

The effectiveness of acceptance and commitment therapy on the quality of life and mental health of infertile couples

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Abstract

Introduction: Infertility is one of the important challenges in today's modern life that some couples face, and as a result, their psychological and emotional health is damaged. Therefore, the purpose of this study was to investigate the effectiveness of acceptance and commitment therapy on the quality of life and mental health of infertile couples.

Research method: The current research is practical in terms of its purpose and in terms of method, it is a semi-experimental study in which a pre-test-post-test design with a control group was used. The statistical population of this research included all those who referred to the Ibn Sina infertility center in Tehran in 1402, the sample size included 30 who were selected by convenience sampling and were randomly assigned to the experimental group and the control group. The experimental group underwent acceptance and commitment-based treatment during 8 90-minute sessions and were evaluated using the quality of life questionnaire (SF36) and the general health questionnaire (GHQ-28). Data were analyzed using analysis of covariance test.

Findings: The results showed that acceptance and commitment therapy is effective on the quality of life and mental health of infertile couples and has increased their mental health and improved their quality of life.

Conclusion: Considering the effectiveness of acceptance and commitment therapy on the quality of life and mental health of infertile couples, it is necessary to pay attention to this approach in order to accept the problem of infertility and reduce its consequences in infertile couples, along with medical treatments.

Keywords: acceptance and commitment therapy, infertile couples, quality of life, mental health

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Introduction:

In most cultures, fertility is very important and the desire to have children is one of the most basic human motivations. In couples who want children, but are not able to have one, this is not only a promising issue, but it will also be devastating. Infertility means that a couple has unprotected intercourse for one year and does not get pregnant (1). Infertility as a crisis in joint life and interference in the role and identity of parents, not only causes psychological problems, but can act as a strong blow against the relationship between couples (2). Infertility is known all over the world and in all cultures as a stressful and critical experience that threatens personal, marital, family and social stability, and in addition to physical problems, it is also associated with a set of psychological symptoms (3) and It has a negative effect on various dimensions of mental health and quality of life of infertile women.

There is not much agreement among the experts in the definition of public health and in general they have defined public health as the complete physical, mental and social well-being of a person so that there is a dynamic and mutual influence between these three aspects. Despite the difference in the definition of public health, mental health is defined as the ability to communicate harmoniously with others, to change and modify the personal and social environment, and to resolve conflicts and personal desires logically and to have meaning and purpose in life (4). A person has mental health that is far from anxiety and symptoms of disability and can establish a constructive relationship with others and is able to deal with the pressures of life.

Quality of life is one of the words that does not have a clear and uniform definition; although people instinctively understand its meaning easily, but this concept is not the same for all of them. Since, like other variables, its measurement will require a comprehensive and specific definition of it, efforts have always been made to provide a suitable definition for it. Many researches do not provide a definition of quality of life. This is either because they think that its definition is very simple or because of the complexity of this concept, they avoid defining it, while due to the lack of consensus regarding the definition of this term, it is expected that in related researches this concept and the dimensions considered for it should be clearly defined. Today, issues related to the quality of life are widely discussed in different scientific fields, for this reason, despite the many definitions of this concept, none of the existing definitions have gained general acceptance (5).

Until now, several treatments including drug treatment, insight psychotherapy, cognitive behavioral therapy, etc. have been performed to increase the mental health of infertile women; Acceptance and commitment therapy is one of these treatments. Acceptance and commitment therapy was developed as an alternative to the more traditional psychotherapy of cognitive-behavioral therapy (6). Considering the philosophical and theoretical framework, the treatment of acceptance and commitment of psychological intervention is exclusively an experience that uses strategies of acceptance and attention of awareness along with strategies of behavior change and acceptance in order to increase psychological flexibility; This means that a person learns with the

present moment completely and as an intelligent person based on what happens in the situation. Communicate and maintain or change behavior in the path of selected values (7). Increasing research shows that the more psychological flexibility a person has, the better his life will be (8). In the field of the effect of acceptance and commitment therapy, many internal and external researches have been conducted. The studies of Mehrabi and Razavi (2016), Brennan et al. (2014), Dak (2014), Patterson et al. (2009), Mohajeri et al. Treatment based on acceptance and commitment refers to mental health and quality of life. Based on this, according to the studies conducted and the theories presented in this research, the effectiveness of acceptance and commitment therapy on the quality of life and mental health of infertile couples was considered, so the main goal of this research is to answer the question of whether acceptance and commitment therapy has an effect on the quality of life. Is the life and mental health of infertile couples effective?

Research method:

The current research is practical in terms of its purpose, and in terms of its method, it is a semi-experimental study in which a pre-test-post-test design with a control group was used. The statistical population of this research included all those who referred to the Ibn Sina infertility center in Tehran in 1402, the sample size included 30 who were selected by convenience sampling and were randomly assigned to the experimental group and the control group. Entry criteria: The minimum education level is a diploma, the minimum age is 25 and the maximum age is 40 years. 5 to 10 years have passed since their marriage. Exit criteria: Limitation of time and place to participate in meetings, suffering from a severe physical illness and disability that prevents attendance at meetings, receiving psychotherapy or drug treatment and other treatments that will disrupt the treatment process. Research tool:

General Health Questionnaire (GHQ-28): The 28-question form of the General Health Questionnaire was created in (1989) by Goldberg and Hillier and has 28 items and 4 subscales of 7 questions (physical symptoms, anxiety, impairment in social functions and depression). . This questionnaire is graded as 0, 1, 2, 3, and research questions under the title of standardization of public health questionnaire were conducted on 571 male and female undergraduate students of Tarbiat Moalem University in 1375-76. The reliability of the whole questionnaire was estimated at 0.82 using Cronbach's alpha method, and the construct validity value of this questionnaire was also 0.82 (20). In the present study, the reliability of the Cronbach's alpha method for the total mental health score was 0.77.

Quality of life questionnaire SF36: Quality of life questionnaire was developed for clinical and non-clinical use. Its application in non-clinical situations and based on positive psychology is a measure for evaluating the quality of life and satisfaction with life and is based on a coherent theory that guides therapeutic interventions. This questionnaire has 36 items and evaluates the quality of life based on physical and mental health in nine criteria. One measure is related to health changes during the past year, and four measures measure physical health (physical function, physical limitations, physical pain, general health status), and the other four measures include

psycho-emotional functioning, the role of limitations in emotional functioning, social performance and having strength and energy which is related to mental health (18). In Iran, the reliability and temporal stability of the scores of the quality of life questionnaire were obtained based on the test-retest reliability coefficients in a sub-sample consisting of 55 subjects in a standardization study. The reliability coefficient of the retest in two weeks was 0.73 and significant. Cronbach's alpha coefficient of this questionnaire was calculated as 0.76 for the total rating of life satisfaction in terms of importance (20).

**Description of group counseling sessions based on acceptance and commitment therapy,
Hayes and Strossal (2004)**

Meetings	Treatment components and goals	Exercises and content
1	Communication - Acceptance	Introducing yourself and the group members - Uniqueness of the method - Emphasis on full participation and actual performance of the exercises - Discussion of the problem - Questions for creative frustration
2	acceptance	Creating creative helplessness: the metaphor of the person falling in the well, expressing control as a problem - creating desire as another response - expressing clean pain and dirty pain - active acceptance: the annoying neighbor metaphor
3	Self as context	Conscious Mindful Breathing - Observing the Self as Context - Undermining the Conceptualized Self - Expressing the Characteristics of the Mind - Observing Practice: White Room Meditation - Conscious Focus - The Chessboard Metaphor
4	cognitive breakdown	Breathing with conscious mind - application of cognitive disconnection technique - training skills to decreolize thoughts - practice naming thoughts - practice letting go of thoughts - practice distancing from thoughts
5	attention awareness	Conscious breathing - Five senses - Paying attention to the body (emotions) - Conscious activities - Conscious breathing - Introducing the concept of values - Skiing down the hill metaphor
6-7	Values specification	Clarifying the practical values of life - identifying values - expressing the importance of each of the values governing important relationships in six areas (work relationships, friends, family, parenting, and relationship with spouse, social relationships) - explanations about social skills and parenting.
8	Action and action	Reviewing the summary of the previous session - practice paying attention to awareness - taking action in the direction of mothers' values - converting values into behavior - summarizing and preparing clients for the end of the session

To analyze the data, statistical methods at the level of descriptive and inferential statistics were used in the SPSS-24 software environment. In this regard, at the level of descriptive statistics (frequency, percentage, mean and standard deviation) and at the level of inferential statistics (analysis of covariance test at the significance level of 0.05) was used.

Findings:

The mean and standard deviation of mental health and quality of life variables in the two groups of acceptance and commitment treatment training and the control group, separated by pre-test and post-test, are shown in Table (1).

Table (1): Mean and standard deviation of mental health variables and quality of life

Variable	group	Average		Standard deviation	
		pre-exam	post-test	pre-exam	post-test
Mental health	ACT	67/25	148/08	25/85	45/56
	Control	145/47	149/22	22/26	9/25
Quality of Life	ACT	19/68	27/68	1/25	1/47
	Control	25/28	26/66	1/92	1/8769

As seen in Table 1, changes in pre- Test, post-test in mental health variables of quality of life occurred in acceptance and commitment treatment group. In the treatment of acceptance and commitment, the mean and standard deviation of mental health and quality of life scores increased significantly in the post-test compared to the pre-test. In this research, the statistical test of covariance was used due to its suitability and compatibility with the research hypothesis.

Table (2): Comparison of post-test and pre-test scores of mental health and quality of life in two treatment groups: acceptance and commitment and control

Source	Dependent variable	SS	DF	MS	F	P
group	Mental health	42451/06	1	42451/06	22/42	0/001
Error	Quality of Life	1824/41	1	1824/41	7/50	0/001
Total	Mental health	18262/52	38	480/592		
group	Quality of Life	9/52	38	0/252		
Error	Mental health	141245/35	40			
Total	Quality of Life	2408/22	40			

According to the results of Table 2, after adjusting the pre-test scores, the difference between the groups is significant at the alpha level of 0.01; Therefore, the research hypothesis based on the

effectiveness of acceptance and commitment therapy on the quality of life and mental health of infertile couples and the difference between the groups in the post-test is confirmed.

Discussion and conclusion:

The purpose of this study was to investigate the effectiveness of acceptance and commitment therapy on the quality of life and mental health of infertile couples. The results obtained from the post-test comparison of the quality of life and mental health in the two groups indicate that after participating in the acceptance and commitment therapy sessions, the average scores of the variables mentioned in the post-test stage have increased compared to the pre-test stage, so the acceptance and commitment therapy has an effect on quality Life and mental health of infertile couples has had a significant impact. The results of this research are with the research of Qureshi Amin (9), Haj Sadeghi et al. (10), Guijaro et al. (11), Landi et al. (12), Farman et al. (13), Fermanu et al.), Hanparrovan et al. (16) is consistent Education of commitment and acceptance, which involves cognitive behavioral problem solving, moment-to-moment awareness of the emotions of mindfulness, and unconditional acceptance of the problem (disorder), makes people strengthen the skills needed to solve problems. Since these patients have many cognitive distortions and dysfunctional thoughts, the activation of these thoughts not only causes the person to focus on self-depreciation and despair towards the future, and as a result, reduces mood, but also has a great effect on the exacerbation of symptoms. . Teaching different methods of challenging irrational thoughts and choosing a correct approach to the problem that is called cognitive dissonance in the treatment of commitment and acceptance can ultimately affect the quality of life of infertile couples.

One of the most important dimensions in the quality of life is physical dimensions (general health, physical role and physical pain). The results of various researches have shown that infertile people have physical problems (17). Considering that no research has investigated the effectiveness of this training in aspects related to the quality of life in infertile couples, in a general explanation about the effectiveness of these training methods in improving physical dimensions, it can be said that infertility and stress It causes physiological stress (16) and this physiological stress and pain caused by various types of infertility treatments cause many problems related to health. In this treatment, by increasing the level of acceptance and reducing mental inhibition, the amount of infertility stress that leads to physiological stress and physical pain and discomfort is reduced. Other important dimensions in quality of life are mental health dimensions (emotional role, vitality and social functioning). Also, the results showed that commitment and acceptance therapy training leads to the improvement of these components in infertile couples compared to the control group. These findings are consistent with the results of other researches, for example (18-20), that the third wave of behavioral therapies is effective in reducing impulsive behaviors and disturbing the quality of life, including mood and emotional disorders, anger and emotional instability, based on Therapy based on commitment and acceptance of increasing cognitive dissonance and conscious acceptance helps couples to experience interactions and negative thoughts in a new way, ultimately the negative actions of couples decrease, couples learn to avoid situations and thoughts that they

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previously avoided. They would engage with it and accept it. Clarifying relational values and committing to act in a manner consistent with these values gives couples the opportunity to act in ways that lead to life and relational satisfaction and to reduce personal and physiological anxiety.

Ethical Considerations: After the necessary approvals and obtaining permission from the university, in order to complete the questionnaires, the goals and working methods were explained to all the people participating in the study, and their consent was obtained and they were assured that the results of the research will be available to them if they wish. They will be placed. Also, people were assured that they are free to participate or not participate in the research, and in case of non-participation and cooperation, their treatment or care process will not be effective and will be followed up as usual. People were assured that they can decide to withdraw from the research at any stage of the research and this will not have any negative consequences for them.

Limitations of the research: This research, like other researches, had limitations, and one of these limitations was the mental and emotional state of the participants when answering the questions, which may affect the accuracy and accuracy of their answers, and this limitation was uncontrollable. .

Conflict of interest: The authors hereby declare that this work is the result of an independent research and does not have any conflict of interest with other organizations and persons.

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