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Effectiveness of positive psychology group therapy in reducing depression, stress and death anxiety in patients with cancer undergoing chemotherapy

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Abstract

Introduction: The purpose of the present study was to study the effectiveness of positive psychology group therapy in reducing depression, stress and death anxiety in patients with cancer undergoing chemotherapy.

Materials and Methods: This cross-sectional study was conducted in 2016-17 on 32 patients suffering cancer and undergoing chemotherapy in two groups of control and experimental. The patients participated in positive group treatment sessions once in a week for 45 days. In the beginning of the therapy, evaluation forms of DASS-21 and Templer death anxiety were completed as pre-test. At the end of the sixth session a post test was conducted. Results were analyzed deploying SPSS 21 software accompanied by the analysis of variance, Chi-square and t, paired t-test.

Results: Comparing the mean scores of depression, stress and anxiety of death among the two groups, a statistically significant difference ($P < 0.001$) were shown between the two groups of psychological positive therapy and control.

Conclusion: The results of this study show the effectiveness of treatment of positive group psychotherapy on reducing depression, stress and anxiety of death cancer among the patients undergoing chemotherapy. Providing necessary measures by the oncologists and senior managers in deploying positive group therapy to reduce depression, fear of death, stress and anxiety for the patients undergoing chemotherapy is recommended.

Keywords: Cancer, Death anxiety, Depression, Positive psychology, Stress

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Introduction

Cancer is one of the most common chronic diseases today. According to the statistics of the World Health Organization, 10 million patients are diagnosed with cancer every year. It is predicted that this amount will reach more than 15 million people every year by 2020 (1).

The increasing growth of cancer in the last few decades and its harmful effects on all physical, emotional, spiritual, social, and economic dimensions has caused that, in addition to people, the attention of experts is also more focused on this disease and they identify cancer as a major health problem of the century. Cancers are one of

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the important causes of disease and there are deaths in the world. In 2012, there were about 14.1 million cases of cancer and 2.8 million deaths from cancer in the world (2). Despite the significant advances in medical science, cancer is still considered as one of the most important diseases of the current century and the second cause of death after cardiovascular diseases (3). The evidence shows that psychological variables during the diagnosis and treatment of the disease affect different dimensions of the patient's life. Decreasing mental health in cancer patients can cause family disintegration, communication disorders and inability to fulfill individual, family and social responsibilities. Failure to treat anxiety and depression in patients with uncontrolled physical symptoms, failure to comply with medical and health recommendations and longer hospital stays are related. Only 25% of patients who have mental problems are treated. This is while the patients stated that they will use medical services if they have the necessary knowledge (3). Stress, major depression and lack of social support are risk factors in the growth and development of cancer. Depression and mental disorders are completely determinants of mortality in cancer patients. Depression and anxiety are the two main symptoms and complaints of cancer patients. In a review study, the prevalence of depression in cancer patients was 11.6% and the prevalence of anxiety was 17.9%. And anxiety was more than depression. Also, these problems are more common in patients and their spouses than in healthy controls (3). Heydarzadeh et al. state that cancer patients suffer from many complications such as anxiety and depression, which reduce the overall quality of life and its various dimensions, not only the diagnosis of cancer but also the type of treatment in creating stressful conditions is involved patients who undergo chemotherapy and radiotherapy along with surgery suffer from mental disorders such as anxiety and depression more than patients who receive only one type of treatment (4).

In a research on 122 subjects entitled "The effect of positive-oriented interventions on happiness and symptoms of depression, along with the investigation of personality as a mediator, they found that interventions based on abilities and gratitude increase happiness and

reduce symptoms. Depression is more effective compared to the control group (5).

Parks-Shiner investigated the effect of positive group psychotherapy in 110 depressed students. At the end, the students who received positive psychotherapy experienced significantly less depression symptoms and their life satisfaction increased (6).

Wing, Scott and Byrne, the effect of writing about positive emotional experiences on emotional intelligence and life satisfaction in 175 adults. They found that writing about positive emotion along with a guide on emotional regulation led to a significant increase in emotional intelligence and life satisfaction and the increase in life satisfaction was maintained in the two-week follow-up (7). In 2005, Fava et al. also investigated the effect of well-being therapy in increasing the recovery level of generalized anxiety disorder. Their sample group included 20 people who were randomly assigned to 8 cognitive-behavioral therapy sessions or a chain of 4 cognitive-behavioral therapy sessions followed by 4 other sessions.

Well-being therapy was followed and they were replaced. After treatment, a significant effect of the combination of cognitive-behavioral therapy chain with well-being therapy on cognitive-behavioral therapy was observed (8). Balqanabadi et al. investigated the effect of positive-oriented couple therapy on the hope of mothers of children with special needs. This study was semi-experimental and the sample group was 24 mothers with disabled children in Mashhad. The results showed that the hope of mothers of children with special needs that intervention had received increased significantly (9). This research was conducted with the aim of investigating the effect of positive group psychotherapy on depression, death anxiety and stress in cancer patients undergoing chemotherapy.

Materials and Methods

The statistical population in this study includes cancer patients undergoing chemotherapy in Taleghani Hospital in 2015. 32 people were selected by available sampling who responded to Templer's depression, stress and anxiety scale and death anxiety scale.

Research instruments

A) *Depression, Anxiety and Stress scales (DASS-21)*: The short form of DASS scales consists of 21 phrases related to the symptoms of negative emotions (depression, anxiety, stress). Last week, he experienced grading using a 4-point scale (between zero and three). Each of the three scales of depression, anxiety, and stress has 7 questions, and the subject's score in each of the three subscales is obtained by summing up the expressions belonging to the words of that subscale. Various studies have shown that DASS subscales have favorable psychometric properties. In a study with a non-clinical population, the internal consistency coefficients of the three subscales of depression, anxiety, and stress were 91%, 84%, and 90%, respectively, and in a study with a clinical population, the internal consistency coefficients. These three subscales have been reported as 96%, 89%, and 93% respectively. The psychometric properties (validity and reliability) of this questionnaire have been confirmed among Iranian clinical and non-clinical samples, including patients with chronic pain. In a study with a non-clinical sample. Cronbach's alpha coefficients of the subscale has been reported above 90% and the retest coefficients with an interval of three weeks for the depression scale were 84%, for the anxiety scale 89% and for stress 90%.

B) *Templer's Death Anxiety Questionnaire*: This scale was created and validated by Templer. Templer's death anxiety measurement scale has 15 questions with true and false options, and the total score of the questionnaire is between 1 and 15, with a higher score indicating greater death anxiety and vice versa. The degree of death anxiety is classified into three levels of mild anxiety (0-6), moderate (7-9) and severe (10-15). Sachino and Klein, Cronbach's alpha coefficient

for the three factors are 0.68 and 0.83, respectively. Also, Kelly and Corriveau reported the retest reliability of the DASS anxiety scale as 0.49 and 0.60. In 1970, Templer reported the reliability coefficient of the death scale as 0.85 and its internal consistency coefficient as 0.73.

Results

The results indicated that the scores of depression in the experimental and control groups were 12.28 ± 9.04 and 14.71 ± 8.99 , in the pre-test and 4.00 ± 3.03 , and 29.28 ± 5.41 , in the post-test, respectively. The scores of anxiety in the experimental and control groups were 11.57 ± 9.38 and 13.14 ± 9.40 , in the pre-test and 5.42 ± 4.92 , and 28.85 ± 4.94 , in the post-test, respectively. The scores of stress in the experimental and control groups were 19.14 ± 9.46 and 19.28 ± 10.64 , in the pre-test and 7.00 ± 4.20 , and 28.46 ± 7.53 , in the post-test, respectively. Also, the scores of death anxiety in the experimental and control groups were 7.42 ± 1.74 and 7.64 ± 3.07 , in the pre-test and 7.00 ± 1.30 , and 8.64 ± 2.09 , in the post-test, respectively. The results of Kolmogorov-Smirnov test indicated $P > 0.05$ in all variables.

Correlated groups t-test was used to check the research hypotheses in the post-test compared to the pre-test. Also, to compare the variables between the test group and the control group, according to this

that there was no significant difference between the pre-tests; For this reason, the difference between the pre-test and the post-test was first calculated to check the investigated hypotheses, and then the t-test for independent groups was used to check the hypotheses.

Table 1. Independent t-test in pre-test

Variable	F	P	T	DF	P
Depression	0.001	0.99	0.71	26	0.48
Anxiety	0.040	0.93	0.44	26	0.66
Stress	0.001	0.97	0.30	26	0.97
Death anxiety	0.001	0.97	1.50	26	0.14

Table 2. Independent t-test in post-test

Variable	F	P	T	DF	P
Depression	2.87	0.10	9.04	26	0.001
Anxiety	0.20	0.65	8.01	26	0.001
Stress	0.48	0.49	8.09	26	0.001
Death anxiety	0.37	0.95	7.12	26	0.001

The results obtained from the present study showed that in the experimental group, depression decreased significantly in the post-test compared to the pre-test in the experimental group compared to the control group ($F= 250.44$ and $P< 0.001$). The results obtained from the present study showed that in the experimental group, stress decreased significantly in the post-test compared to the pre-test in the experimental group compared to the control group ($F= 198.24$ and $P< 0.001$). The results obtained from the present study showed that in the experimental group, death anxiety decreased significantly in the post-test compared to the pre-test in the experimental group compared to the control group ($F= 9.5544$ and $P< 0.001$).

Discussion

The obtained results showed that positive-oriented group psychotherapy reduces depression in cancer patients undergoing chemotherapy. This finding is consistent with the results of Ghasemi, Seligman and Rashid (10), and Parks-Shiner (6), Sanaf and Liao (5). Positive psychology was proposed for the first time in 2000 by Martin Seligman and focused on people's positive abilities and emotions. Positive psychology is the scientific study of positive experiences, positive personal traits and institutions that facilitate their growth (4). Based on this attitude, changing a person's attention and awareness towards positive abilities and mood-enhancing facilities in front of the factors that cause depression, can help a person in dealing with depression and prevent its recurrence. Positive psychotherapy exercises are designed to reduce depression. For example, the practice of "three good things" neutralizes the depressed person's mental rumination on negative events. Or practicing "appreciative encounters" can shift the memory from the negative aspects of the patient's past relationships to enjoying the good things his friends and family have done for him (10). But some researchers have raised the question of how increasing positive emotions can reduce depression. Wood and Joseph's research gives an interesting answer to this question. They conducted a longitudinal study on 5566 people. These individuals, who were in the age range of 51 to 56 years, were examined 10 years later at the ages of 63 to 67 to determine whether lack of

positive well-being is a unique additional risk factor for depression or not. Their results showed that people with low positive well-being were 16.7 times more likely to suffer from depression ten years later, and after controlling for various variables, people with low positive well-being were more than twice as likely. They were more likely to suffer from depression (11).

Wood and Joseph believe that their findings support interventions that increase positive living as a means of preventing and treating depression (11). Therefore, unlike cognitive, behavioral and interpersonal approaches that focus on reducing depression symptoms, positivist approaches pursue this goal indirectly and by increasing positive emotions (12). Other results of the research showed that positive group psychotherapy reduces the stress of cancer patients under chemotherapy.

The results of this research are in line with the researches of Ruholah Sheikh Abu Masoudi (13), Khodayari Fard (14) and Fawa et al. (8). According to them, positive interventions directly increase well-being and reduce depression symptoms and indirectly (by increasing positive thoughts, positive behaviors) and positive emotions) (12). Therefore, during the treatment sessions, these two goals are pursued simultaneously and this increases the effectiveness of this treatment and, as a result, reduces the depression of patients. Other results of the research show that positive-oriented group psychotherapy reduces the death anxiety of cancer patients undergoing chemotherapy. The results of this research are consistent with the research of Cathrine et al. (15). One of the important issues is that although all interventions are based on positive psychology, therapists must be careful not to ignore or deny the negative, disturbing or troublesome experiences that patients bring up in therapy sessions do not put In addition to creating positive emotions, character abilities and meaning in life, therapists should try to fully acknowledge the negative experiences of clients (16). This research was the first study that investigated the effectiveness of positive group psychotherapy on depression, stress and death anxiety of cancer patients undergoing chemotherapy. The findings of this research showed that this method of treatment is financially low-cost, economical in terms of time,

and effective in terms of therapeutic effects. One of the features of positive psychotherapy is its structure. In this approach, the structure of the treatment, as well as its length, tasks and objectives of the sessions are coordinated based on the needs of each patient. Also, unlike other psychotherapies, positive psychotherapists pay attention to both the positive and negative emotions of the patient, and this issue can lead to an improvement in the quality of treatment (17).

In addition, it can be said that this is after positive therapy, which acknowledges death anxiety as a negative experience alongside positive experiences and accepts that it has

References

1. Rezaieshahsavarloo Z, Taghadosi M, Mousavi M, Lotfi M, Harati K. The relationship between spiritual well-being and relationship attitude with life satisfaction in elderly cancer patient. *Iranian journal of patient nursing* 2016; 4(1): 47-55
2. Nikbakht HA, Aminisani N, Hosseini SR, Asghari Jafarabadi M, Ahoei K. [Prevalence of anxiety and depression in patients with colorectal cancer in Babul-north of Iran 2008-12]. *Journal of Gorgan University of Medical Sciences* 2016; 18: 1. (Persian)
3. Salehi F, Mohsenzade F, Arefi M. [Prevalence of death anxiety in patients with cancer in Kermanshah, 2015]. *Journal of breast diseases* 2016; 8(4): 34-40. (Persian)
4. Heidarzade M, Rassouli M, Mohammadi Shahabolaghi F, Alavi Majd H, Mirzaei H, Tahmasebi M. Assessing dimensions of posttraumatic growth of cancer in survived patients. *Holistic nursing and midwifery journal* 2015; 25(2): 33-41.
5. Senf K, Liau A. The effects of positive interventions on happiness and depressive symptoms, with an examination of personality as a moderator. *J Happiness Stud* 2013; 14(2): 591-612.
6. Parks-Sheiner AC. *Positive psychotherapy: Building a model of empirically supported self-help*. East Eisenhower Parkway: University of Pennsylvania; 2009.
7. Wing JF, Schutte NS, Byrne B. The effect of positive writing on emotional intelligence and life satisfaction. *J Clin Psychol* 2006; 62(10): 1291-302.
8. Fava GA, Ruini C, Rafanelli C, Finos L, Salmaso L, Mangelli L, et al. Well-being therapy of generalized anxiety disorder. *Psychother Psychosom* 2005; 74: 26-30.
9. Bolghan-Abadi M, Hassan Abadi H, Asghari Nekah SM. [Study of the effectiveness of positive couple therapy on hope of mothers with children with special needs]. *New findings in psychology* 2012; 7(21): 113-21. (Persian)
10. Seligman MEP, Rashid T, Parks AC. Positive psychotherapy. *Am Psychol* 2006; 61(8): 774-88.
11. Wood AM, Joseph S. The absence of positive psychological (eudemonic) well-being as a risk factor for depression: A ten year cohort study. *J Affect Disord* 2010; 122(3): 213-7
12. Duckworth AL, Steen TA, Seligman MEP. Positive psychology in clinical practice. *Ann Rev Clin Psychol* 2005; 1: 629-51.
13. Sheikh Abuomasoudi R, Kashani F, Karimi T, Salarvand SH, Hashemi M, Moghimian M, et al. [Comparison of two methods of education (Face-to-face and electronic) on depression, anxiety and stress, breast cancer patients]. *Journal of breast diseases* 2015; 8(2): 24-34. (Persian)
14. Khodayarifard M, Sohrabi F, Shokuhi Yekta M, Ghojari Banab B, Behpazhuh A, Faghihi A, et al. [Psychotherapy and rehabilitation of prisoners and review its effectiveness in Rajai Shahr prison]. *Journal of psychology and educational sciences, Tehran University* 2007; 12: 24-45. (Persian)
15. Cathrine CL, Bulter JR, Koolman L. Supportive expressive group therapy and distress in patient with metastatic breast cancer. *Journal of medical psychology*, 2001; 122(1): 52-7.
16. Oltmanns TF, Emery RE. *Abnormal psychology*. 7th ed. New Jersey: Pearson Education, Inc.; 2012.
17. Kearne CA, Trull TJ. In: *Psychology and life: A dimensional approach*. Perkins J. (editor). Belmont: Wadsworth, Cengage Learning; 2012.

therapeutic properties and can reduce death anxiety in addition to increasing meaning in life. Since death anxiety in cancer patients is chemotherapy is seen in abundance, it can be said that the best psychological treatment for this society is positive psychotherapy.

Conclusion

Various research has reported increased depression, stress, and death anxiety in cancer patients undergoing chemotherapy, so that this positive therapy can be widely used in cancer treatment centers.