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Effectiveness of Short-term Group Logo-therapy on Life Expectancy and Resilience of Women With Breast Cancer

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ABSTRACT

Background: This study aimed to investigate the effectiveness of short-term group logo-therapy on life expectancy and resilience of women with breast cancer.

Methods: This applied study is quasi-experimental and was designed by the use of pre-test and post-test. The population of study included all women with breast cancer, from which 30 women with breast cancer were randomly divided into experimental and control groups. To collect study data, The life expectancy scale and Connor-Davidson Resilience Scale (CD-RIS) were used. For data analysis, covariance analysis ANCOVA was used.

Results: The results showed that there is a significant difference between the scores of life expectancy between groups $F= 485.012$, $p= 0.005$ and there is a significant difference between the mean scores of resilience among groups $F= 2.051$, $P= 0.001$.

Conclusions: In general, it can be said that, group logo-therapy can help women with breast cancer to find meaning in their life, receive support from groups, and adapt themselves with diseases. Also, logo-therapy can be useful in breast cancer patient's attitude towards hardships and problems and can increase their strength and resilience.

Introduction

Nowadays, cancer is considered as one of the most important health problems worldwide. The information needs of persons living with chronic medical conditions such as breast cancer cannot be underestimated, as quality and accurate information are critical for the optimal management of these conditions and improved quality of life.¹⁻⁴ According to the Statistical Center of Cancer in Iran, each year, over 51,000 new cases of cancer are reported and

annually 35,000 people die because of cancer.⁵ Among cancers in women, breast cancer is the most important threat to their health; since it is the most common type of cancer after lung cancer and the second leading cause of cancer deaths in women.³ Statistics show that breast cancer is set to overtake cervical cancer as the most common type of cancer among all women.⁶

Logo-therapy is a treatment process to achieve one's ability and expand views towards ego, the surrounding world and issues that create the meaning of life.^{7, 8} From the existential analysis and logo-therapy point of view, the burnout syndrome is a disorder caused by loss of meaning. The meaning of life is linked with values we live up to, values that we choose and decide upon. The lives of many people prove that we are not helpless victims of destiny.¹

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A person can be subdued by destiny as long as he clutches to one requirement that is not fulfilled, which consequently makes one lose appreciation of the bigger picture. The opposite of loss of meaning is a pursuit of wisdom. Wisdom means to live in a hopeful spirit.⁹ Logo-therapy, by some writers, was called “the third school of psychotherapy by Vienna” and it refers to the meaning of human existence and emphasizes on the search for one’s resistance in regard to this concept.¹⁰ According to the principles of logo-therapy, trying to find the meaning of life is the most fundamental driving force of every person in their life.⁷⁻¹⁰

Logo-therapy, by taking into account the transience of human existence rather than pessimism and isolation, invites humans towards effort, hope and activity.⁷⁻¹⁰ It expresses that suffering and undesirable destiny aren’t the reasons for people’s failure, but that failure occurs when life becomes meaningless. If we bravely accept suffering until the last minute of life, life will have meaning and the meaning of life can include even the potential meaning of pain and suffering. Humans against adverse conditions, risks and hardships often feel helpless and hopeless and, in many cases, they also try to accept risks and hardships, from which oftentimes unexpected results can be obtained.⁷ Diagnosis of cancer can cause personality crises in people. At this time, many factors can contribute to patients overcoming their illness.⁶ A psychological intervention such as group logo-therapy is a small world that symbolizes the real world in which the members participate with the aim of exploring themselves as individuals who have shared interests. This method is an explorative journey for achieving the ability to be with their true selves and expand their perspective toward themselves and their surrounding world and clarify what gives meaning to their present and future life. In this group, individuals feel that they can be with each other in meaningful ways of life, and ways of fighting diseases like breast cancer.⁷

One way that logo-therapy can help women with breast cancer is to increase their resilience by adding more meaning to their lives. Creating meaning and logo-therapy can be considered important in people’s confrontation with life-threatening illnesses.⁹ Considering that recognizing and identifying the correct way to treat it are important aspects of care in cancer patients, logo-therapy can be used as an effective way by mental health professionals along with other therapies to improve the hope and depression of affected people.¹¹

Resilience is one of the essential concepts which increases the level of a person’s ability for resistance and rapid improvement during the decline of physical function in disease. Resilience is one of the major components that could provide one way or another a miracle for cancer patients. Resilience is a dynamic

process through which people show positive adaptation, despite the traumatic and abnormal experiences.¹² Mahmoudi, in his study, found that cancer patients who have had high resilience, show more sympathy toward themselves and it can be effective and important in the course of recovery.¹² Investigators showed that the majority of people with cancer who had enjoyed a high level of resilience, show better health and physical function.¹³ Other studies showed that women with breast cancer have lower levels of resilience than other women.¹⁴ Furthermore, Li et al. showed that individual resilience might ease caregiver burden among the principal caregivers of breast cancer survivors, and family resilience tends to promote the survivors’ individual resilience. Therefore, individual resilience can be enhanced for breast cancer hope.¹⁵

Among patients confronting serious illness such as advanced breast cancer, hope takes on multiple forms.¹⁶ In general, hope is the wish for, or belief in the possibility of a better future. Hope can also be a desire that a decision or intervention might produce a specific outcome.^{3, 4} According to Coulehan, hopes differ from expectations in that hopes are always positive and maybe improbable.¹⁷ Therefore hope is an ability that helps people to reach the target despite the existence of difficulties in the way and helps the maintenance of motivation. Any person trying to achieve his or her respective goal considers various assessments, which manifest as the amount of hope in that person and finally lead to different behaviors.¹⁶ The useful role of hope, both before the problem (primary role) and after its occurrence (secondary role), has been determined. Women with breast cancer who have had mastectomy would lose a part of their body, which is a sign of their gender. This issue distorts the mental image of a person towards her own body and may lead to loss of confidence and feminine charm and then ushers anxiety and depression and despair for the patient.³ Failure of timely diagnosis and treatment of depression in patients with breast cancer has harmful results, including reduced quality of life, negative impact on the patient’s capacity to accept physical therapy, reduction of resilience and life expectancy, reduction of survival, and ultimately increase in patient’s death.¹¹ Studies show that an increase of hope in breast cancer patients improves the resilience in women with breast cancer, which could help the recovery process. Also research about the effects of hope and resilience indicates a lack of research resources, which aims to increase resources and information about the resilience and the hope of patients with breast cancer. The results of one study indicate that group logo-therapy can be effective in reducing psychological stress and problems of divorced women and accordingly, group logo-therapy is an appropriate way to increase life expectancy and resilience of divorced women. Using



this method, mental health professionals can improve the status of divorced women.¹⁸ Considering the importance of the psychological issues in women who have had breast cancer surgery, the present study was aimed to assess the effects of logo-therapy on life expectancy and resilience in cancer patients and, consequently, to present an appropriate strategy to improve life expectancy and resilience in this group of patients.

Methods

This applied study is quasi-experimental and was designed by the use of pre-test and post-test. Researcher investigates the effectiveness of short-term group logo-therapy on life expectancy and resilience of women with breast cancer. For data analysis, covariance analysis, ANCOVA via SPSS 20 software were used.

Community and sample of the study

The population of the study included all women with breast cancer who were referred to medical centers of Ardabil. Thirty people were selected as the sample of study by convenience sampling method and they were randomly divided into two groups of 15 subjects consisting of the experimental group and control group.

inclusion criteria

- Consent to participate in research
- No other mental illness
- Experienced of mastectomy and/or lumpectomy

exclusion criteria

- Withdrawal from research
- Mental illness

Measuring tools

Life expectancy scale: In this study, to collect data and measure variables of hope, the life expectancy test of Schneider 1991 was used. This scale has 12 items in which responses are classified by an 8-point Likert-type scale, from strongly disagree with score 1, and strongly agree with score 8. Here, eight is considered the lowest score, and 64 is regarded as the highest score. The thinking subscale includes four items of 2, 9, 10, and 12; subscale of routes consists of four items of 1, 4, 7, and 8; and four items of 3, 5, 6, and 11 were designed as trick questions. Scoring items of 1, 5, 7, and 11 as trick questions to increase the accuracy of the test will be deleted. So, the range of scores is between 8 and 64. The validity and reliability of this questionnaire were measured by two psychology professors of Isfahan University who tested sixty students of this university with it and determined an internal consistency of $\alpha=0.68$. A significant relation between the questionnaire with positive affection $r=0.46$ and optimism $r=0.64$ shows the simultaneous validity of the questionnaire.¹⁴

Connor and Davidson resilience scale CD-RIS: This scale was designed by two well-known theorists in this field, namely, Connor and Davidson and by reviewing research resources in the field of resilience.¹⁹ The questionnaire has 25 items in 5 categories, each rated on a 5-point scale 0–4, which is scored from strongly agree to strongly disagree. Mohammadi normalized the scale in 2005 in Iran. To determine the validity of the scale, the correlation of each score with the total scores, except item 3, was calculated, and it showed coefficients between 0.41 and 0.64. Afterward, scale items were factor analyzed by using principal components. Also, to determine the reliability Cronbach's alpha was used and the reliability was obtained about 0.89.²⁰

Procedure

Ethical considerations in this study include the freedom to participate and the security of patients' identities. The program of logo-therapy was done in 120 minutes in 9 sessions for five weeks in the experimental group as follows: In the first session, explaining the objectives and rules of the group, familiarity of members with each other and with the advisor, explanations in connection with features of post-traumatic stress disorder were performed. In the second session: awareness of treatment-seekers of the fundamental concepts of was explained. Activities: compact expression from the biography of Viktor Frankl and fundamental beliefs of logo-therapy were introduced. In the third and fourth sessions, patients' beliefs and acceptance were considered regarding their characteristics, considering spiritual freedom as a dimension of human existence. Then paradoxical intention training techniques were assigned to the teaching group. In the fifth session, patients were taught the meaning of life and love. In the sixth session, understanding the meaning of suffering and pain activities in group discussion about suffering and how to accept and bear it, were discussed. The seventh session included understanding the meaning of death, and group discussion about the transience of life, the reality of death, and its meaning. In the eighth session, understanding God's presence in the subconscious of humans and group discussion about the presence of God in the deepest layers of human existence were emphasized. In session nine, to sum up, the words, readings and content of last meetings by treatment seekers during past sessions were reviewed for the post-test.

Results

Thirty breast cancer patients were interviewed. Thirty of the participants had undergone surgery by means of mastectomy or lumpectomy.

Table 1 shows that although the pre-test scores of variables such as life expectancy and resilience in control and experimental groups are almost identical, post-test scores of the experimental group have increased.



Table 1. Statistical description of scores for subjects in experimental and control groups for the scales of life expectancy and resilience in women with breast cancer

| Scale | Group | test | mean | standard deviation |
|-----------------|--------------|-----------|-------|--------------------|
| Life expectancy | Intervention | Pre-test | 18.04 | 1.416 |
| | | Post-test | 25.12 | 2.781 |
| | Control | Pre-test | 16.13 | 1.503 |
| | | Post-test | 18.6 | 3.558 |
| Resilience | Intervention | Pre-test | 26.8 | 2.026 |
| | | Post-test | 35.4 | 2.01 |
| | Control | Pre-test | 26.2 | 1.124 |
| | | Post-test | 28.54 | 1.56 |

Group logo-therapy is effective in increasing the components of life expectancy and resilience in women with breast cancer. As can be seen in Table 2, the adjusted mean of dependent variables refers to a significant difference.

From data in the above table, it can be concluded that in general, there is a significant difference between the scores of life expectancy between the groups $F= 485.012$, $p= 0.005$. Therefore, it can be concluded that, with a 95% confidence interval, life expectancy scores are not identical in pre-test and post-test.

The ETA level also refers to the fact that about 85% of life expectancy scores are affected by pre-test and post-test, and this rate of change is a function of difference between tests.

As it is shown in Table 2, there is a significant difference between the mean scores of resiliencies among groups ($F= 2.051$, $P= 0.001$). Therefore, it can be concluded that, with a 99% confidence interval, an increase of resilience is not identical in pre-test and post-test. Furthermore, about 36% of the scores related to increase of resilience have changed in pre-test and post-test.

Table 2. Significant test of effects between subjects of life expectancy and resilience

| Source of Changes | dependent variable | sum of squares | degree of freedom | mean of squares | F | significance level | square of Eta |
|-------------------|--------------------|----------------|-------------------|-----------------|---------|--------------------|---------------|
| | life expectancy | 2136.012 | 1 | 71.2 | 485.012 | 0.005 | 0.854 |
| | Resilience | 28.12 | 1 | 15.047 | 2.051 | 0.001 | 0.875 |

Discussion

According to the findings of the study, training based on short-term group logo-therapy are effective on life expectancy of women with breast cancer.

According to the statistics of the World Health Organization, cancer is the second cause of death and mortality after cardiovascular disease in the world and every minute in the world, a person loses his or her life because of cancer. In Western countries, breast cancer incidence rates increase with age, unlike Iran, where the rate of incidence is different, with the highest female mortality rate occurring in those aged between 30 and 50.⁵

About the role of meaning of life in logo-therapy, Jaarsma et al. noted that the experience of the meaning in life was positively related to feelings of psychological wellbeing and negatively to feelings of distress.²¹ To explain these findings, it can be said that logo-therapy, by creating the meaning in life, leads to compatibility, life satisfaction and psychological well-being in patients with breast cancer. In other words, group logo-therapy can help women with breast cancer by finding the meaning in life and the supports they receive from the group, adapt themselves with sadness, despair, and diseases.

When treatment-seekers based on behaviors,

habits, or illness, describe themselves, their problems will be intensified, and conditions will be more disappointing. During the treatment, refraining from oneself gives power to treatment-seekers by accepting and releasing their fighting force. They can take a stand and confront problems. In logo-therapy it is recommended to create a distance between treatment-seekers and symptoms, to let them be free from neuroticism.⁸ Therefore, with continuous collaboration between patient and therapist, symptoms will be reduced.

Based on the results of the study, it can be concluded that training based on short-term group logo-therapy was effective in the resilience of women with breast cancer.

Many women with breast cancer are those who have experienced dark aspects of human nature, those who have faced profound questions related to the loss of meaning of life and the concept of the hope in life.. In the other word, by redefining the concept of suffering and pain, individuals try to find the meaning of existence and they will be ready for confrontation in facing with difficulties and challenges of life.¹⁰ If the individual can be successful in finding out the meaning of better and unexpected and disappointing events of life, he or she will be able to withstand the tribulations of life. In logo-therapy, people talk about



freedom of human spirit, and that deterministic laws do not influence a human. A human has the right to choose an attitude about the existing situation. Decision-making is granted to humans. For humans, nothing has the power of determining how to think and behave about the unchanging destiny.¹⁰ Humans will always be responsible for their actions and words. As a result, the way of looking at the issues and difficulties is important, and logo-therapy intends to find a meaning-seeking attitude for people facing challenges. So, it is clear that the attitude of people in facing difficulties and pains of life can be affected by logo-therapy and their tolerance and resilience will be increased.²² According to the results obtained, it can be concluded that psychological interventions, such as group logo-therapy could reduce the amount of hopelessness and increase resilience in patients with breast cancer. Hence, it can be concluded that an explanation of comprehensive approaches in the treatment and management of cancer symptoms would be an important step in improving psychological components in the lives of breast cancer patients. In a study of Kaviani et al., the majority of participants (52.7%) declared that psychosocial care is necessary for all patients with breast complaints.²³

In conclusion, it can be said that group logo-therapy can help women with breast cancer to find meaning in their life, receive support from a group, and adapt themselves with diseases. Also, logo-therapy can be beneficial in the attitude of the breast cancer patients towards hardships and problems and can increase their strength and resilience.

Limitations of this study were problems in accessing the samples and receiving the consent of the doctor's patients. Second, the lack of follow-up periods. Third, variables such as marital status, occupation, and socioeconomic status of patients have not been controlled; hence, this intervention can be used to reduce hopelessness in breast cancer patients, in line with current medical treatments.

Conflict of Interest

The authors did not have any conflict of interest to do this research. Also, they did not receive any financial support to do the project.

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