

The Effectiveness of Existential Therapy on Death Anxiety and Meaning of Life in Recovered Patients of Covid-19

Sara Alizadeh¹, Somayyeh Taklavi², Majid Mahmoud Alilou^{1,3}, Haedeh Feizpour^{1,4}

Received 11 July 2021, Accepted for publication 11 September 2021

Abstract

Background & Aims: Due to the high physiological and psychological damage of COVID-19 patients after discharge from the hospital and the need for interventional approaches, the present study was conducted to evaluate the effectiveness of existential therapy on death anxiety and the meaning of life in recovered COVID-19 patients.

Materials & Methods: The research was a quasi-experimental design with pre-test and post-test and control group. The statistical population in this study included all recovered patients of COVID-19 in 2020 in Urmia, Iran. To select the sample, the patients' files were checked in the counseling center of Taleghani Hospital. After that, 30 of the recovered patients that had the inclusion criteria were randomly assigned to either experimental or control groups, each group consisting of 15 individuals. The experimental group received ten sessions of online existential therapy whereas the control group received no intervention. For the collection of data, the Meaning of Life (MLQ) and Death Anxiety Questionnaire (DAQ) were used. The collected data were analyzed using single-factor analysis of covariance (ANCOVA).

Results: The results of the comparison of the post-tests of the groups indicated that scores of death anxiety ($p < 0.01$) and meaning of life ($p < 0.01$) of experimental and control groups differed significantly. The analysis of data showed that existential therapy reduced death anxiety and increased the meaning of life among recovered patients of COVID-19.

Conclusion: Existential therapy is an effective approach in dealing with critical situations. The results of the present study can be used to improve the perplexities related to death and the meaning of life during the COVID-19 pandemic.

Keywords: Existential Therapy, Meaning of Life, Death Anxiety, Recovered Patients of COVID-19

Address: Department of Psychology, Ardabil branch, Islamic Azad University, Ardabil, Iran

Tel: +984533713363

Email: s.taklavi@iauardabil.ac.ir

Introduction

On January 30, 2020, the World Health Organization (WHO) announced a novel coronavirus and declared a public health emergency. On February 11, 2020, the

WHO officially named the virus COVID-19. This contagious disease is the largest outbreak since the outbreak of severe acute respiratory syndrome (SARS) in 2003, and it quickly concerned the governments and

¹ Department of Psychology, Ardabil branch, Islamic Azad University, Ardabil, Iran

² Department of Psychology, Ardabil branch, Islamic Azad University, Ardabil, Iran (Corresponding Author)

³ Department of Psychology, University of Tabriz, Tabriz, Iran

⁴ PhD in General Psychology, Urmia University of Medical Sciences, Urmia, Iran

public health systems by causing acute respiratory infections (1). The emergence of this pandemic has altered the living conditions, confused the people (2), and increased negative emotions (anxiety, depression and anger) that have led to the reduction of positive emotions of happiness and life satisfaction (3).

The appearance of these psychological abnormalities happens not only during the phase of the illness but also continues after patients' discharge from the hospital and in recovered patients. Based on a study, within an average of 36.75 days after diagnosis, about 12.4% of patients show severe signs of post-traumatic stress disorder, 10.4% of patients demonstrate moderate to severe anxiety symptoms, and 32.3% show mild anxiety symptoms, and likewise, 19% of the patients show moderate to severe symptoms of depression and 46.7% show mild symptoms of depression (4) which have continued in recovered patients even six months after discharge from the hospital (5). One of the main concerns in the diagnosed and recovered patients of COVID-19 is perplexities related to death, including death anxiety (6). Death anxiety is a constant, irrational, and abnormal fear of death or dying. This concept is also perceived as a fear of death and extreme fear of the dead (7). Death and death anxiety are concepts that play major roles in the existential approach. Death anxiety has a significant influence on the internal experiences of human beings and incomparably haunts their minds. The individual uses defensive strategies against the death awareness to face this fear (8). Death-related disorders, the unpredictability of causes of death in the diagnosed patients (the illness can be contracted at any age, with and without any history of illness), fear of the quality of burial service, not having the chance to see dear ones before death (9), witnessing the death of others, and having a dream about death differentiates patients with COVID-19 from other patients with life-threatening diseases (10). Retaining psychological well-being and overcoming abnormalities that result from the COVID-

19 pandemic, to an extent, depends on knowledge of the meaning of life and understanding about the illness and existential challenges it accompanies. The meaning of life is one of the most important components of psychological well-being and is based on three principles: free will, meaning-seeking, and meaning in life. According to Victor Frankel, the search for meaning is the foundation of mental health and an antidote for suicide (11). The individuals who have found meaning in life, alongside a reduction of the fear of death, have also found meaning in personal life. Their assessment of death is so invigorating that leads to acceptance of death as an inevitable outcome. This attitude in the individual makes one more careful and prepared to set high goals for life and tackle the abnormalities associated with death, attitude, and meaning of life (12).

Due to the physiological and psychological abnormalities in the recovered COVID-19 patients, the researchers have insisted on the support and intensive care of these individuals to reduce the perplexities related to death by changing the meaning of life. One of the interventions that have a good history in improving the psychological state in critical conditions is Existential Therapy (13). This treatment has a desirable structure to work on the existential problems of the clients. It raises deep questions about the nature of human existence, anxiety, frustration, loneliness, and isolation. Instead of divesting the individual's will, this therapy emphasizes on the relationship between the client and therapist, demands work from the client, requires a fearless confrontation with the problems, and considers change as a courageous act (14). Existential therapy postulates a general condition for all people, regardless of their culture, religion, ethnicity, and race, to address profound and pivotal issues such as loneliness, meaninglessness, death, and freedom and instead of emphasizing healing or completing problem-solving techniques, it aims at difficult tasks such as authentic life, responsibility, and honest expression of

self and focuses on four main fears (death, lack of freedom, loneliness, and meaninglessness in human beings) (15).

Hoffman (13) gave prominence to existential interventions during the COVID-19 pandemic, referring to the effectiveness of existential therapy in confronting critical conditions, trauma, and psychological relief in disasters. In a meta-analysis, Bauerei et al. (16) studied the effect of existential interventions on the spiritual, psychological, and physical health of adult patients with cancer. Based on the systematic reviews of this meta-analysis, existential therapies were effective for these patients at all stages. Vos and Craig (17) confirmed the effectiveness of structured existential interventions on psychological training and challenges of the meaning of life in a meta-analytic study.

Existential therapy is successful and effective in enduring existential anxiety, meta-worry and health anxiety (18), life-regard and spiritual well-being (19), the stage of depression, death anxiety, and the belief in life after death (20), and on perplexities related to death (21). Many studies have emphasized long-distance and internet-mediated psychological interventions (22). Online interventions allow immediate, effective, and low-cost response and are not limited to working hours. This is very important for crises that are not bound to time and place (23).

Awareness of having a life-threatening illness leads to a change in an individual's perception of life and creates a spiritual crisis, and sometimes endangers self-confidence and religious faith. Therefore, efforts are made to help the patient adapt to this situation (24). In the recovered COVID-19 patients, the lived experience of being hospitalized in the special ward of COVID-19 patients and witnessing the unpredictable death of adjacent patients have often caused death-related perplexities, anxiety, and depression of death. The recovered COVID-19 patients feel guilty about their

potential role in infecting their loved ones and those around them and feel unable to control the spread of the virus, and consider it an evasion of responsibility. These patients will suffer from neurosis if they do not face feelings of guilt and responsibility (13). Existential therapy based on the approach of the self to the human life pays attention to the importance of the patients' lives and focuses on fundamental issues such as life and death, freedom, responsibility toward oneself and others, finding meaning in life, and paying attention to the concept of meaninglessness. This therapeutic approach investigates human self-awareness and the individual's ability to look beyond the problems and existential issues more than other perspectives (18). As our understanding of the emotional experiences of recovered COVID-19 patients increases, the clinical application of research findings in psychological interventions appears to be essential. COVID-19 has spread on a large scale in Iran, causing confusion, chaos, and changes in living conditions. In light of the chronic physiological and psychological consequences of the illness and its existential challenges in COVID-19 patients, implementing an intervention to reduce perplexities related to death and improving meaning in the lives of recovered patients of COVID-19 seems necessary and pivotal. Based on the arguments, existential therapy can be effective on death anxiety and the meaning of life, but little researches have been carried out on the effectiveness of this therapy in reducing the meaninglessness of life and death anxiety in recovered patients of COVID-19. This study aims to find whether existential psychotherapy is effective on the meaning of life and death anxiety of patients recovered from COVID-19 or not.

Methods & Materials

This research had a pre-test and post-test quasi-experimental design with a control group. The statistical

population of this research was recovered patients of COVID-19 discharged in a good general condition from Taleghani Hospital in Urmia city from October 2020 to January 2021.

The method of data collection was as follows. After obtaining the required permits and coordinating with the counseling center of Taleghani Hospital, eligible individuals were introduced to the researcher using convenience sampling. Thirty of these individuals were chosen as the statistical sample with their informed consent. The researcher administered death anxiety and meaning of life questionnaires for the pre-test and the candidates completed them. The researcher then randomly divided the candidates into experimental and control groups, with 15 individuals in each group. The experimental group received existential therapy for ten 90-minute sessions in 45 days, and the group therapy sessions were carried out through an online platform. Meanwhile, the control group did not receive any interventions. Finally, the post-test was executed for both groups (The summary of the sessions is in Table 1).

The inclusion criteria in the research were as follows: an age range between 20 to 55 years, having a diploma as minimum education, hospitalized as a COVID-19 patient for at least seven days in the

intensive care unit (ICU), connected to a ventilator or Oxygen machine in the period of illness, discharged from the hospital with a good general condition somewhere between October 2020 and January 2021, elapsing more than a month since discharge from the hospital, no use of psychedelic drugs and familiarity with online platforms and applications used for communication. The exclusion criteria in the research were as follows: simultaneous use of other psychological or educational therapies and more than two absents in the treatment sessions. The ethical considerations in the research were: obtaining written consent from the participants of the study, explaining to the participants that they were free to leave the study at any stage and that all their information was kept confidential.

The participants were also ensured that not taking part or leaving the study would not affect medical services or disrupt the process of treatment. The information related to the sample or the names of the participants were not disclosed or provided to any natural person or legal entities in none of the stages of data collection and development of the final report. In addition, taking part in the study had no financial benefit or burden for the participants.

Table 1: The summary of existential therapy training sessions (25)

Sessions	Content of sessions
1	Introduction, stating the goals and rules of the sessions, brief introduction of existential group therapy, and listing the characteristics and features of the individual.
2	Challenging people's answers to the question "Who am I?", discussing the concept of self-awareness, expressing people's opinions about it, and explaining self-awareness from the perspective of existential therapy.
3	Teaching the LifeLine technique and talking about it, discussing people's ideas and attitudes toward death, and challenging members' attitudes about it.

4	Reviewing members' experiences of loss and grief and providing appropriate feedback, visual exposure to death, explaining the role of death in life with the help of people and writing a statement about dying or death of important people in life.
5	Explaining the concepts of freedom, choice, and restrictions, discussing experiences of challenging situations of freedom in choice, and explaining the relationship between freedom and responsibility.
6	Examining people's answers to the questions, "Am I a lonely person?" and "Is loneliness painful?", challenging them and explaining the concept of loneliness from the perspective of existential therapy.
7 & 8	Examining people's answers to the questions, "Does life have a purpose and meaning?" and "What do I live for?", challenging them and describing people's experiences of feeling empty and useless in life.
9	Discussing issues affecting thoughts and feelings, using mental imagery and visualizing a situation of success and failure and answering the question, "Who is responsible for it?"
10	Explaining the relationship between the concepts of self-awareness, loneliness, freedom, responsibility, death, and meaninglessness with the help of the participants and summarizing the contents of previous sessions.

The tools used in this research included the meaning in life and death anxiety questionnaires.

A. Meaning in Life Questionnaire (MLQ): Steger et al. (26) designed this questionnaire to evaluate the existence of meaning. The questionnaire has ten questions and uses a 7-point Likert scale, in which the strongly disagree option receives 1 point and the strongly agree option receives 7 points. The MLQ's designers reported that the reliability of the questionnaire was 0.86 using Cronbach's alpha (26). The Cronbach's alpha for this questionnaire is estimated to be in the range of 0.75 to 0.78 in Iran (27). In another study, the MLQ's Cronbach's alpha was reported to be 0.87 (28). Furthermore, the internal consistency of the questionnaire was measured in other countries, and Cronbach's alpha was reported to be in the range of 0.81 to 0.83 (29). B. Death Anxiety Questionnaire (DAQ): Templer (1970) has designed this questionnaire. It includes 15 items that measure the participant's attitude toward death. The participants specify their answers to each question as "yes" or "no". The answer "yes"

indicates the presence of anxiety in the participant. Consequently, the scores on this scale range from zero to fifteen, and greater scores indicate higher death anxiety (30). The reliability of the DAQ was evaluated in Iran and the split-half coefficient of 0.60 and a Cronbach's alpha coefficient of 0.73 were reported (31). In other countries, the validity of the DAQ was tested and the Cronbach's alpha was reported 0.84, Spearman-Brown coefficient was 0.85, and Guttman split-half coefficient was 0.81. The convergent validity of the stress, anxiety, and depression was 0.40 and the significant value was 0.01 (32).

Results

Descriptive findings of the study showed that out of 30 participants, 9 participants (30%) were 20 to 30 years old, 13 participants (43.3%) were 31 to 40 years old, and 8 participants (26.7%) were 41 to 50 years old. In terms of education, 19 participants (63.3%) had a diploma, 4 participants (13.3%) had a master's degree, and 7 participants (23.4%) had a bachelor's degree or higher.

Table 2: Descriptive information of pre-test and post-test scores of experimental and control groups

Variable	Group	Pre-test		Post-test	
		Mean	Std. deviation	Mean	Std. deviation
Meaning of life	Examination	34.67	4.78	43.80	6.78
	Control	33.13	4.47	33	4.60
Death anxiety	Examination	8.13	2.30	4.73	2.63
	Control	8.40	2.06	8.07	2.66

Table 2 exhibits the mean and standard deviation of pre-test and post-test scores and compares the performance of the experimental and control groups in the variables of the meaning of life and death anxiety.

The findings in Table 2 manifest that there is no significant difference in the studied variables between the experimental and control groups in the pre-test. It appears that the participants of the study are on the same level in terms of the meaning of life and death anxiety and have no significant difference in the pre-test. There is a difference between the post-test results of the

experimental group and control group in the variables of the meaning of life and death anxiety (Table 2).

A single-factor analysis of covariance (ANCOVA) was performed on the meaning of life and death anxiety scores to evaluate the effect of the experimental intervention.

The results of the Shapiro–Wilk test (Table 3) showed that the level of significance of normality in the statistics was greater than 0.05 in the meaning of life and death anxiety variables and therefore, the scores had a normal distribution.

Table (3): Shapiro-Wilk test, skewness and kurtosis to confirm the normalcy of the data

Variables	Shapiro-Wilk		Skewness	Kurtosis
	statistic	Sig.		
Meaning of life	0.973	0.629	- 0.384	0.256
Death Anxiety	0.932	0.055	0.277	-1.069

Levene's test (Table 4) was used to study the assumptions of homogeneity of variances. The results of Levene's test (Table 4) showed that for the studied

groups in the meaning of life variable [Sig=.250 and F=1.38] and death anxiety [Sig=.441 and F=.01] were not significant.

Table (4): Levene's test data for the homogeneity of variances meaning of life and death anxiety

Variables	F	Df1	Df2	Sig.
Meaning of life	1.38	1	28	0.250
Death Anxiety	0.01	1	28	0.441

Preliminary analysis to evaluate the homogeneity (Table 5) between the slopes showed that the interaction

between the covariant variable and the factor in the meaning of life variable [Sig=.417 and F=.68] and death anxiety [Sig=.470 and F=.54] was not significant.

Table (5): Testing the assumption of homogeneity of regression slopes in Meaning of life and death anxiety variables

Variables	Source	F	Sig.
Meaning of life	Pre-test group	0.68	0.471
Death anxiety	Pre-test group	0.54	0.470

The results of homogeneity test of variance-covariance matrices (Table 6) showed that this

assumption is also observed because the obtained significance level is greater than 0.05.

Table (6): Box's M-test of equality of covariance matrices Meaning of life and death anxiety

Box's M	F	Sig.
3.92	1.21	0.306

Since the assumption of homogeneity of variance-covariance matrices (Table 6) is also established, the parametric test of covariance analysis can be used and

its results are reliable. Therefore, analysis of single variable covariance (ANCOVA) was performed on scores of Meaning of life and death anxiety.

Table (7): Results of analysis of covariance of post-test scores of the meaning of life and death anxiety

Variable	Group	Ss	DF	F	Sig	Eta	Observed power
Meaning of life	Group	629.10	1	47.01	.000	.635	1
	Pre-test	579.10	1	43.28	.000	.616	1
Death anxiety	Group	71.64	1	26.94	.000	.499	1
	Post-test	125.07	1	47.69	.000	.639	1

As seen in Table 7, using the designed training program based on the existential therapy model is effective in reducing the meaning of life [Sig=.000 and F=47.01] and death anxiety [Sig=.000 and F=26.94] in the post-test stage. As the Eta squared measures show the designed training program based on the existential therapy model caused 63.5% and 49.9% change respectively in the meaning of life and death anxiety variables in recovered patients of COVID-19. Statistical power in the behavioral disorders variable, as well as the

adequacy of the sample size, suggests that the precision of this analysis in detecting significant differences is 100%.

Discussion & Conclusion

This research aimed to evaluate the effectiveness of existential therapy on the meaning of life and death anxiety in the recovered patients of COVID-19. Regarding the effectiveness of existential therapy, the first finding showed that it had a significant impact on

death anxiety. This aligns with the findings of the previous studies ; Moghimi and Saeedi (33), Ahmadzadeh Barabi and Kalantar Koosheh (34), Huang et al. (5). Several aspects help elucidate the effectiveness of existential therapy on death anxiety in recovered patients of COVID-19 who had witnessed the death of a large number of COVID-19 patients in the hospital. Death is a concern that every person will inevitably deal with to varying degrees as a mental conflict. Additionally, the research by French et al. (35) showed that death awareness had a positive effect on an individual's desire to form lasting relationships and engage in social activities, which is consistent with the results of the present research. Irvin Yalom (24) had illustrated a comprehensive framework in the field of existential studies to deal with death anxiety. Yalom elaborated on the relationship between the aforementioned factors and death anxiety in his framework. Death has a special place in people's worldviews within this therapeutic approach. It focuses on existing existential worries (fear of death, lack of freedom, seclusion, and meaninglessness). It also accepts the fact that the fear of death is an important source of anxiety that affects the social, personal, spiritual, and physical domains (35).

The second finding of the study showed that existential therapy had a significant effect on the meaning of life of the recovered patients of COVID-19. One of the important effects of existential therapy on the recovered patients of COVID-19 is making sense of the disease-related issues during the phases of illness and recovery. Thus, the patients can pay attention to the positive aspects instead of focusing on the negative aspects of the illness. Therapists believe that it is important to find some degree of meaning in traumatic events, and this discovery occurs when one feels a sense of improvement in making meaning. Therefore, it can be concluded that meaning in life leads to better mental health and meaninglessness leads to mental pathology.

The age and literacy of the person are not related to this assumption. Existential therapy helps the clients by creating meaningful states and gives rise to mental health. This is an important factor since it smooths the way to change negative attitudes into positive attitudes. The second finding of this study is consistent with the previous studies; Ratni and Rastogri (36), Feldman and Snyder (37), Lorca et al. (38).

According to the study of Mosapour et al. (39), negative psychological effects and abnormalities, including post-traumatic stress disorder, depression, anxiety, stress, sleep disorders, and anger had increased significantly in the health workers and other individuals involved with COVID-19 during the COVID-19 pandemic. Stress factors including health anxiety, conspiracy theories, prolonged quarantine time, ambiguity about the eradication of the disease and its continuation, fear of disease transmission, frustration, fatigue, lack of protective equipment, insufficient information, financial loss, rumors, negative beliefs about vaccination and experiencing stigma of the disease require rapid, continuous, and timely psychological interventions (10). On the other hand, people can cope with death anxiety and stress more than the physical and mental consequences of the illness and face meaning-seeking and existential challenges. Existential therapies as approaches that assess the value of originality, empathy and presence make the clients confront challenges in the form of existential guilt and existential anxiety despite their great help in the field of trauma and disaster relief (13). Existential therapists believe that if life has a meaning, then suffering must also have a meaning. Suffering is an undeniable part of life. Human life will not be complete without suffering and if man accepts his sufferings, he will have the opportunity to find a profound and progressive meaning for life even in the most difficult circumstances. In his clinical reports and studies, Yalom explains that people who faced threats like imminent death, or an incurable

illness, developed humanistic tendencies and became more good-natured after experiencing the physical and psychological consequences of that illness (40). The limitation of this research included the use of convenience sampling, the limited statistical sample of recovered COVID-19 patients in Urmia and due to the lack of follow-up period, it was not possible to evaluate the effectiveness of the treatment in the long run. It is suggested that in future research, this treatment be repeated on the recovered COVID-19 patients in other cities, and follow-up studies must be performed to evaluate the stability of treatment. Bearing in mind the COVID-19 pandemic and the effectiveness of existential therapy, the results of this study could have implications for mental health professionals in counseling centers who provide training programs with an existential approach to the recovered COVID-19 patients and focus on their existential and ontological challenges to prevent further consequences.

Acknowledgements

The authors would like to thank all the subjects who took part in this study. This study was approved by the Research Ethics Committee of the Islamic Azad University of Ardabil and its ethical code is IR. IAU. ARDABIL. REC. 1400. 007. Meanwhile, no conflict of interest is declared by the authors. This article was derived from Ms. Sara Alizadeh's PhD degree dissertation in the Islamic Azad University-Ardabil branch.

This article was extracted from Ms. Sara Alizadeh's PhD dissertation in the Islamic Azad University-Ardabil Branch

References:

1. UN High Commissioner for Refugees. Mental Health and Psychosocial Response during COVID-19 Outbreak, June 2020 - Syrian Arab Republic [Internet]. ReliefWeb. 2020 [cited 2021 Sep 19]. Available from: <https://reliefweb.int/report/syrian-arab-republic/mental-health-and-psychosocial-response-during-covid-19-outbreak-june>
2. Lu D, Bouey J. Public Mental Health Crisis during COVID-19 Pandemic, China. *Emerg Infect Dis.* 2020; 26(7): 1616–8.
3. Li S, Wang Y, Xue J, Zhao N, Zhu T. The impact of COVID-19 epidemic declaration on psychological consequences: a study on active Weibo users. *Int J Environ Res Public Health* 2020; 17(6):2032.
4. Liu D, Baumeister R, Veilleux J, Chen C, Liu W, et al. Risk factors associated with mental illness in hospital discharged patients infected with COVID-19 in Wuhan, China. *Psychiatry Res* 2020 ;292:113297.
5. Huang Ch, Huang, L, Wang Y, Li X, Ren L, Gu X , ,et al. 6-month consequences of COVID-19 in patients discharged from hospital: a cohort study. *Lancet* 2021;6736(20):32656-8.
6. Jann MW. Neuropsychiatric & Medical Sequelae of COVID-19. *Psychiatric Times* 2020; 11-37 .
7. Gonen G, Kaymak S, Cankurtaran E, Karslioglu E, Ozalp E, Soygur H. The factors contributing to death anxiety in cancer patients. *J Psychosoc Oncol* 2012;30: 347–58.
8. Yalom I. Existential therapy: Translated by: Dr. Sepideh Habib, 2nd Ed, Tehran: Nashr-e Ney Publications; 2011. (Persian)
9. Taquet M, Luciano S, Geddes JR, Harrison PJ. Bidirectional Associations Between COVID-19 And Psychiatric Disorder: Retrospective Cohort Studies Of 62 354 COVID-19 Cases In The USA. *Lancet* 2020 ;8(2):130-40.
10. Rahmatinejad P, Yazdi M, Khosravi Z, Shahi Sadr-Abadi F. Lived experience of patients with coronavirus (Covid 19) A phenomenological study. *J Res Psycholo Health* 2020;14(1):71-86. (Persian)
11. Frankl V. Man's Search for Meaning, trans: Amir Lahooti. Tehran: Jami publication; 2018. (Persian)

12. Ardel M. Effects of religion and purpose in life on elders subjective well-being and attitudes toward death. *Journal of religious gerontology* 2003; 14(4): 55-77.
13. Hoffman L. Existential-humanistic Therapy and disaster response: lessons from the covid -19 Pandemic. *Journal of Humanistic Psychology* 2021; 61(1): 33-54.
14. Nazari AM, Zarghmi S. Existential psychotherapy (individual and group therapy). Tehran: Pazineh Publications; 2009. (Persian)
15. Corsini RJ. *Handbook of Innovative Therapies*. 2nd Ed. New York; 2008.
16. Bauerei N, Stefanie, Obermaier S, Özünal E, Baumeister H. Effects of existential interventions on spiritual, psychological and physical well-being in adult patients with cancer: systematic review and meta-analysis of randomized controlled trials. *Systematic review and meta-analysis of randomized controlled trials. Psycho-oncology* 2018; 27(11): 2531-45.
17. Vos J, Craig M, Cooper M. Existential Therapies: A Meta-Analysis of Their Effects on Psychological Outcomes. *J Consult Clin Psychol* 2015; 83(1): 115.
18. Kajbaf MB, Ghasemiannejad Jahromi A, Ahmadi Forushani SH. The effectiveness of spiritual and existential group therapy on the rates of depression, death anxiety and afterlife belief among students: a study based on the reports of people with death experience. *Journal of Research Knowledge in Applied Psychology* 2017; 16(4): 4-13. (Persian)
19. Shirali S, DashtBozorgi Z. Effect of existential group therapy on distress tolerance, existential anxiety, meta-worry and health worry in elderly women with cardiovascular disease. *J Cardiovasc Nurs* 2019; 7(4): 24-33. (Persian)
20. Amanzad Z, Husseinian S. The effectiveness of group counseling based on existential approach on life attitude and spiritual health of women with type 2 diabetes. *Journal of Women and Family Studies* 2019; 6(1): 49-67. (Persian)
21. Kazemi L, Ahmadi E, Monirzadeh MM. The effect of existential psychotherapy on reducing the fear of death in the elderly. *Contemp Educ Psychol* 2015; 10: 1211-3.
22. Shear MK, Bloom CG. Complicated grief treatment: An evidence-based approach to grief therapy. *Journal of Rational-Emotive & Cognitive-Behavior Therapy* 2017; 35(1): 6-25.
23. Xiang Y, Li W, Zhang Q, Jin Y, Rao W, Zeng L, et al. Timely research papers about COVID-19 in China. *Lancet* 2020; 395(10225): 684-5. doi:10.1016/S0140-6736(20)30375-5.
24. Reb AM. Transforming the death sentence: elements of hope in women with advanced ovarian cancer. *Oncol Nurse Forum* 2007; 34(6): 90-94.
25. Yalom I, Lashech M. *Group psychotherapy (theoretical and practical topics)*, Translated by: Mahshid Yasai, 1st ed, Tehran: Danjeh Publications; 2010. (Persian)
26. Steger MF, Frazier P, Oishi S, Kaler M. The Meaning in Life Questionnaire: Assessing the presence of and search for meaning in life. *Journal of counseling psychology* 2006; 53 (1): 80-93.
27. Orang S, Hashemi Razini H, Ramshini M, Orang T. Investigating the Meaning of Life and Psychological Well-being, in Youth, Adults, and Elderly (A Comparative Study of Three Age Groups). *Salmand Iran J Ageing* 2018; 13 (2): 182-97. (Persian)
28. Borji M, Farshadnia E, Khorami Z, Ghahari Sh. Prediction of Suicidal Ideations Based on Meaning in Life and Early Maladaptive Schemas among University Students. *SalamatJtimai Community Health* 2019; 6 (2): 196-207. (Persian)
29. Brassai L, Piko BF, Steger MF. A reason to stay healthy: The role of meaning in life in relation to physical activity and healthy eating among adolescents. *J Health Psychol* 2015; 20 (5): 473-82.
30. Templer DI, Ruff CF. Death anxiety scale means, standard deviations, and embedding. *Psychol Rep* 1971; 29 (1): 173-4.

31. Khayat K, Tajeri B, Pashang S, Malihi-Alzakerini S. Mediating Role of Life Satisfaction in Relationship between Personality Factors and Death Anxiety in the Elderly. *J Res Behav Sci* 2018; 16 (2): 189-97.(Persian)
32. Dadfar M, Lester D. Cronbach's α reliability, concurrent validity, and factorial structure of the Death Depression Scale in an Iranian hospital staff sample. *International journal of nursing science* 2017; 4 (2): 135-41.
33. Moghimi S, Saiidi B. The effectiveness of existential psychotherapy on death anxiety in patients with leukemia. 9th International Congress on Psychotherapy; *J Educ Health Promot* 2016. (Persian)
34. Ahmadzadeh berabi S, Kalantar Kousheh M. Investigating the existential components with emphasis on the meaning of life and responsibility and death anxiety in people with and without experience of substance abuse. *International Conference on Humanities Psychology and Social Science*; Tehran: 2015. (Persian)
35. French C, Greenauer N, Mello C. A Multifactorial Approach to Predicting Death Anxiety: Assessing the Role of Religiosity, Susceptibility to Mortality Cues, and Individual Differences. *Journal of social work in end-of-life & palliative care* 2017; 13(2-3): 151-72.
36. Rathi N, Rastogi R. Meaning in Life and Psychological Well-Being in Pre-Adolescents and Adolescents. *Journal of the Indian Academy of Applied Psychology* 2007;33(1): 31-8.
37. Feldman DB, Snyder CR. Hope and the meaningful life: theoretical and empirical associations between goal-directed thinking and life meaning. *Journal of social and clinical psychology* 2005; 24: 401-21.
38. Lorca F, Pérez S, Giner F, Marco JH. What dimension of meaning in life is the stronger predictor of borderline personality disorder symptom?. *Journal of Constructivist Psychology* 2019 :1-3.
39. Musapur H , Changi Ashtiani J, Kahrobaei Kalkhuran Alya M. Spiritual and Existential Growth and COVID 19 pandemic: A qualitative study. *Journal of Research in Psychological Health* 2020;14(1):56-70. (Persian)
40. Cooper M. Existential therapies, trans: Mohammad Kalantar Kushe. Tehran: Avaye noor publication; 2014. (Persian)