# Effectiveness of Acceptance and Commitment Therapy on Death Anxiety and Death Obsession in the Elderly

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## **Abstract**

Introduction: The purpose of this study was to determine the efficacy of acceptance and commitment therapy on death anxiety and obsession in the elderly.

Methods: The research design was semi-experimental and pre-test-post-test type with control group. The statistical population included all men living in one of the elderly centers of Kermanshah City in 2016. After completing Templar death anxiety questionnaire (DAS) and Death Obsession (1998), 26 subjects who attained scores higher than the cut-off point in the scales of death anxiety, were randomly selected and assigned to experimental and control groups (13 in each group). Then, they participated in eight sessions (each for 90 minutes) protocol of therapy based on acceptance and commitment (Hayes et al., 1999) for the experiment group.

Findings: Data was analyzed using one-way covariance analysis. The findings of this study showed that there is a significant difference between the two groups of experimental and control in terms of death anxiety and death obsession (p<0.001).

Conclusion: The final achievement of this research was the positive effect of acceptance and commitment therapy on the improvement of death anxiety and obsession in elderly men.

Key words: Acceptance and Commitment Therapy, Death Anxiety, Death Obsession, Elderly

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## Introduction

Elderly is a stage in human life that naturally leads to a decrease in physical and mental abilities (1). The aging period, of course, on condition of survival, is unavoidable for humans (2). Older people are usually classified as over 65 years old (3). Today, the number of elderly around the world is estimated to be around 605 million people (4, 5), and the increase of this age on the world is estimated to be around 2 billion by the year 2050 (6). The population of the elderly in Iran will rise to more than 26 million in 2050, and its proportion to the total population will reach about 23% (7). Changes in the aging period include issues such as reduction of physical abilities, changing body responses to medications, experiencing important life events such as retirement, staying in nursing homes and reducing income (8), the lack of social support and less involvement in society (9). In addition to the decline in biological processes and the increase in the quality and quantity of the aging period, facing inevitable death and associated anxiety also play a role in creating mental disorders during this period (10, 11).

Death anxiety means constant and abnormal fear of death or dying. According to the definition of the British National Health Service, death anxiety means "a kind of panic or much worry when thinking about the process of dying or disconnecting from the world or what happens after death" (12, 13). Problems such as physical weaknesses against diseases, disabilities and the loss of relatives and friends (mourning and loss) provide more evidence for thinking about death and anxiety in old age(14). The breakout of death anxiety in this period is higher than in other age groups(15, 16). Death anxiety is a common feature among the elderly which means fear of dying of ourself and others (17). Sainey, Pathidar & Cayor showed that people with chronic pain and the elderly experience more death anxiety(18). Death anxiety can increase a negative attitude toward aging and even lead to anxiety and fear of aging (19, 20).

In addition to the death anxiety, the elderly are disturbed through the thoughts about death and dying. Death obsession involves repetitive or ruminant thoughts, persistent beliefs or disturbing images around your own death or loved ones, summarized in three rumination factors of death, death domination and repetitive beliefs about death (21). Malteby and Dee (22) also enumerated these three factors. The concept of death obsession was initially introduced by Abdul Khaleq (23). He believes that there is a connection between death and obsession; death is a possible subject of obsession, so that we can talk about individual difference in the obsession with death, in other words, we can say that some people are worried about the issue of death (24). Shakil and Yousaf, in research entitled "Death obsession and Ruminants on Political Instability in Muslim Young People" found that there is a direct relationship between death obsession and rumination in adults(25).

One of the interventions that can affect death anxiety and obsession is the therapy approach based on acceptance and commitment. Acceptance and commitment therapy is rooted in a theory called the FRT of which the philosophical basis of this theory is also structural functionalism. The FRT states that language is important for describing classification, evaluation, problem solving, creativity and initiative, as well as for the development of human culture but at the same time, the language can be considered as a primary source of human suffering (26). In fact, the fundamental structure and concept in commitment and acceptance theory is that suffering and reflections are created by avoiding experiences, intertwined cognitions, failing to meet behavioral needs and not matching with fundamental values (27). Acceptance and commitment therapy consists of six processes that lead to psychological flexibility. These six processes include: acceptance, neutralization (fault), own- underlying, communicating with the Current moment, values and commitment act (28). The purpose of the acceptance and commitment therapy is not to directly change for the referent, but to assist the referent in order to communicate with their experiences in different ways and be able to fully engage with a meaningful life based on value(29). Haker, Stone & Bakbas found some evidence on the effectiveness of acceptance and commitment therapy for anxiety and depression compared to other active control conditions(30). Graham, Gillanders, Stuart and Gouick showed that psychotherapy is an effective way for acceptance and commitment therapy in the therapy of essential depression, anxiety and stress in people with stroke with cardiac dysfunction and dizziness(31).

Twohig, Whittal, Cox, and Gunter demonstrated a reduction in the symptoms of practical obsession with acceptance and commitment therapy(32). Izadi and Abedi concluded that acceptance and commitment acceptance could be an effective therapy for patients with drugresistant obesity(33). The elderly are not immune to death anxiety and depression; psychologists know well some types of depression and death anxiety are used as a good way to Improve yourself and they ruin their final years. Therefore, it is important to carry out research and medical interventions to prevent mental disorders during old age due to the increasing number of elderly people in the country and considering the physical and psychological outcomes of anxiety and obsession in the elderly. Also, since it has not previously been conducted any research to evaluate the effectiveness of acceptance and commitment therapy on the death obsession and anxiety of elderly people within the country, the purpose of the present study was to investigate the efficacy of acceptance and commitment therapy on death anxiety and obsession in the elderly.

## Methodology

## Research design and participants

The research design was semi-experimental and post-test pre-test type with control group. The statistical population consisted of all elderly residents of elderly centers in Kermanshah City. The sample was selected using available sampling method from among the elderly men who were members of the Farzanegan Center in Kermanshah City. Twenty-six elderly men were randomly divided into two, experimental and control, groups. The terms of participating in the study were: age 60 and above, having satisfaction with participating in the research, proper listening and speaking ability and having no history of mental illness in the hospital, and exclusion criteria included simultaneous attendance at other psychotherapy sessions, as well as refusal to continue participating in training sessions.

#### **Tools**

Death Anxiety Questionnaire: This questionnaire was developed by Templer (34) and contains 15 articles that measure the attitude of the subjects to death. Subjects specify their answers to each question with the option yes or no. The answer yes indicates death anxiety in the person. Thus, scores of this scale can range from 0 to 15, of which a high score indicates high levels of anxiety about death in people. Templar Anxiety death Scale is a standard questionnaire and has been used in various research worldwide to measure anxiety. The scale re-test coefficient is 0.83 and its concurrent validity based on correlation with the clear anxiety is 0.277 and the depression scale has been reported 0.40 (35). Two scales of worry about death and clear anxiety were used to investigate the validity of the Templar death anxiety scale. The result was 0.40 for anxiety scale correlation coefficient with a death anxiety scale 0.34 for anxiety correlation coefficient with clear anxiety scale.

Death Obsession Scale: This scale was created by Abdul Khalil in 1998. It has 15 items and has three factors that are respectively: Death rumination, death domination and repeated beliefs related to death. Abdul Khaleq (23)reported Cronbach's Alpha coefficient for the whole scale 0.90 and for its factors 0.92, 0.92 and 0.92 respectively. The simultaneous validity of this tool is calculated by calculating the correlation coefficient with similar scales. Correlation coefficient of Death obsession Scale with Death anxiety Scale has been reported 0.62, Death Depression 0.57, general Obsession 0.46, General Anxiety 33.0, General Depression 0.42 and Izang Psychosocial Scale of Personality Inventory 0.35 (23). In Iran, the simultaneous validity of this scale through its simultaneous implementation with the death anxiety scale was 0.76 and its retest reliability coefficient 0.73(36).

Training sessions: The protocol of the training sessions were taken based on the research done by Hayes, Streswell and Wilson (37)in 8 sessions of 90 minutes. The summary of the content meeting of each session is presented below.

## Procedure

After obtaining the necessary permission to conduct the research, the research sample was selected and randomly divided into two, experiment and control, groups based on the score of death anxiety and death obsession questionnaire according to the criteria for entering and leaving through sampling from male residents of Farzanegan nursing homes in Kermanshah City (26 elderly men qualified to participate in the study). Then, the experimental group received 8 sessions of acceptance and commitment therapy, while the control group did not receive any intervention. At the end of the intervention, both groups answered the questionnaires. The therapy protocol was implemented by the researcher. The data were analyzed using SPSS application version 21 and covariance analysis statistical method.

Table 1: The acceptance and commitment therapy protocol

Session	ACT
1	The limits of control (short and long-term costs and benefits; finger traps), focus on experience (body scan)
2	Values (what you care about, how you want to live your life)
3	Cognitive defusion (observing thoughts without trying to evaluate or change them)
4	Mindfulness (being in the moment, raisin exercise)
5	Committed action ("road map" connecting values, goals, actions, obstacles, and strategies)
6	Self as context. Metaphor: "Chessboard"
7	Review and continued action in support of values
8	Moving forward

## **Findings**

The descriptive findings of the present study including statistical indices such as mean and standard deviation of the variables studied, are presented in Table (2).

Table 2: Mean and standard deviation of death obsession in pre-test and post-test of variables studied

Groups	Statistical indices	Pre-test	Post-test	
experiment .	Mean	9.45	5.58	
experiment .	Standard deviation	1.78	1.23	
control	Mean	9.38	9.61	
control	Standard deviation	1.33	1.81	

As Table 2 shows, the mean and standard deviation of the pre-test of the death anxiety variable were 9.45 and 1.78 in the experimental group and 9.38 and 1.33 in the control group. In the post-test stage, the mean and standard deviation of experiment group decreased to 5.58 and 1.28 and in the control group it was 61.9 and 1.81. As it can be seen, the mean of death anxiety in the experimental group in the post-test is less than that in the control group.

Table 3: Mean and standard deviation of death obsession in pre-test and post-test of two groups

Groups	Statistical indices	Pre-test	Post-test	
	Mean	21.59	12.54	
experiment -	Standard deviation	14.45	8.15	
2.77	Mean	22.18	21.05	
control -	Standard deviation	13.84	14.10	

As Table 3 shows, the mean and standard deviation of the pre-test of the death obsession variable were 21.59 and 14.45 in the experiment group and 22.18 and 13.84 in the control group. In the post-test stage, the mean and standard deviation of experiment group decreased to 12.54 and 8.15 and in the control group it was 21.05 and 14.10. As it can be seen, the mean of death obsession in the experimental group in the post-test is less than that in the control group. Before the covariance analysis test, normalization hypothesis using the Kolmogorov Smirnov test, homogeneity hypothesis of variances in two groups by using Levine's test, homogeneity hypothesis of regression slope using variance test were assessed and all in two death anxiety and torment of death variables with alpha greater than 0.01 were confirmed.

Table 4: Kolmogorov-Smirnov test to examine the normalization hypothesis of variables in the two groups

Kolmogorov-Smirnov test							
Variable	test	group	statistics	Freedom degree	Significance level		
	Pre-test	Experiment	0.14	13	0.33		
Dooth anviate		Control	0.17	13	0.33		
Death anxiety	Post-test	Experiment	0.16	13	0.33		
		Control	0.16	13	0.33		
	Pre-test -	Experiment	0.13	13	0.25		
Dooth sheers on		Control	0.21	13	0.25		
Death obsession		Experiment	0.21	13	0.25		
	Post-test	Control	0.21	13	0.25		

As Table 4 shows, the normalization hypothesis in the death anxiety and death obsession variables was confirmed in the two groups with a significant level less than 0.01 (P < 0.01).

Table 5: F Levin test to examine the same hypothesis of variances in the two groups

Variables	Statistical Indices				
	Freedom degree 1	Freedom degree 2	F	Significance level	
death anxiety	1	24	3.13	0.082	
death obsession	1	24	2.64	0.076	

As Table 5 shows, F Levin test with a significant level less than 0.01 was confirmed to examine the same hypothesis of variances in the two groups (P < 0.01).

Table 6: Variance test for regression slope in death anxiety and death obsession variables in two groups

variables	Source statistic index	Sum of squares	Freedom degree	F	Significance level
	group	11.09	1	2.56	0.071
	Pre-test	323.36	1	85.71	0.197
death anxiety	Group, pre-test	0.017	1	0.186	0.956
	error	81.75	22		
	total	7906.15	26		
	group		1	14.78	0.126
4	Pre-test		1	76.69	0.089
death	Group, pre-test		1	2.45	0.687
obsession	error		22		
	total		26		

According to the results of Table 6, variance test to examine regression slope in two groups was confirmed with F= 0.186, significance level 0.956 in death anxiety; it was confirmed with F=2.45 and significance level 0.687 death obsession variables in death obsession variable.

Table 7: Results of single-variable covariance analysis on moderated scores of the studied variables

Variables	Sum of squares	Freedom degree	F	Significance level	Effect size
Death anxiety		1	46.51	0.001	0.86
Death obsession		1	71.35	0.001	0.72

According to Table 7, the results of one-variable covariance analysis between the two groups on the moderated scores of death anxiety with F=46.51 and significant level 0.001 and for death obsession (F=71.35) and significant level 0.001 indicate a significant difference between the two groups with 99% confidence (P<0.01). Acceptance and commitment therapy with effect size of 0.86 and 0.72 can explain 86% of the variance of death anxiety and 72% of variance of death obsession.

## Conclusion

The purpose of this study was to investigate the efficacy of acceptance and commitment therapy on reducing death anxiety and death obsession in the elderly. According to this purpose, two groups were studied. The two groups were analyzed in two stages: pretest and post-test using Templer Death Anxiety Questionnaire and Abdolkhaleg Death Obsession Questionnaire. The results of this study showed that acceptance and commitment therapy has a significant effect on the reduction of anxiety and death obsession in the elderly. The results are consistent with the studies of Kakavand et al. (38), Yazdanbakhsh et al(39), Jani, Molaie, Gangi Gharche Bigloo and Pour Esmaeili (40), Aziz and Mominie(41)and Faramarzi, Askari and Tagavi (42). Also, the results of this study are consistent with the results of Mojdehi et al. (43) which investigate the therapy mediators and the effectiveness of acceptance and commitment therapy in reducing the symptoms of general anxiety disorder.

According to the theory of social abandonment, when elderly people are waiting for death, there is a mutual retreat between them and society and older people reduce their activity level and interact less and entertain more in

their inner world (44). According to ACT theorists, empirical avoidance is an important factor in the creation and maintenance of psychological injuries, including anxiety. Experimental avoidance means negative exaggeration of internal experiences and reluctance to experience them, which leads to attempts to control or escape them and can interfere with a person's performance (27). Accordingly, the purpose of acceptance and commitment therapy is to reduce empirical avoidance and increase psychological flexibility by accepting unavoidable and unpleasant emotions such as anxiety, raising awareness and identifying personal values related to behavioral goals. Theorists such as Eifert and Henfer (45) believe that acceptancebased approaches, instead of emphasizing the reduction of anxiety, tend to foster their experience and the exposure to these unpleasant emotions by identifying values and linking behavior to personal values and goals. As Joredine and Devlin (46) also showed in their case study that acceptance and commitment therapy reduces the anxiety of the individual by reducing the empirical avoidance and increasing psychological flexibility.

The pivotal processes of acceptance and commitment therapy in this study were to educate the techniques that patients used to control thought, meaning how to deal with

the disturbing thoughts about death and how to manage and control their emotions. Using admissions in the process of acceptance and commitment therapy makes people suffer less from obsession-caused situations. It should be noted that in acceptance and commitment therapy, focusing on obsessive thoughts and behavior is not straightforward, but using acceptance and faults techniques, unpleasant excitement has a downward process and consequently, the death obsessive thoughts and behavior is reduced. One of the important techniques in acceptance and commitment therapy is to specify values for references, as new values are defined and replaced instead of the values defined in the cognitive process of the patient; this re-evaluation, in individuals' cognitive process, reduces their obsessive thinking. Cognitive flexibility also teaches individuals that the existence of death obsessive thoughts is not the main issue, but the main thing is to respond to these thoughts as obsessive behaviors. Therefore, by learning cognitive flexibility, they are trained to gain a wider behavior treasury. It can be concluded that acceptance and commitment therapy, without focus on the symptoms of death anxiety and death obsession and the lack of efforts to suppress obsessive thoughts, can help to reduce death anxiety and death obsession in the elderly.

The research population consisted of men living in Farzanegan nursing homes in Kermanshah City, so that the results should be generalized with caution. One limitation of this study is the lack of this therapy with others. In this regard, it is suggested that further research studies the effects of other therapies along with this therapy in different time and place situations on a larger sample group.

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