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Comparative Study on the Impact of Family Therapy and CBT on General Health and Quality of Life of Couples

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Abstract

Background: *Psychosomatic issues are common among couples seeking divorce, with many experiencing anxiety, unexplained pain, gastrointestinal problems, and other symptoms, often showing significant improvement after therapy. This study aimed to evaluate the effectiveness of Cognitive-Behavioral Therapy (CBT) and Structural Family Therapy (SFT) in enhancing the general health and quality of life of couples seeking divorce.*

Methods: *Thirty couples seeking divorce were referred to family counseling centers at the Minoodasht City Judiciary and met the inclusion criteria, were randomly selected and divided into two groups: CBT and SFT. Participants were assessed using general health and quality of life measures before and after undergoing eight sessions of either CBT or Minuchin's structural family therapy. Post-test scores were compared between the two groups.*

Results: *Paired t-test analysis revealed significant improvements in general health and quality of life scores for both therapy groups. Covariance analysis showed that both therapies were equally effective, with no significant differences in the level of improvement between the two groups.*

Conclusions: *Both structural family therapy and cognitive-behavioral therapy significantly and equally improve the general health and quality of life of couples seeking divorce.*

Keywords: Cognitive-behavioral therapy, Structural family therapy, General health, Quality of life, Divorce.
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Introduction

Marital conflicts pose significant challenges in contemporary society, often impacting mental health and personal relationships, and ultimately leading to divorce. Therefore, finding effective solutions to improve the relationships of couples on the brink of divorce is crucial. Two prominent methods for addressing marital problems and preventing divorce are Structural Family Therapy (SFT)[1] and Cognitive-Behavioral Therapy (CBT)[2].

Structural Family Therapy is a well-established counseling and psychotherapy approach that focuses on analyzing family relationship patterns and dynamics to identify and alter dysfunctional interactions. Communication within families is typically influenced by mutual expectations[3]. Family issues and marital conflicts may arise due to dysfunctional family structures and factors such as enmeshed or disengaged boundaries[4]. Boundaries are invisible barriers that range from rigid to disengaged and regulate family members' interactions. Rigid boundaries are highly restrictive, limiting individuals' interactions with external subsystems, whereas disengaged boundaries impose minimal restrictions. Both extremes can lead to problems if severe[5]. The primary assessment in SFT involves evaluating the family's hierarchical organization, subsystems' ability to perform their tasks, alliances, and coalitions, the permeability of current boundaries, and the system's flexibility or rigidity in meeting family members' needs. Structural therapists are interested in identifying interaction patterns within the system, achieving critical balance and equilibrium, understanding the functioning of feedback mechanisms, and addressing dysfunctional communication patterns. Moreover, how the family copes with developmental tasks is also crucial[6,7].

Cognitive-behavioral therapy is a short-term, typically cost-effective therapeutic approach shown to be effective in a wide range of maladaptive behaviors, making it popular among therapists[8]. This therapy is based on the premise that incorrect and discouraging beliefs, ineffective coping behaviors, and negative mood states contribute to the formation and persistence of problems[9]. Many studies have explored the separate effects of CBT and Minuchin's SFT on improving marital relationships, but few have examined their combined impact. This study aims to compare and evaluate the effects of Structural Family Therapy and Cognitive-Behavioral Therapy on improving the marital satisfaction of couples seeking divorce.

Materials and Methods

This study was quasi-experimental research conducted on participants who were couples seeking divorce, admitted to one of the counseling centers of the judiciary in Minoodasht city during the years 2022-2023. The sampling method was a random assignment from all divorce-seeking applicants in Minoodasht during the mentioned years. The participants were randomly divided into two groups: structural family therapy and cognitive-behavioral therapy.

All divorce-seeking couples who met the conditions for participating in the research underwent a pre-test. Subsequently, 30 couples were randomly selected and assigned to either the cognitive-behavioral therapy group or the structural family therapy group. Both groups received 8 therapy sessions, followed by a post-test. Inclusion criteria for the study were couples who came to the judiciary counseling center in Minoodasht for pre-divorce counseling, did not have psychotic disorders or addiction, were currently living together, were willing to participate in the research, and had filled out a written consent form. Participants underwent two subsequent tests in both the pre-test and post-test stages.

General Health Questionnaire: The General Health Questionnaire (GHQ-28) contains 28 questions and was designed by Goldberg and Hiller in 1979[10]. This questionnaire includes 4 subscales: somatic symptoms, anxiety and insomnia, social dysfunction, and depression. In this test, each individual receives five scores: four scores corresponding to the subscales and one overall score derived from the sum of the subscale scores. Each subscale consists of 7 questions, and responses are rated on a Likert scale, scoring between 0 and 3. An individual's score on each subscale ranges from 0 to 21, with a lower score indicating better mental health.

Validity and Reliability: To estimate the validity of the General Health Questionnaire, meta-analyses were conducted. The results showed an average sensitivity of 84% (ranging from 77% to 89%) and an average specificity of 82% (ranging from 78% to 85%)[11].

Quality of life questionnaire: In this study, the short version of the World Health Organization's Quality of Life Questionnaire (WHOQOL-BREF) was used. This questionnaire assesses quality of life in four domains: physical health, psychological health, social relationships, and environmental health. The questionnaire consists of 26 questions in total. Each domain is scored from 4 to 20, with 4 being the lowest score and 20 the highest.

Overall, four domain scores and one overall score are reported, which are calculated using a formula and range from 0 to 100. A score of 0 represents the lowest quality of life, and a score of 100 represents the highest quality of life.

Validity and Reliability: In a study by Dehghan and colleagues, Cronbach's alpha coefficient for the overall scale was 0.88, with subscale coefficients of 0.70 for physical health, 0.77 for psychological health, 0.65 for social relationships, and 0.77 for environmental health[12].

Therapy sessions: The participants underwent 8 sessions of cognitive behavioral therapy or structural family therapy. The summary of sessions is described in Tables 1 and 2.

Table 1. Summary of cognitive behavioral therapy sessions

Session	Contents
1	Introduction, session structure, responsibilities, motivation enhancement.
2	General health assessment, introduction to cognitive-behavioral therapy (CBT), ABC model, irrational beliefs.
3	Challenging irrational thoughts, cognitive errors, emotional experiences review.
4	Revisiting ABC model, effective philosophies for rational thinking, healthy negative emotions.
5	Emotional-experiential techniques in therapy, practice and feedback.
6	Assertiveness, problem-solving skills, happiness rules, home practice.
7	Progress review, problem-solving, and therapy continuation strategies.
8	Summary, changes discussion, post-test, client appreciation.

Table 2. Summary of structural family therapy sessions

Session	Contents
1	Introduction, session structure, responsibilities, motivation enhancement.
2	General health assessment, introduction to cognitive-behavioral therapy (CBT), ABC model, irrational beliefs.
3	Challenging irrational thoughts, cognitive errors, emotional experiences review.
4	Revisiting ABC model, effective philosophies for rational thinking, healthy negative emotions.
5	Emotional-experiential techniques in therapy, practice and feedback.
6	Assertiveness, problem-solving skills, happiness rules, home practice.
7	Progress review, problem-solving, and therapy continuation strategies.
8	Summary, changes discussion, post-test, client appreciation.

Statistical analyses in this study were conducted using SPSS software version 27. A significant level of less than 0.05 was considered. To compare pre-test and post-test scores within each group (structural family therapy and cognitive-behavioral therapy), a paired t-test was used. To compare the two groups (structural family therapy and cognitive-behavioral therapy), analysis of covariance (ANCOVA) was used.

Results

A total of 30 couples, with an average age of 31.2±3.0 years, participated in the study. Fifteen couples received structural family therapy, and fifteen couples received cognitive-behavioral therapy (CBT).

Table 3 shows the pre-test and post-test mean scores for various general health indicators. The normality of data distribution was confirmed using the Kolmogorov-Smirnov test, allowing the use of parametric tests. Paired t-tests

indicated significant improvements in all general health indicators following structural family therapy (P-value<0.001).

Table 4 shows the pre-test and post-test mean scores for various general health indicators following CBT. Paired t-tests indicated significant improvements in all indicators (P-value<0.001).

Analysis of covariance (ANCOVA) was used to compare the effectiveness of the two therapies. Table 5 shows the ANCOVA results, indicating that while both therapies significantly improved general health indicators, the pre-test scores had a greater impact on post-test outcomes than the type of therapy. There was no significant difference between the two groups in the post-test scores (P-value>0.05).

Table 6 shows the pre-test and post-test mean scores for various quality of life indicators following CBT. Paired t-tests indicated significant improvement only in the physical health indicator (P-value<0.05), while other indicators did not show significant changes.

The average scores from various quality of life indices before and after the implementation of structural family therapy are presented in Table 7. The Kolmogorov-Smirnov test confirmed the normal distribution of the data, allowing the use of parametric statistical tests. A paired t-test was employed to compare the scores of participants in the quality of life assessment indices before and after the structural family therapy sessions. The results indicated that structural family therapy significantly improved the overall quality of life score and indices of mental health and social relationships (P-value<0.05).

Table 8 shows the ANCOVA results for quality of life indicators. The pre-test scores were the primary predictors of post-test outcomes, and there was no significant difference between the two therapy groups in improving quality of life indicators (P-value>0.05).

Overall, both structural family therapy and cognitive-behavioral therapy significantly improved general health indicators, but the pre-test scores had a larger effect on post-test outcomes. There was no significant difference between two groups in improving quality of life indicators.

Table 3. Effect of structural family therapy on general health

Indicator	Pre-test Mean±SD	Post-test Mean±SD	t-value	Effect size	P-value
Somatic symptoms	6.63±0.81	5.33±0.61	4.39	1.62	<0.001
Anxiety and sleep disorder	8.40±0.62	6.43±0.38	5.717	1.88	<0.001
Social dysfunction	4.70±0.58	4.27±0.49	2.765	0.85	<0.001
Depression symptoms	9.13±0.81	6.77±0.53	6.4	2.02	<0.001
Total score	29.10±2.44	22.77±1.64	6.338	5.47	<0.001

Table 4. Effect of cognitive-behavioral therapy on general health

Indicator	Pre-test Mean±SD	Post-test Mean±SD	t-value	Effect size	P-value
Somatic symptoms	6.30±0.82	4.57±0.57	4.521	2.1	<0.001
Anxiety and sleep disorder	8.50±0.76	5.40±0.56	7.878	2.15	<0.001
Social dysfunction	5.97±0.74	4.53±0.62	4.08	1.92	<0.001
Depression symptoms	7.40±1.07	4.83±0.74	5.159	2.72	<0.001
Total score	28.20±3.00	19.33±2.16	6.865	7.07	<0.001

Table 5. Comparison of structural family therapy and cognitive-behavioral therapy on general health

Indicator	Pre-test effect	Group effect	F-value	P-value	Effect size	Power
Somatic symptoms	536.74	4.38	376.38	<0.001	0.86	1
Anxiety and sleep disorder	317.88	17.96	163.7	<0.001	0.74	1
Social dysfunction	467	7.49	294.7	<0.001	0.83	1
Depression symptoms	621.53	10.55	322.06	<0.001	0.85	1
Total score	5646.81	121.04	412.01	<0.001	0.87	1

Table 6. Effect of cognitive-behavioral therapy on quality of life

Indicator	Pre-test Mean±SD	Post-test Mean±SD	t-value	Effect size	P-value
Physical health	65.25±3.51	72.75±3.52	2.38	13.53	0.02
Mental health	52.07±3.76	58.32±3.93	1.66	15.46	0.01
Social relationships	56.31±3.71	62.06±3.27	1.35	15.38	0.17
Environmental health	53.13±3.04	58.03±3.70	1.37	15.32	0.18
Total score	64.80±3.14	68.82±3.76	1.18	12.96	0.24

Table 7. Effect of structural family therapy on quality of life

Index	Pre-test Mean±SD	Post-test Mean±SD	t-value	Effect size	P-value
Physical Health	61.50±3.87	65.55±3.51	1.51	13.53	0.09
Mental Health	49.17±3.85	50.07±3.67	1.02	15.46	<0.001
Social Relationships	54.90±3.76	56.31±3.71	0.49	15.38	<0.001
Environmental Health	50.54±3.76	52.13±3.04	1.28	15.32	0.11
Overall Score	56.67±4.12	62.80±3.14	3.72	12.96	0.03

Table 8. Comparison of Structural Family Therapy and Cognitive-Behavioral Therapy on quality of life

Indicator	Pre-test effect	Group effect	F-value	P-value	Effect size	Power
Physical health	10373.82	375.63	52.86	<0.001	0.48	1
Mental health	9488.48	296.62	34.42	<0.001	0.37	1
Social relationships	5039.74	373.88	18.66	<0.001	0.25	0.98
Environmental health	6089.11	132.76	24.97	<0.001	0.3	0.99
Total score	7807	35.5	39.92	<0.001	0.43	1

Discussion

This study aimed to compare the effects of Structural Family Therapy (SFT) and Cognitive-Behavioral Therapy (CBT) on the general health and quality of life of couples seeking divorce. The results provide significant insights into the efficacy of these therapeutic approaches in addressing marital conflicts and improving overall well-being.

Both SFT and CBT were found to significantly enhance the general health of the participants. The improvements were observed across all subscales of the General Health Questionnaire (GHQ-28), including somatic symptoms, anxiety and sleep disorders, social dysfunction, and depression symptoms. This aligns with previous research, such as Yahyazadeh et al., who reported positive impacts of group CBT on the mental health of divorced women, noting reductions in physical symptoms, anxiety, depression, and social dysfunction[13]. Additionally, Eisenberg et al.'s meta-analysis in 1993[14] and Feoli et al.'s study in 2024[15] both highlighted the benefits of CBT in improving physical health indicators like blood pressure. These findings underscore the robustness of CBT in enhancing general health and are consistent with the current study's results.

The ANCOVA results revealed that although both therapies significantly improved general health, the pre-test scores were more predictive of the post-test outcomes than the type of therapy. This suggests that initial health status plays a crucial role in determining the extent of improvement, a consideration that should be factored into future interventions and assessments.

Quality of life improvements were observed with both therapies, although SFT showed more significant effects. Specifically, SFT led to substantial improvements in mental health and social relationships subscales of the WHOQOL-BREF, whereas CBT showed significant improvements primarily in the physical health domain. Shirzadi et al.'s study comparing Bowen and Minuchin family therapies also found significant enhancements in the quality of life, supporting the current study's findings regarding SFT[16].

The ANCOVA results highlighted that pre-test scores were the main predictors of post-test quality of life outcomes, with no significant differences between the two therapy groups. This finding suggests that while both therapies are effective, the initial quality of life significantly influences the degree of improvement.

This study contributes novel insights by directly comparing SFT and CBT in a population of couples seeking divorce, a context that has been less explored in previous research. The significant improvements in general health and quality of life underscore the potential of these therapies to mitigate marital conflicts and enhance overall well-being.

Furthermore, the finding that initial health and quality of life scores are strong predictors of therapeutic outcomes highlights the need for tailored interventions that consider these baseline measures. Future research should continue to explore these dynamics, potentially incorporating larger sample sizes and more diverse populations to validate and extend these findings.

In conclusion, both SFT and CBT are effective in improving the general health, marital satisfaction, and quality of life of couples seeking divorce. The results support the use of these therapies in clinical settings and provide a basis for further investigation into their long-term effects and potential synergies.

Ethical Considerations

The participants completed a written consent before the start of sessions, and they were completely free to leave the study whenever they felt like losing interest. All therapy sessions were completely confidential. The ethical code obtained from Gorgan University of Medical Sciences was IR.GOUMS.REC.1403.132.

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Conflict of Interest

There are no conflicts of interest.

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