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An Investigation on Cognitive-Behavioral Approach on Anxiety Reduction and Elderly People

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Abstract:

Introduction & Objective: Elderly people are exposed to various types of conditions associated with physical and mental health problems, due to their age, physical, situational status, etc. Anxiety and stress are one of the most common disorders associated with aging, therefore the aim of this study was to investigate the effectiveness of cognitive-behavioral approach on decreasing anxiety and stress among elderly people.

Research Method: This is a quasi-experimental study. To this end, 30 elderly people with anxiety and stress criteria were selected and assigned randomly in experimental and control groups. The experimental group underwent 10 sessions of cognitive-behavioral training, while the control group did not receive it. Before the beginning of cognitive-behavioral sessions, both groups completed control and testing of the DASS anxiety and stress questionnaire and the data were analyzed through multiple covariance analysis.

Finding: The results showed that cognitive-behavioral approach significantly decreased the anxiety and stress in the experimental group compared with the control group.

Conclusion: Changing mental and behavioral patterns in elderly people is a key factor in increasing mental health and reducing the harmful factors such as anxiety and stress, which should be considered in the approach of these people and the cognitive behavioral approach are effective and efficient in this field.

Keywords: Anxiety, stress, cognitive behavior, elderly people

1. Introduction

Elderly people are placed in limiting conditions due to their age and this exposing them to various harm. (Reynolds et al., 2015) Due to the increase in age, these people have more physical problems than normal people who are in the same position and sometimes they suffer psychological and psychological problems (Payette et al., 2016) Also, elderly people, due to deprivations, departing children, and lack of experience, evaluate their conditions of life undesirable and pessimistic about situations and situations and report psychological damage and more mental health (Voshaar, 2013). One of the most common psychological problems in this period is anxiety and stress.

Various studies have shown that elderly people evaluate negative impulse stimuli, which are the starting point and the prevalence is more than anxiety, stress, and problems associated with it (Leblanc et al., 2015) Anxiety is an inner element associated with its associated components, which calls for some circumstances and events to occur. Having normal, and conditional anxiety is not only an annoying and harmful element that is an indicator of maintaining mental fitness and well-being. (Uttal, 2013) And the loss of anxiety can lead us to many problems and dangers. (Fardi, 2013) However, in describing the concept of anxiety, it is necessary to note that in some cases anxiety is eliminated from its normal state, and by extensive reactions and calls, the field provides damage to mental health and many physical and psychological problems. (Arjaggi, 2016)

In stress and anxiety and its reactions, an extreme or unreasonable fear of different situations and conditions arises from the expectation that the person is exposed to extensive damage or fear that a person will be judged negatively and this will lead to indignation and humiliation. (Schreiber and Steil, 2012, quoted from Malmir, 2014) Epidemiological studies indicate that anxiety disorder is the third common psychiatric disorder after severe stress and alcohol abuse. (Riech et al., 2004 quoted from Freddie, 1391) Anxiety also has a severe negative impact on the mental, physical and social health of affected people. In other words, stress and anxiety, mental health and its related elements are harmful because of the satisfaction of life, which is an ingredient that indicates an indicator of hope and effort to preserve life. (Alma, 2017; Civitc, 2015)

As shown that anxiety and stress are key factor in creating negative reactions and mental health problems in older people, but interesting point in this context is associated with increased prevalence and serious the disorder, cynicism, despair and mistake interpretation. The style of interpretation and assignment of individuals plays a crucial role in the formation, maintenance and recurrence of stress, anxiety and other accompanying disorders (Fankort, 2016) It is very

important to create and shape stress, anxiety and its related indicators in order to determine the person's self-centeredness and conditions in accordance with the situation, or to evaluate it without change and negativity. (Pir Saghi et al., 2015)

In order to correct inefficient thoughts and negative thoughts, the Cognitive-Behavioral Approach implements a comprehensive plan with the goal of these changes. This basic approach to schema-based and effective work is in the field of replacing efficient thoughts and coping with irrational and negative thoughts (Hanscom et al., 2015) And its purpose is behavioral intervention for improving cognitive processes (attention, memory, executive performance, social recognition, or metacognition) with the aim of survival and generalization. (Barlati et al., 2013) In this cognitive approach, deaf and anxious people are trained to view their thoughts and feelings without judgment, and see them as simple mental events that come and go, rather than being seen as part of themselves or reflected to consider reality; This kind of attitude toward knowledge about stress and anxiety prevents the intensification of negative thoughts in the pattern of ruminant thinking and properly educates the attention to the facts, and then corrects the facts in favor of the individual and replaces the behavior that is efficient and resistant to disappointing and negative thoughts (Seligman and Ollendick, 2011) and a key factor in removing inefficient and negative thinking in this area. Considering the high prevalence of anxiety and stress in elderly people and the role of dysfunctional and cynical thinking in these individuals, this study investigates the effectiveness of cognitive-behavioral approach on reducing anxiety and stress among elderly people.

2. Research Method and Statistical Society

This is a quasi-experimental research with pretest and posttest design in experimental group and control group. The statistical population consisted of all elderly people with anxiety and stress referring to rehabilitation centers, counseling and ... Tehran, which is selected due to the dispersion and inaccessibility of all sample members and randomly assigned in experimental and control groups.

2.1. Inclusion Criteria

- Anxiety and stress (based on diagnostic criterion)
- Age over 65 years
- Interested in collaborative research
- The absence of acute and needy psychiatric illness

2.2. Exclusion Criteria

- Not interested to cooperate in the study
- Diagnosis of (ID)¹.
- Increased stress caused by the group treatment process and its related damage

3. Research Tool

3.1. Stress Scale, Anxiety and Stress DASS

The DASS Stress, Anxiety and Stress Scale was prepared in 1995 by Laweibond and Levybond. This scale has two forms. The main form has 42 questions that assess each of the psychological structures of stress, anxiety and stress by 14 different questions. The short form consists of 21 questions that measure each of the 7 questions of a psychological agent or entity. Short form contains 21 questions are validated by Sahebi et al. (2005) for the population.

The DASS scale has the ability to diagnose and screen for signs of anxiety, stress and stress over the past week. Considering that the aim of this study is to investigate anxiety and stress, out of 21 questions, 14 questions related to anxiety and stress are considered, and since this form is a shortened version of the form 42 questions, the score of each scale is due to the diagnostic examination of two Equivalent to the calculation. Analytical and statistical analyzes on this scale have shown that the internal consistency of the test subjects is appropriate and has been demonstrated by Cronbach's alpha higher than 0.7 in a large number of studies, which indicates the capability and ability to examine the tool. Also, its re-test validity in anxiety and stress variables is estimated to be 0.76 and 0.77 (Reilly et al., 2003; quoted by Khakbaz et al., 2013).

3.3. Plan of Treatment (Effectiveness plan)

3.3.1. The Protocol of Cognitive and Behavioral Therapies and Spiritual Therapy

This protocol is based on the fundamental concepts of cognitive behavioral therapy. Executive summary and meetings were as follows:

¹Intellectual Disability

Cognitive Behavioral Therapy	Sessions
Determine the purpose of the group and the rules of the group, familiarity of the members of the group with each other and with the advisers	1 st Session
Identify anxiety and stressful situations and how to deal with it, teach stress and relaxation	2 nd Session
Describing cognitive concepts, anxiety thoughts and cognitive errors, giving a homework for the negative and negative thoughts	3 rd Session
Practical training How to deal with negative thoughts through: interrupting negative thoughts (focusing individual thoughts on other optimal outcomes during the time of the onset of negative thoughts)	4 th Session
Expressing the role of stressful selfishness, guided self-esteem training	5 th Session
Focus on thinking and reflection techniques to face negative emotions and stress.	6 th Session
Problem solving training, division of the problem into smaller parts, subjective precipitation, presenting solutions	7 th Session
Teaching self-efficacy to raise people's minds and motivations, confronting people with strengths and weaknesses, practicing to figure out realistic goals in challenges	8 th Session
Practice skills and techniques learned and provide feedback and compilation of content	9 th Session
Post-test	10 th Session

Table 1: Summaries of Sessions on the Effectiveness of Cognitive Behavioral Therapy and Spiritual Therapy

4. Findings

A descriptive survey of elderly subjects showed that 16.5% of them had university education, 33.3% experienced deaths of a spouse or one of their loved ones, and about 77% had a living in their own home and had financial independence. At the beginning, descriptive statistics are presented from the pre and post test results of the control and test groups. These results include pre and post cognitive behavioral interventions in the experimental and control group:

Stress		Anxiety		Group
Standard Deviance	Average	Standard Deviance	Average	
2.36	28.7	2.45	31.2	Pre-Test
2.21	18.8	2.11	18.4	Post-Test
2.24	19.2	2.13	18.8	Follow-Up
2.4	28.8	3.07	32.1	Pre-Test
2.46	27.6	3.26	30.8	Post-Test
2.55	27.4	3.11	31.6	Follow-Up

Table 2: Describing the Obtained Scores for the Statistical Sample of Research in the Components of Anxiety and Stress

A descriptive study of the amount of anxiety and stress in the experimental group in the pre-test was 31.2 and 28.7, which after the implementation of cognitive behavioral intervention in the post-test was 18.4 and 18.8, and follow up studies respectively and the values are 18.8 and 19.2. These values in the pretest for the control group were 32.1 and 28.8, which showed post-test and non-cognitive behavioral interventions of 30.8 and 27.6, and follow-up studies in this group were anxiety and stress Were 31.6 and 27.4, respectively, which describes the effect of the indicator and the effect of cognitive behavioral therapy on anxiety and stress reduction in the experimental group.

Regarding the significance of the anxiety and stress that was equal to 0.21 and 0.28, respectively, from the Kolmogorov-Smirnov test, this level is more than the critical level 0.05, so the zero assumption is confirmed. And it is shown that the distribution of data in all components is normal.

5. Multivariate Covariance Assumptions

Before analyzing the data on hypotheses, in order to ensure that the data of this research estimates the main assumptions of covariance analysis, they are examined. The most fundamental assumption for the analysis of covariance is the linearity of the relationship between dependent variables and auxiliary variables. (Covariante) In other words, the relationship between these two can be determined through the straight line of regression. In this study, using auxiliary variables from pre-test and post-test variables, correlation between pre-test and post-test, the variables of the research were anxiety ($R = 0.79$) and stress ($R = 0.82$), which was considering the correlations obtained, the assumption that the relationships between the auxiliary variables (covariates) and the dependent variable are linear is realized. After that, the Mbox test was used.

Significance	Freedom Degree 2	Freedom Degree 1	F	Box Test
0.55	28	1	4.42	14.88

Table 3: MBox Test

Considering that the M box test is not significant. Therefore, the variance of the experimental and control groups in the research variables is not significantly different and the assumption of the homogeneity of the variances is confirmed. Also, the regression line slope showed that the significance obtained was higher than the critical value of 0.05. Therefore, this relationship is not significant and in the research variables, the slope of the regression line is similar for both groups.

Assumption of lack of multiple nonlinearity among dependent variables: To examine the lack of multiple nonlinearity between pre-test and post-test data, the anxiety and stress components were used by Pearson's correlation coefficient test. Results indicated that overall the variables of the research in Test and post-test and there is no significant relationship between the two groups.

Eta Square	Significant Level	F	Value	Title of Exam
0.311	0.004	3.941	0.449	Pillai effect
0.311	0.004	3.941	0.446	Wilks Lambda
0.311	0.004	3.941	0.512	Hoteling effect
0.311	0.004	3.941	0.399	The biggest root

Table 4: Results from Mancova on the Mean Scores of Components

The contents of this table show that the test and control groups have a significant difference in the post-test in stress and anxiety variables with pre-test control at the level of 0.001.

Significance	Freedom Degree 2	Freedom Degree 1	F	Post-Test of Variables
0.091	28	1	4.22	Anxiety
0.086	28	1	3.98	Stress

Table 5: Multivariate Levin Test Results for Equality of Variances

Levin's test results showed the equality of variances in both components. Regarding the observation of the remaining multivariate covariance assumptions given that the sample size of the groups is equal, analysis of covariance is possible.

ETA Square	Significance	Intergroup	F	Total square	Source of change
0.611	0.001	12.145	24.111	144.221	Anxiety
				38.151	Error
				4151.000	Total
0.588	0.001	11.994	21.88	138.122	Stress
				36.112	Error
				3892.000	Total

Table 6: Results of ANCOVA Analysis in the Context of MANCOVA on Mean Scores of Test Anxiety and Stress

The results of covariance analysis show that there is a significant difference between the experimental and control groups regarding the post-test of anxiety and stress ($P < 0.001$) Therefore, cognitive-behavioral sessions significantly reduce the amount of anxiety and stress.

6. Conclusion

Ineffective thinking refers to the style of documentation and the negative interpretation of individuals from existing events (Beck, 1991) In other words, the root of the formation of inappropriate and incorrect thoughts is to interpret individuals from events surrounding it. Negative and ineffective thinking is the root cause of psychological disorders such as anxiety, stress and stress, which is mainly due to cognitive and mental perceptions, and is a key factor in the occurrence of common mental disorders in people, especially the elderly, who are in sensitive age and condition. (Singh and Misra, 2009) Therefore, this research investigated the effect of cognitive-behavioral approach on decreasing anxiety and stress among elderly people. After applying this intervention and comparing the experimental group with intervention group with no control group, the cognitive-behavioral approach significantly decreased anxiety and stress in the elderly, and this is the basic approach to replacing efficient thoughts with weak, and negative thoughts (Rao, 2008) This results from the findings of Lopez and Basco (2015), which in their analysis of the factors and frequencies that trigger stress, anxiety and related mechanisms, concluded that the major problems and damage created in this area from the cognitive process and the interpretation of thoughts And Marcus (2013) and Bradly et al. (2015) find that there is a meaningful relationship between person's interpretation of the status and satisfaction of life and mental health problems, and that individuals' interpretations of the underlying events in supply Health and problems are mental, consistent and aligned. This similarity in the results refers to the research structure and the structure of the intervention plan model. On the other hand, it is a testimony to the importance of interpreting individuals from events, in other words, by reforming negative and ineffective thoughts, and replacing them with positive and effective ones. We are witnessing the reduction of psychological injuries such as anxiety and stress, which in this study also with this substitution, the amount of stress and anxiety in the elderly significantly decreased.

7. References

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