# The Effectiveness of Optimist Memory Telling on Death Anxiety and the Sense of Aging in Elderly

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# Abstract

**Introduction:** The aging phenomenon is caused by the natural time course leading to physiological, psychological and social changes, and is usually associated with death anxiety and sense of aging. Therefore, this study aimed to investigate the effect of optimist memory telling on death anxiety and sense of aging in elderly people.

**Methods:** This study was a semi-experimental research through pre-post-test with a control group. The statistical population included all the elderly residents of nursing homes in Kermanshah during 2017, among which 40 people were randomly selected and were assigned to two groups of experimental and control (each group of 20). The experimental group participated in 8 sessions of optimist memory telling treatment, each lasting for 60 min. Data were analyzed using SPSS 21, covariance analysis method, and T-test.

**Results:** The results indicated that there was a significant difference between the mean death anxiety and the sense of aging in the experimental and control groups. In other words, training optimist memory telling reduced the anxiety caused by death and the sense of aging in the elderly (P< 0.05). **Conclusion:** Considering the effect of training optimist memory telling on decreasing death anxiety and the aging sensation of the elderly, it is recommended that therapists and psychologists use this method to reduce death anxiety and the sense of aging in the elderly.

Keywords: Sense of Aging, Death Anxiety, Optimist Memory Telling, Elderly

#### Introduction

Today, the increased population of elderly people is considered as a major problem in any society and it has involved all the economic, social and health dimensions [1]. Significant progress in medical science, rising community health and living facility levels, reduced mortality and increased births have all increased the average life span of humans. Currently, the average life span in some advanced countries has reached more than 90 years, indicating an increase in the aging population [2]. The number of the elderly people around the world has been estimated to be 605 million people, recently [3]. This trend is also seen in Iran. According to various studies and the Iranian Statistical Center census, the population of the elderly over 60 years old will increase from 8 % today to 22 % in 2045 [4]. The phenomenon of aging is the result of the natural time course resulting in physiological, psychological and social changes. This process extends from period to period. It occurs in some individuals gradually, and in others, quickly in combination with mental injuries. As the aging population has increased, scholars and specialists have focused on the importance of considering the health of the elderly and to provide the necessary facilities and special services in this area. Aging leads to a series of definite changes beyond time and space [5].

Anxiety is one of the most prevalent problems of aging since this period is full of deficiency, disability senses. Studies show that older people are more likely exposed to



anxiety due to reduced self-esteem, reduced activity and movement, loss of friends and relatives, reduced financial and physical autonomy, chronic illnesses, and death anxiety which is the most common [6, 7]. Death anxiety is a prevalent problem in the elderly, which means fear of dying for oneself and others [8]. Practical studies showed that fear of death is more prominent in middle age and late life [9]. Critical diagnosis elements of death anxiety include attitudes, ability to imagine, predict and anticipate the future, and in some occasions awareness of the apparent nature of death. In recent research, death anxiety was considered as a multidimensional structure [10] . The study of Stancliffe et al. [8] showed that older people are more afraid of death than others. Saini at al. [11] showed that people with chronic medical pains and also the elderly experience more death anxiety. Kim and Park [12] also found similar results in a study on death anxiety on Korean elderly people and showed that psychological interventions seemed necessary to reduce death anxiety for older people.

The sense of aging in the elderly is a major factor in predicting physical health, mortality and also the key to health outcomes such as quality of life [13]. In numerous studies, two distinct dimensions were considered for aging. The positive dimension of aging is referred to as the individual growth and development, and the negative one is indicated as the elderly's physical analysis [14]. These beliefs which are shaped throughout an individual's life are influenced by the experiences and attitudes of the elderly [15]. These dimensions were investigated in various research and it was argued that the positive perspectives were associated with positive outcomes such as increasing life satisfaction [16], improving life quality [17], reducing loneliness [18] and depression [19]. Also, negative attitudes led to intensifying the individual deprivation and increased the dependence of the elderly [13]. Therefore, this attitude towards aging requires the change and interventions to facilitate and secure the physical and mental health of the elderly in life [20]. The results of Nilsson et al. study [21] indicated that the experience of a sense of aging is associated with features such as fear of inability to manage daily life and helplessness. Moreover, the onset of the sense of aging varies from person to person and depending on the exacerbation of physical changes in the body. Several treatments were implemented to improve the psychological state of the elderly, including memory telling. According to this theory, the way people view and interpret their personal life and communication history is significantly related to the well-being of late life. The key construct of this theory is cognitive reconstruction [22]. The memory telling scale mentions eight effective factors for memorizing: reduction of fatigue, the revival of bitterness, preparation for death, conversation, identity, intimacy, problem-solving, and informational training [23]. A kind of memory telling that focuses on positive memories and is the combination of positive points of instrumental memory telling treatment and integrated memory telling treatment is called optimist memory telling treatment. This kind of memory telling can help the elderly to have better feelings more than the treatment in which the negative memory telling and conflicting with them are emphasized [24]. Special and higher attention to positive memories in the elderly leads to the activation of forgotten memories [25]. The optimist memory telling is associated with positive emotions such as pleasure, security, health, sense of belonging, positive ability to remember good memories and the ability to solve problems and decreases the negative assessment of oneself and the future and increases the positive evaluation of the past [26]. Shirmohammadi et al. [27] revealed that memory telling intervention is effective in reducing death anxiety in the elderly. According to Abdullah Zadeh and Khabbazi [28], integrative memory telling therapy is effective on depression, perceived stress, and anxiety in the elderly.

In Iran, along with other countries in the world, a rapid growth of the aging population has been observed. The elderly people are at risk of mental illness and problems due to their physical and mental decline and their decreased ability, hence, considering the physical and mental health of the elderly and trying to reduce their risks are extremely important. Therefore, the present study was designed and conducted to evaluate the effectiveness of optimist memory telling on reducing death anxiety and the sense of aging in the elderly in Kermanshah.

# Method

The research method was semi-experimental using prepost-test with the control group. The statistical population consisted of all 60-75 year old people living in elderly homes in Kermanshah during 2017, using a random sampling method. In this work, 51 elderly men responded to the Death Anxiety Questionnaire and the Sense of Aging Questionnaire (pre-test). Among them, 40 people with a standard deviation score of less than the mean in the pre-test were randomly assigned into two control and experimental groups with 20 people in each group. The inclusion criteria for participating in the research were: age of 60 to 75 years, living in a nursing home, staying in a nursing home for at least 6 months, satisfaction with participating in this research, not using other psychological therapies within the 6 month period of the research and the literacy of reading and writing to understand the concepts. The exclusion criteria included affliction with disorders such as dementia, especially Alzheimer's disease, schizophrenia, severe depression, personality disorders based on psychiatrist's diagnosis and specific physical diseases at the time of the research.

After conducting the pretest, the intervention of the optimist memory telling training was performed on experimental subjects in 8 sessions each lasting for 1 hour in a group, for one week in a place assigned by the staff of the elderly nursing home, however, the control group received no intervention. After completing the training, the post-test was performed in both groups again.

#### Templar Death Anxiety Inventory

Death anxiety was measured using the Templar Death Anxiety Questionnaire (1970). This scale consists of 15 clauses, and the subjects respond to each question with either "yes" or "no" options. Thus, the scores in this scale vary from 0 to 15. Higher scores indicate a higher anxiety of people about death. The validity of this scale was obtained through correlating it with the apparent anxiety scale (0.27) and the depression scale (0.40), and the reliability coefficient of this scale was reported to be 0.83 through retest [29]. In the study of Jahangiri, the reliability of this tool was obtained as 0.87 through a retest [30]. In this study, the reliability was 0.82 through halving method.

# The Sense of Aging Inventory

To measure the sense of aging, the questionnaire of Barker et al. [31] was used. This questionnaire has two parts. The first part consists of 32 phrases with seven subscales (fast or gradual time course, periodic time, emotional effects, positive control, negative control, positive outcomes and negative consequences). The second part includes 17 questions and an objective subscale evaluating the number of age-associated changes [31]. In Iran, the validity of this tool was firstly examined by Krasikian Mujambari et al. [32]. In the present study, face and content validities were used, so that the tool was provided for five faculty members. The results showed an appropriate validity of the tool. Moreover, by using internal consistency method and using Cronbach's alpha, the reliability of the tool was reported to be 0.63 (0.63) (negative outcome) and 0.87 (periodic time course).

To respect the ethics, free psychological services were provided for the control group after the completion of the research. Ultimately, the data of pre-test and post-test were analyzed by covariance analysis and T-test in SPSS V.21. A summary of training the optimist memory telling protocol was presented in Table 1 based on the principles of Westerhoff, Bohlmayger and Webster, and through integrating the positive points of integrated and instrumental memory telling treatment.

# Results

The descriptive indexes of the mean and standard deviation of death anxiety and the sense of aging in the elderly men and women in both experimental and control groups are provided in Table 2. Based on the values in Table 2, the mean death anxiety and the sense of aging in the elderly women and men in the experimental group decreased in the post-test. Covariance analysis was used to investigate the effect of training the optimist memory telling on death anxiety and loneliness in the elderly. Before covariance analysis, the assumptions were investigated and the appropriate tests were used after confirmation. One assumption used in covariance analysis was the normal distribution using Shapiro-Wilk's test. This study was conducted on the variables of the research. The distribution of the scores of death anxiety and the sense of aging variables in the two experimental and control groups was normal through pre-test and post-test based on the Shapiro-Wilk test. Since the significance level was higher than 0.05, therefore, based on the first assumption of the ANCOVA test, this test is applicable. To evaluate the homogeneity of the variances, Levine test was used, the results of which are presented in Table 3. Considering that the F value for death anxiety was 0.046 and for the aging sensation was 0.302, these values are not significant at the level of 0.05. This assumption is also confirmed in the present study has. Finally, covariance analysis was used to test the death anxiety and loneliness in the two groups of experiment and control, the results of which are presented in Table 4.

	Table 1. The summary of the contents of the optimist memory telling sessions
Session	Subject and objective
First	The goal of the session was to establish contact and familiarity between group members and therapists. Members talked about their childhood memories, such as the mental reviewing of the place of the childhood home and its shape, relationships with friends, siblings, and adults and games took place in childhood.
Second	The elderly defined the decisive events of their lives, such as marriage, divorce, the birth of children, and the death of loved ones, and examined their effects on their lives and personalities.
Third	The family history and the positive influences of important people were examined on each person's life, personality, and destiny.
Firth	The people expressed that their life and occupation and their abilities were re-scrutinized, which was expected to have a significant impact on the self-esteem of the elderly. For example, the food that they were able to cook well and its recipe, and their memories of great hosting which made them proud were discussed.
Fifth	The history of their love and deep emotional relationships were examined. Retrieving emotional support in the past gave a valuable sense to the elderly and reminded them of their self-devotions for the important people of their lives in creating the meaning of life and self-concept. Most elderly people had numerous self-devotions for their children, and most of them said that with all these, their children took them in nursing homes, and generally they were complaining about it. However they were satisfied. They said, "we would do self-devotions if we had gone back since we are parents".
Sixth	The sweet and beautiful experiences of life and how to cope with stressful experiences were reviewed. For example, one of the elderly said that he had been forced to work with five children after the death of his wife. He argued that despite all these problems, he had managed to well organize the children.
Fifth	The meaning and purpose of the elder's life were inferred from the structure of the personal life, and they were targeted to continue their lives on this route.
Eighth	A summary and overview of the whole structure of life, abilities, meaning, and purpose of life, personality, and self-concept of the elderly were performed and targeted based on their current conditions.

According to the results of Table 4 in the source of group changes, the obtained amount of F for death anxiety and aging sensation is significant for men and women at the level of P <0.05. Therefore, the null hypothesis is rejected and the assumption of the research indicating the significant difference between the mean post-test death anxiety and the sense of aging for women and men in both control and experimental groups is accepted. Hence, training the optimist memory telling was effective in decreasing death anxiety and the sense of aging in the elderly. According to Table 5, it is shown that the value of T for the difference in the amount of death anxiety and the sense of aging is significant for the elderly in the control and experimental groups at P< 0.05. Therefore, the null hypothesis is rejected and the assumption of the research based on the significant difference between the mean death anxiety and sense of aging in men and women is accepted in the experimental group. The death anxiety rates in both men and women in the experimental group were reduced by 0.2 and 0.55, respectively, and the sense of aging in both men and women in the experimental group was reduced to 0.59 and 1.18, respectively. Consequently, training the optimist memory telling is effective in reducing death anxiety and the sense of aging. Moreover, comparing the mean score of the aging and death anxiety in women and men, it was indicated that optimist memory telling treatment is more effective in old women compared to old men. Table 6 shows the results of the follow-up of the test group. According to this Table, the value of T obtained for the difference between the sense of aging and death anxiety values of the pre-test and post-test is significant based on the follow-up in the experimental group at the level of P <0.05. Actually, the null hypothesis is rejected and the hypothesis of the research indicating the significant difference between the mean sense of aging and the death anxiety of the follow-up group with the pre-test of the experimental group is accepted. The rates of aging and death anxiety in follow-up were reduced to 1.85 and 0.31, respectively. Hence, training the optimist memory telling is effective in reducing the sense of aging and death anxiety in long term.

Variable	Group		Ν	Mean	Standard deviation	Shapiro-Wilk	Significance
	Control	Pre-test	10	6.72	0.55	0.49	0.96
Manan's death anviatu	Control	Post-test	10	6.71	0.54	0.40	0.99
Women's death anxiety	Europrine entel	Pre-test	10	6.77	0.24	0.34	0.90
	Experimental -	Post-test	10	6.26	0.42	0.70	0.70
	Control -	Pre-test	10	95.15	2.45	0.66	0.77
Women's sense of aging		Post-test	10	95.01	2.44	0.64	0.80
women's sense of aging		Pre-test	10	95.31	2.33	0.42	0.98
	Experimental -	Post-test	10	94.13	2.58	0.66	0.76
	Control	Pre-test	10	6.50	0.48	0.49	0.96
Men's death anxiety		Post-test	10	6.48	0.50	0.53	0.93
wen's death anxiety	Europeine entel	Pre-test	10	6.32	0.68	0.43	0.99
	Experimental -	Post-test	10	6.12	0.56	0.66	0.76
	Control	Pre-test	10	95.27	2.30	0.46	0.98
Man's same of a sing	Control -	Post-test	10	95.13	2.36	0.61	0.84
Men's sense of aging	Europeine entel	Pre-test	10	95.47	2.12	0.42	0.99
	Experimental -	Post-test	10	94.88	1.91	0.43	0.99

**Table 2.** The descriptive indicators and the normality of the research variables

Table 3. Levine's test of aging and death anxiety in both control and experimental groups

Variable	F	Degree of freedom 1	Degree of freedom 2	significance
Death anxiety	0.046	1	18	0.100
Sense of aging	0.030	1	18	0.239

Table 4. Covariance analysis. Comparison of a mean sense of aging and death anxiety in both control and experimental groups

	Source of change	sum of squares	Degrees of freedom	average of squares	F	significance	ETA Coefficient	Test power
	Pre-test	8.52	1	8.52	4.75	0.014	0.67	0.98
Women's death	Group	43.42	1	43.42	24.25	0.001	0.99	1
anxiety	Error	30.43	17	1.79				
-	Total	89.470	20					
	Pre-test	15.183	1	15.183	8.03	0.003	0.82	1
Men's death	group	24.493	1	24.493	12.95	0.001	0.88	1
anxiety	Error	32.132	17	1.89				
-	Total	405.655	20					
	Pre-test	6.624	1	6.624	4.87	0.012	0.69	0.99
Women's sense of	Group	24.493	1	24.493	18.01	0.001	0.93	1
aging	Error	23.228	17	1.36				
	Total	324.973	20					
	Pre-test	40.767	1	40.76	5.97	0.009	0.72	1
Men's sense of	Group	43.45	1	43.45	6.37	0.007	0.82	1
aging	Error	115.94	17	6.82				
	Total	9589.470	20					

Variable	Group		Mean	Standard Deviation	t	Significance	Degree of freedom	
	Control	Pre-test	6.72	0.55	- 0.69	0.500	9	
Women's	Control	Post-test	6.71	0.54				
death anxiety	Eve evine entel	Pre-test	6.77	0.24	2.02	0.002	0	
	Experimental	Post-test	6.26	0.42	- 3.92	0.003	9	
	Control	Pre-test	95.15	7,40	1.20	0.100	9	
Women's	Control	Post-test	95.01	2.44	- 1.39			
sense of aging	Experimental	Pre-test	95.31	2.33	4.46	0.002	9	
		Post-test	94.13	2.58				
	Control	Pre-test	6.50	0.48	2.22	0.00	9	
Men's death		Post-test	6.48	0.50	- 2.23	0.06		
anxiety	Experimental	Pre-test	6.32	0.68	2 2 2	0.06	9	
		Post-test	6.12	0.56	- 2.23	0.06		
	Cantual	Pre-test	95.27	2.30	2 5 0	0.00	9	
Men's sense of	Control	Post-test	95.13	2.36	- 2.50	0.03		
aging	E	Pre-test	95.47	2.12	5.00		9	
	Experimental	Post-test	94.88	1.91	- 5.02	0.001		

<b>Table 5.</b> T-test, the comparison of the mean	sense of aging and death anxiety in pre	-test and post-test of the experimental group

Table 6. T-test, the comparison of the mean sense of aging and death anxiety of follow up in pre-test and post-test of the experimental

group									
Variable	Group	Mean	<b>Standard Deviation</b>	t	Significance	Degree of freedom			
Sense of aging	Pre-test follow up	95.31	1.36	2.1	0.035	0			
	Post-test follow up	93.46	2.86	3.1		9			
Death anxiety	Pre-test follow up	6.32	0.65	2.02	0.042	0			
	Post-test follow up	6.01	0.76	2.83	0.042	9			

### Discussion

This study aimed to investigate the effect of optimist memory telling on death anxiety and sense of aging in the elderly. The results of this study indicated that the optimist memory telling treatment reduced the death anxiety of the elderly people, which is consistent with the results of studies of Shirmohammadi et al. [27], Dehghan et al. [33], Esmaili [34], Watt and Cappeliez [35], Haight et al. [36] and Hirsch and Mouratoglou [37]. In explaining this finding, it can be stated that the elderly people had a better inner sense and felt themselves in the past by expressing their memories, which led to a better selfassessment of their health and also developed more energy for their routine work. Considering that the elderly's anxiety is caused by several reasons such as loneliness, sense of frivolity and unhelpfulness, experience loss, retirement, economic problems, and the inability to fill leisure time, and given the relationship between anxiety and the emotional components, it seems that the elderly people express their positive and negative feelings about the past and reconcile with the present, by expressing their past memories, which eventually causes their attitudes to change. On the other hand, having an active role in memory telling leads to increased selfesteem and the sense of usefulness of the elderly, and as a result, reduces their anxiety. The memory telling creates opportunities to experience past memories in the individuals and creates a positive attitude towards oneself and others. These interpersonal interactions in groups lead the elderly to be free of social isolation and the formation of social behaviors, which this, in turn, reduces death anxiety in the elderly [38].

Another finding of this study was the effectiveness of the optimist memory telling on reducing the sense of aging in the elderly, which was consistent with the results of Sadegh Moghadam et al. [39] and Bergman et al. [40]. Remembering memories is usually a conceptual way of examining life events and it is a psychological process in which discussions about previous events can lead to an increased life expectancy. The memory telling by helping the elderly adapt to the natural aging process through reminding and rebuilding the experiences, helps them obtain a more positive value of life by increasing selfesteem and determination, raising self-awareness and personal development, and earning a sense of integrity and satisfaction. The memory telling plays a key role in supporting mental health and the progression of aging trends and has long-term effects on improving the life expectancy of the elderly [39]. Memory telling can certainly be effected through two ways: first, through human interaction and communication, especially with peers, and secondly through the role of outsourcing and the reminiscent of previous bitter and sweet memories, and the reorganization of past memories and blind spots. In fact, memory telling encourages older people to communicate with current audiences. Receiving positive feedback from others can excite emotions such as life expectancy leading to a reduced sense of aging in the elderly [41, 42].

In addition, the results of this study showed that the training optimist memory telling was more effective in women than men on reducing death anxiety and sense of aging. This finding was consistent with the results of studies conducted by Bergman et al. [40], Wolf [43], Yun and Lachman [44]. This factor can be related to the difference in viewpoints and expectations of both genders regarding the social support. This is due to the fact that women are more satisfied with the social support and

their expectations of social support are less compared to the men. In other words, behaviors which are considered supportive by women may not be considered by men. Moreover, many women spend a significant part of their lives on the care and expansion of their friendships and receive more support from social networks. In contrast, men are reluctant to express their demand for support. This causes the elderly women to have more social protection than men and thus experience less sense of aging. Furthermore, considering the importance of social communication and talking in women compared to men, women tend to be more active in memory telling and talking sessions. As a result, the effectiveness of this therapeutic approach in reducing death anxiety and sense of aging is higher in women compared to men [45].

#### Conclusion

According to the results of this study, it was indicated that the optimist memory telling is effective in decreasing death anxiety and sense of aging in the elderly people. Therefore, by revealing the effects of memory telling on reducing death anxiety and the sense of aging, this technique can be simply, inexpensively, and applicably implemented in all treatment centers, elderly nursing centers or individually at home. There were some restrictions in this study, including the limitation in the ability to control all variables affecting the research such as the intelligence and talent of the elderly, as well as the impact of external cultural, social and family factors. Therefore, according to the results, it is recommended to design and implement comprehensive and preventive programs based on training and promoting the optimist memory telling by authorities for the elderly people.

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