

# The Effectiveness of the Integrated Approach of Meaning Therapy and Hope Therapy on Tolerance of Ambiguity, Alexithymia, and Psychological Hardiness of Women with Breast Cancer

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## Abstract

**Objective:** This study aimed to investigate the effectiveness of the integrated approach of meaning therapy and hope therapy on tolerance of ambiguity, alexithymia, and psychological hardiness of women with breast cancer in Dezful City.

**Method:** The statistical population of this study consisted of all women with breast cancer in Dezful in 2021, from whom 30 people were randomly selected and assigned to experimental and control groups. Toronto Alexithymia Scale (Taylor, 1986), Ambiguity Tolerance Scale, and Hardiness Questionnaire (Kobasa et al., 1982) were administered to both groups. Then the experimental group was subjected to group therapy of the integrated approach of meaning therapy and hope therapy. The number of therapy sessions was eight 90-minute sessions, and after the end of the training course, both experimental and control groups completed the research questionnaires again. After collecting data, multivariate and univariate analyses of variance were used to analyze data via SPSS software.

**Results:** The results of the data analysis confirmed the effectiveness of this integrated approach on tolerance of ambiguity, alexithymia, and psychological hardiness ( $p \leq 0/001$ ). Also, the results showed the effect of this integrated approach on the dimensions of alexithymia (difficulty in recognizing emotions, difficulty in describing feelings, and extrovert thinking) and the dimensions of psychological hardiness (commitment, control, and struggle).

**Conclusion:** The findings of this study could lead to positive consequences of the integrated approach of meaning therapy and hope therapy in women with breast cancer.

**Keywords:** Integrated approach of meaning therapy and hope therapy, Ambiguity tolerance, Alexithymia, Psychological Hardiness, Breast Cancer.

## Introduction

Physical diseases have different prognoses, natures, sequences, and treatments. Cancer is characterized by abnormal changes in the shape of cells and loss of cell differentiation, which causes cells to proliferate abnormally and keep growing irregularly

in the surrounding environment. Indeed, cancer is not a disease with a specific cause, rather it refers to a group of illnesses with different symptoms, manifestations, treatments, and prognoses (Abadi & Dalutlian, 2018).

This disease appears in some people without symptoms, and sometimes it has different symptoms in different people. Having the following symptoms does not necessarily mean that we have this disease, but by seeing these general symptoms, we can

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suspect this disease and refer to the doctor:

- Formation of lumps or lump-like components in the breast or armpit cavity,
- Swelling part of the breast or thickening its skin,
- Orange-like skin of the breast,
- Nipple pain or nipple pulling inward,
- Redness or peeling of the nipple,
- Secretion of any substance other than milk from the nipple (such as blood),
- Any change in breast shape or pain (Levine & Targ, 2019).

To answer the question of which factors cause cancer, we categorize them into two mutable and immutable risk factors. Sometimes breast cancer is discovered after the appearance of the symptoms; however, many women with breast cancer do not have any symptoms. For this reason, regular breast cancer screening is essential (Akram & Sedokyo, 2021).

There are different tests to diagnose breast cancer:

- \* Mammogram,
- \* Breast ultrasound,
- \* Breast MRI (Warrier et al., 2016).

Studies show that cancer causes many negative results in these patients, including a decrease in general health, decreased quality of life, despair, and loss of meaning in life, among which anxiety, depression, and disappointment are more common. Patients with types of cancer have high levels of mental disorders, which range from depression, anxiety, lack of adaptation to the disease, and decreased self-confidence to emotional disorders and fear of disease recurrence and death (Warrier et al., 2016). The lack of hope and meaning in life decreases the quality of life and increases disappointing beliefs (Ayatollahi, 2012).

Future orientation, positive expectations, purposefulness, realism, goal setting, and inner relationships are crucial features of life expectancy. In contrast, despair is defined as enduring an

invincible situation in which achieving any goal is not expected and is associated with depression, death wishes, and suicide (Farnia, Baghshahi, & Zarei, 2016).

Ambiguity tolerance is a psychological construct first proposed by Frenkel-Brunswick (1948). Frenkel Brunswick (1948) defined ambiguity tolerance as a perceptual and emotional personality variable. He related ambiguity tolerance to individual and interpersonal, cognitive, and perceptual variables, such as problem-solving, cognitive styles, and social performance. Further, Badner (1962) considered ambiguity tolerance a personality variable and an individual difference factor (Nicolaidis & Katsaros, 2018). Ambiguity tolerance helps the individual assume the existence of ambiguity as an integral part of the essence of any problem (Shaterian, Alizadeh, & Nikokar, 2013).

Research shows that too much ambiguity intolerance can be harmful to mental health. It is assumed that intolerance of ambiguity is a cognitive vulnerability that can lead to depression associated with stressful life events and negative rumination. Therefore, people with an intolerance of ambiguity begin to make negative cognitions about their respective situations and soon accept these cognitions as a certainty. This confidence can predict depression in this group (Zanansi et al., 2017).

Kobasa theorized that psychological hardiness is a set of personality traits that serve as a source of resistance when faced with stressful life events, reduce the likelihood of disease symptoms, and stem from diverse and beneficial childhood experiences. From Kobasa's point of view, a person with hardiness is someone who has three general characteristics:

- commitment,
- control,
- coping.

Commitment means believing in the importance,

interestingness, and meaningfulness of life. Kobasa believes that commitment is the most fundamental factor in maintaining health. The relationships of committed people with themselves and their environment guarantee being active and turning instead of being passive and turning away. People learn locus of control based on experiences and reinforcement learning (Abolghasemi, 2014). In popular culture, these people are known with attributes such as “resistant” and “patient.” These people tolerate problems better than others and get tired later (Karami, Hashemi, Ghasemi, & Keshol, 2014).

The concept of alexithymia is rooted in the psychology of emotions and psychosomatic diseases. Many patients with psychosomatic complaints showed problems in emotional self-regulation. Sifnos used the term alexithymia for emotional disorders. This concept became popular in psychiatry and psychology, especially in cognitive psychology, which is considered a defect in the cognitive process and regulation of emotions (Preti et al., 2013).

It is easy to see how some meaningful therapy techniques overlap with newer treatments, such as Cognitive Behavioral Therapy (CBT) or Acceptance and Commitment Therapy (ACT). In this way, meaning therapy can be a complementary method for these treatments based on behavior and thought (Devoe, 2012).

Meaning therapy is a type of psychotherapy that sees the basis of psychological distress as a spiritual struggle. In practice, psychotherapy and meaning therapy are inseparable because the psychological, philosophical, or spiritual dimensions of an individual are not separable. Meaning therapy attempts to outline the limits of the patient's options and freedoms and is effective in breaking the psychological cycles of annoyance (Lee, 2016). To create hope, you must have a goal and plan to achieve it. In other words, hope has three essential components:

- Having a definite mental goal,
- Planning to achieve the goal,
- The proportionality of the plan with the individual's ability to implement it (Snyder, 2000).

In the past, the dominant view in psychology was that by reducing people's pain and suffering, we can witness the growth of positive traits. Hope therapy is a type of psychotherapy that helps a person believe he is responsible for his life and try to provide better conditions for himself by taking control of things. Hope therapy uses several techniques to achieve this goal, including the following:

- The theory of hope and hope therapy provides a meta-theory to understand several methods of psychotherapy including cognitive behavioral, problem-solving, solution-oriented, and narrative therapy which indeed are motivational cognitive methods (Bahari, 2014).

Hope therapy and meaning therapy are among the therapeutic approaches whose positive effects on ambiguity tolerance, emotional ataxia, and psychological hardiness have been confirmed through numerous types of research (Kiarsi, Emadian, & Hassanzadeh, 2021; Fresco et al., 2021; Borjali et al., 2016; Movahedi et al., 2015; Hebart, 2020; Emerson, 2019; Barlow & Hummel et al., 2018; Ki Sun 2017; Jasma & Kang, 2015). Some studies investigated the positive effect of meaning therapy interventions, and some examined hope therapy.

## **Method**

The research method was semi-experimental with a pre-test-post-test and one control group design. In the current research, the effect of the integration of meaning therapy and hope therapy, as an independent variable, on ambiguity tolerance, alexithymia, and psychological hardiness, as dependent variables, in breast cancer patients was investigated. The statistical population of this study

was women with breast cancer who were referred to Cancer Treatment Center in Dezful City in 2021.

### **Participants**

The research sample included 30 volunteers from these patients who were selected through purposeful sampling and assigned randomly to experimental and control groups (15 for each group). Then the members of both groups completed the research questionnaires, and thus the pre-test was conducted. The frequency of respondents aged 50 and above, 8 people in the experimental group, and 7 people between the ages of 40-47 years in the control group were more than other age groups. Also, the respondents of age groups less than 30 years with 0 people in the experimental group and 1 person in the control group had the lowest frequency. In terms of marital status, in the experimental group, 2 people were single 13 people were married, and in the control group, 5 people were single and 10 people were married. In terms of disease duration, in the experimental group, there are 6 people, between 1 and 3 years, 8 people, and in the control group, 6 people between 1 year and less, 7 people between 1-3 years, and 1 person between 3-5 years. In terms of the level of education in the experimental group, there were 6 people with a diploma and lower education, 4 people with a post-graduate diploma and bachelor's degree, and 2 people with a post-graduate degree and doctorate, and in the control group, 6, 7 and 2 people participated in the mentioned groups, respectively.

Due to the conditions of the coronavirus disease, the training sessions of the intervention were held in 8 sessions of 90 minutes using Skyroom software for the experimental group. The control group did not receive any intervention, and after completing the sessions, both groups again completed and sent the research questionnaires online. The research

inclusion criteria included women with breast cancer, willingness to participate in intervention sessions, minimal reading and writing literacy, not receiving any other psychological treatment during the research, not suffering from severe psychiatric disorders, and being treated with cancer medical treatments. The exclusion criteria were participating in any psychological treatment course, passing the final stages of treatment (recovery or despair from treatment), and the absence of more than two sessions. In this study, the data were analyzed through inferential and descriptive statistics using SPSS version 21.

### **Ethical Statement**

Ethical considerations were fully observed in all stages of the research. At the beginning of the work, the necessary and sufficient information about the purpose of the study, the method of training, and conducting evaluations were explained to the participants. All subjects participated in the research voluntarily and without any pressure or coercion. All the information obtained from the subjects was coded and analyzed confidentially. The protocol used in this research was a combined group therapy program of meaning therapy and hope therapy. This research has received a code of ethics.

### **Measures**

To collect data, the following questionnaires were used.

*Toronto Alexithymia Questionnaire (Taylor, 1986:* The Toronto Alexithymia Scale was developed by Taylor in 1986 and revised by Bagby, Taylor, and Parker (1994). This questionnaire includes three subtests: recognizing emotions, difficulty in describing feelings, and extraverted thinking. It has 20 items aiming to investigate the level of alexithymia or difficulty in expressing emotions and their dimensions, difficulty in recognizing

emotions (items 1, 3, 6, 7, 9, 13, 14), difficulty in describing feelings (items 2, 4, 11, 12, 17), extraverted thinking (items 5, 8, 10, 15, 16, 18, 19, 20). The scale is scored on a 5-point Likert (from completely agree to completely disagree). Higher scores indicate more problems in expressing and recognizing emotions and vice versa (scores above 60 are identified as alexithymia and below 52 as non-alexithymia). Bagby et al. (1994) reported the scale's reliability using Cronbach's alpha coefficient at 0.81 and the test-retest reliability coefficient at 0.77, which indicates sufficient reliability for the questionnaire. In Iran, the 20-question version of this scale was translated and validated in two separate studies for application on a group of drug addicts (Basharat et al., 2017) and clinical and non-clinical groups (Basharat, 2016). In the first study, the reliability, using Cronbach's alpha coefficient for the subscales and the total scores, was between 0.71 and 0.83, and the test-retest reliability with a time interval of 2 weeks was between 0.61 and 0.69. Its concurrent validity was verified by its simultaneous implementation with the emotional intelligence and optimal mental health scales. In addition, the factors analysis of the scale with the confirmatory method and using the structural equation model showed that the scale was saturated with three factors: difficulty in identifying emotions, difficulty in describing feelings, and extrovert thinking. The second study was conducted on 175 patients with depression, anxiety, and scientific obsession and 173 healthy groups. The reliability was determined by Cronbach's alpha coefficient and optimal retesting. In addition, the factor analysis confirmed the three-factor structure of the Persian version of the emotional dyslexia scale.

*Ambiguity Tolerance Scale (McLean, 1993):* McLean's (1993) ambiguity tolerance scale consists of 22 items. Answers to this scale are

scored on a 5-point Likert scale from completely agree to completely disagree. The range of scores in this questionnaire is between 22 and 110. Given the scoring method of this questionnaire, a higher score indicates a lower ambiguity tolerance and vice versa. According to the research of Pourhosseini Kalori et al. (2020), this scale has good internal consistency with Cronbach's alpha of 0.90, and its correlation with the uncertainty questionnaire is reported as 0.57, which indicates its sufficient construct validity.

*Hardiness Questionnaire (Kobasa et al., 1982):* This questionnaire has 20 items to evaluate the degree of hardiness and its variables in people. The scoring method of the questionnaire is based on the options of never, rarely, sometimes, and most of the time, which yields scores of 4, 3, 2, and 1, respectively. The total score of these questions is considered the subject's hardiness score; the higher the score, the higher the hardiness. This test was standardized by Zare and Aminpour (2011) on the students of Payam Noor University, which showed the appropriate internal consistency of this questionnaire.

In the implementation of this research, due to the interest in conducting research among women with breast cancer, after submitting a written request to medical science organization and the agreement of the management and coordinating with the authorities for the conditions, protocols, and general framework of conducting the research, and also removing the obstacles in the implementing the research, necessary coordination, and cooperation with cancer treatment centers was carried out for the implementation of different stages. The interventions received in this study included meaning therapy and hope therapy. The summary of the group-integrated therapy sessions (taken from the research of Ahmadifard, Sadeghi,

**Table 1.** Summary of group therapy sessions of the integrated approach of meaning therapy and hope therapy

Sessions	Contents
First	Introducing the therapist and the group members to each other, stating the rules and expectations, introducing the structure of the sessions and the goals of the training program, and a brief explanation of the meaning therapy approach (Victor Frankel) and the hope therapy approach (Schneider).
Second	Pursuing the meaning of painful incidents and events in life, preparing to consider cancer as a meaningful event in life, explaining how to develop hope and the necessity of its existence (what they wanted and want from life), and discussing the role of life expectancy along with citing examples and stating the results of researches.
Third	Teaching three sources of meaning in Frankel's approach including creative values, experiential values, attitudinal values, and their description using examples in the participants' lives, as well as describing the participants' lives by themselves, conceptualizing their lives, and discussing solutions to increase life expectancy by the group members by themselves.
Fourth	Providing suggestions for the implementation of examples of meaning. Discussing the power of human will, freedom, and responsibility, the therapist's emphasis on the temporary nature of life for all humans and highlighting these concepts to adopt a suitable position towards all life conditions, explaining the stories based on the components of the theory of hope, and reformatting them.
Fifth	Description of the technique of invoking and teaching the power of suggestibility, applying the principles taught in the anxiety-causing and painful areas of life while extracting the constructs of spirituality in the participants and creating a different attitude towards anxiety-causing conditions in life.
Sixth	Description of other techniques in Frankel's approach, such as attitude modification, contradictory intention, and de-reflection, setting appropriate goals according to Schneider's theory and encouraging people to set goals in each area of life, thinking about the future instead of staying in the past, as well as the life story of patients and its relationship by contracting the disease, by themselves.
Seventh	Discussing the goals of plans in the lives of patients to gain a new attitude towards cancer, prioritizing goals and providing solutions to overcome some obstacles that can be overcome, continue to raise hope, set promising treatment goals, and familiarize themselves with the stages of goal selection in life and its various techniques.
Eights	The group's statement of their achievements, a summary description of the concepts raised in the previous meetings.

& Gholamrezaei, 2019) is presented in Table 1.

## Results

In the present study, descriptive statistics (mean and standard deviation) and inferential statistics (MANCOVA) were used for data analysis. Table 2 shows the descriptive data related to the variables of ambiguity tolerance, emotional ataxia, and psychological hardiness in the experimental and control groups.

Table 2 indicates that the mean and standard deviation of ambiguity tolerance, psychological hardiness, and alexithymia of the experimental and control groups were not significantly different in the pre-test stage, but in the post-test, there was a difference between

the mean scores of the two experimental and control groups, so that the average scores of ambiguity tolerance, psychological hardiness, and alexithymia of the experimental group changed compared to the control group. To determine these changes, research data have been analyzed using multivariate and univariate covariance analysis. For this purpose, the assumptions of covariance analysis were first examined. Kolmogorov-Smirnov test - assumptions of homogeneity of variance-covariance matrix (Mbox test), Levine's test, normality of distribution of scores in pre-test and post-test (Shapiro-Wilks test), and the homogeneity of regression slope were used to check the assumptions.

**Table 2.** Mean and standard deviation of the research variables in the experimental and control groups in the pre-test and post-test stages.

Variable	Group	Stage	Mean	SD
Ambiguity tolerance	Experimental	Pre-test	78.59	11.28
		Post-test	72.16	11.34
	Control	Pre-test	79.32	12.62
		Post-test	78.52	12.67
Psychological hardiness	Experimental	Pre-test	39.36	9.48
		Post-test	50.67	10.25
	Control	Pre-test	40.22	9.64
		Post-test	38.76	9.88
Alexithymia	Experimental	Pre-test	49.86	10.16
		Post-test	41.98	10.38
	Control	Pre-test	48.33	10.68
		Post-test	47.68	10.94

The results related to the assumption of homogeneity of the variance-covariance matrix of Box's test (boxes'm = 3.875, P = 0.15, F = 2.41) and Levine's test for ambiguity tolerance variables (F = 4.34, P = 0.41), and for alexithymia (F = 3.64, P = 0.41) were

and control groups showed that according to the significance level obtained above 0.05, the data are normal in different dimensions of the variables. The significance level in the pre-test in the ambiguity tolerance variable was 0.051, and in the post-test was 0.063. Considering the error level

**Table 3.** Box's test results in the variables of ambiguity tolerance, alexithymia, and psychological hardiness

BOXES' M	F	Sig. level
3.875	2.418	0.15

**Table 4.** Levin's results, assumption of homogeneity of variance, the effect of meaning therapy and hope therapy on ambiguity tolerance, alexithymia, and psychological hardiness

Research variables	F	df 1	df2	Sig. level
Ambiguity tolerance	3.34	1	28	0.14
Alexithymia	3.64	1	28	0.27
psychological hardiness	1.15	1	28	0.41

estimated.

The results of the normality of the distribution of the scores in the research variables showed that the obtained significance level is higher than 0.05. So, the data of ambiguity tolerance, alexithymia, and psychological hardiness variables are normal. Also, the results of the Kolmogorov-Smirnov test in the research variables in the experimental

as 0.05, it can be said that the data distribution in the pre-test and post-test is normal. Also, the obtained skewness showed that the pre-test and post-test have a normal distribution. As a result, all assumptions of covariance analysis have been met. Therefore, covariance analysis could be used. Also, MANCOVA analysis was performed using the within-group effects test on ambiguity tolerance,

**Table 5.** The results of univariable covariance analysis in the MANCOVA text in the variables of ambiguity tolerance, alexithymia, and psychological hardiness

Variable	Variability source	Sum of squares	df	Mean of squares	F	Sig.	Eta coefficient	Statistics power
Ambiguity tolerance	Pre-test	222.95	1	222.85	8.22	0.006	0.26	0.57
	Group	245.34	1	345.34	29.06	0.001	0.47	1.00
	Error	168.83	28	8.44				
Alexithymia	Pre-test	33.41	1	33.41	9.96	0.04	0.12	0.67
	Group	425.32	1	425.32	16.09	0.02	0.49	0.91
	Error	164.41	28	8.65				
Psychological hardiness	Pre-test	3.64	1	3.64	0.53	0.49	0.042	0.036
	Group	321.34	1	321.34	42.24	0.002	0.67	1.00
	Error	168.83	28	8.44				

alexithymia, and psychological hardiness.

According to the results and the significance level obtained from the variables of ambiguity tolerance ( $P=0.001$ ,  $F= 29.06$ ), alexithymia ( $P= 0.002$ ,  $F= 16.09$ ), and psychological hardiness ( $P= 0.002$ ,  $F= 42.24$ ), which is less than 0.05, it can be said that there is a significant difference between the experimental and control groups in these variables. Also, the effect size (eta coefficient) in the post-test on the variables of ambiguity tolerance (0.47), alexithymia (0.49), and psychological hardiness (0.67) indicates its high impact. Therefore, the hypothesis of the effectiveness of the independent variable (integrated approach of meaning therapy and hope therapy) on tolerance of

can be said that the assumption of covariate and independent variable correlation has been met. In this table, the main output of covariance analysis is shown. The F value of the impact of the independent variable is significant at 17.25. This means that the significance level obtained is smaller than 0.01. It means after removing the effect of the pre-test, there is a significant difference between the mean scores of the two groups in the post-test, and the null hypothesis that the difference between the means is not significant is rejected ( $P<0.01$ ). Therefore, the effectiveness of the integrated approach of meaning and hope therapy on the tolerance of ambiguity of women with breast cancer in Dezful

**Table 6.** The results of covariance analysis for the ambiguity tolerance test

Variable	Sum of squares	df	Mean of squares	F	Sig.	Eta squares	Statistics power
Pre-test	244.46	1	244.46	20.89	0.001	0.46	0.99
Group	201.91	1	201.91	17.25	0.001	0.51	0.98
Error	432.93	28	11.70				

ambiguity, alexithymia, and psychological hardiness of breast cancer patients is confirmed.

As it is seen in Table 6, the value of F shows the influence of the co-diffraction variable (20.89). The obtained significance level is 0.001, which is smaller than the significance level of 0.05. It

City is confirmed. Also, the effect of this training in the post-test on the ambiguity tolerance variable is (0.51), which indicates its high impact. The results of the within-group effects test on the dimensions of alexithymia (difficulty in recognizing emotions, difficulty in describing feelings, and extrovert



**Table 7.** Results of univariate covariance analysis in MANCOVA text on dimensions of Alexithymia

Variable	Variability source	Sum of squares	df	Mean of squares	F	Sig.	Eta coefficient	Statistics power
Difficulty in recognizing emotions	Pre-test	17.69	1	17.69	9.48	0.03	0.12	0.64
	Group	217.46	1	217.46	54.05	0.001	0.48	1.00
	Error	112.64	28	4.02				
Difficulty in describing feelings	Pre-test	36.41	1	36.41	6.96	0.004	0.26	0.82
	Group	196.58	1	196.58	30.50	0.001	0.49	1.00
	Error	180.46	28	6.44				
Extrovert thinking	Pre-test	22.78	1	22.78	11.78	0.018	0.47	0.24
	Group	166.18	1	166.18	41.88	0.001	0.52	1.00
	Error	111.08	28	3.96				

thinking) are significant.

A univariate covariance analysis test was also performed on the dimensions of alexithymia (difficulty in recognizing emotions, difficulty in describing feelings, and externally oriented thinking) in the MANCOVA text.

Based on the results of univariate covariance analysis in the MANCOVA text on the dimensions of alexithymia and according to the significant level obtained from difficulty in recognizing emotions ( $P=$

meaning and hope therapy has the highest effect on the scores of extrovert thinking with 41.88, followed by the difficulty in describing feelings with 0.49, and finally, the difficulty in recognizing emotions with 0.48. About the effect of meaning and hope therapy on the dimensions of psychological hardiness (commitment, control, and struggle), Pillay and Lambda-Wickels effect test and the results are shown in Table 10.

To investigate the effect of the integrated approach

**Table 8.** The results of covariance analysis of one variable in the text of MANCOVA dimensions of psychological hardiness (commitment, control, and struggle)

Variable	Variability source	Sum of squares	df	Mean of squares	F	Sig.	Eta coefficient	Statistics power
Commitment	Pre-test	5.69	1	5.69	0.48	0.23	0.064	0.053
	Group	78.29	1	78.29	6.81	0.017	0.41	0.69
	Error	218.40	28	11.49				
Control	Pre-test	3.41	1	3.41	0.96	0.41	0.082	0.07
	Group	45.32	1	32.078	6.09	0.02	0.49	0.51
	Error	164.41	28	8.65				
Struggle	Pre-test	2.78	1	2.78	1.78	0.18	0.024	0.04
	Group	32.54	1	32.54	8.48	0.009	0.43	0.78
	Error	72.85	28	3.83				

0.001,  $F= 54.05$ ), difficulty in describing feelings ( $P= 0.001$ ,  $F= 30.50$ ), and extrovert thinking ( $P= 0.001$ ,  $F= 41.88$ ), which is less than 0.01, it can be said that there is a significant difference between the experimental and control groups in this variable. In total, it can be said that the integrated approach of

of meaning and hope therapy on the dimensions of psychological hardiness (commitment, control, and struggle) univariate covariance analysis in the MANCOVA test was performed. The results are presented in Table 11.

The results of the univariate covariance analysis in

the text of MANCOVA regarding the dimensions of psychological hardiness in the dimensions of commitment ( $P= 0.017$ ,  $F= 6.81$ ), control ( $P= 0.029$ ,  $F= 6.09$ ), and struggle ( $P= 0.009$ ,  $F= 8.48$ ), which are smaller than 0.05, show that there is a significant difference between the experimental and control groups in these dimensions. Overall, the effect of the integrated approach of meaning and hope therapy on the dimensions of psychological hardiness (commitment, control, and struggle) is confirmed. In general, it can be said that the integrated approach of meaning and hope therapy has had the highest effect on the change in the scores of the control dimension with 0.49 and then on the struggle dimension with 0.43, and finally on the commitment dimension with 0.41.

### Discussion and Conclusion

This research aimed to investigate the effectiveness of the integration of meaning therapy and hope therapy on ambiguity tolerance, alexithymia, and psychological hardiness of women with breast cancer in Dezful. The research hypothesis regarding the effectiveness of training integrated approach of meaning and hope therapy on tolerance of ambiguity, alexithymia, and psychological hardiness of breast cancer patients is confirmed.

The results of this study were in line with the results of previous studies, such as Ahmadifard, Sadeghi, and Gholamrezaei (2019), who investigated the effectiveness of the integrated approach of meaning therapy and hope therapy on the fear of body image and social adjustment in women with breast cancer and concluded that this approach affects these variables. Some researchers also used one of these methods, and the results of their research, whether hope therapy or meaning therapy, have shown the effectiveness of these treatments on the variables of ambiguity tolerance, alexithymia, and psychological hardiness. Among other related studies are the re-

search of Kiarasi et al. (2021), Feresco et al. (2021), and Borjali et al. (2016).

Relying on increasing hope and creating meaning in people's lives, meaning therapy attempts to change the lifestyle of people who have experienced a crisis in their lives. This approach to being has three levels: being in the world, being with others, and being with oneself. When a person has a problem, meaning therapy relies on how to feel and what to do with the current situation. Existence and feeling of meaning in life are like a key that can solve problems and make people take positive actions. In this sense, most of them consider a meaningful life as one of the essential factors of psychological health. Meaning is one of the variables related to growth that causes situations that bring happiness and satisfaction to a person. This intervention makes women with cancer adopt a braver attitude against inevitable pain and suffering and shows higher psychological hardiness. Instead of passively enduring, they search for meaning in their relationships, here and now, and their daily conflicts in the deepest way. During this treatment, they learn to appreciate the beauty surrounding them, review and examine their values, become aware of their limitations, and discover excellence and spirituality, and even in some patients, it leads to developing a guide for better living. They control their feelings and emotions and distance themselves from despair and hopelessness, and as a result, this treatment improves their alexithymia.

In another explanation of the effectiveness of this intervention, it can be said that hope therapy is rooted in solution-oriented, cognitive-behavioral, and story or narrative therapies. This integrative therapy focuses on changes in cognitive levels and solution-oriented thinking. Therefore, in explaining this finding, it can be said that in group meaning therapy based on hope therapy, clients are taught to consider important goals and the ability to achieve them. It is worth mentioning that having a goal and hoping to

achieve it gives meaning to a person's life and puts her on a certain path. In this study, the sample group learned to think about a specific and accessible goal instead of focusing on repetitive and delusional thoughts, and this integrated approach of meaning therapy and hope therapy led to the improvement of ambiguity tolerance in women with breast cancer.

Also, the results showed the effectiveness of this approach on the tolerance of ambiguity in women with breast cancer. The research of Kiarasi, Emadian, and Hassanzadeh (2021), Feresco et al. (2021), and Shunakro Shunaker (2015) confirmed the effectiveness of meaning therapy on tolerance of ambiguity and the research of Hebart (2020) and Hummel et al. (2018) confirmed the effectiveness of hope therapy on tolerance of ambiguity, which are in line with the results of the present study.

In explaining this result, it can be said that the intolerance of ambiguity is a fear of the unknown. Therefore, this integrated treatment helped women with breast cancer, instead of a catastrophic interpretation of their disease, examine the complexities and ambiguities of it they face and look at it with a positive view, and consider all the possibilities and available solutions to choose and provide an adaptive response. Studies have shown that people with an intolerance of ambiguity tend to apply rules in a black-and-white manner and show less cognitive complexity. Acceptance of the disease and emphasis on the hope of recovery and the return of the conditions to the pre-illness period and even coping with the conditions of the disease leads to the improvement of ambiguity tolerance in these patients.

Also, the results showed that the integrated approach of meaning therapy and hope therapy affects the dimensions of alexithymia (difficulty in recognizing emotions, difficulty in describing feelings, and extrovert thinking) of women with breast cancer. In general, it can be said that this integrative

approach has the highest effect on changing the scores of extrovert thinking with 0.54, followed by the difficulty in describing feelings with 0.49, and finally, the difficulty in recognizing emotions with 48.

The results in some cases are in line with the results of Feresco et al. (2021) and Breitbart et al. (2010) regarding the effectiveness of meaning therapy on alexithymia and with the results of Movahedi et al. (2015) confirming the effectiveness of hope therapy on alexithymia. In explaining these results, it can be said that alexithymia, which means the inability to manage emotions, disrupts the organization of one's cognitions and emotions and increases the possibility of using inefficient and underdeveloped strategies in stressful situations, such as cancer.

The integrated treatment of hope therapy and meaning therapy with emphasis on increasing hope and meaning in life enables a person to communicate with others through more effective interaction and strengthens positive feelings in her. Controlling life and finding meaning for it increases the feeling of empowerment and reduces negative emotions and control and management of negative emotions caused by the disease and its complications, which reduces alexithymia. With attention to their inner self, desires, and values, they were able to identify their emotions and express them and their alexithymia improved.

Also, the integrated approach of meaning therapy and hope therapy affected the dimensions of psychological hardiness (commitment, control, and struggle) in women with breast cancer. In general, it can be said that this integrated approach has the highest effect on the scores of the control dimension with 0.49 and then on the struggle dimension with 0.43, and finally, on the commitment dimension with 0.41. The results of the research of Kazemian Moghadam (2020), Aghajani et al. (2018), Ghadampour, Youssef Vand, Alavi, and Khosravi

(2018), Kanani and Godarzi (2016), and Shunakro Shonaker (2015), regarding the effectiveness of meaning therapy on hardiness, and the findings of Hebart (2020), Emerson (2019), and Barlow (2018), in respect to the effectiveness of hope therapy on hardiness, are in line with the findings of the present research.

In explaining the result, it can be said that one of the main characteristics of a person through which she can explain why and how to behave is the search for meaning in the face of seemingly unsolvable problems or challenging situations. These features increase a person's endurance and hardiness. It also causes a person to recreate herself, cope with problems such as severe diseases more easily, and absorb hope into her life. Gaining hope and meaning in life leads to taking control of patients' lives, thoughts, and feelings, which increases more effective coping strategies, higher self-confidence, and as a result, higher hardiness towards life issues, specifically cancer.

Hardiness consists of three components: commitment, control, and struggle, which are taught to people in hope therapy. People under training learn to control and commit to their thoughts, feelings, and life problems. They are trained to struggle and preserve the values and meaning of life. Therefore, all dimensions of hardiness were improved in this research.

In integrating hope therapy and meaning therapy for cancer patients, one of the main goals was to help people find hope and meaning in their lives, which increased their hardiness and helped them find a better life, both during and after treatment. If cancer patients can successfully find meaning in depressing events such as cancer, they can endure its difficulties. Therefore, the efforts to gain hope and discover meaning plays a role in strengthening the hardiness of cancer patients.

To confirm these results and generalize them, one

should pay attention to the limitation of the study. One of the limitations of this study was the limited scope of the subjects to only women with breast cancer in Dezful City. Also, practical exercises and skills of this method should be provided to cancer patients in the form of training sessions, workshops, videos, and pamphlets to prevent mental health problems. In public health centers and centers that deal with the health of families as a whole, general training on hope therapy and meaning therapy should be done so that all families can benefit from this training course. Given the confirmation of the effectiveness of hope therapy and meaning therapy on research variables, it is claimed that the achievements and consequences of this research at the theoretical level can help understand effective treatments for psychological problems caused by cancer better. Explaining the effectiveness of these treatments in improving the secondary symptoms of cancer helps to expand the knowledge, concepts, and models available in this field and pave the way for newer research.

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