



## THE EFFECTIVENESS OF COGNITIVE THERAPY BASED EXISTENTIAL PSYCHOTHERAPY ON HOPE, DEATH ANXIETY AND PERCEIVED STRESS IN PATIENTS CANCER

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### ABSTRACT

The purpose of this research was the effectiveness of cognitive therapy based existential psychotherapy on hope, death anxiety and perceived stress in patients cancer referred to clinics and medical centers in Ahvaz. The main hypothesis of this research was that: cognitive therapy based existential psychotherapy is affect on hope, death anxiety and perceived stress in patients with malignant. Subjects included 30 patients (male and female) whom selected by convenience sampling. The research design pertained quasi- experimental research and reseach instrumental were Miller hope scale, Templar death anxiety and perceived stress scale. Results of analysis of multivariate covariance showed that cognitive therapy is affect on hope, death anxiety and perceived stress in patients with malignant.

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### Introduction

Cancer is a pathogenic process that causes uncontrolled and abnormal proliferation of cells and ignores the signals regulating growth in the surrounding environment of cells. This is one of the oldest diseases known to man. Recent advances in science and technology has changed the incurable and fatal cancer into a chronic phenomenon. Nowadays, this disease as an overarching issue has become a universal worrying phenomenon as far as it is the second cause of death in developed countries, the fourth factor in developing countries and in Iran considered as the third cause of death so that one in four people will develop cancer during their lifetime. Cancer challenges the perspective of life as a regular and continuous process, a challenge that could entail significant psychological consequences (1).

Such distressing psychological outcomes among patients with cancer are the high prevalence of depression, hopelessness and stress that a person perceives. This disease creates specific emotional state that a person in those circumstances feels helplessness, powerlessness and apathy to life. In this state, the person is became heavily inactive and feeble and doesn't have the strength to adapt to changing life conditions and takes space day by day from the natural life stream. Psychologists believe that the frustration and the perceived stress is most important predictor of suicide which can lead to absurdity, emptiness, purposelessness and frustration of life (2).

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The majority of cancer patients are engaged with death anxiety and irrational beliefs and cognitive distortions and negative thoughts such as “my disease is dangerous and incurable” and “I will not be treated”, and cognitive therapies aimed at changing the patient's dysfunctional beliefs and negative automatic thoughts into rational thoughts and that these preoccupations endanger physical and mental health. One of the psychotherapy methods that can hereofbe applied is cognitive therapy that through which beliefs and negative thoughts regarding to disease in patients can be modified (3).

Existential Psychotherapy as a dynamic approach by addressing the four basic concerns, namely, death, freedom, loneliness and emptiness, emphasizes the individual freedom to choose the type and quality of life. This approach more than any other perspectives examines the human consciousness of their own and one's ability in looking at beyond the problems and existential concerns of their own and believes that the human with the benefit of empowerment and existential capabilities can live a happier and healthier life (4).

(5) in a study entitled with the effectiveness of religion-driven cognitive therapy on death anxiety, social compatibility and mental well-being in patients with cancer, came to the conclusion that there are significant differences between the pre-test and post-test mean scores of experiment and control group and the religion-driven cognitive therapy that causes decreased death anxiety scores and increased social adjustment and subjective well-being scores in the experimental group compared to the control group. These researchers suggested that due to the high effectiveness of religion-driven cognitive therapy in patients with cancer, this method can be used as a complementary therapy alongside with medical treatment and subsequently to improve psychological problems in these patients.

(6) studied the impact of Logo therapy in combination with cognitive therapy on decreasing death anxiety in patients with cancer. They concluded that after adjusting means and controlling of interfering variables, the experiment group achieved a significant decrease in death anxiety symptoms overall scores compared to the control group. Also, between pre-test and post-test experiment group, significant differences was observed in the death anxiety and its subscales that indicates the high efficacy of the logo therapy combined with cognitive therapy on death anxiety.

(2) in a study entitled “determining hope and the risk of death by cancer with quartiles in Japanese older individuals”, concluded that there is a significant difference in life expectancy between the upper and lower quartiles of older individuals. Also, (7) in a study aimed at investigating the quality of life expectancy in people with lung cancer in by surgery curable and incurable group, concluded that surgery is effectiveon increasing the quality of hope incurable by surgery patients with lung cancer.

Since few studies on the effectiveness of cognitive therapy on the psychological aspects of individuals havebeen accomplished in Iran and coherent and accurate data and information about the effect of this new technology on psychological influencing variables is not availableand also due to the growing trend of cancer diseasein the country and numerous concerns that these patients have created in the final and malignant stages for families and specialists, a research aimed at applicationof new therapeutic approach, existential cognitive therapy, on the effective variables in this disease was conducted.

### Methodology

The type of this study is practical and in the terms of performance, this researchis semi-experimental and the data arequantitative. Descriptive and inferential statistical methods were used in this study. The collected data were analyzed using multivariate analysis of covariance. The study population was patients with malignant cancer (terminal stage).The sample consisted of 30 patient men and women with malignant cancer who were referred to clinics and health centers in Ahwaz city and sampling method was available sampling. Ultimately 15 patients were randomly assigned to control group and 15 patients to experimental group. Therapy sessions were conducted as eight sessions of 90-minutes.

A summary of the sessions are as follows:

**First session:** determining group's purposes and laws, making members acquaintance with each other.

**Second session:** the concept of self-awareness and checking errors and wrong cognitive beliefs.

**Third session:** the concept of freedom (will, choice and responsibility) and checking errors and wrong cognitive beliefs.

**Fourth session:** loneliness and checking errors and wrong cognitive beliefs.

**Fifth Session:** death and decay and checking errors and wrong cognitive beliefs.

**Sixth session:** life, meaningfulness and meaninglessness.

**Seventh Session:** Assessing errors and wrong cognitive beliefs about life, meaningfulness and meaninglessness.

**Eighth session:** Summary and conclusions of sessions, demystifying, responding to members' questions, talking about their learnings in the group and final word.

**Research Tools**

1) Miller Hope Scale (MHS) or Miller Hopefulness Scale was developed in 1988 by Miller and Powers. (Miller and Powers, 1988) The Miller’s hope test consists of 48 questions which measures the hopefulness and helplessness modes. Stipulated clauses have been selected based on explicit or hidden behavioral protests in the hopeful or desperate individuals. Opposite to every aspect that is representative of a behavioral symptoms, sentences are written as follows (1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree). At the Miller test, achieved scores is variable ranging from 48 to 240 and scores 240 and 48 shows maximum hopefulness and complete helplessness respectively. Also the test has appropriate criterion validity. (6)

In the research conducted by (8), as well as to determine the reliability of the mentioned scale, two methods including Cronbach's alpha and Bisection have been used and coefficients obtained for all tests were 0.69 and 0.65 respectively, which indicates acceptable coefficients of the mentioned scale. To determine the validity of the scale, the total scores of the tests obtained by criterion question scores through simultaneously asking tests, were correlated and it was found thatthere is a significant positive relationship between the two scores.

2) Templer 15 items Death Anxiety Scale in 1970 was first presented by Templer. Our evaluation about the validity of Death Anxiety Scale shows that the scale hasan acceptable credibility. Sagino and Klinehave reported Cronbach's alpha coefficients for all triplefactors thatachieved by Italian scale edition of factor analysis method, which were respectively 0.69, 0.40 and 0.60. Templerhas achieved the DAS scale retest coefficient of 0.83.

3) Perceived Stress Scale (PSS) has been developed by Cohen and Coworkersin 1983, has 3 versions with 4, 10 and 14 clauses. Scoring is set based on the five-item Likert spectrum. To each option a score of 0 to 4 (0 = never, 1 = rarely, 2 = sometimes, 3 = often, 4 = all the time) is assigned, for 8 tool questions, scores are calculated in reverse. The range is 0- 56 and higher scores represent higher perceived stress. Total perceived stress score is divided into three levels of (0-14, 15-28, 29-56). (9)

**Research findings**

In table 1 the mean and standard deviation of associated scores with the variables of hope, death anxiety and perceived stress in both pre-test and post-test in two experimental and control groups have been measured separately.

**Table 1: Descriptive Indexes of Research Variables**

Variables	Group	Statistical indexes				
		test	mean	Standard deviation	min	max
hope	Control	Pre-test	113.26	20.71	87	150
		Post-test	112.66	20.01	86	153
	Experimental	Pre-test	103.93	12.10	85	122
		Post-test	136.06	20.51	110	175
death anxiety	Control	Pre-test	10.60	2.09	7	14
		Post-test	11.06	2.05	8	14
	Experimental	Pre-test	11.26	1.33	9	13
		Post-test	7.73	1.27	5	10
	Control	Pre-test	33.33	7.43	22	45

perceived stress	Experimental	Post-test	33.06	7.29	21	47
		Pre-test	37.86	5.15	30	46
		Post-test	27.60	6.04	19	40

Contents of Table 2 show that existential cognitive therapy has been effective at least on one of the dependent variables of perceived stress, hope and death anxiety in cancer patients. So the main research hypothesis has been confirmed.

**Table 2: Multivariable Covariance Analysis (MANCOVA) on the posttest by controlling pretest**

effect	test	value	F	Hypothesis df	Error df	Sig
Group	pillai's trace	0.915	82.75	3	23	0.001
	wilks' lambda	0.085	82.75	3	23	0.001
	hotelling's trace	10.79	82.75	3	23	0.001
	roy's largest root	10.79	82.75	3	23	0.001

For further investigation one-way covariance analysis in the context of MANCOVA is conducted on each of the dependent variables. Table 3 shows One-way covariance analysis in the context of MANCOVA on the scores of every three dependent variables (perceived stress, hope and death anxiety).

**Table 3: one way covariance analysis in MANCOVA context on dependent analysis to difference point**

effect	Dependent variable	Sum of squares	Degree of freedom	Mean squares	F	Sig	Eta
Group	perceived stress	565.85	1	565.85	56.43	0.001	0.693
	hope	6956.53	1	6956.53	86.44	0.001	0.776
	death anxiety	96.05	1	96.05	95.82	0.001	0.793

Results in table 3 show that the one-way covariance analysis on the perceived stress variable (F = 56.43 and p =0.001), hope variable (F = 86.448 and p = 0.001) and perceived stress variable (F = 95.82 and p = 0.001) is significant.

**Result and discussion**

According to the findings in Table 2 the first hypothesis was confirmed and it can be said that existential cognitive therapy at post-test can increase the hope in patients with malignant cancer and this increase compared to the hope changes which have occurred in the control group was statistically significant. In other words, the first hypothesis was confirmed. These results are consistent with the findings of Anthony (2009), Kisan and coworkers (2004) and Fallah, Golzari, Dastani, Zahiralidin, Mousavi, Akbari (2011).

To elucidate these findings, it is necessary to explain the concept of hope and life expectancy. Hope is considered as a human coping resource in adjustment with problems and even incurable diseases and hope also can be described as a healer, multidimensional, dynamic and powerful and it may also have an important role in adjustment with the loss. Hope is the ability to believe a better feeling in the future. Based on what has been said, it is clear that the fundamental condition for hopefulness is

a proper understanding of situations in which someone is placed. Cancer patients due to facing the situations which threaten their health and perhaps their survival in disease conditions don't imagine a clear future for themselves and hence there is also not much hope. But a large part of feelings and emotions of these patients are due to their wrong perceptions about the situation in which they are placed.

Cognitive therapy can positively affect these perceptions. When the wrong perceptions such as "I cannot deal with this disease," or "It will certainly kill me" are improved to correct understandings such as "I'll do my best to deal with this disease," or "a lot of people in coping with this disease have survived"; undoubtedly, this changes in perceptions and beliefs of individuals can enhance cancer patients' hope to the future (10).

Also, according to the findings in table 3 the second hypothesis was confirmed and it can be said that existential cognitive therapy reduces death anxiety in patients with malignant cancer at the post-test and this reduction in death anxiety compared to the changes which have occurred in the control group was statistically significant. In other words, the second hypothesis was confirmed. These results are consistent with the findings from Anthony (2009) (5).

In the philosophy of the principality of existence, death is considered to be quite personal and in any case belongs to the individual. In this regard, the death of others is not a learning experience to understand the death and it is ultimately a fill-in-experience. Death is Imminent, indefinite and it can happen at any moment. We know death is real, but we do not know what it is and when it comes, therefore, for man, death is located in a boundary state between knowing and not knowing. This suggests how death is entirely in the form of life and how it spreads in life through its certainty and in determinacy.

Apparently, death is located outside the realm of life, but in fact it is located inside. Among existentialist psychologists, Frankel has a special position. In explaining the human nature in addition to biological and psychological dimensions that most of psychologists consider to be human, he also propounds a third dimension as the spiritual or immaterial dimension of human. In his opinion this spirituality is the source of mankind's awareness, unity and love. Frankel believes that biological and social factors are effective in nature, but they do not play a decisive role and thus he considers the human freedom as another characteristic against the environmental and genetic factors. Since individuals have the freedom to choose their own existence, then they must take responsibility for their actions and decisions. Therefore, Frankel arrives at the concept of human responsibility and propounds it in close coordination with freedom. On these premises, in his theory of human motivation and behavior instead of concepts of the will to power and the will to pleasure, he presents the concept of the will to meaning. He recognizes the will to meaning as the primary source of human motivation and believes that the experience of human existence is expressed in his ultimate values and meanings. Frankel says that being alive means suffering, but to find a meaning for their suffering means the will of the universe. He speculates that the dire need to find meaning and understanding of the greatest meaning can be experienced in most frustration states (2).

Furthermore, according to the findings in Table 3 the third hypothesis was confirmed and it can be said that existential cognitive therapy reduces perceived stress in patients with malignant cancer at post-test stage and this reduction of stress compared to changes which have occurred in the control group was statistically significant. In other words, third hypothesis was confirmed. These results are consistent with the findings of (6), Morrow (2011) and (11).

The body reaction to a change which requires compatibility or physical, mental or emotional response, leads to perception of stress. Stress can be caused by any factor or stressful stimuli Morrow, (2011). Associated with cancer patients, apart from all other factors as underlying cause of stress in ordinary people, the important and influential factor is the cancer patient himself. Patient is faced by a factor that challenges his ability and resources to deal with it. As described in previous sections, pain and suffering from the disease, concerns regarding the future of the family members, fear of death, side effects of treatment, decreased functions, disturbance in mental image and sexual problems are among factors that disrupt the mental health of cancer patients. Crisis arising from cancer causes an imbalance and disharmony of mind, body and soul, but the most common state for the patient during this period is the sense of hopelessness and stress.

On the other hand, new perspectives about the stress rather than concentration on the nature of stress emphasize the role of individual psychological resources in dealing with stressors, because in this way appropriate treatment strategies to help the person who is under pressure may be provided. Indeed, for a person who is under stressful conditions, it is important to evaluate stress levels and stress coping strategies. High, frequent and prolonged stress may result in physical and emotional problems with individual such as incompatibility and dissatisfaction, sense of failure, anxiety, severe tension, frustration, depression and unfavorable quality of life. That is why cognitive therapy puts in the spotlight the understandings and assessments of patient and tries to identify and characterize the cognitive distortions, especially in dealing with disease and tries to replace them with more rational understandings (8).

There are a lot of influential and verifiable variables in cancerpatients, including variables in this study, which can be changed by effective psychological treatments to improve the patient's physical and mental moods. This study aimed at investigating the impact of existential cognitive therapy on hope, death anxiety and perceived stress on malignant cancerpatients, could have a tremendous and observable effect on the patients perspective and definition of each of these variables.

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