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The Effect of Individual Hope Therapy Program on Reduction of Depression in Elderly Patients with Unstable Angina Hospitalized in Cardiac Care Unit

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Abstract

Background: The hope therapy program has rarely been used for heart patients and little information is available on individual Hope therapy.
Objectives: The present study was conducted to evaluate the effect of the individual Hope Therapy program on reduction of depression in elderly patients with unstable angina hospitalized in the CCU.
Methods: This clinical trial study was performed in the CCUs of hospitals in Tonekabon city in 2016. The research population included elderly patients with unstable angina. The subjects were randomly divided into 2 groups of 16, the intervention and control groups. The data were collected before, 1 week later, and then 1 month after the intervention. A short cognitive questionnaire collected demographic information of the elderly at the beginning of the study through a face-to-face interview. A hospital depression questionnaire was performed before the intervention as well as 1week and 1 month after the intervention.
Results: Results of the variance analysis of the repeated measures test showed that depression scores in the experimental group were significantly lower than that of the control group 1 month after performing the protocol. However, the scores did not have any significant difference in both the control and experimental group 1week after the program was ended. P = 0.112 Eta = 0.070.
Conclusions: The results of this study showed that Hope Therapy reduced the level of depression scores in the intervention group compared with the control group in 3 steps, these results are stable.

Keywords: Hope Therapy, Depression, Unstable Angina, Elderly

1. Background

Unstable angina now accounts for more than half of the admissions in the cardiac care unit (1, 2). Several studies have shown that with increasing age, the prevalence of cardiovascular disease increases and aged people are more involved than other age groups are (3, 4). Psychiatric disorders commonly appeared as complications or disorders in people along with cardiovascular dysfunction, which should be given special attention (5). Studies have assessed the incidence of depression in cardiac patients to be between 8% and 80% (6) and the incidence of depression in cardiac patients is 2 to 3 times more than in general population (4). Celano and Hoffman have highlighted the prevalence of depression in cardiac patients, suggesting that 20% to 40% of these patients have the criteria for major depressive disorder or severe depression symptoms. These symptoms of depression are often chronic and persistent and are associated with gradual progression of heart disease (7).

Various studies indicate that depression is a risk factor independent of other commonly used factors for cardiovascular disease regarding the cause and prognosis. The chance of death in patients with myocardial infarction, angina pectoris, or by-pass of coronary arteries suffering from depression is 2 - 3 times higher rather than non-depressed patients (8). Studies show that depression is common among healed patients with unstable angina (9). Partial symptoms of depression increase the risk of death after unstable angina, thus the diagnosis and treatment of depression should be considered as one of the ele-

ments of treatment for cardiac patients (10).

Although the death rate is higher in patients with more severe depressive symptoms, high mortality rate is also observed at very low levels of depression. This level of depression is not clinically significant and is below the level, which is considered as a predictor of death after angina pectoris (11). Researches show that many treatment costs are spent on re-admissions and outpatient visits for depressed patients who spend the first year after angina pectoris (12).

Hope Therapy can help patients tolerate the disease physiologically and psychologically (13). Hope can be considered as a symbol of mental health in nursing research (14). The highest volume of research on hope therapy in recent decades has been based on the recommendations of Seligman, the father of positive psychology (2000), and Snyder (15). From the point of view of this theory, frustration causes or exacerbates depression, threatens mental health, and subsequently causes physical impairment. They believe that frustration leads to physical and mental illness (16, 17). In the study of Bahramian et al. the Hope Therapy approach was reported to make a significant difference in the level of depression after therapy intervention on the patients with multiple sclerosis (18). Bijari et al. in a study on 20 samples of breast cancer, have known Hope Therapy to be effective in reducing depression of these patients (19).

Research has also shown that depression symptoms are less likely to be reported in hopeful individuals, and low hope can predict depression and psychosocial weaknesses (20). Snyder's studies showed that chronic patients treated with Hope therapy showed a better response after intervention when they were exposed to stress related to disease and tension, and their resistance during treatment, acceptance, and follow-up of proposed treatment are much better (21). In addition, in their research, Rodin et al. found that increasing hope is effective in reducing depression, stress, and psychological pressures of severely ill patients and prevents more outbreak of the disease (22).

The above evidence suggests that finding some of the methods to meet the needs of patients is part of the process of coping with the disease, and the psychological and social needs of patients must be taken into account when meeting the physical needs of patients. Therefore, the best option for improving the disease and meeting their needs is to intervene not only in physical therapy, but also in psychological and social therapy, for which hope therapy can play well (23). The present study was conducted to determine the effect of Hope Therapy on decreasing the rate of depression in elderly patients with unstable angina.

2. Methods

This clinical trial study (RCT) was conducted to evaluate the effect of Hope Therapy on depression in elderly patients with unstable angina admitted to the Shahid Rajaee hospital in Tonekabon, which is affiliated to Mazandaran University of Medical Sciences in 2016.

The research population included patients with unstable angina who were hospitalized in the cardiac care unit.

The adequacy of the sample size is done by by considering a significance level of $\alpha = 1.96$ and 1.28 and regarding the mean (standard deviation) of the case and control groups, 32.86 (4.87) and 25.66 (4.05). In each group, 16 participants were estimated (24).

The inclusion criteria included the age range of 60 and over, lack of psychological illness, lack of participation in psychotherapy sessions before and during the study (evaluated by self-declaration), as well as confirmation of diagnosis of unstable angina for more than 1 month (according to the physician's opinion relevant and patient self-declaration).

Before data collection, the ethics code numbered IR.Shahed.REC.1394.72 was acquired and the permission from the Iranian registry of clinical trials (IRCTID: IRCT2016020126301N) was obtained.

Data collection lasted from June to December 2016. After eligibility, patients who agreed signed the consent form. Subjects were then selected from a general list of patients by simple random sampling. The 2 groups were the same for all demographic variables.

In the CCU section, the patients in the experiment group were treated by hope therapy during the course of the study for 8 sessions. The duration of this process was 90 minutes for each patient. At the beginning of the intervention, the researcher described the process of the program for the patient. According to Snyder's theory, the process and the stages of hope therapy in this study were carried out based on the 4 main steps of hope-seeking, hope stabilization, hope raise, and hope retention in 8, 90-minute sessions as the following.

Session 1: Introducing hope and its aspects, defining goals and obstacles, finding ways to achieve goals and strategies to maintain motivation.

Session 2: Introducing goals and their types as a part of the process of increasing hope, creating a structure for the discovery of goals.

Session 3: Providing a solution for setting clear and practical goals at different levels, preferring their own goals to secondary goals, choosing real goals.

Session 4: Preparing a list of goals, prioritizing them and choosing a goal for work in the program, highlighting goal, purpose, and meaning in life.

Session 5: Understanding the ways to increase motivation and strength of mental and physical will in pursuit of goals, the role of hope in increasing mood, and reducing feeling of frustration.

Session 6: Understanding the positive emotion and negative emotion, the role of negative emotion in maintaining impairment in the setting of emotion and null life, the use of positive emotions and alternative routes in dealing with obstacles.

Session 7: Using progression to evaluate the goal tracking and feedback process, learning about ways to overcome obstacles and challenges, identifying self-owning thoughts to change ineffective beliefs and attitudes.

Session 8: Drawing up the relationship between the thinking and the positive feelings of achieving the goal in increasing the hope, identifying and using personal abilities in a new way, familiarizing them with the classification of moral abilities and virtues, summing up the sessions. The program process was done in such a way that no disturbances occur in the patient's usual treatment.

Patients in the control group did receive usual treatments. After the end of the study period, patients of this group were provided with explanations in this regard, and they were given an individual Hope Therapy booklet upon request.

The data were collected before, 1 week later, and then 1 month after the intervention. In this study, the demographic variables of the elderly and the cognitive questionnaire and HADS questionnaire were used. A short cognitive questionnaire collected demographic information of the elderly at the beginning of the study through a face-to-face interview.

The individual hope therapy program was an independent variable, and depression was a dependent variable.

Hospital scale of anxiety and depression stage. The HADS is a 14-item self-report instrument designed to screen for presence and severity of symptoms of depression and anxiety. The instrument possesses a 7-item depression subscale (HADS-D) and a 7-item anxiety sub-scale (HADS-A). The HADS represents a brief and screening tool for symptoms of depression and anxiety in patients with physical illness (25).

2.1. Scoring

Items are scored on a scale of 0 - 3: (range 0 - 21) are derived by summing the 7 items on each scale. For both subscales, scores in the range of 0 - 7 are considered normal, 8 - 10 are mild, 11 - 14 are moderate, and 15 - 21 are severe (25). Montazeri et al. (2013) confirmed the reliability and validity of the Persian version of it (26).

Statistical analysis was performed using repeated measures in SPSS v. 22 software.

3. Results

According to the findings of this study, Table 1 shows the demographic characteristics of the participants in the research.

Table 1. Demographic Characteristics of the Subjects

Variable			P Value
Gender	Male	18 (56.3)	> 0.5
	Female	14 (43.8)	
Marital status	Single	23 (71.9)	> 0.5
	Married	9 (28.3)	
Education	Illiterate	20 (62.5)	> 0.5
	Literate	12 (37.5)	
With chronic disease	Yes	27 (48.4)	> 0.5
	No	5 (15.6)	
Smoking	Yes	2 (3.1)	> 0.5
	No	30 (96.9)	
Age	Maximum	85	> 0.5
	Minimum	60	
History Hospitalization	Yes	13 (40.6)	> 0.5
	No	19 (59.4)	

The sphericity default of data is approved by Mauchly's test. Descriptive statistics showed that the mean were different in the 3 times measured in 2 groups and this difference was statistically significant In the 3rd round.

The mean of depression in the intervention group was 16.68 (SD = 1.62) and in the control group, it was 17.43 (SD = 2.75).

In the control group, 1 week after completing the first questionnaire, the mean of depression was 17.5 and 1 month after completing the first questionnaire, it was 18.

On the other hand, in the intervention group, 1 week after the intervention completion, the mean of depression was 17.56 and 1 month after the end of the intervention it was 17.32 (Table 2).

According to the data in Table 2, it was found that intervention in the intervention group reduced depression compared with the control group ($P < 0.001$), $P = 0.112$ Eta = 0.070

4. Discussion and Conclusions

The purpose of this study was to investigate the effect of individual hope therapy on reducing depression in elderly patients with unstable angina. The results of this

Table 2. Mean Score (SD) of Depression in Both Case and Control Groups, Before the Intervention, One week, and One Month After the Intervention[a]

Variable	Group						P Value
	Case			Control			
	Before Intervention	One Week After Intervention	A Month After Intervention	Before	One Week After	A Month After	
Depression	16.68 (1.62)	17.56 (1.45)	17.32 (1.25)	17.43 (2.75)	17.5 (2.60)	18 (2.73)	< 0.001

[a]Values are expressed as mean (SD).

study showed that the Hope Therapy program had a significant effect on depression. These findings were in line with previous research results. In the study of Bijari et al. Hope Therapy was conducted as the group therapy of patients with breast cancer that affected their depression (19). In the study of Bharamina et al. group Hope Therapy was effective in decreasing the depression level of patients with multiple sclerosis (18). Moreover, Shekarabi-Ahari et al. found group Hope Therapy to be effective on decreasing the depression rate of mothers having children with cancer (27), and the mentioned studies were conducted in the form of group- therapy programs.

A study by Shaikhi and Salehe Sajjadi showed that group Hope Therapy has a positive effect on reducing students' depression and increasing their hopes (28). Kimia et al. also found optimism is associated with hope, and optimism can be considered as one of the inhibitors of depression (29). In another study, Werner conducted structured face-to-face interviews with 172 patients with severe psychiatric disorders and found that hope provides psychological well being and consequently, a recovery process (30). Mehmet and Michael (31) reported that hope can be trained and if there are positive emotions, it can act as a barrier to relapse depression (31). Rodin et al. examined 406 patients with gastrointestinal and lung cancers, and argued that depression and disappointment mutually reinforce each other, however they are different structures, and each one of them directly predicts the desire for early death (22). Eventually, in a study on a sample of hospitalized depressed patients under Snyder's hope therapy, Stein found that this intervention has provided grounds for creating depression and frustration (32).

In explaining this result, can be stated that people with depression often find themselves irreversible and believe that they themselves and others are not able to help them.

In the intervention of hope, patients are trained to provide measurable and achievable goals for themselves, to consider multiple passages, to have the purpose and hope of achieving it gives meaning to life, and guides the person on the path, which reduces depression.

In this regard, Snyder believes that hopeful thoughts reduce the feeling of failure in 2 ways: first, changing the person's perception in a hopeful guidance, focusing on sub-ways that are around the obstructed goal through which the person does not consider achieving a goal as a failure, and this can be a lesson for how it can be achieved in a more efficient way. Second, hopeful thoughts change the perception of the obstructed target, that is, a hopeful person looks for the various ways, and when he comes to obstacles, he perceives it as a challenge, not as a stopping point. So when these 2 views come together, target obstruction, which may lead to depression symptoms, becomes an attempt to find a new way to reach the goal (33). In Hope Therapy, these models are being improved in the patient to reduce their depression as well as vulnerability to this disorder and they are then taught to create more goals, passags, and agents, and extend their expectation for success by focusing on past.

4.1. Conclusions

According to the results of this study, it can be stated that the use of the Hope therapy program, alongside the usual treatment of patients, can have depression reducing effects on them.

However, as this study was conducted individually on elder patients with unstable angina, due to the nature of sickness and CCU condition, it is recommended that other studies would be done in-group due to the fact that by using group Hope Therapy training an atmosphere can be created so that people will hope for each other according to their needs and preferences in the group. This is because they get familiar with people like themselves and gain more self-confidence to fight the disease.

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Footnotes

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