Pirbazari M, Narimani M, Mikaeili N, Abolghasemi A. Effectiveness of Acceptance and Commitment Therapy on Improving Symptoms and Increasing Quality of Life in Patients with Obsessive-compulsive Disorder in Interacting with OCD Family History. *Journal of Modern Psychology*. 2021;1(1):37-50. doi:10.22034/jmp.2021.126768
  30. Safari S, Kalantari M, Yazdkhasti F, Abedi MR, Oreyzi HR. The effectiveness of Acceptance and Commitment Therapy on severity of symptoms and Function of children with obsessive-compulsive disorder. *Journal of Research in Behavioural Sciences*. 2021;18(4):587-604. <https://doi.org/10.52547/rbs.18.4.587>
  31. Esmaili H, Sotoudehasl N, Ghorbani R, Maheri M. Comparison of the effectiveness of Repetitive Transcranial Magnetic Stimulation (rTMS) and Drug Therapy on Obsessive-Compulsive Disorder (OCD). *Iranian Journal of Practice in Clinical Psychology*. 2024;12(1):43-51. <https://doi.org/10.32598/jpcp.12.1.899.1>

32. Naderi Moghaddam N, Panah Ali A, Aghdasi AN, Hejazi M. The Effectiveness of Acceptance and Commitment Therapy on Marital Conflict and Emotional Divorce of Women Facing Divorce. *Women's Health Bulletin*. 2023;10(2):122-32. doi:10.30476/whb.2023.97237.1204
33. Brysbaert M. How many participants do we have to include in properly powered experiments? A tutorial of power analysis with reference tables. *Journal of cognition*. 2019;2(1). <https://doi.org/10.5334/joc.72> PMID:31517234 PMCID:PMC6640316
34. Riley RD, Ensor J, Snell KI, Harrell FE, Martin GP, Reitsma JB, et al. Calculating the sample size required for developing a clinical prediction model. *Bmj*. 2020;368. <https://doi.org/10.1136/bmj.m441> PMID:32188600
35. Rahmanian M, Asl MM. The Effectiveness of acceptance and commitment-Based Therapy (ACT) on Rumination and Perceived Stress of Women with Obsessive-Compulsive Disorder (OCD) in corona pandemic conditions. *Rooyesh-e-Ravanshenasi Journal (RRJ)*. 2023;12(2):163-72.
36. Pseftogianni F, Panagioti M, Birtwell K, Angelakis I. Mindfulness interventions for obsessive-compulsive and related disorders: A systematic review and meta-analysis of randomized controlled trials. *Clinical Psychology: Science and Practice*. 2023;10.1037/cps0000132. <https://doi.org/10.1037/cps0000132>
37. Grove L, Roche AI, Doyle R, Stowe ZN, Thomas EB. ACT-informed treatment of co-morbid psychiatric disorders in the postpartum period: A case report. *Clinical case studies*. 2023;22(1):38-59. <https://doi.org/10.1177/15346501221091273>
38. Bürkle JJ, Fendel JC, Schmidt S. Mindfulness-based and acceptance-based programmes in the treatment of obsessive-compulsive disorder: a study protocol for a systematic review and meta-analysis. *BMJ open*. 2021;11(6):e050329. <https://doi.org/10.1136/bmjopen-2021-050329> PMID:34172553 PMCID:PMC8237723
39. Martin JL, Carlson GC, Kelly MR, Song Y, Mitchell MN, Josephson KR, et al. Novel treatment based on acceptance and commitment therapy versus cognitive behavioral therapy for insomnia: A randomized comparative effectiveness trial in women veterans. *Journal of Consulting and Clinical Psychology*. 2023;10.1037/ccp0000836. <https://doi.org/10.1037/ccp0000836> PMID:37535521 PMCID:PMC10592426
40. Zamani E, Moatamed A, Bakhtiar M. The effectiveness of acceptance and commitment therapy on depression in multiple sclerosis. *New Trends Issues Proc Humanit Soc Sci*. 2017;3(2):53-8. <https://doi.org/10.18844/prosoc.v3i2.1599>
41. George DR, Hanson R, Wilkinson D, Garcia-Romeu A. Ancient roots of today's emerging renaissance in psychedelic medicine. *Culture, Medicine, and Psychiatry*. 2022;46(4):890-903. <https://doi.org/10.1007/s11013-021-09749-y> PMID:34476719 PMCID:PMC8412860
42. Priede A, Rodríguez-Pérez N, Hoyuela F, Cordero-Andrés P, Umaran-Alfageme O, González-Blanch C. Cognitive variables associated with depressive and anxiety symptoms in patients with cancer: A five-year follow-up study. *Psycho-Oncology*. 2022;31(5):798-805. <https://doi.org/10.1002/pon.5864> PMID:34921574
43. Ebrahimi S, Moheb N, Karimpour A. Comparison of the Effectiveness of Cognitive-behavioral Therapy and Acceptance and Commitment Therapy on Cognitive Distortions and Rumination in Adolescents With Social Anxiety Disorder. 2024;10.32598/jpcp.12.1.922.1 <https://doi.org/10.32598/jpcp.12.1.922.1>
44. Showani E, Asadpour E, Zahrakar K, Ahmadi S. The efficacy of acceptance and commitment therapy (ACT) on women's emotional empathy and forgiveness. *Journal of Psychological Science*. 2023;22(122):229-48. doi:10.52547/JPS.22.122.229
45. Asadpour E. The efficacy of acceptance and commitment based therapy on marital satisfaction and self-efficiency of mothers with children with cerebral palsy. *Journal of psychologicalscience*. 2021;20(105):1493-512. <https://doi.org/10.52547/JPS.20.105.1493>
46. Rossman SM, Lerner RE, Córdova JV. Disentangling acceptance: Direct and indirect effects of partner acceptance on felt acceptance and relationship satisfaction. *Journal of Family Psychology*. 2022;36(3):378. <https://doi.org/10.1037/fam0000900> PMID:34197160 PMCID:PMC8720111
47. Finnes A, Anderzén I, Pingel R, Dahl J, Molin L, Lytsy P. Comparing the Efficacy of Multidisciplinary Assessment and Treatment, or Acceptance and Commitment Therapy, with Treatment as Usual on Health Outcomes in Women on Long-Term Sick Leave-A Randomised Controlled Trial. *International Journal of Environmental Research and Public Health*. 2021;18(4):1754. <https://doi.org/10.3390/ijerph18041754> PMID:33670235 PMCID:PMC7916944
48. Mohebi M, Sadeghi-Bahmani D, Zarei S, Gharayagh Zandi H, Brand S. Examining the effects of mindfulness-acceptance-commitment training on self-compassion and grit among elite female athletes. *International Journal of Environmental Research and Public Health*. 2021;19(1):134. <https://doi.org/10.3390/ijerph19010134> PMID:35010391 PMCID:PMC8750224
49. Rauwenhoff JC, Bol Y, van Heugten CM, Batink T, Geusgens CA, van den Hout AJ, et al. Acceptance and commitment therapy for people with acquired

- brain injury: Rationale and description of the BrainACT treatment. Clinical rehabilitation. 2023;37(8):1011-25.  
<https://doi.org/10.1177/02692155231154124>  
PMid:36750988 PMCID:PMC10291735
50. Taleshi ZU, AkbarZadeh N, Rahimi A, Razghandi S, Soraki PA. Effectiveness of Acceptance and Commitment Therapy on Family Functioning and Inefficient Attitudes of Women in Second Marriages. *Psychology of Woman Journal*. 2023;4(4):76-83.  
<https://doi.org/10.61838/kman.pwj.4.4.9>
51. Bragdon LB, Harvey JR, Moldow R. Cognitive-behavioral therapy for obsessive-compulsive disorder: a brief review. *Psychiatric Annals*. 2024;54(3):e75-e9.  
<https://doi.org/10.3928/00485713-20240227-01>