

Determining the Effectiveness Treatment Based on Acceptance and Commitment ACT on Reducing Death Anxiety and Life Expectancy of Patients with Breast Cancer

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Abstract

To determine the effectiveness treatment based on acceptance and commitment ACT on reducing death anxiety and life expectancy of patients with breast cancer, 30 people were chosen purposefully and divided into two experimental and control groups randomly.

The sample size were selected with Cohen's Table and 5% effect size in each group and 65% power of test 65% with 5% Alpha in each group. All subjects completed all the research tools on two occasions and they passed 8 sessions of group therapy. To collect the data, was used Schneider's life expectancy questionnaire and Templar's death anxiety questionnaire. Data were analyzed by One-way analysis of covariance. The results showed that treatment based on acceptance and commitment is effective on reducing death anxiety of patients with breast cancer. Also treatment based on acceptance and commitment is effective on increasing life expectancy of patients with breast cancer.

Keywords: death anxiety, life expectancy, breast cancer.

Introduction and Problem Statement

A life with of illness or severe injury is unpredictable and undesirable. This kind of life is full of dangers that noticed a person's self-image and damages to self-esteem, feel free, daily activities, physical comfort and her future life. Incurable disease causes many consequences; including: denial, anger, depression, uncertainty and loneliness. There have been peoples in every period of history, in every culture and civilization in all social levels that were lower than normal levels in social activity and has made it them difficult to adapt with their living conditions (Davis, 2005).

In the past fifty years, psychologists have focused on the treatment of deficiencies and overcome disabilities. But positive psychology focuses on increase happiness and health and study the role of personal strengths and positive social system on promoting optimal health. (Crook, 2008).

One of Important part of positive psychology is hope. The hope when is strong that included valuable goals and with exist the challenging obstacles and exist possibility of achieve it in the medium term. Those who have high levels of hope, experience failures in his life as much as others but have developed this believe that can compromise with challenges and deal with adversity (Eshpigel, 2010). Against the life expectancy, there is anxiety and fear of death that Human experience it, and somehow has occupied their minds. But since today due to lifestyle changes, Non communicable diseases such as cancers are increasing day by day. Among cancers, breast cancer is the most common cancer in women. Since breast cancer is a traumatic event for many women, excitement and mentally, emotionally and socially enters a severe hurt to person. Because this member is one of sensitive member of the body and is considered as sign of beauty and charm of a woman. Therefore, we can increase strategies for of happiness and life expectancy in these patients by increasing the awareness and understanding of people's beliefs about the disease that decreased the death anxiety in patients (Escachiro and Bergin, 2007).

Thus, according to the above the aim of this research is determine the effectiveness treatment based on acceptance and commitment ACT on reducing death anxiety and life expectancy of patients with breast cancer.

Methodology

The research method was quasi-experimental and in the form of pretest - posttest design with control group. The study population included all women patients with breast cancer in Tehran's Bu-Ali hospital who was undergoing chemotherapy and medication in 2015. The sample size were selected with Cohen's Table and 30 people were chosen purposefully and divided into two experimental and control groups randomly. To collect the data, was used Schneider's life expectancy questionnaire and Templar's death anxiety questionnaire. Schneider's life expectancy questionnaire has 12 question that show the rate of hope. Templar's death anxiety questionnaire is a tool to measure death anxiety that is used most widely. This scale is self-executive questionnaire consisting of 15 yes or no questions. This questionnaire has been translated into Persian by Akbari (2008) which has three components: pure death anxiety factors, public agent and fear of pain and injury. The reliability of these components have reported respectively 0.68, 0.49 and 0.60.

The methods in this study were measured by both groups at a time and before running the independent variable. Then the first group will be exposed to an independent variable but this variable was not implemented for the second group. And then both groups at a time after the implementation of the independent variables were measured again. In this way was held 60 minutes 8 session for therapy group for patients in the intervention group. In the end, both groups answered to questionnaire again. To evaluate the hypothesis were used One-way analysis of covariance of descriptive and deductive statistical methods.

Results Findings

Table 1. Mean and standard deviation of pre-test and post-test related to control and experimental groups for Death anxiety and life expectancy variables.

Variable	Source	Pre test		Post test	
		Mean	Standard deviation	Mean	Standard deviation
Death anxiety	Control group	11.64	0.30	11.80	1.20
	Experimental group	11.40	1.45	9.53	0.99
Life expectancy	Control group	28.93	3.89	27.80	3.60
	Experimental group	30.53	3.73	34.53	3.71

As Table 1. Be observed more difference in the mean of all the post test scores in experimental group in both Research variables than mean of the post test scores in control group.

Table 2. Correlation matrix of pre-test and post-test variables in control group.

Scale	Post-test of death anxiety	Post-test of life expectancy
Pre-test of death anxiety	0.92 **	
Pre-test of life expectancy		0.96 **

$P \leq 0.01^{**}$

$P \leq 0.05^*$

Table 3. Correlation matrix of pre-test and post-test variables in experimental group.

Scale	Post-test of death anxiety	Post-test of life expectancy
Pre-test of death anxiety	0.75 **	

Pre-test of life expectancy		0.90 **
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$P \leq 0.01^{**}$

$P \leq 0.05^*$

Given the number of samples ($n = 15$) and the coefficients of correlation between pre-test and post-test is significant at the 0.01 level in death anxiety and life expectancy subscales in the experimental group.

Table 4. One-way analysis of covariance to determine the effectiveness treatment based on acceptance and commitment on reducing death anxiety of patients with breast cancer.

Levine test F	Slope of the regression test F	Source	Sum of squares	Degrees of freedom	Mean of squares	ω^2	F
1.29	0.85	Post-test of death anxiety	38.53	1	38.53	0.78	100.61**
		Error	10.34	27	0.38		
		Total	3486.00	30			

$P \leq 0.01^{**}$

$P \leq 0.05^*$

Table 4. Shows that after adjusting for pre-test scores, there is significant effect of subjects of group. Because of the significant level of obtained F with 1 degrees of freedom for the dependent variable (post-test of death anxiety) 100.61 is smaller than 0.01.

Table 5. One-way analysis of covariance to determine the effectiveness treatment based on acceptance and commitment on increasing life expectancy of patients with breast cancer.

Levine test F	Slope of the regression test F	Source	Sum of squares	Degrees of freedom	Mean of squares	ω^2	F
0.09	0.95	Post-test of life expectancy	200.79	1	200.79	0.81	118.90**
		Error	45.59	27	1.68		
		Total	29857.00	30			

$P \leq 0.01^{**}$

$P \leq 0.05^*$

Table 5. Shows that after adjusting for pre-test scores, there is significant effect of subjects of group. Because the significant level of obtained F with 1 degrees of freedom for the dependent variable (post-test of life expectancy) 118.90 is smaller than 0.01.

Discussion and Conclusion

The aim of this research is determine the effectiveness treatment based on acceptance and commitment ACT on reducing death anxiety and life expectancy of patients with breast cancer.

The findings of the study are consistent with results of Tanser (2010) and Tilwer (2012).

Based on the results of this study can be pointed out that ACT theorists used of relationship framework to illustrate the process through it recognition play a role in psychopathology. Because the theory of the relationship framework, is background-oriented theory has less emphasis on content of cognition and emotion. Instead, emphasizes on field that occur thought and emotion in it. Also other background properties which regulate how is effective on this action (Wall, 2010).

For this reason, when occurs cognitive activity with relationship framework in the field of the verbal, personal ability to experience the real function of internal or external stimuli, without verbal regulation overcome and interferes it. This leads to behavior that is less flexible in adapting to environmental similarity. It seems the process reduced the death anxiety in breast cancer patients after the treatment.

Other findings showed that treatment acceptance and commitment is effective on increasing the life expectancy in patients with breast cancer. The results of the hypotheses are consistent with results of Turk (2003), Saroghlo (2002). Based on the results of this hypothesis can be pointed out from the perspective of ACT, Cognitive restructuring is a huge concentration on content of the focus recognition and thus rumination cycle is alive (Riech, 2013). In order to support of acceptance based approach were used from the research related to think inhibition. The purpose of acceptance process is reducing the need to think inhibition. With emphasis on modifying the content of think and by labeling some thoughts as inaccurate and dysfunctional thoughts, Increases their desire to inhibition (Kohi, 2005). On the other hand, the challenge with thought causes decreased sense of control because inhibition thoughts are frequently more accessible.

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