



The Effectiveness of Group Cognitive Behavioral Therapy on the Management of Depression and Anxiety Symptoms in Parkinson's Patients

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Abstract

Background: Despite the negative effects of depression in Parkinson's disease, there is currently no evidence-based standard of care.

Objective: The purpose of this study was to investigate the effectiveness of group cognitive behavioral therapy in depression and anxiety symptoms in patients with Parkinson's Tehran city.

Methods: This quasi experimental research with experimental and control groups at pretest, posttest, and follow-up. The study population included patients 60 to 75 years with Parkinson's disease centers and psychiatric services Tehran city, based on a random sample of 80 individuals with high scores on the Beck Anxiety Inventory and the Beck depression scale were randomly divided into two 40 groups: experimental and control groups were divided. The interventions (Group Cognitive Behavioral Therapy) in the experimental group were 8 weeks and once a week, the control group did not receive any training. In order to test the hypotheses, methods of analysis of variance with repeated measures was used.

Results: The results showed that the independent variable is effective in reducing depression and anxiety symptoms. Group cognitive behavioral therapy stress reduction resulted in decreased expression of depression and anxiety ($p < 0.05$) in patients with Parkinson's Tehran city.

Conclusion: Using effective psychological interventions such as Group Cognitive Behavioral Therapy can enhance mood, reduce anxiety and Depression and adhere more to treatment recommendations and thus they can help prevent the complications of Parkinson's and take an effective step in order to increase the level of physical and mental health of these patients.

Keywords: Depression; Anxiety; Parkinson's; Cognitive behavioral

Introduction

Many people living with Parkinson's disease also experience depression and/or anxiety. Depression and anxiety can result from grief at being diagnosed with Parkinson's, and from loss of mobility and independence. Depression and anxiety are also linked to chemical changes in the brain that happen with Parkinson's disease. Often, the symptoms of Parkinson's and depression can overlap, making diagnosis difficult. However, it is very important that mental health problems are identified and treated. With careful management, the symptoms of depression and anxiety can be treated along with those of Parkinson's disease [1]. Parkinson's disease is a neurological condition that mainly affects body movements. At present, there is no known cause or cure. Symptoms result from the progressive

deterioration of certain cells in the brain, which causes a shortage of dopamine a chemical messenger necessary for smooth, controlled body movements. Symptoms of Parkinson's disease develop slowly and progress gradually over years.

These symptoms can affect and disrupt many daily tasks and activities such as walking, talking, and writing, dressing and eating. A wide range of 'non-motor' symptoms are also common, including problems sleeping, fatigue, pain, slowness of thinking, memory problems, constipation and urinary incontinence. Around 80,000 Australians have Parkinson's disease 1 and this number is expected to grow as the population continues to age. While most people diagnosed with Parkinson's are aged over 60, 15 per cent of people with Parkinson's are diagnosed before the age of 50 [2].

Most people feel anxious sometimes, but for some people, anxious feelings are overwhelming and cannot be brought under control easily.

An anxiety disorder is a condition characterized by feelings of apprehension or nervousness which don't go away and which affect a person's ability to carry out normal daily activities. There are many types of anxiety disorders, each with a range of symptoms. A person may be experiencing an anxiety disorder if, for some time, worry and fear have interfered with other parts of life. An anxiety disorder will usually be far more intense than normal anxiety and go on for weeks, months or even longer. An anxiety disorder can be expressed in different ways, such as uncontrollable worry, intense fear (phobias or panic attacks) or upsetting dreams. Like depression, there are effective treatments available for anxiety disorders [3,4].

Despite this established negative impact, depressive symptoms in Parkinson's disease are under recognized and under treated in clinical practice [5]. Additionally, there is a lack of well-designed studies that can guide clinical management of these patients. So far, only a few double blind, placebo controlled trials have specifically assessed antidepressant use for Parkinson's Disease patients, and even fewer research data exist on nonpharmacological approaches for Parkinson's Disease-associated depression. As a result, evidence-based recommendations and consensus on the best treatment choice for this patient population are scarce [6]. The previous pharmacological studies have shown that medication traditionally used for depression in older people (e.g., Selective Serotonin Reuptake Inhibitors (SSRIs)) may not be more effective than placebo in Parkinson's Disease, or may be difficult to utilize in this age group due to the aggravation of orthostatic hypotension, constipation, and cognitive impairment (e.g., tricyclic antidepressants) [7-9].

This is the first study in the context of Parkinson's disease suggesting this intervention may be useful in future intervention studies and the emerging themes of this intervention can also help understand and enhance patterns of coping with Parkinson's disease.

Materials and Methods

Sample size and sampling

The first of the Six psychiatric services clinics that were willing cooperate a clinic was chosen randomly. The clinic, psychiatric clinic, health center, is located in the Tehran city. In the spring of 110 people who were referred to the psychiatric clinic in the age range 60 to 75 years the minimum and maximum cycle master's level of education had received a phone call and in relation to research and the way it was explained. Research suggested that the test for each group of 40 people to be tested and the possibility of loss and degradation of subjects in the study also considered and a larger sample of what you really want to choose [10]. The patients were randomly divided into experimental and control groups and during the 5 subjects were assigned to experimental and control groups. During the 5 members of the experimental group were avoided in order to maintain the equality of the two groups, 5 patients were excluded from the control group. Obtained informed consent from all participants.

Beck depression inventory

Beck Depression Inventory (BDI), for the first time in 1961 by Beck, Mendelson, Mock and Erbaugh developed [11]. In 1971, Beck and his colleagues at the Center for Cognitive Therapy, Philadelphia, and University of Pennsylvania presented a new version where the double negative sentences within the same symptoms had previously been removed. The final version was published in 1979. Revised form

of the BDI was designed to determine the severity of depression in patients with psychiatric diagnosis. Shear strengths obtained from the response of depressed patients, including the four categories. Grades 9-0 show the minimum depression. Score of 16-10 indicates mild depression. Mean depression scores of 29-17 and 63-30 scores indicating more severe depression [12,13].

Statistical analysis methods

Analysis of raw data from the study by Statistical Package for the Social Sciences (Spss) 22 software in two cross sections and inferential statistical procedures using repeated measures Analysis of Variance (ANOVA) was performed.

Results

Table one showing the group and the control group to test, pre-test and post-test and follow-up is. Because of the interaction of two variables F (95.63) is with degrees of freedom (1) at $p < 0.05$ meaningful. The interactive effects of two variables and test significant differences between experimental and control groups in mean show pre-test, post-test and follow-up and it becomes clear that the teaching of effectiveness of group cognitive behavioral therapy in depression and anxiety symptoms in patients with Parkinson's is effective in the treatment group. According to the results, Least Significant Difference (LSD) post hoc tests revealed that the pretest-posttest and pretest-up in the $P \leq 0.01$. But the post-test and follow-up at $P \leq 0.05$ there is no significant difference. Group cognitive behavioral therapy training in other words, reduces depression and anxiety symptoms in patients with Parkinson's have a significant effect over time (Tables 1 and 2).

Variable Index	Squares	Degree of freedom	Mean	F (Variable)	Significant level	Chi Eta	Statistical power
			Squares				
Group test (Green house geisser)	989/52	1	524/11	95/63	0/001	0/79	0/99

Table 1: Results of analysis of variance with repeated measures on the pretest, post-test and follow-up in both the control group and the experimental variables of depression and anxiety.

Test	The mean difference	SD	Significance level
Pre-and post-test	12/21	1/2	0/01
Pre-test and follow-up	13/02	1/008	0/02
Post test-follow-up test	0/75	0/94	0/50

Table 2: Results of the LSD post hoc test, post-test and follow-up test depression and anxiety test in the experimental group.

Discussion

Conclusion Hypothesis group cognitive behavioral therapy in depression and anxiety symptoms in patients with Parkinson's have an

impact. Because of the interaction of two variables $F(95.18)$ with degrees of freedom at $p < 0.05$ meaningful, but in the post-test and follow-up of the experimental group had mean decreases and it becomes clear group cognitive behavioral therapy training in reducing depression and anxiety symptoms in patients with Parkinson's is effective in the treatment group. Thus, the hypothesis is confirmed. The results showed after training in the pre-test and post-test and follow-up. There is a relationship between pretest-posttest and pretest-follow up. Group cognitive behavioral therapy training in reduces depression and anxiety symptoms in patients with Parkinson's have a significant effect over time. In this regard, Eisner, in their research on depression in people over 18 years as the effectiveness of group cognitive behavioral therapy expressed group cognitive behavioral therapy for depression can be improved and will greatly inhibit the recurrence of depression. Consistent with the findings of the study findings Christopher was discovered the effects of group cognitive behavioral therapy training on depression as a group of counselors and psychologists expressed [14]. Results Hayz also conducted a review of studies on the effects of cognitive therapy on mood disorders expressed group cognitive behavioral therapy as compared to a mere cognitive decline and mood disorders, particularly depression is more effective [15]. Hathaway was discovered the group cognitive behavioral therapy with religious origins significant way to reduce anxiety and depression in patients with these disorders expressed and citing similar research conducted in this area was noted that the effectiveness of this treatment in the majority of this research has been significant. In this regard Lynch in a study of the relationship of group cognitive behavioral therapy the human emotional states expressed group cognitive behavioral therapy is much to overcome the negative mood and reduce depression in people in such a way that people who are familiar with the techniques of group cognitive behavioral therapy and benefit from it in everyday life, in comparison with other individuals are less depressed and more successful way to overcome the negative mood and emotion [16]. Finally, Gilbert et al. in their study to investigate the relationship between happiness and expressed happiness and group cognitive behavioral therapy techniques of group cognitive behavioral therapy in everyday life is a significant correlation so that the people in their lives are more aware of the mind, less depressed than other people are [17]. Group cognitive behavioral therapy for the disease. Depression is assumed the man who does not know that depression, happiness will know something. Depressed person, a lot of opportunities to false interpretation his sense of style and her attitude to what is going on around them, is influenced.

Conclusion

In other words, because the depressed person feel alone and sad who mistakenly thinks that he does not care who is unfit and improper. The depressed person can be helped to emphasize instead on his depressed mood, pay to change their cognitive errors. Group cognitive behavioral therapy is due to the impact of depression during the follow-up to this point important that teaching group cognitive behavioral therapy techniques including relaxation, group cognitive

behavioral therapy of breathing techniques and body checking is equipped and teaching these techniques to depressed people with diabetes can reduce their level of physical and mental stress.

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