

Combined Couple Therapy Based on Acceptance and Commitment and Schema Therapy for Quality of Life and Recovery Process of Patients With Breast Cancer During Medical Treatment

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ARTICLE INFO

Article History:

Received: June 22, 2023

Accepted: June 23, 2023

Published online: June 29, 2023

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Abstract

Introduction: Cancer can affect the process of recovery and the quality of life (QoL) of individuals. This study determined the effectiveness of combined couple therapy based on acceptance and commitment and schema therapy on the QoL and recovery process of patients with breast cancer (BC) during medical treatment.

Methods: The research method is semi-experimental with pre-test, post-test, follow-up, and control group. The study's statistical population included all married patients with BC (stage one) who received treatment in Mashhad in 2019. A total of 30 samples were selected through the convenience sampling method and then randomly assigned to the control and treatment groups. The exceptional EORTC QoL questionnaire (QLQ-C30) was used in patients with cancer to collect data, and the recovery symptoms were checked according to medical records and the relevant specialist's opinion. The data were also analyzed by repeated measures analysis of variance to analyze the obtained data.

Results: The findings demonstrated that the combined couple therapy based on Acceptance and commitment therapy (ACT) had a significant effect on the QoL and recovery process of patients with cancer during medical treatment ($P>0.01$).

Conclusion: The results imply that couple schema therapy-based ACT could positively affect the QoL and treatment processes among cancer patients.

Keywords: Acceptance and commitment, Breast cancer, Couple therapy, Function recovery, Life quality, Schema therapies

Please cite this article as follows: Hosseini Koucheh Ghaziyani S, Mansouri A, Bolghan-Abadi M, Khodabakhsh MR. Combined couple therapy based on acceptance and commitment and schema therapy for quality of life and recovery process of patients with breast cancer during medical treatment. Int J Basic Sci Med. 2023;8(2):61-68. doi:10.34172/ijbsm.38629.

Introduction

Cancer is an event in life, not the end of life, but it is a new and permanent situation that causes psychological problems caused by this disease.¹ It is a disorder that affects people's health and quality of life (QoL), and its diagnosis is an unpleasant and challenging experience for every person.²

Psychological sciences and psychotherapy have received special attention due to mental and physical problems caused by diseases and for a reduction in mental pressure related to diseases such as cancer. Psychological interventions can effectively increase the QoL and improve the treatment process of cancer patients.³

Acceptance and commitment therapy (ACT) is one

of the current treatment methods that sends a message, implying that you should accept what is outside of your control and commit to action that enriches your life. It means to change the structure or function through content assumptions that include communication.⁴ A treatment method that focuses the senses on a specific method; it teaches purpose, acceptance, and skills to respond to uncontrollable experiences and ultimately commit to personal values. This treatment method helps a person reduce worries and remove unwanted thoughts, emotions, and feelings.⁵ ACT emphasizes controlling thoughts and emotions⁶ and indicates that people should be more aware of their decisions and be committed to them.⁷



ACT helps couples create a rich, complete, and meaningful life by accepting the inevitable suffering during life.⁸ This therapy causes a process of acceptance and self-awareness for change, leading to psychological flexibility.⁹ Couples are taught to consciously accept such thoughts and actions in ways that continuously target their communication and emotional intimacy, compatibility, and commitment.¹⁰ Many researchers have recently supported the effectiveness of acceptance and commitment-based therapy in the QoL in couples.¹¹⁻¹⁸

Yang's schema therapy model is another theory proposed in personality, psychopathology, and psychotherapy, and its critical problem is the initially incompatible schemas. Schemas are deep and underlying cognitive and emotional structures that play an essential role in the maintenance and exacerbation of chronic psychological problems.¹⁹

Schematic structures are created based on reality or experience and affect people's behavioral responses.²⁰ This is a combined approach and a new therapeutic model.²¹

Lev is a specialist in integrating acceptance, commitment, and schema therapy to strengthen couples' relationships. Lev and Mckey have made considerable efforts in schema-based therapy and acceptance and commitment around thoughts, feelings, anger-free living, and couple skills. Couples have mental cues from childhood experiences, which may create harmful expectations that become the focus of disturbances. Relationship therapy shows that primary psychological injuries determine how couples communicate and the distress caused in this relationship.²² The problem with schemas is that they are mental products and not reality. Couples have presented the plans with negative bias and tend to use destructive cognitive strategies.²³

Therefore, as mentioned earlier, the combined acceptance and commitment and schema-oriented couple therapy help couples to identify the beliefs created by schemas.²⁴ Despite schema pain, this couple's therapy helps couples without changing their fundamental beliefs, thoughts, or feelings and reduces this pain.²³ Combined acceptance and commitment and schema couple therapy deals with teaching schemas to couples and informing them about their schema sufferings. This therapy also wants them to communicate effectively with each other based on the appropriate strategy, pain, and suffering.²⁵ This integrative therapy pays special attention to couples and their values, raises and teaches them the necessary skills to deal with these barriers, and introduces these values' cognitive, emotional, and behavioral barriers.²⁶

Studies on schema therapy and ACT demonstrate that these two therapeutic methods effectively treat interpersonal and psychological problems. Therefore, how couples communicate affects creating flexibility and reducing or increasing risks related to unfortunate events

and inappropriate conditions.²⁷

Patients with cancer require more attention to their general health and QoL. Breast cancer (BC) has significantly increased in the last fifteen years. Screenings, early diagnosis, and various treatments have reduced mortality in these patients. BC has become a chronic disease whose complications reduce the family's QoL.²⁸ It is the most common cancer among women worldwide, and in Iran, this cancer accounts for about 21% of women's cancers.²⁹

This group of patients needs psychological support after diagnosis, during, and after treatment. Hence, it has been recently attempted to control cancer's negative physical and mental impacts on patients' individual and family QoL. BC causes many psychological problems; thus, it may affect different aspects of patients' lives and decrease their QoL and individual and family mental health.³⁰

Some research has been recently conducted for the acceptance and commitment and schema-oriented therapy regarding the improvement of the QoL and psychological factors in cancer patients, especially BC, and its practical and positive results have been confirmed.^{3,5,11-15,17,18,31-35} Some studies have also been conducted on acceptance and commitment and schema-oriented integrated therapy and its effect on individual psychological factors and couple relationships. The results indicated the effectiveness of this method.^{23-25,36} In addition, there has been research on the effect of psychological factors on improving the physical condition of different patients. Its positive results confirmed that they can be used for performing clinical interventions and improving the treatment process of patients.^{18,37,38}

It seems necessary to conduct the present research due to the importance of the family center, the increasing number of divorces in the country, and the increased cancer among individuals and families in Iran.³⁹ Therefore, what has been mentioned reveals the necessity of evaluating the mentioned factors in these patients to develop programs to improve their QoL, affect their physical factors, and improve the course of the disease by getting valuable information.

Accordingly, this research sought to investigate the combined approach of acceptance and commitment and schema-oriented QoL and improvement process during the medical treatment of cancer patients. This research is valuable and necessary for cancer patients with physical and medical diseases and those who face mental and family health problems. Most of the research in couple therapy has evaluated the effect of an approach on couples' relationships.

The present study uses the combined method of acceptance and commitment intervention and schema therapy, one of which is holistic and the other specific. This method attempts to impact cancer patients' QoL and recovery. Therefore, his research aimed to answer whether

combined couple therapy of acceptance and commitment and schema therapy affects the QoL and recovery process of cancer patients during medical treatment.

Research Tools

The EORTC QoL questionnaire QLQ-C30 was used in this study. It was developed by the European Organization for Cancer Research and Treatment in 1993 to evaluate the effects of the disease and its treatment. This multi-dimensional questionnaire has 30 questions that measure the QoL in 5 functional (physical, role, emotional, cognitive, and social) and three symptom (fatigue, pain, nausea, and vomiting) scales and a public domain of QoL. The higher score shows a higher level of the person's QoL. This questionnaire is set on a four-point Likert-type scale (not at all to very much). Regarding the reliability analysis of the questionnaire, most subscales had acceptable reliability ($\alpha > 0.7$), except for one domain of role during treatment. Further, the QLQ-C30 has appropriate discriminant validity.⁴⁰ All the scores of the items were added up to calculate the total score of the questionnaire. The reliability of the Persian version of QLQ-C30 was standardized for cancer patients in Shiraz in 2019. As regards the reliability analysis of the questionnaire, most fields had good reliability ($\alpha > 0.7$), except for the three domains of fatigue, pain, and nausea. All multi-question domains had appropriate convergent validity ($r > 0.4$), and discriminant validity was observed in all questions, except for question 4 of the physical performance domain.⁴¹

Improving medical treatment: The researcher will review, record, and verify the patient's medical files according to the medical documents, the diagnostic treatment of the specialist doctor, and the existing tests registered by the relevant specialist.⁴²

Performance Method

The necessary measures were taken to perform the project after the steps of letter writing and necessary coordination with the competent authorities. The number of 30 cancer patients were selected who met the sample selection criteria and the inclusion criteria and agreed to participate in the research. They were selected and included in two experimental and intervention groups, and coded questionnaires were distributed among them. Necessary explanations were given about the implementation of the questionnaire and its purpose. Then, information confidentiality and opinion honesty were mentioned in answering each question. According to the designed package, training sessions were conducted in 10 sessions (finally, the pamphlets and training booklets prepared in simple and fluent language were provided to the patients of both groups after the training sessions and project completion). Intervention and control groups were called after the educational sessions for the experimental group patients. The QoL questionnaire was performed

for both groups, and the improvement process of cancer treatment during the treatment period was re-examined based on the medical records and the treatment process for the two groups. After two months, a follow-up phase was conducted and analyzed for the experimental and control groups to determine the stability of the effect of the intended treatment on the research components.

The summary of acceptance and commitment couple therapy sessions using schema conceptualization²³ includes the following items:

1. Conducting the pre-test, explaining the training and treatment course goals, obtaining permission for treatment, and completing the cooperation commitment form and treatment plan.
2. Evaluating the needs and concerns of couples and answering their questions, establishing communication and therapeutic alliance, introducing, explaining, and explaining the treatment method.
3. Understanding the needs and concerns of couples and answering their questions, working on recognizing schemas, and measuring schemas, and emotional pain of schemas, setting up of schemas. Homework: Practicing thinking notes and completing the schema assessment questionnaire, and schema measurement worksheet.
4. Understanding the needs and concerns of the couple, answering their questions, and reviewing the tasks, Work on: Introducing the behaviors of schematic opposites, and tracing the confrontational behaviors and their consequences, constructive despair, the sky metaphor, and the metaphor of scratching where it itches. Homework: Consequences of planned coping behavior worksheet.
5. Understanding the needs and concerns of couples, answering their questions, and examining the tasks. Working on: What values are and what they are not, clarifying values in different areas of relationship, identifying actions based on values, and evaluating the level of alignment with values. Homework: Worksheets in the areas of values, actions based on values and alignment with them, practicing being a perfect wife, and providing a weekly list of tricks.
6. Understanding the needs and concerns of couples, answering their questions, and examining the tasks. Working on: Identifying the moments of choice, the importance of its components, three barriers to action based on the value of cognitive barriers, common cognitive barriers in relationships, the metaphor of the hawker of stubbornness, and the metaphor of the jump-rope competition. Homework: Exercise how to identify the choice moment and obstacles.
7. Understanding the needs and concerns of couples, answering their questions, and examining the tasks. Working on: Emotional barriers of value-oriented

- actions, conscious attention, and emotional exposure. Homework: Mindfulness practice, compassionate breathing practice.
8. Understanding the needs and concerns of couples, answering their questions, and examining the tasks. Working on: Effective communication and listening skills, and self-expression. Homework: Common interest' worksheet.
 9. Understanding the needs and concerns of couples, answering their questions, and examining the tasks. Working on: Effective communication skills. Homework: Appreciation worksheet.
 10. Understanding the needs and concerns of couples, answering their questions, and examining the tasks. Working on: Value-based problem-solving, brainstorming, role-shifting technique, self-care solutions, selective perspective, cinema screen metaphor, and post-test implementation.

Methods

In terms of the data collection method, this practical study was among semi-experimental studies with a pre-test-post-test-two-month follow-up and control group. The population of this statistical research included all married cancer patients (of the BC type) who were in the first stage of the disease and were being treated in Mashhad in 2020. They were selected from the special clinic of Imam Reza (AS) of Mashhad and Omid Hospital, which had a department for treating cancer patients. The sample size was selected by the available sampling method. The number of people in the sample was 30 (along with the spouses of patients) who were randomly divided into two experimental and control groups. To determine the sample size of the research, Gal et al²⁴ proposed a rule according to which, 15-30 people are enough for each of the experimental and control groups for experimental and semi-experimental research, and it has been acted upon. The researcher who completed the relevant training course conducted the pre-test and post-test for them at the treatment center of Omid Hospital.

The inclusion criteria included Being in the age range of 25-55 years, suffering from cancer (BC type), undergoing medical treatment, being married and having been married for at least three years, having the physical ability, and not having physical defects were required to participate in the research. On the other hand, the exclusion criteria were suffering from one of the psychiatric disorders, abandoning medical treatment, irregular participation in training sessions (the absence of more than two sessions), the occurrence of acute problems in the disease, and inability to continue the research.

Ethical Considerations in Research

The participants gave written consent before starting the

work. The participants were informed about the topic and method of conducting the research before starting the work. The results were interpreted for them if necessary. The private and personal information of the volunteers was protected, and the necessary instructions for follow-ups were provided to the candidates in case of observing any problems. Participation in the research did not cause any financial or physical harm to the participants. Moreover, this research does not contradict the religious and cultural standards of the subject and society. The code of the University Research Council and the code of ethics of this research are 172977 and IR.IAU.NEYSHABUR.REC.1399.007, respectively.

Data Analysis Method

Research data were analyzed using SPSS software and the variance analysis method with repeated measurements.

Results

This study examined 30 people. The general features of the sample and inclusion criteria included being in the age range of 25-55 years, suffering from cancer (BC type), undergoing medical treatment, being married and having been married for at least three years, having the physical ability, and not having physical defects. Two main variables were measured in three stages, the necessary information was collected, and people were randomly divided into two experimental and control groups. The QoL and recovery process of patients with BC during medical treatment variables were investigated in the pre-test, post-test, and follow-up stages. Table 1 presents the

Table 1. Mean and Standard Deviation of Quality of Life and Recovery Process

Variables	Stages	Group	Mean	SD	N
Recovery process	Pretest	Control	4.5333	2.29907	15
		Experiment	4.0000	1.30201	15
		Total	4.2667	1.85571	30
	Posttest	Control	3.9333	1.71825	15
		Experiment	5.6667	0.79881	15
		Total	4.8000	1.58441	30
	Follow-up	Control	3.2000	1.24212	15
		Experiment	6.6000	0.67612	15
		Total	4.9000	1.98876	30
Quality of life	Pretest	Control	75.8667	7.84553	15
		Experiment	75.8667	5.79244	15
		Total	75.8667	6.77589	30
	Posttest	Control	87.8667	8.76573	15
		Experiment	76.6667	6.95564	15
		Total	82.2667	9.63805	30
	Follow-up	Control	88.0667	8.03089	15
		Experiment	71.8000	5.73461	15
		Total	79.9333	10.74447	30

Note. SD: Standard deviation.

mean and standard deviation of the variables.

Based on the results (Table 1), there were some differences between groups and stages of the variables. To clarify whether these differences are significant, it is necessary to utilize an appropriate test. The repeated measured analysis of variance (ANOVA) was utilized to analyze the data based on the circumstances of the data. All the assumptions of the test have been met. Table 2 presents the results of the repeated measured ANOVA. It must be mentioned that the Greenhouse-Geisser test based on the results of Mauchly's test of sphericity was not significant and was used in terms of using epsilon modifications.

The results (Table 2) demonstrated no significant differences between stages and groups in terms of QoL and recovery process. Therefore, Figures 1 and 2 illustrate these differences schematically. Based on the findings (Table 1), means in QoL ($P>0.001$) and recovery process ($P=0.002$) significantly increased after the treatment in the experimental group. Furthermore, there was an increase in these variables in different times of measurement. To clarify the variation process, the process of changing in terms of measuring times and group effects is shown in Figures 1 and 2.

Discussion

The present study investigated the effectiveness of integrated couple therapy of schema and ACT on cancer patients' QoL and recovery process. The analysis and investigation results revealed that this treatment has increased the QoL and improved these patients' medical treatment during the treatment period. Few domestic and foreign sources have examined the effectiveness of this treatment. Therefore, the results were compared with those of similar studies including the effects of couple therapy of acceptance and commitment and schema therapy on the studied components. The results were consistent with the findings of Angiola and Bowen,⁵ Omidbeygi et al,¹¹ Mohammadi and Soufi,¹² Heidarian et al,¹³ Hashemi et al,¹⁴ Mohammadzadeh et al,¹⁵ Hulbert-Williams et al,¹⁸ Roientan et al,³¹ Safaee et al,⁴¹ and Tomich and Helgeson⁴² regarding the impact of ACT on patients' QoL.

To explain these results, training and performing

behavioral commitment exercises with the methods of breaking and accepting, and correctly recognizing the values and goals of the individual increase the QoL in acceptance and commitment couple therapy. This method helps the person experience his negative thoughts and reactions in a new way by increasing recognition and conscious acceptance, thus reducing the person's mental involvement while increasing the QoL through faulting and acceptance.⁴³ It also helps people with cancer to come to terms with their unpleasant feelings, accept them, and reduce their mental sensitivity to the disease.

This way of thinking prevents him from being hopeless and vulnerable, and he considers life valuable and hopeful, increasing the patient's QoL.⁴⁴ The individual finds the motivation to achieve his goals by clarifying the values of life, and he continues the treatment that increases the quality of his life.⁴⁵ In addition, the results are consistent with those of Ahmadi et al,³³ Nikamal et al,³⁴ Mohammad Nezhady and Rabiei,³⁵ Rahimaghaee et al,⁴⁶ Kindynis et al,⁴⁷ Lynn and Young,⁴⁸ and Khademi et al⁴⁹ regarding the effect of schema therapy on the QoL of women with cancer.

In explaining the research results, the schema therapy method helps a person to increase his QoL by changing mental perceptions to deal positively with his illness and identifying the dominant schemas and schemata methods and behaviors. It also helps increase intellectual and psychological flexibility and identify one's own goals and values and behave following these goals, practice self-compassion and kindness and constructive hope and create new schemas instead of using avoidance strategies and recognize obstacles to achieving values and goals. This method also aids in training mindfulness and self-awareness, correct and appropriate exposure to emotions such as negative emotions and change the opposing view to a positive one.⁴² Hence, it can help improve the QoL of an individual and increase a person's mental understanding of his values and can be applied to patients with cancer.⁵⁰ These research results conform to the findings of Lev and Mckey,²³ Alipanah et al,²⁵ Christensen et al,³⁶ and Aalami et al⁵¹ with regard to the effect of combined couples therapy of acceptance and commitment and schema therapy on women's QoL.

Table 2. Tests of Within-Subjects Effects

Variables	Source	SS	df	MS	F	P	Partial Eta Squared	Observed Power
Quality of life	Time	629.422	1.318	477.505	7.755	0.005	0.217	0.846
	Time * group	1039.289	1.318	788.446	12.805	0.000	0.314	0.971
	Group	1886.044	1	1886.044	24.277	0.000	0.464	0.997
Recovery process	Time	6.956	1.381	5.037	4.574	0.028	0.140	0.636
	Time * group	58.467	1.381	42.337	38.449	0.000	0.579	1.000
	Group	52.900	1	52.900	11.102	0.002	0.284	0.895

Note. a. Computed using alpha=0.05; SS: Sum of squares; df: degree of freedom; MS: Mean sum of squares.

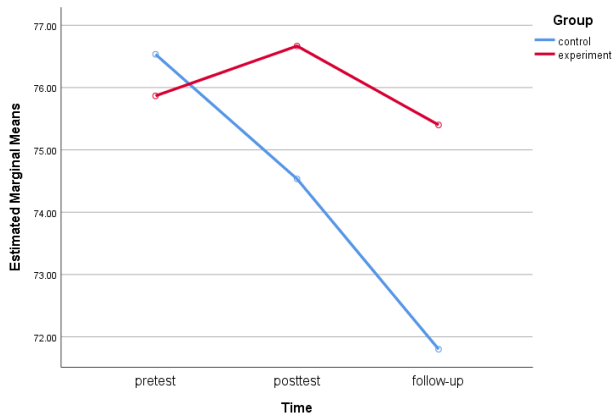


Figure 1. Variation Chart of Quality of Life

Accordingly, acceptance and commitment and schema-oriented couple therapy lead a person to know problem-causing schemas well and find behaviors that match his values instead of avoiding behaviors by combining techniques of acceptance and commitment and schema therapy which reduce negative thoughts and personal conflicts and increase the QoL. This combined ACT helps a person to pay more attention to his behavior and look for new ways of creating consistency in his life by using the formulation and recognition of schemas and identifying the larger patterns of schemas.⁶ ACT helps a person to accept thought processes as a necessary function for psychological adjustment and reduce his negative cognitive schemas. Additionally, combined schema therapy training with ACT helps the person better understand their schema behaviors and have more control over their schema reactions, leading to the weakening of individual values.²³

The research findings are also in line with those of Hashemi et al,¹⁴ Hulbert-Williams et al,¹⁸ Bahmani et al,³⁷ Brassington et al,³⁸ Peterson and Eifert,⁴⁴ Barghi Irani et al,⁵² and Kanzler et al⁵³ regarding the positive effect of acceptance and commitment and schema therapy on the recovery of the disease process and the symptoms of diseases, especially cancer. It can be concluded that cancer does not cause psychological consequences for the patient, but the behavior, evaluation, and thoughts about the disease cause psychological and behavioral problems. Psychological flexibility allows the patient to evaluate his illness in a way that not only does not hinder him but also considers it a new opportunity and situation for growth, new social connections, and new life experiences.⁵⁴ According to these research results, the patient pays more attention to his life due to the components of psychological flexibility. It also helps the patient to change his negative view and face new situations appropriately and positively. When the patient finds himself in new situations instead of paying attention to his illness, his mental perception of life conditions improves, which increases the quality of his life. When a cancer patient's QoL improves, including

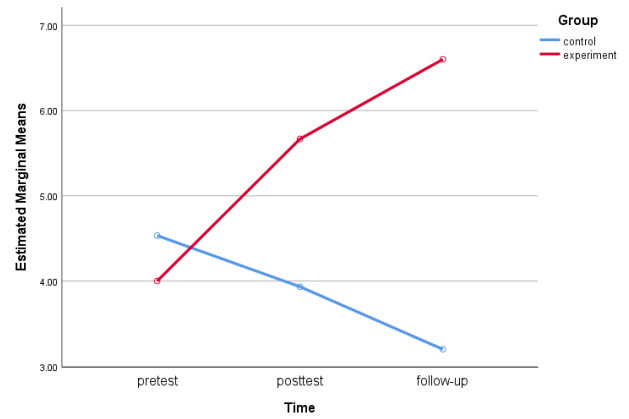


Figure 2. Variation Chart of Recovery Process

physical and psychological factors, his psychological flexibility increases, and it becomes easier for him to bear the pain and physical complications caused by the disease. This issue reduces the disease's symptoms and helps improve his treatment.⁵⁵

Conclusion

It is generally concluded that the combined couple therapy of acceptance and commitment and schema therapy affects the QoL and the recovery process of cancer patients during the medical treatment period. This method can be used for cancer patients and even other patients to improve their QoL and accelerate the recovery process of their physical illness. This treatment is suggested in exceptional hospitals and clinics for cancer patients to increase their QoL and mental and physical health. The limitations of the current research include the lack of using utterly random sampling due to the lack of identifying all cancer patients (BC) and the specific conditions of cancer patients. Therefore, it is suggested future research should be conducted with a broader population and more accurate sampling.

Acknowledgments

We appreciate all the staff, specialist doctors of Imam Reza Hospital and Omid Hospital, and all the patients who cooperated in this research.

Authors' Contribution

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Competing Interests

None.

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