

Original Article

The effectiveness of psychological care program in reducing the severity of symptoms of depression problems in the elderly

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Abstract

Depression is one of the most common psychological symptoms in the elderly. The present study aimed to evaluate the effectiveness of psychological care program in reducing depression in the elderly. The present study is fundamental-applied research in terms of aim and is considered as quasi-experimental research. The population of the study consisted of all elderly with depression symptoms living in nursing homes in Tehran. The sample was purposefully selected to be 30 people. They were divided into two groups of experimental and control (15 people in each group). The instruments used in this study were the Beck Depression Inventory II (BDI-II) and the Elderly Psychological Care Program. First, all the participants in the experimental and control groups completed the BDI-II, and then the educational intervention was implemented by the intervener on the experimental group during seven sessions based on the elderly psychological care program, and the control group did not receive any intervention. In the posttest phase, both experimental and control groups were tested again through BDI-II. The results of one-way analysis of covariance showed that seven-session training of psychological care program was significantly effective in reducing depression in the elderly. Psychological care program creates new behaviors by activating all cognitive, physical and emotional components of neural pathways and by teaching the skills, it provides a framework for understanding emotional experiences. Also, it reduces depression in the elderly and increases their quality of life by increasing motivation to participate and change.

Keywords

Psychological care
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Motivation to participate

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Introduction

Aging is a phenomenon that has attracted the attention of international communities in various areas. Due to the aging process, elderly experience multiple problems such as the onset of chronic diseases, psychological disorders, mild to severe dementia and depression, the need for frequent hospitalizations, reduced life expectancy, loss of spouse, a decline in economic status, a decline in physical health, and in general loss of independence. Depression, as one of the most common psychological symptoms in the elderly, is a negative feeling caused by the inability to cope with external stress (Xinghua et al. 2018). Depression can lead to cognitive impairment, Alzheimer's disease and even suicide in the elderly.

Diagnostic and Statistical Manual of Mental Disorders-Fifth Edition (DSM-5) defines major depression as a disorder with one or more episodes of major depression with no history of manic, mixed, or hypomanic episodes. Despite advances in the diagnosis and treatment of major depression disorder, relative improvement is still seen in 50% of cases. Depression has different meanings for different people and can be a recognizable symptom or disorder. Depression is a disorder that lasts for a long time with specific symptoms to affect a person's performance and cause distress (Castel et al., 2007). There are four sets of symptoms in depression that one does not need to have all of these symptoms to be diagnosed as a depressed person, but the more symptoms a person has, and the more severe a set of symptoms, the more likely that the person is depressed (Siu et al., 2016).

These symptoms include mood and emotional symptoms, cognitive symptoms, motivational symptoms, and physical symptoms. The cause of depression in elderly, like younger people, is biosocial. Diseases and physical disorders, taking some medications are involved in the development of depression (Mueller et al., 2004).

Depression has a strong negative impact on the performance of the elderly and leads to their disability, as the World Health Organization predicts that depression will be the main cause of disability in the elderly after cardiovascular disease by 2020 (Thayer et al., 2010). Depression is more common in female elderly than male elderly (Momeni et al., 2014). The World Health Organization estimates that the general prevalence of depression disorders in the elderly varies from 10 to 20 percent, depending on cultural conditions. In Iran, the prevalence of depression is variable. For example, a study in 2018 showed that the prevalence of depression in the elderly between 2001 and 2015 was about 43% (Sarokhani, 2018). Many therapies and protocols have been published based on cognitive-behavior approaches to depression disorders to date, and many studies have confirmed their effectiveness (Butler et al., 2006). However, due to the limitations of these therapies, there is still a long way to effective treatment of this disorder (Kessler et al., 2004; Mennin et al., 2008). Unified Transdiagnostic Treatment has been introduced in response to the limitations of specific cognitive-behavior therapies, in which the same principles and treatment protocols are used for different types of emotional disorders. A Unified Transdiagnostic Treatment protocol is designed for people with emotional disorders, especially those with mood and anxiety disorders, and is an emotion-focused transdiagnostic cognitive-behavior treatment. Although this type of therapy is rooted in cognitive-behavior tradition, it is a unique method with a special emphasis on the way of experiencing and responding to emotions in people with emotional disorders.

The logic for the development of transdiagnostic treatments is based on theoretical concepts and experimental results regarding the existence of common factors among emotional disorders, which were mainly designed with the aim of targeting these causal factors. Transdiagnostic protocols are designed to target cognitive and behavioral processes involved in a wide range of psychological disorders, including the Barlow Group Unified Transdiagnostic Treatment Protocol, which provides people with unipolar anxiety and mood disorders with potential applicability to other emotional disorders (Abdi et al., 2013). Transdiagnostic treatments are emotion-focused cognitive-behavior transdiagnostic treatment. This treatment primarily seeks to identify and correct maladaptive attempts to regulate emotional experiences, thereby facilitating appropriate processing and suppressing in appropriate emotional responses to internal and external symptoms (Wilamowski et al., 2010).

Mansell, Haroy, Watkins, and Shaffren (2008) define transdiagnostic treatment as a treatment used for

individuals with a wide range of diagnoses and its effective implementation does not rely on specific knowledge on a particular disorder". Bakhshipour et al. (2016) examined the effectiveness of unified transdiagnostic treatment in reducing the symptoms of major depression disorder. The results showed that clinically and statistically significant changes and improvements are created in treatment targets (severity of symptoms of major depression disorder and general function impairment) and the therapeutic effects continue in the follow-up period. Also, Abdi et al. (2013) indicated that the unified transdiagnostic treatment method is effective in reducing the severity of underlying transdiagnostic factors and symptoms related to emotional disorders.

Also, in a study entitled "The effect of unified transdiagnostic treatment on anxiety disorders and depression: a case study", Atarod et al. (2016) showed that unified transdiagnostic treatment significantly reduces the severity of anxiety and depression symptoms in the post-treatment phase and follow-up phase. In one of the foreign studies, Bullis et al. (2014) examined the effectiveness of group unified protocol. In their study, conducted on clients with depression disorders and comorbid anxiety, it was found that not only the use of a unified protocol is better than specific therapies, but also more effective if the treatment sessions using the protocol are held in groups. Efforts to examine emotional disorders reduce the suffering of the elderly, improve physical health, reduce disability and improve the quality of life, and ultimately reduce the cost of caring for the elderly. The literature shows evidence of the importance of specialized skills in working with the elderly population.

Different aspects of working with the elderly require psychologists to consider age-related issues and use specialized intervention techniques. Thus, given an increase in the elderly population of the country and considering the fact that emotional problems also complicate the issues related to aging and due to lack of an intervention protocol in this regard, the present study was an attempt to evaluate the effectiveness and efficiency of psychological care program for the elderly. The question is whether the psychological care program based on transdiagnostic and process-based techniques is effective in reducing the severity of depression problems in the elderly?

Method

Participants

The present study is fundamental-applied research in terms of aim and is considered as quasi-experimental research. The statistical population of the study consisted of all elderly with depression symptoms living in nursing homes in Tehran in 2021. The research sample was selected to be 30 people purposefully. After screening and considering the inclusion and exclusion

criteria, they were divided into two groups of experimental and control (15 people in each group). Inclusion and exclusion criteria: The inclusion criteria were being in the age range of 65 to 80 years, obtaining a score of 14 to 18 in the BDI-II, having at least primary education and general health based on medical records. Exclusion criteria also included neurological disorders, psychiatry and chronic physical illnesses and receiving psychiatric or psychotherapy treatments in the last two years at the time of the study.

Instrument

A) Beck Depression Inventory-Second Edition (BDI-II):

This list is a revised version of BDI and meets the criteria for depression in the fourth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5). This list has acceptable psychometric properties (Beck, Steer, & Brown, 1996). In Iran, Fata, Birshak, Atef Vahid and Dabson (2005) reported the alpha coefficient of this test at 0.91. Also, the correlation coefficient using the split-half method was obtained at 0.89, and its test-retest coefficient with one-week interval was obtained at 0.94. Also, the correlation between BDI-II and the BDI-I was obtained at 0.93. In the research conducted by Gasemzade, Mojtabaei,

Karam Ghadiri and Ebrahim Khani (2005), the alpha coefficient of BDI-II was obtained at 0.87 and the test-retest coefficient was obtained at 0.74. In the present study, Cronbach's alpha coefficient was used to evaluate the reliability of this questionnaire. Its internal consistency for the whole scale was obtained at 0.88. In general, the score of 18 has been suggested by some researchers as the cut-off point, and it is reported that this score correctly diagnoses and classifies approximately 92% of patients with major depression disorder.

B) Psychological care program for the elderly:

After selecting the participants, to observe the ethical considerations, a written informed consent form was obtained from them. In the first stage of the pretest, before applying the training program intervention, all participants in the two experimental and control groups completed the BDI-II, and in the second stage, the training intervention was implemented in 7 sessions according to Table 1. Psychological care of the elderly was applied by a certified interventionist (first researcher) for the experimental group under the supervision of research coworker and the control group did not receive any intervention. In the posttest stage, both experimental and control groups were tested again through BDI-II.

Table 1. The process of elderly psychological care program

Sessions	Module	Content of sessions
1	Familiarity and establishing communication and emotional awareness focused at the present moment	Familiarity, introduction to the program and its goals, motivational interview, presentation of logic and setting goals for group therapy sessions, understanding and empathy, identifying emotion avoidance patterns.
2	Creating awareness and psychological flexibility	Reviewing of the tasks, creating awareness of the interrelationship between thoughts and emotions, identifying automatic maladaptive assessments and common domains of thinking, increasing flexibility in thinking and cognitive reassessment
3	Emotional avoidance and behaviors resulting from emotion	Providing psychological education; Recognizing emotions and tracking emotional experiences and teaching the three-component model of emotional experiences and the ARC model. Learning to observe emotional experiences
4	Awareness and tolerance based on physical emotions and feelings	Identifying how physical emotions affect thoughts and behaviors, awareness and tolerance of physical emotions, increasing awareness of the role of physical emotions in emotional experiences, performing exposure exercises
5	Endogenous and situation-based emotional exposures	Examining the behaviors induced by EDBS emotion; Identifying maladaptive EDBS and creating alternative practice trends. Understanding the logic of emotional exposures, teaching how to prepare the hierarchy of fear and avoidance, designing emotional exposure exercises visually and objectively, and avoiding avoidance.
6	Modifying lifestyle and self-care (exercise and nutrition) and increasing motivation for the elderly	Provide trainings on nutrition for the elderly, the role of exercise, motivating the elderly to exercise, recognizing the importance of personal hygiene and adequate sleep and rest, teaching methods of muscle relaxation, concentration and mental imagery to positively affect health, time management in life, involving in participatory activities with children, nature and trip.
7	Review of sessions	Examining the changes made and the reasons for the changes, summarizing the previous sessions, reviewing the concepts of the counseling sessions and discussing the progress of the elderly; Recurrence prevention: Identifying ways to continue the achievements of counseling sessions and predicting potential problems.

Results

In the present study, the two groups were homogeneous in terms of gender distribution and education. The mean (standard deviation) age was 71.20 (23.75) years in the experimental group and 70 (21.81) years in the control group. The data obtained from Levene's and Shapiro-Wilks test in Table 2 showed that according to the

information obtained from this test and considering z-value obtained for the research variables, they are not significant at the level of 0.05. Therefore, it can be concluded that the distribution of data related to the research hypotheses is normal and the assumption of normal data has been fulfilled and we are allowed to use the analysis of covariance.

Table 2. Results of Shapiro-Wilks test on research variable

Research variable	Tests	Shapiro-Wilks test (examining normality of assumptions)		
		Z	sig	Test result
Depression	Pretest	1.10	0.17	H ₀ is accepted (normal)
	Posttest	1.01	0.25	H ₀ is accepted (normal)

Also, the results of Levene's test in Table 3 show that the F-value of Levene's test (equality of variances) is not significant at the level of 0.05. Therefore, the null hypothesis is not rejected and the test is not significant and there is no significant difference between the variances of the research variables in the experimental and control groups. Therefore, the homogeneity

assumption of the variances of the scores of the two experimental and control groups in the research variable is confirmed, and the assumption of homogeneity of the variances has been fulfilled. Thus, another assumption of analysis of covariance has been confirmed and we have been allowed to continue the analysis and perform analysis of covariance.

Table 3. Levene's test results (for the assumption of equality of variances) for the research variable

variable	tests	Levene's test (equality of variances)				Test result
		F	First degree of freedom	Second degree of freedom	sig	
Depression	Pretest	0.021	2	42	0.88	H ₀ is accepted (homogeneity of the variances)
	Posttest	2.45	2	42	0.12	H ₀ is accepted (homogeneity of the variances)

To check the homogeneity of dependent variable covariances (pretest and posttest scores) in the two groups, Box's M test was used. As seen in Table 4, the assumption of homogeneity of covariances in the

research variable has been fulfilled. Univariate analysis of covariance was used to examine the differences between the experimental and control groups regarding depression scores.

Table 4. Examining the homogeneity of research variable covariances

stage	Box's M test for homogeneity of dependent variable covariances						Test result
	Box's M	First degree of freedom	Second degree of freedom	F	P		
Pretest-posttest	Experimental	18.90	12	12604.84	0.14	0.71	H ₀ is accepted (homogeneity)
	Control	21.99	12	12604.84	1.70	0.05	H ₀ is accepted (homogeneity)

The results of one-way analysis of covariance in Table 5 showed that with controlling the pretest, there was a significant difference between the experimental and control groups in terms of depression ($p < 0.0001$ and $F = 96.24$). In other words, the experimental and control groups are significantly different in terms of mean score of depression. The effect or difference is 0.78. It means

that 78% of individual differences in posttest scores of depression are related to the effect of group membership. Thus, the results showed that the mean depression scores of the experimental group were lower than the control group at the end of the training ($p < 0.01$).

Table 5. Results of one-way analysis of covariance on posttest mean depression scores of the two groups with control of pretest

Variable	Source of variations	Sum of squares	df	Mean of squares	F	p	Squared Eta	Statistical power
Depression	pretest	177.52	1	177.52	683.49	0.0001	0.96	1.00
	group	24.99	1	24.99	96.24	0.0001	0.78	1.00
	Error	7.01	27	0.26				

Discussion

Based on the results, it can be seen that the psychological care program has an effect on reducing the severity of depression symptoms in the elderly. In the present study, which evaluated the effectiveness and applicability of a 7-session psychological care protocol in the elderly with depression problems, desirable findings were obtained. First, it seems that according to the logic of the treatment method of psychological care program based on transdiagnostic therapies, improvement and clinically significant changes in depression symptoms can be targeted by common factors such as emotional regulation, positive and negative emotions and repetitive thoughts, which is emphasized in the protocol modules (Fairholme et al., 2010). Considering that in the psychological care program, mental rumination and positive and negative opinions about it is one of the main goals of the intervention, it can be assumed that following the reduction of mental rumination and positive and negative beliefs about them, depressed mood decreased and thus the symptoms of depression decreased due to the reduction of metacognitive beliefs.

The development and formation of Unified Transdiagnostic Treatment has been associated with parallel research on the nature and classification of mood disorders and anxiety. One of these studies is the proposal of Brown and Barlow (2009) which showed that different DSM-IV disorders in the full range of diagnostic categories of anxiety and mood can be integrated in the heart of one-dimensional classification system. This result can confirm the clinical changes obtained in this range of emotional disorders and provide a flexible approach to the diagnosis and treatment of emotional disorders, especially when used in connection with the dimensional classification system proposed by Brown and Barlow (2009). In other words, the results of this study, in line with the results of previous studies, provided direct support for the dimensional conceptualization of psychological pathology. In this study, targeting central emotional factors instead of specific symptoms of the disorder through a unified protocol may have led to clinically significant changes in depression. Psychological care program with the content of lifestyle and self-care modification (exercise and nutrition) and increasing motivation increases the awareness of the elderly about physical-psychological needs and healthy eating methods will cause the elderly to adapt to the conditions of old age.

Based on the results of the present study, since continued use of medications elderly with physical diseases such as cardiovascular problems, diabetes, bone problems and physical pain in many cases that worsen their conditions, relying on psychological care program based on transdiagnostic treatments can reduce the negative effects and harms of continued use of medications to some extent. Based on the results of the present study, it can also be concluded that the elderly

who are unable to control their emotions due to ongoing problems and social and physical factors have more control over their different emotions by using these techniques based on Transdiagnostic treatments. The results of this study are in line with those of studies conducted by Song, Zhang and Wu (2021); Zhu (2021), Ellard, Fireholme, Bliss, Farcione, & Barlow (2010), Anniko & Fielding (2011), Davenlase Maya et al. (2014), Bliss, Forton, Farcione and Barlow on the effectiveness of this treatment in reducing the symptoms of depression disorder and recovery of people with this disorder.

This research is also consistent with the research conducted by Bullis et al. (2014), which examined the effectiveness of using the unified transdiagnostic treatment protocol. In this study, conducted on 11 patients with depression and anxiety disorders, it was found that the use of a unified protocol is better than specialized treatments and is more effective if the treatment sessions of the protocol are held in groups. Similar results can be found in similar foreign studies. The studies conducted by Ellard et al. (2010), Varkovitzky et al. (2018) and Sauer-Zaval et al. (2019) are among these studies. In general, in explaining the results of this study, it can be stated that the psychological care program leads to the control of the underlying mechanisms of cognitive, emotional and behavioral symptoms due to the reduction of beliefs involved in the persistence of depressive symptoms (Moeini et al., 2021). The psychological care program focuses on the processes of cognitive formation rather than direct cognitive control, and it reduces not only irrational beliefs but also dysfunctional depressive behavioral strategies by targeting high-level cognitive control factors (Hatamian & Tabatabai, 2020).

Conclusion

The results suggest that this treatment method aimed at targeting common cognitive and behavioral processes is an appropriate approach in the treatment plan for depression. It also eliminates the need for multiple specialized guides for each of the disorders and exhausting treatment programs (Abdi et al., 2015). Controlling and reducing anxiety and regulating emotions are structures that are thought to play a major role in the mental and physical health of the elderly and in adapting to life stressful events. Success in controlling anxiety and regulating emotions increases health outcomes but disability in these areas is associated with physical and mental dysfunctions. Thus, it seems that by using transdiagnostic therapeutic education approach, it is possible to provide services to the elderly with depression problems, as the results of the present study confirm this issue. This study provides a program for psychologists who work with the elderly to provide psychological care for them with depression.

Limitations

One of the limitations of this study is that since the aim of this study was to evaluate the severity of symptoms in non-clinical individuals, people with high scores in this index were excluded from the data analysis stage and the study group consisted of non-clinical individuals. Thus, we should treat with caution in generalizing the results to the clinical group. However, since the results were obtained from the non-clinical group, the findings can be useful for researchers and therapists in the area of prevention, especially primary prevention, for the implementation of screening plans. Also, this study was conducted in nursing homes in Tehran and the special conditions of the Covid-19 epidemic. Thus, it is recommended to implement this study in other communities in a wider geographical area in suitable crisis-free conditions.

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