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# Effectiveness of Cognitive Behavioral Therapy on Psychological Distress and Quality of Life in Couples with Marital Conflicts

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#### **ABSTRACT**

The aim of the present study was to determine the effectiveness of Cognitive Behavioral Therapy (CBT) on psychological distress and quality of life in couples experiencing marital conflicts. The research method was quasi-experimental with a pretest-posttest design and a control group. The statistical population consisted of couples with marital conflicts in Tehran in the year 2023. Subsequently, 32 individuals (16 couples) with marital conflicts were selected through convenience sampling and were randomly assigned to an experimental group (16 individuals) and a control group (16 individuals). Data collection tools included the Psychological Distress Questionnaire and the Quality of Life Questionnaire. In this study, CBT sessions were conducted by the researcher over 8 sessions, each lasting 90 minutes, held twice a week. The findings indicated that the post-test scores of the experimental group for psychological distress and quality of life were significantly different from those of the control group. Therefore, Cognitive Behavioral Therapy is effective in reducing psychological distress and improving the quality of life in couples with marital conflicts.

Keywords: Cognitive Behavioral Therapy, Psychological Distress, Quality of Life, Couples, Marital Conflicts.

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#### Introduction

Marital conflicts and divorce represent some of the most significant familial, parent-child, and social dysfunctions, and unfortunately, have shown a notable increase in contemporary societies. As official statistics indicate, despite this trend, major barriers and negative attitudes toward marital conflict persist in many communities (1-4). A set of factors contributes to conflict in marital relationships, which in turn reduces marital satisfaction and eventually disrupts the normal functioning of married life—sometimes



leading to separation or divorce. Therefore, it must be assumed in marriage that the occurrence of conflict is a natural part of a shared life. Interpersonal conflict is defined as a form of interaction in which individuals express opposing desires, perspectives, and beliefs, which some researchers consider a routine occurrence in marital life (5, 6).

Psychological distress, as an indicator of mental health, encompasses a set of psychological, physiological, and behavioral symptoms such as anxiety, depression, agitation, and decreased cognitive performance. It is characterized by negative, exhausting, irritating, and worrisome emotional states (7, 8). Emotional distress is a type of negative psychological state resulting from the failure of adaptive and coping processes to maintain psychological balance in stressful and crisis situations (9, 10). Psychological distress is associated with changes in the neuroendocrine system, including the hypothalamic–pituitary–adrenal (HPA) axis, blood platelet function, and heart rate. Studies have shown that individuals with lower distress tolerance tend to exhibit avoidant behaviors in stressful situations and refrain from expressing emotions. In an attempt to quickly reduce distress, they continue these avoidant behaviors, which eventually become habitual patterns. Experiential avoidance often manifests as physiological sensations, thoughts, feelings, and memories (11-13).

Initially, the concept of quality of life was limited to health, environmental, and psychiatric domains. However, over the past two decades, it has evolved into a multidimensional concept. As theorists and international organizations have increasingly focused on the social, political, and cultural dimensions of development, enhancing quality of life has been emphasized not merely as a tool to address the negative consequences of conventional growth policies, but as a primary objective of development. Accordingly, the indicators for assessing program performance have also undergone qualitative changes, expanding to include subjective and social dimensions in addition to individual and objective elements (14-16). Quality of life is now viewed as a multifaceted, subjective, and complex concept—a flexible and comprehensive process encompassing all aspects of human life. In other words, it represents a unique individual perception and a means of expressing how a person feels about their health and other aspects of life, assessed through individuals' opinions using standardized tools. Franks and Powers (1985) argue that quality of life refers to an individual's perception of well-being derived from satisfaction or dissatisfaction in important areas of their life (17).

Cognitive Behavioral Therapy (CBT) is typically considered a short-term, skill-focused treatment aimed at modifying maladaptive emotional responses through changes in cognition, behavior, or both. This therapeutic approach is founded on the principle that cognitions, emotions, and behaviors significantly influence one another (18, 19). The main objective of CBT is to alter an individual's emotions by changing their patterns of thinking and behavior. CBT can assist individuals in resolving issues related to their physical health, social functioning, occupational life, and emotional well-being. In fact, CBT, supported by a broad range of scientific research, has demonstrated that many psychological and emotional disorders stem from individuals' current beliefs and thought patterns (20, 21).

Accordingly, the present study seeks to address the following question: Does Cognitive Behavioral Therapy have an effect on psychological distress and quality of life in couples experiencing marital conflict?

#### **Methods and Materials**

## Study Design and Participants

The research employed a quasi-experimental method with a pretest-posttest control group design. The statistical population of this study included couples with marital conflicts residing in Tehran in the year 2023. A total of 32 individuals from couples experiencing marital conflicts were selected through convenience sampling and were randomly assigned to an experimental group (16 individuals) and a control group (16 individuals). The data collection tools consisted of the Psychological Distress Questionnaire and the Quality of Life Questionnaire. In this study, Cognitive Behavioral Therapy sessions were conducted by the researcher over a total of 8 sessions, each lasting 90 minutes, held twice a week.

#### Data Collection

The short form of the Quality of Life Questionnaire was designed by the World Health Organization in 1993. This questionnaire consists of 26 items and includes four components: physical health, psychological health, social relationships, and environmental domain. The scoring system for the Quality of Life Questionnaire follows a 5-point Likert scale (where 0 indicates a negative and low perception, and 4 indicates a positive and high perception). Items 3, 4, and 26 are reverse scored. The subscales are scored as follows:

- **Physical Health**: Sum of the scores of items 3, 4, 10, 15, 16, 17, and 18. The score range for this subscale is between 7 and 35, with a score span of 28.
- **Psychological Health**: Sum of the scores of items 5, 6, 7, 11, 19, and 26. The score range is 6 to 30, with a score span of 24.
- **Social Relationships**: Sum of the scores of items 20, 21, and 22. The score range is 3 to 15, with a score span of 12.
- Environmental Domain: Sum of the scores of items 8, 9, 12, 13, 14, 23, 24, and 25. The score range is 8 to 40, with a score span of 32.
- Overall Quality of Life and General Health: Sum of the scores of items 1 and 2. The score range is 2 to 10, with a score span of 8.

In Iran, Nasiri et al. (2006) translated the scale into Persian and reported its validity and reliability. To assess the validity of the questionnaire, content validity was employed, and Cronbach's alpha was used to examine reliability. Test-retest reliability for the subscales was as follows: physical health = 0.77, psychological health = 0.77, social relationships = 0.75, and environmental health = 0.84. Internal consistency was also calculated using Cronbach's alpha.

Psychological distress is commonly assessed using standardized tools designed to capture a broad spectrum of emotional and cognitive symptoms indicative of mental strain. In this study, psychological distress was measured using the *Kessler Psychological Distress Scale (K10)*, developed by Kessler et al. in 2002. The K10 consists of 10 items aimed at evaluating the frequency of symptoms such as anxiety, depression, nervousness, hopelessness, and restlessness over the past four weeks. Each item is rated on a 5-point Likert scale ranging from 1 (*none of the time*) to 5 (*all of the time*), resulting in total scores that range from 10 to 50, with higher scores indicating greater levels of psychological distress. The scale is widely used in both clinical and research settings due to its brevity, ease of administration, and strong psychometric

properties. In terms of reliability, the K10 has demonstrated high internal consistency, with Cronbach's alpha coefficients typically exceeding 0.90 across diverse populations. Test-retest reliability has also been confirmed in longitudinal studies. The validity of the K10 is supported by its strong correlations with structured clinical interviews for mood and anxiety disorders, indicating robust criterion and construct validity. In Iranian populations, the K10 has been translated, culturally adapted, and validated, with studies reporting satisfactory reliability coefficients (e.g., Cronbach's alpha > 0.85) and good convergent validity with other mental health measures. This makes the K10 a reliable and valid instrument for assessing psychological distress among individuals and couples experiencing emotional and relational difficulties.

#### Intervention

The Cognitive Behavioral Therapy (CBT) intervention in this study was implemented over the course of eight structured sessions, each lasting 90 minutes and conducted twice weekly by the researcher. The protocol was designed to target both cognitive distortions and maladaptive behavioral patterns contributing to psychological distress and reduced quality of life in couples experiencing marital conflict. Initial sessions focused on psychoeducation regarding the nature of emotions, thoughts, and behavior, helping participants understand the cognitive model and the relationship between negative automatic thoughts and emotional reactions. Couples were guided through exercises to identify and challenge dysfunctional thoughts and beliefs related to themselves, their partners, and the relationship. Cognitive restructuring techniques were introduced to facilitate more adaptive and realistic interpretations of conflict situations. Simultaneously, behavioral interventions such as activity scheduling, communication skill training, and behavioral activation were employed to increase positive interactions and reduce avoidance behaviors. Emphasis was placed on developing emotion regulation strategies, including relaxation techniques and mindfulness-based approaches to enhance psychological flexibility and reduce experiential avoidance. Homework assignments were given after each session to reinforce session content and encourage skill application in real-life situations. The final sessions focused on relapse prevention, equipping couples with strategies to maintain therapeutic gains, manage future stressors, and sustain improvements in relationship quality and individual well-being. The entire intervention was conducted in a supportive environment that encouraged openness, mutual respect, and collaborative problem-solving.

# Data analysis

In this study, data analysis was conducted using SPSS software version 26. Descriptive statistics, including means and standard deviations, were used to summarize participants' scores on psychological distress and quality of life in both the experimental and control groups at pretest and posttest stages. To determine the effectiveness of the intervention while controlling for baseline differences, Analysis of Covariance (ANCOVA) was employed. This statistical method allowed for adjustment of pretest scores as covariates, thereby isolating the effect of the Cognitive Behavioral Therapy intervention on posttest outcomes. Additionally, effect size was calculated using Eta squared ( $\eta^2$ ) to assess the magnitude of the treatment effect, and statistical power values were reported to determine the adequacy of the sample size in detecting significant effects. A significance level of p < .05 was considered the threshold for statistical significance in all inferential analyses.

#### Findings and Results

As shown in Table 1, the posttest phase indicates that, following the intervention, the research variables demonstrated substantial changes.

Table 1. Descriptive Statistics of the Study (Mean and Standard Deviation)

Variable	Group	N	Pretest Mean	Pretest SD	Posttest Mean	Posttest SD
Psychological Distress	Control	16	38.68	5.58	35.74	5.86
	Experimental	16	36.14	4.78	26.61	4.56
Quality of Life	Control	16	49.45	5.35	47.64	5.37
	Experimental	16	46.35	5.24	59.86	4.41

The table below presents the statistically significant difference between the posttest mean scores, indicating a reduction in psychological distress among couples after controlling for pretest scores. Therefore, the posttest mean scores showed a significant reduction in psychological distress in the experimental group compared to the control group. This suggests that Cognitive Behavioral Therapy had a significant effect on reducing psychological distress in couples experiencing marital conflicts.

Table 2. ANCOVA Results for Psychological Distress

Subscale	Sum of Squares	df	Mean Square	F	Sig.	Eta Squared	Power
Posttest (Covariate: Pretest)	103.278	1	103.278	28.37	0.042	0.06	0.34
Group	201.698	1	201.698	124.48	0.000	0.52	1.00

The following table shows a statistically significant difference between the posttest mean scores, reflecting an increase in quality of life among couples after controlling for pretest scores. Thus, the posttest mean scores showed a significant improvement in quality of life in the experimental group compared to the control group. Therefore, Cognitive Behavioral Therapy had a significant effect on improving quality of life in couples with marital conflicts.

Table 3. ANCOVA Results for Quality of Life

Subscale	Sum of Squares	df	Mean Square	F	Sig.	Eta Squared	Power
Posttest (Covariate: Pretest)	186.757	1	186.757	45.37	0.039	0.06	0.42
Group	235.351	1	235.351	147.53	0.000	0.55	1.00

# **Discussion and Conclusion**

The findings showed that the posttest scores of the experimental group in psychological distress were significantly different from those of the control group. Therefore, Cognitive Behavioral Therapy (CBT) has an effect on reducing psychological distress in couples experiencing marital conflict.

Within this framework, CBT facilitates the improvement of positive emotion regulation by modifying maladaptive thinking patterns and replacing them with more logical and positive thoughts. One of the fundamental strategies employed in CBT for positive emotion regulation is cognitive reappraisal. This strategy involves reassessing and reinterpreting negative situations in a more positive and less threatening manner. In other words, individuals are able to view situations from a more optimistic perspective by revising their negative beliefs, which leads to an increase in positive emotions (22, 23). In this way, CBT plays an effective role in modifying individuals' thinking patterns, emotions, and behaviors. Psychological flexibility encompasses the dimensions of experiential avoidance and cognitive fusion. Experiential avoidance refers to the effort to control or minimize the impact of distressing experiences, which may bring

immediate but short-lived relief, thereby reinforcing maladaptive behaviors. This avoidance becomes problematic when it interferes with daily functioning and the achievement of personal life goals.

Moreover, the findings indicated that the posttest scores of the experimental group in quality of life were significantly higher compared to the control group. Therefore, CBT also has a positive impact on improving the quality of life in couples with marital conflicts.

CBT, through behavioral exercises, identification of dysfunctional core beliefs, and the activation of emotionally grounded rational thinking, can reduce psychological issues such as stress, anxiety, and depression. According to CBT principles, irrational and negative thoughts are replaced with rational and positive cognitions, and individuals are trained to challenge these dysfunctional thoughts and replace them with more adaptive ones (24). These positive thoughts, in turn, promote optimism and constructive behaviors. CBT is a psychotherapeutic approach that targets maladaptive emotions, behaviors, cognitive processes, and thought content through a range of systematic, structured, and goal-oriented techniques. With its focus on problem-solving, CBT is particularly suited to addressing specific issues, where the therapist uses a pragmatic approach to help the client identify and apply effective strategies for confronting and resolving their problems (20, 21).

One of the primary limitations of the present study was the relatively small sample size, which restricts the generalizability of the findings to broader populations of couples experiencing marital conflict. Additionally, the use of convenience sampling may have introduced selection bias, as participants who volunteered to take part in the study might already have had an interest in psychological interventions or higher motivation for change. Another limitation lies in the short duration of the intervention and follow-up; the study only assessed immediate post-intervention outcomes and did not evaluate the long-term sustainability of cognitive and behavioral changes. Moreover, reliance on self-report questionnaires may have been affected by social desirability bias, where participants might have underreported distress or overreported quality of life improvements. Finally, the absence of a qualitative component limits insight into the participants' subjective experiences and the specific aspects of therapy that were most impactful.

Future studies should consider employing larger and more diverse samples across different geographical and cultural contexts to enhance the external validity of the findings. Randomized controlled trials with long-term follow-ups are recommended to examine the durability of CBT effects on psychological distress and quality of life in couples. It is also suggested to integrate qualitative methods such as in-depth interviews or focus groups to better understand the lived experiences of couples undergoing CBT and to identify which elements of the intervention are perceived as most effective. Further research should explore the potential moderating effects of demographic factors such as age, duration of marriage, and level of education on treatment outcomes. Additionally, practitioners are encouraged to tailor CBT protocols specifically for couples, incorporating modules on communication skills, emotional regulation, and conflict resolution to maximize therapeutic impact. Implementation in community counseling centers and training programs for therapists working with distressed couples can also help in making CBT more accessible and effective in addressing relational and emotional difficulties in marital contexts.

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## **Authors' Contributions**

All authors equally contributed to this study.

#### **Declaration of Interest**

The authors of this article declared no conflict of interest.

#### **Ethical Considerations**

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants. Written consent was obtained from all participants in the study.

## **Transparency of Data**

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

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