

The Effectiveness of Acceptance and Commitment Based Group Therapy on Anxiety, Depression and Mental Health in Patients with Cancer

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Abstract

The main purpose of this study was to evaluate the effectiveness of acceptance and commitment based group therapy on anxiety, depression and mental health of patients with cancer in Sari. The research method was quasi-experimental with pre-test and post-test with two groups of experimental and control. The statistical population consisted of cancerous patients referred to Sari city. The statistical sample of the study consisted of 60 subjects, two groups (30 experimental group and 30 control group) who were voluntarily and purposefully selected and were randomly divided into experimental and control groups. Anxiety, Beck Depression Inventory and Mental Health Questionnaire were used for data collection. Multivariate and univariate analysis of covariance were used for data analysis. Findings of the present study show that group therapy based on acceptance and commitment is effective on anxiety, depression and mental health of cancerous patients. The findings of this study indicate the effect of acceptance and commitment group therapy on anxiety, depression and mental health of cancerous patients and its consistency with previous research findings indicates the effectiveness of acceptance and commitment group therapy in Cancer that is recognized as an effective and useful treatment and should be addressed further.

Keywords

Group Therapy, Anxiety, Depression, Mental Health

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1. Introduction

In spite of the great improvement in medical science and development of human knowledge in controlling and treating different disease, cancer is still a serious disease and in many cases is not curable that unfortunately threatens many patients' life and cancer is available for a great number of people in Human Society [1]. Now about more than 7 million people around the world lose their life as a result of cancer and it is predicted that the number of people who suffer from cancer goes up to 20 million from 10 million in 2020. In spite of making usually serious physical problems, cancer causes many social and psychological problems for cancerous peoples [2]. Cancer challenges looking at life as a regular and

continues process. A challenge that can have important psychological outcomes, patients who know their disease more dangerous and uncontrollable will be more inactive, report more inability, weaker social function and more psychological problems. Understanding the patient on how they control the symptoms of disease or duration of the disease is related to his moral status such as depression. But when patients experience a deficiency in their physical health condition, social adjustment will be more difficult [3]. Cancer is common in developing part of the world such as Asia, Africa and Latin America.

The concept of mental health is a concept that has been introduced as its opposite point, disease, for a long time. As universal Healthcare Center has defined health as the absence

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of disease or deficiency and a kind of psychological and physical comfort and devotes all its effort to prevent from disease relapse. A person is mentally healthy that is far from anxiety and symptoms of inability and can make constructive connection with others and is able to oppose life pressures [4]. Cancer has a mutual interaction with mental health and directly influences all dimensions of life and is influenced by it [5]. Cancer has negative effect on different dimensions of life such as mental, social, spiritual, economic dimensions as well as sexual function.

In addition to negative effects of this disease on life, great prevalence of fear, anxiety and depression among cancerous people are other psychological problems of this disease. Recognizing cancer is an unpleasant and unbelievable experience for everyone. For that there are different approaches to inform patients of recognizing the disease and facing them with it there are different approaches while recognizing it [6]. And still there is no unique view about it in this field among different Societies [7]. Worry about making fear, depression and anxiety in patient followed by recognizing cancer, even doctors and nurses avoid informing patients of recognizing disease although they don't tend to do that [8].

Undoubtedly an important need of these patients in facing the disease is presenting Psychological Services in order to help them in accepting disease, contrasting depression and anxiety resulting from disease and improving their psychological health. It seems that treatment based on acceptance and commitment can be effective here. Acceptance and commitment based treatment is a sub category of cognitive behavioral approach and is based on this principle that avoiding from disease and generally chronic and unwanted problems cause inability and reduce quality of life. Based on this theory avoidance happens when logical feelings and thoughts have negative and extreme effect on behaviors thus in treatment process, facing with avoided situations are considered as nuclear interference [9]. In this treatment firstly it is tried to increase person's psychological acceptance in his mental experiences and decrease ineffective control. These mental experiences can have anxious thoughts resulting from a truma (as an example suffering from diabetes) as well as disappointment and frustration. Patients are taught that whatever they do to avoid or control these unwanted mental experiments are ineffective or have side effects and make them stronger and these experiences have to be accepted without any internal or external reaction to remove them.

In the second step person's psychological awareness at present is increased, it means that person is aware of all his psychological status, thoughts and behaviors at present time. In the third step person is taught to separate him from these

mental experiences in order to act independently from these mental experiences. Forth step is a struggle to reduce extreme concentration on self-imagination or personal story that the person makes in his mind. In the fifth step the person is helped to recognize and clearly identifies his main personal values and changes them into special behavioral purposes. Final step is to create motivation in order to liable actions. It refers to activities toward identified purposes and value as well as acceptance of mental experiences [10]. Acceptance and commitment based treatment has considerable effect on reducing chronic pain and complexity results from it in addition to its undeniable effect on reducing negative psychological outcomes of cancer [11]. Pain is the most prevalent phenomenon that makes people ask for help from protective, welfare and treatment systems not only through made complexity and discomfort by pain but also through all the complex outcomes of the patient [12]. Thus after protecting patient's life, relief pain is important priorities of treatment. It finally weakens patient's mentality, feeling of depression, anxiety and depression and reduces his mental health [13].

Acceptance and commitment based approach helps clients to accept their controlled emotions and cognitions instead of emphasizing on deleting and removing damaging factors and get rid of verbal controlling principles which cause a problems and let them leave struggle and fight [14]. Main advantage of this method to other methods is considering its motivational aspects as well as cognitive aspects in order to more efficiency of treatments. Based on mentioned points in previous researches the effect of behaviors cannot be recognized on cancerous people and interfere treatment thus present research is going to answer following question: Does treatment based on acceptance and commitment has an effect on anxiety, depression and mental health of cancerous patients?

2. Purposes of Study

1. The efficacy of acceptance and commitment based treatment on reducing anxiety in cancerous patient
2. The efficacy of acceptance and commitment based treatment, meaningful effect on increasing mental health in cancerous patient

3. Research Hypothesis

1. It seems that commitment and acceptance based treatment has an effect on reducing depression in cancerous patient.
2. It seems that commitment and acceptance based treatment has an effect on reducing anxiety in cancerous patient.

3. It seems that commitment and acceptance based treatment has a meaningful effect on increasing mental health in cancerous patient.

4. Research Design

Present research from purpose dimension is fundamental and from performing nature and metal of collecting information is Sammy experimental pre-test post-test and control group the diagram of the research design is as follow:

5. Statistical Population, Sample and Sampling Method

Population of this research includes all people who referred to Cancer Centre. From among these people 30 of them were selected through purposeful sampling method. In the way that their mental health scores were lower than the median of usual person and the scores of their anxiety and depression were higher than usual person. From among them 30 persons were randomly selected and randomly put into experimental and control group.

6. Data Collecting Procedure

In this research field study and library method were used to collect data. In library method books, essays and related document to research were investigated and in order to collect the research necessary information it has been collected through going to the library resources and available documents.

7. The Summary of Treatment Sessions

7.1. First Sessions

Getting familiar with group member and making treatment connection; making people familiar with the topic of the research, investigating cancer in each member of a group about duration of disease and performed actions, general evaluation and evaluating control method and making creative overwhelming and giving response to questionnaire

7.2. Second Session

investigating external and internal environment in acceptance and commitment based therapy (ACT); creating tendency to leave inefficient plan, change and understand this point that control is the problem not the solution and introduce a substitution for controlling, means tendency.

7.3. Third Session

Recognizing members values, specification of values, purposes, actions and obstacles

7.4. Forth Session

Investigating each members` values and deepen previous concepts

7.5. Fifth Session

Realization of mixture and faulting and doing exercise for faulting.

7.6. Sixth Session

Realization of mixture to conceptualized ego and train how to separate from them

7.7. Seventh Session

Consciousness and emphasize on being at present.

7.8. Eighth Session

Investigating life story and commitments function (Flexman et al, 2014)

Third level of performing posttest has been done on two groups at the same time and a week after completing experiment level.

8. Findings of Study

8.1. First Sub-Hypothesis

Acceptance and commitment based treatment has an effect on reducing depression in cancerous patients.

Null hypotheses: acceptance and commitment based treatment doesn't have an effect on reducing depression in cancerous patients.

Table 1. Results of covariance analysis.

	Subscale	sum square	df	Mean square	F	P-value	Eta square	statistical power
Posttest	Pretest	4.27	1	4.27	1.54	0.22	0.05	0.22
	Group	458.80	1	458.80	175.69	0.000	0.86	1

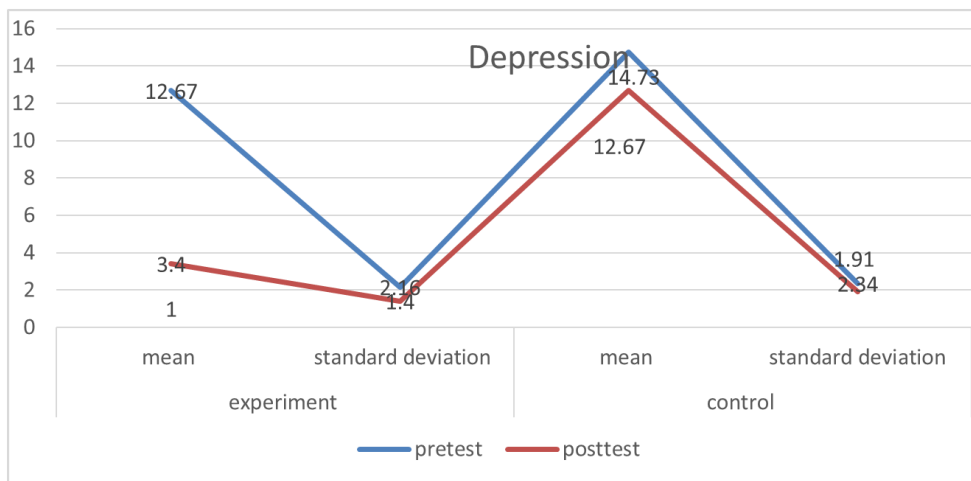


Figure 1. Relationship between pretest and posttest (depression).

Table 1 shows that there is a meaningful difference between mean Square of post-test in reducing depression of cancerous patients after removing the effect of pretest (posttest $F(1,30)=175.69$ and $\mu^2=0.86$, $P=0.000$). Thus mean square of posttest in experimental group is meaningfully more in reducing depression than control group. Considering Eta square in posttest it can be said that 86% of these changes come from the effect of independent variable. In other word acceptance and commitment based treatment meaningfully causes reducing depression in cancerous patients in posttest

that indicates acceptance and commitment based treatment has an effect on reducing depression in cancerous patients.

8.2. Second Sub-Hypotheses

Acceptance and commitment based treatment has an effect on reducing anxiety of cancerous patients.

Null hypotheses: acceptance and commitment based treatment doesn't have an effect on reducing anxiety of cancerous patients.

Table 2. Results of covariance analysis.

	Subscale	sum square	df	Mean square	F	P-value	Eta square	statistical power
Posttest	Pretest	2.88	1	2.88	1.76	0.19	0.06	0.24
	Group	499.28	1	499.28	304.22	0.000	0.88	1

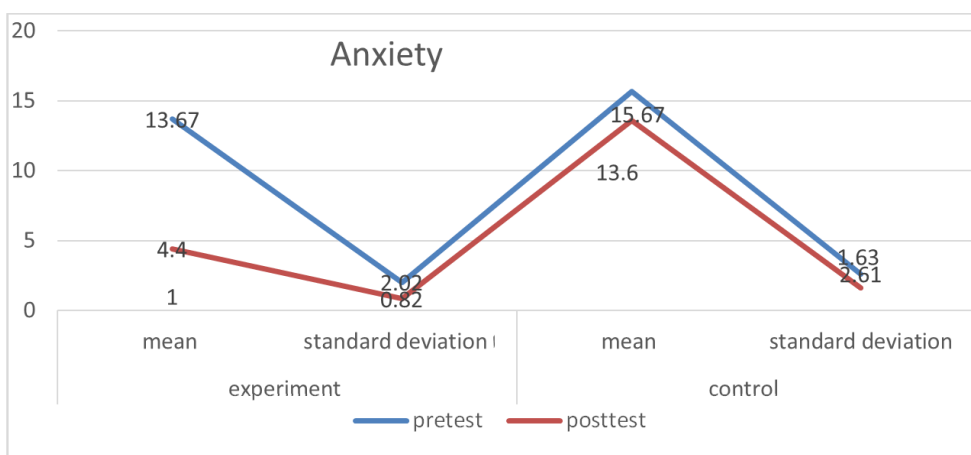


Figure 2. Relationship between pretest-posttest (Anxiety).

Table 2 indicates a meaningful difference between mean square of posttest in reducing anxiety after deleting pretest (posttest $F(1, 30) = 304.22$ and $\mu^2 = 0.88$, $P = 0.000$). Thus mean square of posttest in experimental group is meaningfully more in reducing depression than control group. With considering Eta square in posttest it can be said that 88%

of these changes come from the effect of independent variable. In other word acceptance and commitment based treatment meaningfully causes reducing anxiety in cancerous patients in posttest that indicates acceptance and commitment based treatment has an effect on reducing anxiety in cancerous patients.

8.3. Third Sub-Hypothesis

Acceptance and commitment based treatment has an effect on increasing mental health in cancerous patients.

Null hypothesis: acceptance and commitment based treatment doesn't have an effect on increasing mental health in cancerous patients.

Table 3. Results of covariance analysis.

	Subscale	sum square	df	Mean square	F	P-value	Eta square	statistical power
Posttest	Pretest	1.71	1	1.71	0.74	0.78	0.003	0.05
	Group	8257.04	1	8257.04	355.21	0.000	0.92	1

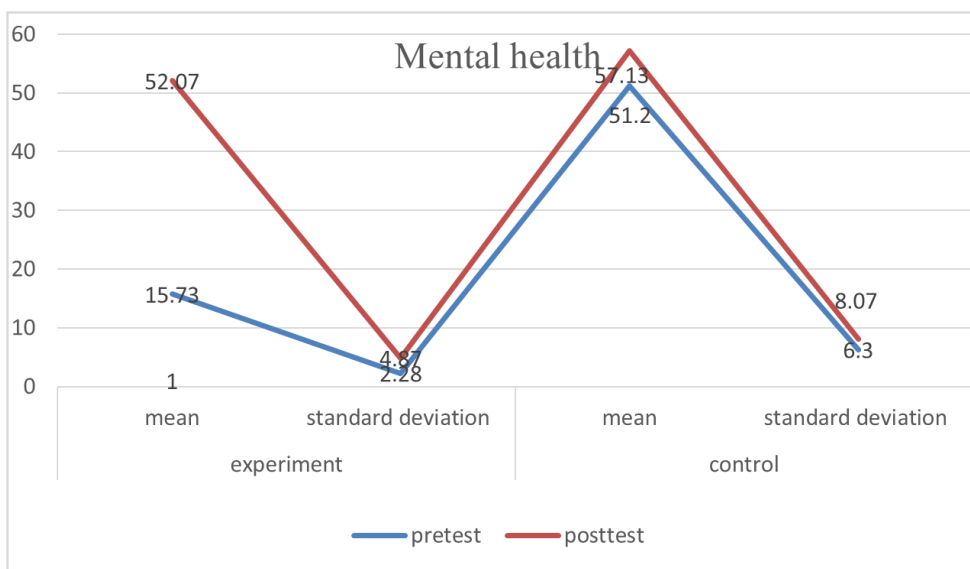


Figure 3. Relationship between pretest- posttest (mental health).

Table 3 indicates a meaningful difference between mean square of posttest in mental health after deleting pretest (posttest $F(1, 30) = 355.21$ and $\mu^2 = 0.92$, $P = 0.000$). Thus mean square of posttest in experimental group is meaningfully more in reducing mental health than control group. With considering Eta square in posttest it can be said that 92% of these changes come from the effect of independent variable. In other word acceptance and commitment based treatment meaningfully causes mental health in cancerous patients in posttest that indicates acceptance and commitment based treatment has an effect on increasing mental health in cancerous patients.

9. Conclusion

First Sub-Hypothesis: acceptance and commitment based treatment has an effect on reducing depression in cancer patients.

Findings in present research show that based on comparing results of posttest into experimental and control group in the scale of cancerous patients' depression, acceptance and commitment based treatment improves these variables in subjects of experimental groups. It is completely clear in comparing means of two groups and difference in two groups is statistically meaningful. These findings are parallel with

researches of Akosy et al [15], Beruk [16], Helmer [17]. In specifying these findings it can be said that: Whatever happens about cancerous patients is that with beginning of disease, person leaves his purpose and what was important for him or it's better to say he leaves his values and thinks that he is no longer able to continue his life as before. Thus not only an unpleasant factor unwantedly enters in his life, but also he puts away pleasant factors in his life (values and purposes) the possibility of depression and anxiety increases. This treatment through increasing concentration, hope to life, quality of life, reducing depression, reducing psychological tension and anxiety, reducing anxiety of cancerous patients cause them to have active function in treatment procedure through accepting psychological pain and through following doctor's order and observing prescribed diet and using medications in definite time, observe self-protection behaviors and hasten improvement procedure.

Second Sub Hypothesis: it seems that acceptance and commitment based treatment has an effect on reducing anxiety in cancer patients.

Findings in present research based on comparing the results of pretest and posttest into experimental and control groups in the scale of anxiety of cancerous patients, acceptance and commitment based treatment cause improving these variables

in subjects of experimental group. It is clearly observable in comparing means of two groups and the difference in two groups is statistically meaningful. These findings parallel Jaroo, Vorska [18], Karakelle [19]. In specifying these findings it can be said that cancer is an example of diseases that because of social problems, incorrect thinking dominated in society affects mental and social health of these patients in addition to physical dimension and cause revealing many psychological diseases for them that doesn't cause only in simplicity of body weakness but is a social and historical event which affects individual's attitude to patients. Fear and anxiety from the beginning of recognition of disease accompany it, fear of missing properties, not access to suitable social situation face cancerous patient with different anxieties. Anxiety of death is a basic anxiety to which cancerous patient face. Death is an important and final event of life. Physical death means completely stopping of vital functions but may psychologically have different concepts to different people. Death means missing dears, stopping life activities, releasing experiences and entering to an unknown world.

Acceptance and commitment based treatment in this research helps reduction of death anxiety. Based on this treatment method, dealing with emotions makes them worse. Act doesn't mean to ask client to accept every situation but some conditions have to be finally accepted since we cannot do anything except it. As an example past events and memories or suffering from an incurable disease make client anxious and depressed, he has to accept that it happens and has to be accepted and changes his feeling to them. Through considering obtained findings it has been shown that acceptance and commitment based treatment has a positive effect on reducing anxiety of death in cancerous patients. In this specification it can be said that in this treatment the purpose of emphasizing on individuals' tendency to internal experiences was to help them to experience their bothering thoughts only as a thought and be aware of inefficient nature of their present plan and do what is important to them and is paralleled to their values instead of responding them. Acceptance and commitment based treatment is a behavioral treatment which use mindfulness, acceptance and cognitive fault for increasing psychological flexibility. Act treatment causes increasing client's ability for making connection with their present experience and based on what happens to them at the moment.

Third Sub-Hypothesis: It seems that acceptance and commitment based treatment has a meaningful effect on increasing mental health in cancerous patients.

Findings of present research show that based on comparison of pretest-posttest into control and experimental group in the scale of mental health in cancer patients, acceptance and

commitment based treatment causes improvement in these variables in the subjects of experimental groups. It is completely clear in comparing means of two groups and difference in two groups is statically meaningful. These findings parallel previous researches of Komar, Foster [20], Lozda, K, Jansma. Sileo, Thomas [21]. In specification of these findings it can be said that main issue in cancerous patients is solitude and depression which affects their personal evolution which is in direct connection with mental health. In this connection an undergone mental pressures because of disease, the degree of adjustment and adaptation with these pressures in different situations can be counted.

Mental health consists of subscales of anxiety, depression, social functions and physical symptoms considering experiments that refer to high levels of depression and anxiety in these patients. Thus it is tried to consider mental health, anxiety symptoms and depression more in specification of present treatment effect. Anxiety and depression have been introduced as the most common disorders along with many diseases. Efficacy of present treatment on mental health can be specified in this way that in this type of treatment, individuals learn to accept their feelings not to be away from it and pay more attention to their thoughts by mindfulness and connect them to purpose based activities. Shortly it can be said that acceptance and commitment based treatment tries to learn people to experience their thoughts and feelings instead of trying to stop them, people are asked to do toward their purpose and values and experience their thoughts and feelings. Through using this treatment patient's psychological problems such as depression and anxiety can be greatly reduced and cause reduction in experiencing them which finally cause increasing hope to life, adjusting with conditions of disease, better relation with others, reduction of connected problems to depression and anxiety and generally cause increasing mental health.

10. Research Suggestions

10.1. Suggestions Based on Research Outcomes

1. Considering obtained results of this research it seems that acceptance and commitment based treatment can be used as a complementary psychological treatment along with psychiatric medical treatment and obtain better results
2. Results of research indicate that psychological needs of cancerous patients in clinics are not considered. Anxiety, depression and mental health can be improved through short term planning and making necessary conditions. These activities are really important especially for

patients who don't receive a desirable Social Protection

3. Hospitals and treatment centers can help educational periods for families. It is really considerable in improving cancerous patients' relation with families and increasing their psychological health such as depression, anxiety and mental health.
4. Most researchers and advisors in a field of children believe that a unified approach meaning a combination of patient oriented treatment, acceptance and commitment psychoanalysis are effective in improving different types of problems in cancer patients.
5. Considering difficulty of working with cancer patients it is suggested that therapists in this domain be patience enough to do this job and be aware of all methods of working with these patients.
6. Considering empirical evidences resulting from this research and obtained results it is suggested that performing and educating programs of acceptance and commitment based treatment presenting in cancer treatment centers for better understanding of problems and disorders in cancerous patients and their families will be presented and changes in their attitudes is provided.

10.2. Suggestions for Further Studies

1. Considering shortages and gaps in studies it is suggested that future researchers investigate acceptance and commitment based treatment and its functions in reducing anxiety, depression and mental health in order to increase awareness, knowledge and attitudes.
2. It is suggested that for better evaluating of efficacy and the effect of acceptance and commitment based treatment on reducing anxiety and depression of cancerous patients in future researchers plans have been designed and to hold evaluating sessions after treatment.
3. Investigating the efficacy of other psychological treatment in reducing anxiety, depression and increasing mental health by interested researchers are considerable and it is suggested that in addition to the effect of function of other treatments, easier and economical methods will be investigated and studied.

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