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Investigation the Effectiveness of Transdiagnostic Training Package Based on Acceptance and Commitment Therapy and Emotion-Focused Therapy on Psychological Security and Hope for Life of Cancer Patients

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Cancer is one of the most challenging diseases globally and has the second highest mortality rate after cardiovascular diseases, leading to significant issues such as despair and insecurity. The present study aims to develop a transdiagnostic training package based on the components of ACT and EFT, and to assess its effectiveness on psychological security and hope for life in cancer patients. This research is quasi-experimental research with a control group design with pre-test and post-test. The statistical population included all individuals diagnosed with cancer who visited medical centers in Tehran in 2024. Criteria for entering the research: women aged 20-40 with lung cancer that diagnosed with the first level, undergoing drug and chemotherapy treatment, obtaining consent to participate in the research. Exclusion criteria: unwillingness to continue psychotherapy sessions, absence of more than 3-2 sessions, participation in other psychotherapy sessions, increase in the course of the disease and entering the second aggravated stage of the disease as diagnosed by the treating physician, having psychological symptoms as diagnosed by the treating psychiatrist. After obtaining informed consent, 30 people were selected by

convenience sampling and placed in two experimental and control groups by simple random assignment method, taking into account the entry criteria. Data collection was conducted using the Hope for Life questionnaire (Schneider et al., 1991), Psychological Security questionnaire (Maslow, 2004), and the protocol of the transdiagnostic training package based on ACT and EFT. Data analysis was performed using multivariate analysis of covariance and SPSS-25 software. The results of the multivariate covariance analysis showed that by removing the effect of the pre-test and considering the F value and the significance level below ($p<0.05$), the meta-diagnostic package based on the component of acceptance and commitment and emotion-oriented treatments was effective on psychological security and life expectancy in cancer patients. Based on the findings, it was determined that the development of a transdiagnostic training package based on acceptance and commitment therapy and emotion regulation is effective in improving psychological security and hope for life in cancer patients. Therefore, attention should be given to the role of transdiagnostic packages based on acceptance and commitment therapy and emotion regulation in enhancing psychological security and hope among individuals with cancer.

Keywords: cancer, acceptance and commitment therapy, emotion regulation, psychological security, hope for life

Cancer is one of the most complex diseases in the world and has the second highest mortality rate after cardiovascular diseases (Addison et al., 2022). Reports indicate that there were approximately 19.3 million new cancer cases and about 10 million cancer-related deaths in 2020. Assuming the prevalence rate remains constant, by 2040, there will be 28.4 million new cancer cases globally, representing a 47% increase from 2020 (Sung et al., 2021). Confronting cancer can be a crisis event that jeopardizes various aspects of a patient's recovery, including their physical, mental, and family health, leading to confusion and crisis for cancer patients. Lung cancer is considered one of the most dangerous types of cancer. It is characterized by uncontrolled cell growth in lung tissues. If left untreated, this

cellular growth can spread outside the lungs through a process known as metastasis, affecting surrounding tissues or other organs. Most lung cancers that originate in the lungs are called primary lung carcinomas, arising from epithelial tissue. The main types of lung cancer are small cell lung cancer (also known as small cell carcinoma) and non-small cell lung cancer. Common symptoms include coughing with blood, weight loss, and shortness of breath (Kaspar et al., 2001). Lung cancer is associated with feelings of hopelessness and insecurity about life and continued existence in patients (Aghili et al., 2023).

Psychosocial oncology illustrates the connection between psychology and the study and treatment of tumors (Dupont et al., 2016). It is suggested that psychosocial oncology should be viewed as part of comprehensive cancer care, not merely as a branch of psychology focused on the cancer care pathway. Psychosocial oncology addresses psychological responses to cancer and the psychological, behavioral, and social factors that may influence the disease process. Other disciplines may also play significant roles in this area. Additionally, a developed guideline by a joint action of the European Union emphasizes the need for psychosocial oncologists in comprehensive cancer care and recommends psychosocial support as a standard of care. It also suggests investing in training in psychology and communication skills for primary oncology staff (Neamţiu et al., 2017).

Research indicates that positive psychological functions, such as hope, have a reciprocal relationship with health. This means that hope can affect well-being and vice versa (Ahmadi Rozdar et al., 2023). Hope for life is a process through which individuals define their goals, devise strategies to achieve those

goals, and create and maintain the motivation necessary to implement these strategies (Snyder et al., 2003). Research findings show that cancer patients tend to have relatively higher levels of hope, with women exhibiting lower levels of hope compared to men. Additionally, younger age and increased knowledge are directly and indirectly associated with higher levels of hope and patients' thoughts about death (Ozan et al., 2020). Ki Jin et al. (2016) demonstrated that psychological security plays a crucial role in cancer treatment. One of the notable needs in Abraham Maslow's hierarchy is security. Psychological security fosters a sense of living in a safe environment (Yang et al., 2022). A persistent lack of security places individuals in a state of metabolic disruption, and if it continues, it can lead to physical and mental illnesses (Edenfield & McBrayer, 2021). The study of psychological security is very important as it may significantly impact educational functions and outcomes (Spomer, 2022). Psychological security is also one of the fundamental human needs and motivations. When it declines, human security diminishes, leading to anxiety, fear, and chaos. Many human desires are contingent upon the provision of security (Danesh et al., 2017).

Given the psychological problems and high levels of negative emotions in individuals with cancer, it is essential to improve stress-related emotional issues through therapeutic interventions (Amiri et al., 2023). Among the psychological interventions that directly impact individuals' emotions are Acceptance and Commitment based Therapy (ACT) and Emotion-Focused Therapy (EFT). ACT, based on the framework of cognitive processes and internal dialogues, can help reduce psychological symptoms of cancer (Sator & Taylor, 2013) and assist clients in

achieving a more meaningful and better life through psychological flexibility (Paulus-Gaurnieri et al., 2022). This approach aims to enhance the individual's psychological collaboration with their thoughts and feelings rather than changing their cognitions. The goal is to facilitate a favorable and appropriate life by increasing psychological flexibility (Philip & Chryan, 2020). In the EFT approach, the therapist helps the client explore negative emotions and address painful experiences without avoidance (García-Scalera et al., 2020). EFT has been shown to impact cancer (Gholi Rostami & Ghasemian Zarini, 2023). Many studies support the effectiveness of this protocol in treating a wide range of emotional disorders (Laposa et al., 2017; Martin et al., 2022). This therapy teaches patients how to confront and experience their unpleasant emotions and respond to them in adaptive ways. The therapist focuses not only on bringing awareness to the subjective content denied or altered by the client but also on creating new meanings influenced by the client's bodily experiences (Bigdeli et al., 2023). Emotions play a fundamental role, encouraging individuals to discuss their emotions, engage in relevant topics during therapy sessions, and emphasize the renewal of emotions through secure attachment bonds (Rahimi et al., 2023).

Research background indicates that psychological interventions have been able to reduce the psychological issues faced by individuals with lung cancer. However, no studies have been found that examine the effectiveness of a transdiagnostic training package based on components of Acceptance and Commitment Therapy and Emotion-Focused Therapy. For example, Amini Nasab et al (2021). demonstrated in their

research titled "The Effectiveness of Stress Management Therapy with a Cognitive-Behavioral Approach on Cortisol Levels and Quality of Life in Lung Cancer Patients" that cognitive-behavioral stress management therapy is effective in increasing the quality of life and reducing cortisol levels in lung cancer patients. Sheikhan and Rahmani (2019) showed in their research titled "The Effectiveness of Acceptance and Commitment Therapy on General Quality of Life in Lung Cancer Patients" that acceptance and commitment therapy is effective in improving the quality of life of lung cancer patients. Doost Kafi et al. (2018) found in their study titled "Comparing the Effectiveness of Group Counseling Using Gestalt Therapy and Positive Psychology on the Psychological Well-Being of Women with Lung Cancer" that positive psychotherapy has a high and significant effectiveness, while Gestalt therapy has lower and non-significant effectiveness; therefore, the effectiveness of positive psychotherapy is greater than that of Gestalt therapy. Given the multitude of issues faced by cancer patients and the numerous negative emotional experiences, there is a need to develop a treatment protocol tailored to their psychological symptoms. In recent years, transdiagnostic therapy, relying on emotional awareness training and changing maladaptive cognitive appraisals, has facilitated flexibility in coping with experiences and regulating emotions, aiding in the awareness and acceptance of emotions and physical sensations as they occur (Barlow et al., 2023). Transdiagnostic therapy aims to improve patients' emotional regulation and reduce the intensity and emergence of maladaptive emotional experiences, ultimately enhancing their functioning (Paine et al., 2014). Considering the specific psychological characteristics of cancer

patients and the structure of Acceptance and Commitment Therapy (ACT) and Emotion-Focused Therapy (EFT), both of which focus on emotions—one on accepting emotions and the other on experiencing them—the researcher sought to answer the question of whether a transdiagnostic training package based on components of ACT and EFT would impact psychological security and hope in cancer patients?

Method

A library method was used to study the research background and theoretical foundations, and a field method and a questionnaire were used to collect information and data. The research method was a pre-test-post-test semi-experimental type with a control group. The statistical population consisted of all the individuals with cancer in Tehran in 2024. Among cancer patients, those with lung cancer were selected. Among the people with lung cancer in the first stage, women between 20-40 years old without diagnosis of other physical or mental diseases were selected. The research sample (7 people were 20-25 years old, 8 people were 25-30 years old, 11 people were 30-35 years old, 4 people were 35-40 years old, also 6 people were below diploma, 16 people were bachelor's degree, 8 people were bachelor's degree and above). The exit criterion was the progression of the disease to another stage or the participant's unwillingness to continue the sessions and not attending more than two sessions. Subsequently, individuals who provided informed consent were randomly selected based on Cohen's formula (1988) and the G*Power software, considering the number of variables and an effect size of 1, with a power of .8 and a confidence level of .95, resulting in 15 participants per group for a total of 30. Both

groups were pre-tested using Schneider et al.'s (1991) Hope Scale and Maslow's (2004) Psychological Security Questionnaire. The experimental group received eight two-hour sessions (over two months) of transdiagnostic therapy based on the two approaches of ACT and EFT in a group setting at the treatment center clinic. The control group did not receive any specific intervention and was placed on a waiting list, with the option to receive treatment at the end of the study for ethical considerations. Both groups were evaluated by the post-test after 2 months for an equal period of time after the pre-test. To uphold professional ethical standards, an educational brochure was provided to the control group at the end, and informed consent, confidentiality, non-maleficence, voluntariness, and awareness of results post-study were ensured according to the 26 ethical codes. The research was reviewed by the ethics committee and assigned the identification code IR.IAU.QOM.REC.1402.207. Data analysis was conducted using descriptive and inferential statistics, employing multivariate analysis of covariance and relevant tests with SPSS version 25. In this research, there are two dependent variables and one treatment. Using covariance analysis can remove the pre-test effect as one of the factors that threaten and distort the results in the implementation of quasi-experimental designs. This method increases the accuracy and internal validity of the study by removing the pre-test effect (as a source of participants' experience that can affect the dependent variable) and removes bias and this can control and eliminate the effect of variables.

Instruments

The Hope Scale developed by Snyder, Harris, Anderson, Holleran, Irwin, and colleagues (1991) consists of 12 questions. Scoring is done using a five-point Likert scale ranging from "strongly disagree" to "strongly agree." This questionnaire assesses individuals' hope for life in two components: causal thinking and strategic thinking. Scores on this scale range from 8 to 64. The validity of the questionnaire was confirmed in Snyder et al.'s (1991) study through confirmatory and exploratory factor analysis. Abdulkhalid and Snyder reported a significant correlation between this scale and positive affect, optimism, life satisfaction, and self-esteem. Shnyder et al. (1991) used Cronbach's alpha to assess the reliability of the questionnaire, which was confirmed. Alexander and Angbuzie (2007) reported a reliability coefficient of .74. In a study by Yektaei (2014), the reliability of the questionnaire was calculated at .89 based on a preliminary study on a sample of 30 individuals, with .74 for causal thinking and .71 for strategic thinking.

The Psychological Security Questionnaire (short form) was designed and validated by Maslow (2004). It consists of 18 items and four subscales: self-confidence, feelings of discomfort, environmental incompatibility, and public perception of the individual. In the study by Shams and Khalijian (2013), reliability was calculated after a pilot study on 30 individuals using Cronbach's alpha, yielding a value of .80.

The transdiagnostic protocol based on components of Acceptance and Commitment Therapy (ACT) and Emotion-Focused Therapy (EFT) was designed and structured over eight sessions, each lasting 120 minutes, addressing the issues faced

by lung cancer patients. Its content validity was confirmed by 12 clinical and health specialists regarding four characteristics: necessity and importance, relevance to goals, simplicity and clarity, and scientific acceptance. Each session began with a review of potential problems that arose in the previous week, and with patient agreement, the agenda for the session was set. At the end of each session, exercises based on the issues discussed were provided to the participants.

Table 1

Transdiagnostic Training Package Based on Acceptance and Commitment Therapy and Emotion-Focused Therapy

Process	Goals	Title	Session
Empathy with clients, verbal and non-verbal messages, reflection and exploratory questions related to closed goals are used, we also ask clients to give a brief description of their disease history. How the treatment works and the desired approach are discussed with the client and the commitment to perform exercises and homework is emphasized for the effectiveness of the treatment. Also, explanations are provided for the client's presence in the research work until the end of the treatment, while maintaining the confidentiality of his personal information, and a contract is drawn up for the continuation of the treatment if the client agrees. A treatment contract is concluded. The client is trained to identify his emotions and he is asked to identify his emotions.	Communication between client and therapist and assessment of client's problem for effective guidance of treatment, familiarization of clients with the rules and methods of package therapy, as well as agreement regarding the conditions and assignments in the treatment session and treatment understanding, distribution of educational brochures to identify emotions	Relationship building, initial assessmet,	1

Formulating the patient's problem in the form of a meta-diagnostic approach, to the role of the cycle of self-negative thoughts at the level of cognition and emotional experience, with the help of Socratic dialogue and emotional experience focused on the meta-diagnostic treatment package, the patient is able to accept his mistakes and his contribution to the formation of the disease and responsibility Accept things that cannot be changed as a part of life that must be managed. In cases where only thoughts are active, identify them and be able to separate your emotions and cognition.	Acquainting clients with thoughts and emotions that are effective in creating negative moods and worries, the ability to separate different emotions and their meanings from their own thoughts, creating cognitive dissonance and accepting the responsibility of experiencing their own emotions.	Reviewing the therapeutic approach and identifying uncomfortable emotions such as anger, grief or guilt	2
The way of processing and replaying negative memories and the effect of unforgiveness, guilt and negative emotions on the lack of control of the disease are expressed. Due to the emotional experience of illness and emotional rumination, people are encouraged to practice mindfulness and being in the present, and with the help of the two-chair technique, they can project their negative emotional experiences.	Acquainting the patient with different techniques to reevaluate her thoughts and recognize the limitations and create acceptance with being in the present	Re-documentation and two-chair practice and mindfulness	3
Special attention technique (voices) and attention training are used to reveal opposite aspects and the consequences of negative emotional experiences or its internalization are expressed. The inner voice of the client is modified and with the help of two chairs, the inner dialogue and emotional experience are modified. Accepting and being in the present tense is practiced.	Acquainting clients with the consequences of delay in acceptance and inner peace	Increased awareness and inner peace	4
Using the polygraph metaphor, the metaphor of falling in love, the metaphor of jelly donuts and the futility of trying to control problematic affairs and replacing willingness and openness to experience and acceptance. Continuing the technique of	Continuation of the technique of self-awareness and coordination of inner voices along with identifying values	Reconnect with values	5

two chairs, this time based on monitoring values, reviewing them and reconstructing values and identifying their achievement	and forming them related to needs.		
Using creative imagery, self-talk and acceptance, humor, as well as planning to implement newly identified values and adapting compensatory behaviors.	Acquaintance of clients with general skills based on a consolidated package to face possible pain and prepare for the start of remission, new planning according to the existing conditions.	Moving in line with values and compensation	6
Identifying values and reviewing them with reality, using one's own techniques as a process of dynamic self-awareness and self-observation, planning and solving problems, projecting emotions with the help of the two-chair technique, writing commitment letters and forgiveness letters, compensation for damages	Acquainting clients with the necessity of implementing values and removing their obstacles and creating an internal executive commitment to act on them	Clarification of values and committed action	7
One-on-one training is done with the client in order to achieve a complete result in accordance with the management of their disease in order to prevent recurrence.	Removing possible obstacles in understanding the protocol and implementing it	Summarizing and reviewing	8

Results

The demographic data of the research indicate that the mean age and standard deviation of participants in the experimental group were 35.79 and 2.55, respectively, while in the control group, they were 35.98 and 2.61. Table 2 reports the descriptive statistics of the means and standard deviations for each group. The Kolmogorov-Smirnov statistic, used to assess the normality of the data, is reported for each group.

Table 2

Descriptive Findings of Research Variables

		pretest		**Posttest**		**KS**	
Variable	Group	M	SD	M	SD	ST	Sig
Hope for Life	Experimental	39.0667	2.76371	49.5333	2.55976	.099	.200
	Control	39.2000	2.45531	38.6667	2.28869	.106	.200
Psychological Security	Experimental	11.3333	1.67616	14.6667	1.75933	.188	.162
	Control	9.9333	1.57963	9.6667	1.17514	.183	.186

According to Table 1, the Kolmogorov-Smirnov statistic for the psychological security and hope scales has significance levels higher than the assumed value (.05), indicating that the normality assumption of the data in the groups has not been violated. Additionally, the findings in the above table show that the mean scores of the experimental group increased from pre-test to post-test for both psychological security and hope. The assessment of the assumptions for the analysis of covariance revealed that initially, a box plot was used to check for outliers, and no outliers were observed. The homogeneity of regression slopes indicates that the regression slopes of different lines between groups should be equal, which can be evaluated with an F-test on the interaction of independent variables with covariates. The significance level of the interaction between the research group and pre-test psychological security was found to be .415, which is greater than .05, indicating that the assumption of homogeneity of regression slopes is met. Similarly, the significance level of the interaction between the research group and pre-test hope was .269, also greater than .05, confirming this assumption. This indicates that the assumption of homogeneity of the regression slope is respected. To investigate the homogeneity of the variance-covariance matrices, Box's M test was used. This test evaluates the null hypothesis that the

observed covariance matrices of the dependent variables are equal across different groups. Since the F value (.878) was not significant at the given error level (.451), the null hypothesis is not rejected, meaning that the observed covariance matrices among different groups are equal. Levene's test was used to check for the homogeneity of variances. The null hypothesis states that the data are homogeneous in terms of variance. For the psychological security variable, since the F value (2.193) is greater than the given error level (.150), this assumption is satisfied. Similarly, for the hope variable, since the F value (2.987) is greater than the given error level (.095), this assumption is also satisfied. Therefore, Pillai's trace, Wilks' lambda, Hotelling's trace, and the largest root tests were used to validate the analysis of covariance, with results visible in Table 3.

Table 3

Validity Indices of Multivariate Analysis of Covariance for Research Variables

Source	Test	Value	F	df	Error df	.Sig	Partial Eta Squared	Observed Power
Group	Pillai's Trace	.869	83.264	2.000	25.000	.000	.869	1
	Wilk's Lambda	.131	83.264	2.000	25.000	.000	.869	1
	Hotelling's Trace	6.661	83.264	2.000	25.000	.000	.869	1
	Roy's Largest Root	6.661	83.264	2.000	25.000	.000	.869	1

Based on the results of the above indicators, it can be inferred that controlling for the pre-test effect, the transdiagnostic protocol based on components of Acceptance and Commitment Therapy (ACT) and Emotion-Focused Therapy (EFT) is effective on the linear combination of dependent variables (psychological security and hope). Additionally, the above table shows that there was a difference between the groups in terms of at least one of the dependent variables. and the observed differences in the studied variables were due to the impact of the transdiagnostic protocol based on components of ACT and EFT.

Table 4

Summary of Analysis of Separated ANCOVAs for each Dependent Variable

Source	Dependent variable	Sum of Squares	DF	Mean Square	F	.Sig	Partial Eta squares
Group	Hope for Life	681.202	1	681.202	121.102	.000	.823
	Psychological Security	102.416	1	102.416	67.486	.000	.722
error	Hope for Life	146.251	26	5.625			
	Psychological Security	39.457	26	1.518			
total	Hope for Life	59395.000	30				
	Psychological Security	4691.000	30				

Based on the values in the above Table, it can be inferred that there is a significant difference between the two groups concerning each of the examined components, as the calculated

F values are significant at the $p < .05$ level. Given the estimated means, this significance favors the experimental group, indicating that the transdiagnostic protocol based on components of ACT and EFT has been effective in improving psychological security and hope in cancer patients.

Discussion

This research aimed to develop a transdiagnostic protocol based on components of Acceptance and Commitment Therapy and Emotion-Focused Therapy and to assess its effectiveness on psychological security and hope in cancer patients. The study demonstrates that the transdiagnostic protocol based on these components has positively impacted psychological security and hope in lung cancer patients. This finding aligns with previous studies by Bigdali et al. (2023), Amiri et al. (2023), and Aghili et al. (2023). In describing this finding, it can be stated that lung cancer patients face challenges related to a vital organ necessary for survival during the disease process0. Upon hearing the term "cancer" or even before that, when sympto0ms arise and breathing becomes difficult, they experience fear, insecurity, and anxiety regarding harm, which can lead to feelings of hopelessness and withdrawal from treatment. The components of Acceptance and Commitment Therapy, combined with Emotion-Focused Therapy focusing on the symptoms of lung cancer in the transdiagnostic protocol, help individuals identify their emotional symptoms and enhance the self-awareness necessary for empowerment and appropriate responses in crisis situations, thus preventing fear and promoting adaptation to the created conditions. Instead of avoiding confronting ineffective negative thoughts and associated emotions like fear, pain,

distress, and depression, individuals strive to identify, experience, and accept them. Therefore, this approach significantly impacts stress reduction and emotional and behavioral regulation (Amiri et al., 2023). Cancer patients are prone to anxiety, and their minds constantly search for and monitor negative signs, which increases anxiety and feelings of insecurity. The therapist emphasizes being present in the moment and directs the individual's mind to time, place, and adaptive thoughts, guiding them toward acceptance so that they can acknowledge their thoughts without judgment and identify and experience the associated emotions. Thus, the findings of the present study indicate that the significance of the transdiagnostic protocol based on components of Acceptance and Commitment Therapy and Emotion-Focused Therapy can effectively enhance cognitive flexibility in cancer patients and reduce feelings of insecurity and hopelessness. After receiving the transdiagnostic treatment, individuals reported improved hope for life and psychological security. Consequently, medical and psychological treatments can have positive effects on improving patients with cancer, enabling them to cope with the challenges posed by the disease and enhance their mood and positive emotions. This leads to adopting new cognitive and behavioral systems that foster greater community support, improve their quality of life, break free from previous habits and thought patterns, live consciously and meaningfully, and uncover hidden meanings amidst the challenges of cancer. According to the type of research, in order to increase the internal reliability, the entry and exit criteria for participating in the research were considered and outlier data were removed. This research also faced limitations, such as the lack of a six-

month follow-up after treatment, the absence of homogenization of other influencing factors like personality traits, social support, income level, intelligence, etc., and the lack of separate comparisons between two other treatments with the transdiagnostic treatment. Therefore, it is recommended that future research examine these factors with three experimental groups (Acceptance and Commitment Therapy, Emotion-Focused Therapy, and Transdiagnostic Therapy) and a control group to assess the differences in the impact of this treatment compared to the other two treatments. Additionally, follow-up after six months and one year should be conducted to evaluate the sustainability of the effects.

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References

Addison, S., Shirima, D., Aboagye-Mensah, E. B., Dunovan, S. G., Pascal, E. Y., Lustberg, M. B., & Nolan, T. S. (2022). *Effects of tandem cognitive behavioral therapy and healthy lifestyle interventions on health-related outcomes in cancer survivors: A systematic review. Journal of Cancer Survivorship, 16*(5), 1023-1046. https://doi.org/10.1007/s11764-021-01094-8.

Aghili, S., Haqqani, F., & Babaei, A. (2023). *The effectiveness of treatment based on acceptance and commitment on stressful life events and resilience in women with breast cancer*. *Cancer Care Journal, 2(*4), Winter. (In Persian).

Ahmadi-Rozdar, F., Abul-Qasimi, A., & Pourqasmian, M. (2023). *The role of clarity, regulation and emotion processing in predicting hope for treatment in women with cancer*. *New Psychological Research Quarterly, 17(*68), Winter. (In Persian).

Amin Nesab, A., Hatami, M., & Ahadi, H. (2021). *Effectiveness of stress management treatment with cognitive-behavioral approach on cortisol level and quality of life in lung cancer patients*. *Scientific Research Journal of Medical System Organization of the Islamic Republic of Iran, 39*(2), 94-101. (In Persian).

Amiri, M., Khosh Akhlaq, H., Sajjadian, P., & Jamaloui, H. (2023). *The effectiveness of treatment based on acceptance and commitment on sexual performance and emotional safety in men with cardiovascular disease.* Scientific Research Quarterly, *4*(4), 520-535. (In Persian).

Barlow, D. H., Farchione, T. J., Fairholme, C. P., Ellard, K. K., Boisseau, c. L., Allen, L. B. & Ehrenreich-May, J. (2023). *The unified protocol for transdiagnostic treatment of emotional disorder: client workbook.* New York, NY: Oxford University Press.

Bigdali, R., Chin-Aveh, M., & Jafari, D. (2023). Comparing the effectiveness of emotional therapy and therapy based on acceptance and commitment on anxiety and life satisfaction of people with diabetes. *New Psychological Research Quarterly, 18*(72). (In Persian).

Danesh, P., Sharbatian, M. H., & Tawafi, P. (2017). Sociological analysis of domestic violence against women and its relationship with the feeling of security at home (a case study of women aged 18 -54 years old in the middle city). *Strategic Research on Social Problems in Iran, 6*(1), 47 -72. (In Persian).

Da Ponte, G., Lobo, M., Neves, T., & Paiva, A. (2016). Psycho-oncology in Portugal: It is different from the rest of the world?. *European Psychiatry, 1*(33), 619-20.

Dost Kafi, H., Heydari, H., Davodi, H., & Zare Bahramabadi, M. (2018). Comparing the effectiveness of group counseling with Gestalt method and positive psychology on the psychological well-being of women with lung cancer. *Journal of Qom University of Medical Sciences, 13*(9), 80-90. (In Persian).

Edenfield, C., & McBrayer, J. S. (2021). Institutional conditions that matter to community college students' success. *Community College Journal of Research and Practice, 45*(10), 718-734. https://doi.org/10.1080/10668926.2020.1785353.

García-Escalera, J., Valiente, R. M., Sandín, B., EhrenreichMay, J., Prieto, A., & Paloma Chorot, P. (2020). The Unified Protocol for Transdiagnostic Treatment of Emotional Disorders in Adolescents (UP-A) Adapted as a School-Based Anxiety and Depression Prevention Program: An Initial Cluster Randomized Wait-List-Controlled Trial. *Behav Ther, 51*(3), 461- 473. https://doi.org/10.1016/j.beth.2019.08.003.

Goli Rostami, H., & Ghasemian Zarini, K. (2023). *The effectiveness of emotional therapy on psychological*

symptoms in cancer patients. The third national conference and the first international conference on research and innovation in psychology, with a special view on meta-diagnostic treatments, March. (In Persian).

Kasper, D. L., Hauser, S. L., Longo, D. L., Jameson, J. L., & Loscalzo J. (2001). Harrison's principles of internal medicine. *Braunwald E,* editor. New York: McGraw-Hill.

Laposa, J. M., Mancuso, E., Abraham, G., & Loli-Dano, L. (2017). Unified Protocol Transdiagnostic Treatment in Group Format. *Behav Modif, 41*(2), 253-268. https://doi.org/10.1177/0145445516667664.

Martin, M. R., Bolden, J., & Walton, J. (2022). A Socially Distanced Case Study: Implementing the Unified Protocol-Adolescent in the Treatment of Comorbid Depression and Anxiety via Telehealth. *Journal of Clinical, 21*(6). https://doi.org/10.1177/153465012210996.

Maslow A. H., & Kruntorad, P. (2004). *Maslow mental security questionnaire.* Psychologie des Seins. München: Kindler.

McCracken, L. M., Sato, A., & Taylor, G. J. (2013). A trial of a brief group-based form of acceptance and commitment therapy (ACT) for chronic pain in general practice: pilot outcome and process results. *The Journal of Pain, 14*(11), 1398-1406. https://doi.org/10.1016/j.jpain.2013.06.011.

Nazlou, L., Etmidani, M., Chelbianlou, G., Khademi, A., & Khalilzadeh, R. (2017). Comparison of the effectiveness of the algorithm of the stages of pain change and transdiagnostic treatment on symptoms associated with the disease in psychosomatic patients with migraine. *New Psychological Research Quarterly, 18(*69). (In Persian).

Ozen, B., Ceyhan, O., & Büyükcelik, A. (2020). Hope and perspective on death in patients with cancer. *Death Studies, 44*(7), 412-418.

Paulos-Guarnieri, L., Linares, I. M. P., & El Rafihi-Ferreira, R. (2022). Evidence and characteristics of Acceptance and Commitment Therapy (ACT)-based interventions for insomnia: A systematic review of randomized and nonrandomized trials. *Journal of Contextual Behavioral Science, 23*(2), 1-14.

Payne, L. A., Ellard, K. K., Farchione, T. J., Fairholme, C. P., & Barlow, D. H. (2014). *Emotional disorders: A unified transdiagnostic protocol.* 2nd Ed. New York: Guilford Press, 237-75.

Payne, L. A., Ellard, K. K., Farchione, T. J., Fairholme, C. P., & Barlow, D. H. (2014). *Emotional disorders: A unified transdiagnostic protocol.* 2nd Ed. New York: Guilford Press, 237-75.

Philip, J., & Cherian, V. (2020). Acceptance and commitment therapy in the treatment of obsessive-compulsive disorder: A systematic review. *Journal of Obsessive-Compulsive and Related Disorders, 28,* 100603.

Rahimi, P., Imam Juma, M., Badagh, Z., & Ghafari Shahir, M. (2023). The effectiveness of emotional therapy on the resilience and hope of patients with breast cancer. *Journal of the Faculty of Medicine of Mashhad University of Medical Sciences, 65*(2). (In Persian).

Sheikhan, H., & Rahmani, S. (2019). *Effectiveness based on acceptance and commitment on the general quality of life in patients with lung cancer*. the 7th National Conference of Modern Studies and Researches in the field of Educational

Sciences, Psychology and Counseling of Iran, Tehran. (In Persian).

Snyder, C. R., Harris, C., Anderson, J. R., Holleran, S. A., Irving, S.A., & Sigmon, S. (1991). The will and the ways: Development and validation of individual differences measure of hope. *J Pers Soc Psychol, 60*(4), 570-85.

Schneider, M. C., C. & Castillo-Salgado. (2005). Summary of indicators most used for the measurement of the health inequalities. *Epidemiol Bull, 26*(3), 7-10.

Snyder, C. R., Lopez, S. J., Shorey, H. S., Rand, K. L., & Feldman, D. B. (2003). Hope theory, measurements, and applications to school psychology. *School Psychology Quarterly*, *18*(2), 122– 139.

Spomer, K. (2022). *Psychological Safety and Academic Performance: A Quantitative Correlational Study*. Doctoral dissertation, Grand Canyon University. https://www.proquest.com/openview/54e39a4d8b298cf51d0dffa8c9794199/1?pq origsite=gscholar&cbl=18750&diss=y

Sung, H., Ferlay, J., Siegel, R. L., Laversanne, M., Soerjomataram, I., Jemal, A., & Bray, F. (2021). Global cancer statistics 2020: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries. CA: *A Cancer Journal for Clinicians, 71*(3), 209-249. https://doi.org/10.3322/caac.21660.

Yang, Q., Shi, M., Zeng, L., & Xu, P. (2022). University freshmen's excessive smartphone use and psychological safety during the COVID-19 pandemic. *Frontiers in Psychiatry, 13*(2), 1-12. https://doi.org/10.3389/fpsyt.2022.993555.