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The effect of cognitive-behavioral group therapy on depression and quality of life in patients with chronic renal failure

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Abstract---Background and purpose: The aim of this study was to determine the effect of cognitive-behavioral group therapy on depression and quality of life in patients with chronic renal failure. Materials and methods: The present study was a quasi-experimental study with pretest, posttest design in experimental and control groups. The statistical population included all patients with chronic renal failure who were present for treatment in Mehr Madar Hospital in Torbat-e-Jam (A city in Iran) in the 2020 and among them 30 patients with Cochran statistical formula were selected as the research sample. And 15 people in the control group were randomly assigned. The research process was performed for both groups once a week during 8 sessions of 90 minutes (Experiment: Psychoeducation / control: to evaluate the effect of placebo, round-the-clock sessions to share their experiences with each other without the active role of psychologist and facilitator). Measurement tools included Beck Depression Inventory (II) and Quality of Life Questionnaire (SF-36). Statistical analysis of data was performed using SPSS-23 software. Results: The results showed that there was a significant difference between the experimental and control groups in both variables of depression and quality of life. Also, the results of analysis of covariance showed that cognitive-behavioral therapy group significantly reduced depression and significantly increased the

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quality of life of patients with chronic renal failure - in the short and long term (follow-up) (P≤0.01). Conclusion: The results showed that cognitive-behavioral therapy group was effective in reducing depression and increasing the quality of life of patients with chronic renal failure.

Keywords---*Group Therapy, Cognitive-behavioral, depression, quality of life, chronic renal failure.*

Introduction

Many physical illnesses, especially chronic and debilitating illnesses, have many psychiatric consequences, and therefore the occurrence of psychiatric disorders after these illnesses is common (1). Nowadays, one of the most widely developed chronic diseases is chronic renal failure. It is one of the leading causes of disability and mortality in the world and requires renal replacement therapy, rehabilitation and special education. This disorder is not limited to a specific age and involves all ages (2). The prevalence of chronic renal failure in the world is 242 cases per million people and this rate is increasing by about 8% annually (3). Many patients with chronic renal failure are treated with dialysis by either blood (hemodialysis) or peritoneal methods (4) and it is a condition that eventually all patients with irreversible renal disease, acute or chronic renal failure will face it (5).

Patients with chronic renal failure are among the patients who often struggle with many psychosocial problems due to the type of disease, treatment method and consequent lifestyle changes (6) and for them, treatment is a stressful process that causes many social, economic and cultural changes in their lives and this leads to mental disorders (7). In this regard, in studying the effect of psychosocial factors on the treatment outcomes of these patients, one of the most important factors is considered to be depression disorder (4), which is one of the most common psychiatric diagnoses and is associated with a high mortality rate (8).
It should be noted that untreated psychological problems can lead to changes in nutritional status, direct and indirect effects on the immune system, failure to follow a treatment regimen, increased severity of the disease and ultimately, suicide or discontinuation of treatment (9).

Tavallaii et al. (2009) in a study entitled "Effect of Depression on Health Care Utilization in Patients with End-stage Renal Disease Treated with Hemodialysis" showed that the cost of health care in the general population suffering from depression is twice as high as in non-depressed communities and so depression, as a common psychological problem among patients with chronic renal failure, is associated with increased health care costs (7).

Drayer et al. (2006) in a study entitled "Characteristics of Depression in Hemodialysis Patients: Symptoms, Quality of Life and Mortality Risk" reported that 14.76% of the subjects had anxiety disorders and 36.7% had depressive disorders (10). Jeurgenson et al. (1997) in a study entitled "Psychosocial Factors and Clinical Outcome on CAPD" using the Beck Depression Inventory, reported

that between one-third to one-half of dialysis patients have moderate to high depression and 85% of them, showed an adequate criterion (DSM-IV) for depressive disorder, when assessed for depression by a psychiatrist (11). Although it is difficult to measure the effect of depression on hospitalization and mortality of dialysis patients, Kimmel et al. (2000) performed a comprehensive cohort analysis on patients who completed the Beck Depression Inventory for six months. Finally, this analysis showed a significant relationship between the severity of depression and mortality rate in dialysis patients (12).

It should be noted that sometimes physical factors, along with other factors, lead to psychological output. In this regard, according to a study by Bossola et al. (2010), there is a relationship between creatinine and interleukin levels with depression. In this study, the rate of depression in patients with chronic renal failure was reported between 20 and 70% and it was also stated that there is a relationship between demographic and social characteristics such as marital status, education level, economic and social status, laboratory and clinical parameters such as hemoglobin, parathyroid, vitamin D, C-reactive protein, cytokine and fibrinogen with depression in hemodialysis patients (13). It is noteworthy that the diagnosis and treatment of depression in hemodialysis patients is delayed or sometimes undiagnosed due to overlap with uremia symptoms (14).

In addition to the depression that people with chronic renal failure face, the nature of the disease and its treatments also cause major problems in patient's useful activities and interests (15). One of the most stressful aspects of this disease is the uncertain future and treatment process, which affects the patient's hope and makes his quality of life extremely vulnerable. Studies have shown that chronic renal failure has a significant impact on the quality of life of people with it (16).

Anita (2020) study entitled "Depression Rates and Quality of Life of Hemodialysis Patients" showed that there is a significant relationship between depression and reduced quality of life (17).

Quality of life is a multidimensional and complex structure, and is considered as the perception of the situation in which people live and the cultural background and value system in which they are based. This perception is based on their goals, expectations, standards and interests (18) and has several components: Physical function, Psychological status, Social function, and Symptoms related to illness or treatment (19).

Liu (1976) offers three approaches in examining the concept of quality of life:

1- Defining quality of life based on its constituent elements such as happiness, satisfaction, wealth, etc.

2- Defining quality of life through the utilization of objective and subjective social indicators such as gross domestic product, health, welfare index, etc.

3- Defining the quality of life based on determining the variables or factors affecting the quality of life and paying attention to the contexts and conditions in which the level of quality of life is determined (20).

One of the main goals of health psychologists in recent years has been low-cost actions to improve the quality of life, especially among chronic patients (19). Nowadays, the quality of life of groups is used as a framework to provide services due to different aspects of life and resource allocation. The importance of measuring it is such that some cite improving the quality of life as the most important goal of therapeutic interventions (21). Because quality of life includes many dimensions such as physical health, mental health, social relationships, family life, emotions, physical / spiritual functions and professional life of individuals, paying attention to it is extremely important (22).

The common problems that affect the quality of life in these patients are various skin manifestations such as dry and dark skin, itching, skin dermatitis, dermatosis and nail changes (23). Possible side effects such as low blood pressure, painful muscle contractions, bleeding, embolism, chest pain and decreased level of consciousness also lead to poor quality of life in people with renal failure. Also, this disease can change the patient's assessment of his health status and quality of life by causing physical, social and economic disorders (24).
In a study entitled "Aspects of Quality of Life in Hemodialysis Patients" conducted by Kimmel et al. (1995), it was found that the group that scored higher on Beck Anxiety and Depression Invetories, suffered more complications during treatment and also, it was found that poor quality of life and psychological problems may even lead to dialysis patients' withdrawing from treatment (25). In fact, patients on dialysis treatment are more depressed than others and have a lower quality of life (26). In addition to adapting to their renal disease, these patients have to cope with a variety of stresses from their spouse, family, occupation, and community (27). Also, each dialysis session takes four hours and is performed three times a week, so most patients suffer from fatigue, muscle cramps and headaches after dialysis; And they must be adapted to all these conditions (28).

A study by Hassanzadeh et al. (1385) entitled "Various Forms of Sexual Function in Dialysis Patients" showed that impotence is also very common in dialysis patients and aging, duration of hemodialysis, depression and diabetes are involved in this increase. Since most of the organic changes are irreversible and treatment is more difficult, in this study it was recommended to change the lifestyle, as the first step to assess the impotence in these patients (29) because this issue can have a significant individual and family impact on This group of patients.

In addition to the above, dialysis patients also have lots of physical injuries and physical problems, so in addition to the uncertainty in renal transplantation and the impact on life expectancy, the consequences of this disease are very laborious and long (30). For this reason and in line with the issue of depression, the importance of quality of life is so great that experts have focused on improving the quality of life (31).

A study by Santos (2011) entitled "Depression and Quality of Life of Hemodialysis Patients Living in a Poor Region of Brazil" showed that depressed patients experience a poor quality of life, because in addition to the physical aspects, they also feel limited in the psychological dimensions; as they usually have the highest score among patients with non-depressive renal failure (32).

A study by Daniel et al. (2020) entitled "Examining the Relationship Between Nutrition, Quality of Life and Depression in Hemodialysis Patients" showed that patients with longer dialysis and limited health knowledge need unique care programs (33).

According to above, it seems that the issue of rehabilitation of these patients is of special importance and the purpose of this rehabilitation is to develop and improve the quality of life close to normal, which can usually lead to improved mood. Group therapy is one of the psychosocial rehabilitation services in which people with emotional disorders who are carefully selected, participate in a group under the guidance of a trained trainer (34).

A study by Cohen et al.(2007) entitled "Screening, Diagnosis, and Treatment of Depression in Patients with End-Stage Renal Disease" confirmed this method and showed that dialysis patients participating in the treatment groups had better progress compared to the control group (35). Care plays an important role in establishing patients' mental balance and reducing depression and increasing their quality of life, so it needs help and cognitive-behavioral group therapy is probably effective to achieve this goal.

The term cognitive-behavioral education emphasizes that thought processes are just as important as environmental influences (36). Among the existing psychological therapies, this treatment has a new growth and development in psychological therapy and has been able to attract the attention of many clinical specialists in a short period of time (37).
Cognitive-behavioral therapy is a combination of cognitive and behavioral approaches in which the patient is helped to identify distorted thought patterns and dysfunctional behaviors and In order to be able to change these distorted and dysfunctional thoughts, regular discussions and organized behavioral tasks are used (38).

Cognitive-behavioral training programs are effective in creating and enhancing competencies such as decision making, motivation, accepting responsibility, positive communication with others, happiness, self-esteem, problem solving, self-regulation, self-sufficiency, quality of life and reducing anxiety and depression (39).

If the quality of life of dialysis patients is not properly predicted, it can reduce productivity as well as motivation for treatment (40). Patient adaptation is important at any stage of chronic disease. Adaptation to this disease affects the quality of life, also is very important for patient adaptation and ultimately treatment outcomes. This adaptation is facilitated and accelerated by the ability to accept disease (41).

Cukor's study in 2007, entitled "Use of CBT of Treat Depression Among Patients on Hemodialysis" showed that cognitive-behavioral therapy has a significant effect on reducing depression in this group of patients (42), but this study did not consider the quality of life dependent on mood effect.

In another study, Ebrahim et al., while researching the effectiveness of cognitive-behavioral therapy for depression, concluded that this treatment significantly reduced depression and its symptoms (43), but also, this study did not study the effect of quality of life in the continuation of disease process.
In a meta-analysis conducted by Ng et al. (2019) entitled "A Systematic Review and Meta-Analysis of Randomized Controlled Trials of Cognitive-Behavioral Therapy for hemodialysis Patients with Depression", the results showed that CBT can effectively reduce depressive symptoms, anxiety and improve quality of life in hemodialysis patients with depression (44) but it did not mention the role of the group to advance treatment.

Issazadegan et al. (2013), while researching the effectiveness of cognitive-behavioral therapy on style and quality of life, concluded that the mean scores of pre-test and post-test in the intervention group were significantly different. So that after the intervention, the mean scores of lifestyle and quality of life in the experimental group had increased significantly compared to the control group (45). In this study, the effect of mood has not been addressed.

In another study, Tomoyuki et al. (2008), while researching the effectiveness cognitive-behavioral therapy on quality of life and depression, concluded that this treatment has significantly increased quality of life and reduced depression in patients (46). In this study, due to the individual nature of treatment, the role of group dynamics and its effect on better treatment has not been considered.

In the cognitive-behavioral group therapy, attention is paid to internal events such as thoughts, perceptions, judgments, conversations with oneself, and even unconscious implicit assumptions and the effort is to understand and correct overt-hidden disrupted behaviors and cognitive reconstruction (47).

In 2008, Chen conducted a study on the effect of cognitive-behavioral group therapy on dialysis patients' problems, which found that self-care, self-efficacy, quality of life, and sleep quality in these patients increased significantly compared with the control group (48).

Talaee et al. (2014) also researched the effect of cognitive-behavioral group therapy on depression of women and concluded that cognitive-behavioral therapy of women in the experimental group was significantly reduced compared to the control group. They stated that this treatment is effective in improving depression (49). Based on the character and importance of the subject, in this study, the researcher tried to use this method and the results of this study, to draw attention to this disease in several ways; First, to introduce the main option of psychiatric disorder in this group of patients and then show the effect of cognitive-behavioral group therapy to treat depression and increase patients' quality of life in order to draw attention to the group's role in the process and in increasing the quality of life. In this regard, the physician-patient relationship is

included in the treatment protocol as a significant item (It is addressed in the whole process of the treatment protocol) to address the need for this issue and its impact on the outcome of treatment, as an important strategy in increasing treatment adherence, and consequently improving physical and mental conditions.

Considering all the above, this study was performed to determine the effect of cognitive-behavioral group therapy on depression and quality of life in patients with chronic renal failure.

Materials & Methods

The present research is an educational research, quasi-experimental type, with pre-test and post-test design with a control group, which was conducted in 1398. Before sampling, the ethics code (IR.MUMS.MEDICAL.REC.1399.507) was obtained from the Research Ethics Committee of Mashhad University of Medical Sciences and then introduced to the research environment. The statistical population of this study includes all patients with chronic renal failure who were present for treatment in Mehr Madar Hospital in Torbat-e-jam in the second half of 1398. The age range of patients was 20 to 60 years and according to the type of research in which most of the patients were eligible for research, 30 patients were selected as the research sample using Cochran statistical formula. After completing the Beck Depression Inventory(II), patients were diagnosed with moderate to severe depression, then the SF-36 Quality of Life Questionnaire was completed for them. Then, for group homogenization based on scores, division was started from the highest score and the scores of individuals were distributed between two experimental groups and a control group, and finally three homogeneous groups were formed based on the order of scores for evaluation. Then, the experimental group underwent cognitive-behavioral group therapy once a week during 8 sessions of 90 minutes, by a trained psychologist with a PhD in health psychology, and no treatment was performed on the control group. To evaluate the effect of placebo in control group, all 15 persons in this group participated in 8 round-the-clock sessions of 90 minutes, once a week to share their experiences with each other without the active role of psychologist and facilitator. (Such sessions manage the level of tension and stress significantly due to the release of the participant's emotions and exposure to the experiences of the people - it is worth noting that the psychologist or facilitator participating in the sessions managed the main framework of the sessions but did not play an active role in training or treatment).

Inclusion and exclusion criteria for this study included: 1- Be Iranian and live in the city of Torbat-e-Jam and its suburbs. 2- To have informed written consent to participate in the research. 3- Be treated for at least 4 months. 4 - Do not have other known chronic diseases such as: AIDS, hepatitis, cancer, tuberculosis and chronic obstructive pulmonary disease. 5. Do not have any stressful or sad event that causes depression during the last 6 months. 6. Do not have a severe emotional-mood disorder that prevents effective communication (to answer questionnaires). 7- Do not have a degree in psychology or medical sciences. 8- Not addicted to drugs and alcohol. 9- Patients who are absent for more than one session are excluded from the group.

Due to the ethical principles, all patients in both groups, who still reported a high score of depression in the post-test and at the time of follow-up, were referred to a psychiatrist for medical treatment and for patients in the control group, sessions are provided for them that are performed if desired.

In this study, ethical considerations were considered: 1. Submitting an official referral letter from the University of Medical Sciences for the selected hospital /2. Obtaining permission from the treating physicians and supervisors of the relevant ward /3. Providing the necessary explanations about the subject and method of conducting the research to all the studied units in such a way that their participation in this research is with their full knowledge and personal satisfaction and without compulsion/4. Obtaining informed written consent from patients /5. Throughout the research process, the research units were assured that all the collected information, including identification and treatment information, is completely confidential and only their general results will be announced.

After taking the post-test, the treatment was stopped for four months so that the patients could be followed up after this period and the results were evaluated in order to determine the effect of this educational group therapy.

Research materials include:

1- Personal Information Form: Questions related to age, gender, level of education, marital status and economic status.

2- Beck Depression Inventory (Beck-II): This questionnaire includes 21 questions with selected sentences of which 11 items are related to cognitive domain, 1 item related to interpersonal relationships, 2 items related to emotional symptoms, 7 items related to physical symptoms and 2 items related to obvious depression symptoms; And the person responds to one of the options according to their feelings and attitudes, and based on the sum of the scores given to his answers, the person's level of depression is evaluated. Cut points in this questionnaire: 0 to 13: little depression, 14 to 19: mild depression, 20 to 28: moderate depression, 29 to 63: severe depression. The correlation between short and long forms is reported to be between 89% and 97%. Cracker et al. (1988) reported a 95% internal consistency of the questionnaire and usually rated it high for diagnosing depressive symptoms (50).

3- Quality of Life Questionnaire (SF-36): This self-report questionnaire, which is mainly used to assess quality of life and health, was developed by Ware and Sherbourne (51) and has 36 terms and evaluates 8 domains of physical function, social function, physical role-playing, emotional role-playing, mental health, vitality, physical pain, and general health. In addition, this questionnaire provides two general measures of performance; The subject score in each of these domains varies between 0 and 100, and a higher score represents a better quality of life. The validity and reliability of this questionnaire has been confirmed in the Iranian population and the internal consistency coefficients of its 8 subscales have been reported between 0.70 and 0.85 and their retest coefficients with a one-week interval were reported

between 0.43 and 0.79. Also, this questionnaire can distinguish healthy people from unhealthy people in all indicators. The scoring method is such that in questions number 3 to 9, the range of answers is from very high: 1 to not at all: 5. Questions number 5/6/7/8/9 are scored in reverse. Answer range of questions number 10 to 14 from not at all: 1 to completely: 5, question number 15 from very bad: 1 to very good: 5, questions number 16 to 25 from very dissatisfied: 1 to very satisfied: 5 and question number 26 from always: 1 to Never: 5 is scattered (52,53).

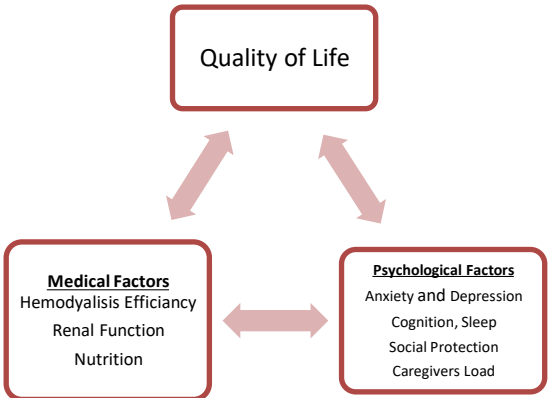


Table 1
Cognitive-Behavioral Group Therapy Protocol

Session	Targets and Content of sessions
1st	Introducing oneself (researcher) - Explaining the targets of the research - Explaining the rules of the group - Introducing the members of the group - Expressing the expectations of the members of the group - Committing the members to confidentiality and trying to advance the goals of the group - Explaining the disease, its symptoms and psychological problems which occurs for patients with this disease - Explaining the need to use psychological therapies that include cognitive-behavioral therapy.
2nd	Explaining about the cognitive-behavioral therapy model - Asking members to express their beliefs and absolute values after a brief explanation of the beliefs (schemas) and absolute values and discuss the reason for their problem building - practicing relaxation with members and explaining relaxation techniques and their benefits - Assigning members to identify beliefs and evaluating their value, and practicing relaxation exercises.
3rd	Reviewing the assignments of the previous session - Answering to members' questions about the issues of the previous session - Explaining the effect of irrational thinking on emotional turmoil – Explaining the four styles of thinking with error that include spontaneous thoughts, negative central beliefs (schemas), cognitive triangle and logical errors - Assigning members to identify thoughts,

	logical errors, and central beliefs.
4th	Reviewing the assignments of the previous session and answering questions - Explaining the thoughts, beliefs, behaviors as well as the behavioral consequences of the beliefs - Discussing life satisfaction, examining the dimensions of quality of life and ways to gain social support and assertiveness – Giving homework.
5th	Reviewing the assignments of the previous session and answering questions - Overview of previous sessions - Discussion of where each spontaneous thought arises and what emotions follow (ABC model) - Training to apply problem solving skills and training to increase the treatment adherence and communicating with the treatment team – Giving homework.
6th	Reviewing the assignments of the previous session and answering questions - Explaining about changing beliefs and its relationship with emotions - Familiarizing members with objective analysis of beliefs that is based on evidence and regardless of emotions - Training members on how to logically analyze behaviors and define beliefs objectively and clearly – Giving homework.
7th	Reviewing the assignments of the previous session - Familiarizing members with behavior change and practicing it, ways to sustain change such as self-punishment, self-reward, use of imagination, simulation of real situations, etc. - Discussion about strengthening positive thoughts in the group – Giving homework.
8th	Reviewing the assignments of the previous session and answering questions - Summarizing and concluding - Expressing the opinions and feelings of the group members in relation to the group therapy process - Reviewing the topics of the previous sessions (54). // One week after the finishing of group therapy, post-test was taken from the members in a separate session and the results were followed up after 4 months.

Each session is 90 minutes and includes: Reviewing of homework: 15 minutes - reviewing of the previous session: 10 minutes - presentation of the main topic of the session: 45 minutes - summary: 10 minutes and explanation of next session homework: 10 minutes.

Results

Regarding demographic characteristics in this study, the variables of age, gender, marriage, level of education and economic status were considered. The mean age of the sample group was 35.6 years with a standard deviation of 11.3. Regarding gender, 14 women and 16 men were present in the study, of which 20% were single and 80% were married. In terms of education, a range from primary to MA was present in the sample. Also, in terms of income (economic status), 50% of the sample had low to medium income and 50% had above-average and high income.

Table 2
Descriptive indicators of depression scores in experimental and control groups in pre-test, post-test and follow-up

Variable	Group	Pre-test		Post-test		Follow-up	
		Mean	Standard	Mean	Standard	Mean	Standard

			Deviation		Deviation		Deviation
Depression	Cognitive-behavioral	22	10.8	12.6	8.2	10.9	6.9
	Control	21.7	10.1	21	9.8	21.7	9.6
Quality of Life	Cognitive-behavioral	49.7	16.5	72.8	13.2	74.3	12.5
	Control	53.9	16.3	53.6	15.5	50.7	15.2

Table 3
Multivariate indicators of the effectiveness of cognitive-behavioral therapy on depression and quality of life

Effect	Exam Type	Index Value	F Ratio	Hypothesis Degree of Freedom	Error Degree of Freedom	Significance Level	Effect Size
Short-term	Wilks Lambda	0.10	111.26**	2	25	0.000	0.90
Long-term	Wilks Lambda	0.05	257.4**	2	25	0.000	0.95

Table 4
The effectiveness of cognitive-behavioral therapy on depression

Variable	Effect	Variance Repeated Analysis		
		F	Significance Level	Eta Coefficient
Depression	Short-term	79.9**	0.000	0.75
	Long-term	105.9**	0.000	0.80

Figure 1: Comparison profile of the mean of depression between the two groups of cognitive-behavioral therapy and control

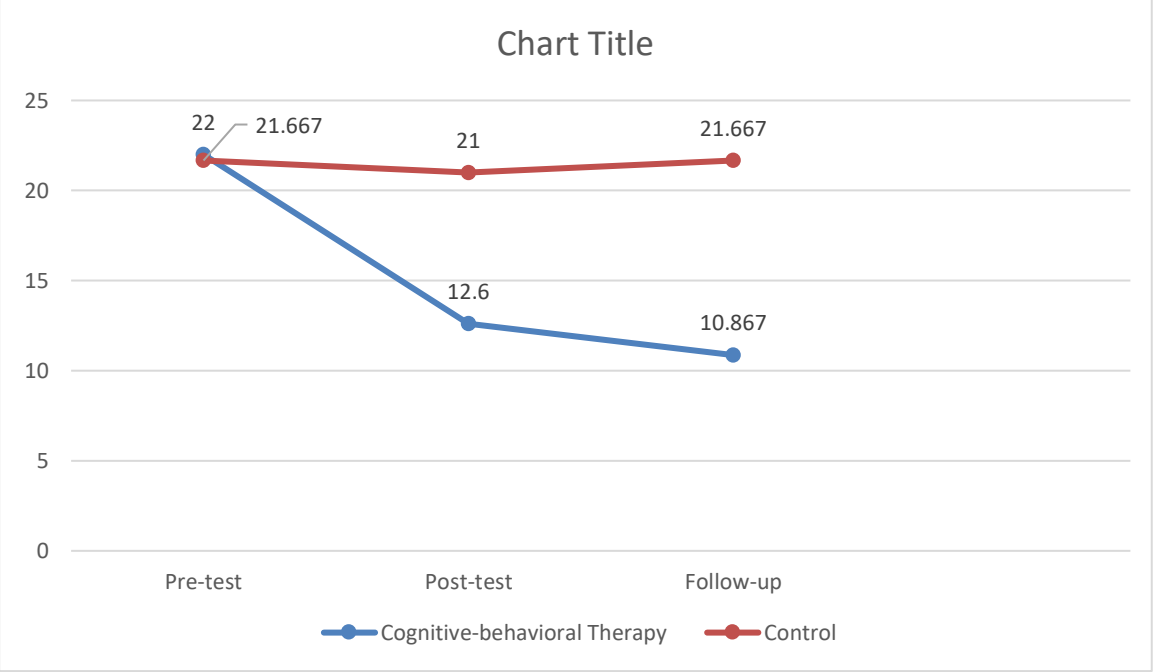
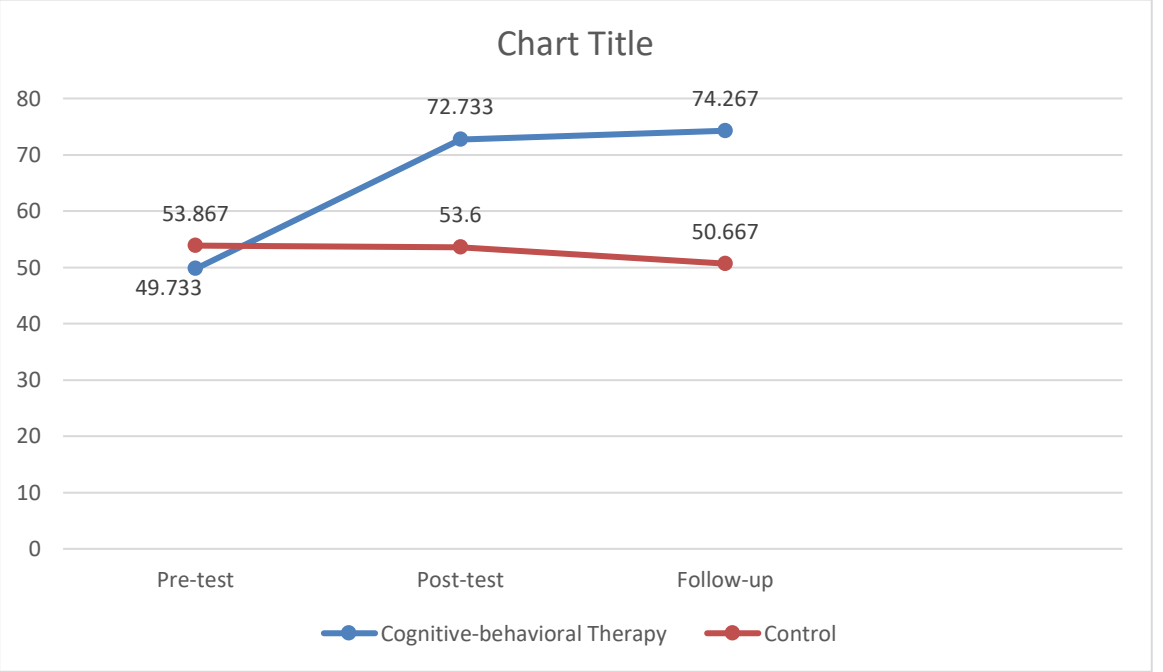


Table 5
The effectiveness of cognitive-behavioral therapy on quality of life

Variable	Effect	Variance Repeated Analysis		
		F	Significance Level	Eta Coefficient
Quality of Life	Short-term	64.8**	0.000	0.71
	Long-term	102.9**	0.000	0.79

Figure 2: Comparison profile of the mean of quality of life between the two groups of cognitive-behavioral therapy and control



Discussion

The main aim of this study was to determine the effect of cognitive-behavioral group therapy on depression and quality of life in patients with chronic renal failure.

The results of this study showed that this treatment method (based on education) has a positive and significant effect on depression and quality of life in patients with chronic renal failure that this decrease has continued in the follow-up.

The separative results obtained from this study are that the overall profile of the studied variables, depression and quality of life, are significantly different from each other in the two groups. Therefore, cognitive-behavioral group therapy is effective on the studied variables.

The effect size of cognitive-behavioral group therapy on these variables is 0.90 for short-term effect and 0.95 for long-term effect, which in both represents a large effect size, so cognitive-behavioral group therapy has a great short-term and long-term effect on depression and quality of life in patients with chronic renal failure.

The effect size of cognitive-behavioral group therapy on depression is 0.75 for short-term effect and 0.80 for long-term effect, which in both represents a large effect size, so cognitive-behavioral group therapy has a great short-term and long-term effect on depression in patients with chronic renal failure.

The effect size of cognitive-behavioral group therapy on quality of life is 0.71 for short-term effect and 0.79 for long-term effect, which in both represents a large effect size, so cognitive-behavioral group therapy has a great short-term and long-term effect on quality of life in patients with chronic renal failure.

Due to the significant increase in depressive disorder and decrease in quality of life among dialysis patients and the results of this study, which shows that the short-term cognitive-behavioral group therapy, with focus on issues involved in treatment adherence, has been effective in improving depression and increasing patients' quality of life, the need for special attention of psychotherapists to this type of treatment to reduce depression / improve the quality of life is evident and reveals its important therapeutic application for chronic diseases such as chronic renal failure.

In addition to the studies mentioned at the beginning of the article, in the following, the research that have studied the effect of psychological interventions on the improvement of the condition of these patients and their results have been in line with the findings obtained from this research, are mentioned.

However, before that, it should be noted that inconsistent results were not found, and the consistent results are:

A study by Lii et al. (2007), entitled "Group Intervention to Improve Quality of Life in Hemodialysis Patients" showed that self-efficacy, self-care, depression And quality of life was statistically significantly improved for patients in the treatment group compared to the patients in the control group (55). Another study by Lerma et al. (2016) entitled "Brief Cognitive-Behavioral Intervention for Depression and Anxiety Symptoms Improves Quality of Life in Chronic Hemodialysis Patients" showed that a brief 5-week CBI was effective in reducing symptoms of depression, mild or moderate anxiety and improving quality of life in ESRD patients (56).

A study conducted by Alencar et al. (2020) entitled "Depression and Quality of Life in Older Adults on Hemodialysis" showed that older hemodialysis patients have a high prevalence of depression. Depressed patients have lower quality of life, lower serum albumin, and higher levels of parathormone(parathyroid hormone). The study found that teams dealing with older hemodialysis patients should use depressive care and quality of life assessment protocols (57), which confirms the special attention paid to these two scales, which were specifically addressed in the present study.

Therefore, to control this group of diseases (chronic diseases), organized education based on identifying the educational needs of patients is as important as appropriate biological therapy and even more. Increasing their confidence in their ability to prevent disease is a key factor in active self-management of chronic disease prevention, lifestyle modification and improving quality of life (58). Chronic diseases and medical conditions are closely related to patients' lifestyle, mental health and quality of life and can lead to unpleasant complications if not controlled in a timely and appropriate manner. Low quality of life causes mental burnout, job quitting, reduced productivity, mental disorders such as depression, anxiety and decreased physical function (59).

Studies have shown that chronic diseases can have negative effects on general health and well-being, physical function, complications development, mental status and personal, familial and social relationships of affected people and lead to a decrease in their quality of life (60).

Due to the progressive prevalence of chronic renal failure, it is possible to improve their style and quality of life by performing effective interventions and the active participation of the patient in treatment. Some of the advantages of this type of intervention in this research is the low number of sessions, group therapy and its great effect on their recovery and being educational, which creates a sense of empowerment in the patient and increases their performance level in self-care and their attention to self-monitoring of their health. Another principled and important point is to address the physician-patient relationship during group therapy, which is not addressed as a separate item in other protocols, while it plays an important role in the process of treatment adherence and subsequently, improving patients' quality of life.

Research Limitations:

1- At first, some patients had difficulty answering test questions to determine their level of depression due to their deteriorating physical strength because of their illness.

2- Some patients had problems in analyzing the concept of questions due to cognitive problems and needed more help, which slowed down the response time.

3- Lack of community-oriented studies in the country.

4- 4 - The existence of legal issues and the need to comply with it, which initially caused a great loss of time.

Conclusion

Due to the significant increase in depressive disorder and decrease in quality of life among patients with chronic renal failure that have a direct and significant impact on each other, as well as the results of this study, which shows that cognitive-behavioral group therapy is effective in improving patients' depression and quality of life, the need for special attention of psychotherapists to such educational short-term group therapies to treat depression and improve patients' quality of life is evident and reveals its important therapeutic application for chronic diseases such as chronic renal failure.

It is worth mentioning that paying attention to this category and considering dynamic group sessions instead of individual therapy, with a comprehensive protocol during limited sessions, can be very effective in the treatment process of this group of patients and improve their quality of life and mood. It is suggested that medical centers and community health care providers pay more attention to the important role of mental health in recovery process of chronic diseases. In this regard, and according to the results of this study, it is clear that group

therapy sessions, even in the short term, can be a great help in advancing treatment and reducing other costs, and in addition to helping medical staff, it is also effective in improving the individual and family situation of the patient.

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