Efficacy of Cognitive Therapy on Psychologically Healthy, Social Adjustment, Depression & Anxiety in Dialysis Patients

Mahnaz Farshchian Yazdi¹ and Hassan Toozandehjani*²
Department of Psychological Sciences, Faculty of Humanities, Neyshabur Branch, Islamic Azad University, Neyshabur, Iran.
*Mail: H.Toozandehjani@ymail.com

ABSTRACT
Introduction: Mental health and adaptation are among most effective human behaviors to adapt to the environment. In other words, mental health is very important and its sign is positive feeling, successful adaptation and adaptive and appropriate behavior.

Methods: This study is a kind of clinical trial which study efficacy of cognitive therapy on psychologically healthy, social adjustment, depression and anxiety in dialysis patients. For this purpose, a sample of 30 patients in Torbate Jam selected and randomly divided into two groups (n=15) and control (n=15) groups. Compatibility tests Bell, public health Goldberg, Beck depression and anxiety –trait Schpillberger was used to measure the subjects before and after treatment. The ninety-minute sessions of cognitive therapy in the treatment group were executed, while the control group did not receive any treatment. After completion of cognitive therapy, the results were analyzed by t-test.

Findings: findings showed that cognitive therapy significantly increases the compatibility and the mental health and depression and anxiety levels are lowered.

Conclusion: mental preoccupation of depressed and anxious people are at risk or involuntary persistent recurrence and automatic thoughts, visual imagination, and thoughts whisper that have threats of physical and emotional threats causing anxiety and depression, and cognitive therapies can identify thoughts that cause depression and anxiety and replace them with more logical choices and thus raise the level of adjustment and mental health of the people and alleviate depression and anxiety.

Keywords: cognitive therapy, mental health, compatibility, depression, anxiety, dialysis patients.

INTRODUCTION
According to various changes and complexity that exist in today lives, necessity for adjustment is important by humans. Compatibilities or adaptations are most effective human behavior to harmonize with the environment. Mental health is also very important and its signs are feeling positively, successful adaptation, desirable and pleasant behavior (1). Afrooz (2) knows mental health as benefits of relaxation and being out of anxiety, depression and Chronic psychological conflicts. On the other hand, mental health is the health of mind and thought. In fact, mental health, satisfaction and psychological recovery and social compliance with accepted norms of society, such as health, are something more than the absence of disease or other problems. According to Jung, the process that makes the integrity of the human personality is individuality or self-realization (Parvin, 1971) (3). Humans in their social life are encountering with different stresses which facing these problems make the person experiencing depression and anxiety. One of these factors is
Efficacy of Cognitive Therapy on Psychologically Healthy, Social Adjustment, Depression & Anxiety in Dialysis Patients

Mahnaz Farshchian Yazdi and Hassan Toozandehjani

lacks such as bereavement or serious and chronic disease (heart, kidney, etc.). It is clear that chronic diseases expose people to risks such as depression and anxiety and reduce their mental health and social adjustment (4). All over the world, patients suffer renal failure, dialysis therapy is recognized as one of the effective methods. The purpose of dialysis is to remove excess material and stabilize the body's internal environment and the immediate removal of waste and toxins that cause permanent or fatal injuries. Renal failure and its treatment, affect all aspects of life more than other diseases. Therefore, psychosocial and social support, help patients for compatibility and reduce anxiety, depression, changes in family relationships, social activities, and sexual self-image is important (5). In an experimental study, Chapman et al (6) found that there is a reciprocal relationship between depression and chronic diseases. They also found that teaching cognitive therapy can reduce the level of depression and effect on improving disease. The research Linden et al. (7) revealed that cognitive therapy interventions significantly reduced symptoms of depression and anxiety in patients with coronary heart disease. Kenner et al (8) found that the presence of chronic diseases of all ages increases the prevalence of depression and cognitive therapy interventions can be effective in reducing the level of depression in these patients. The researches of Durham (9) and Gaulism and Chambliss (10) showed that cognitive-behavioral therapy in the treatment of patients suffer from generalized anxiety is more effective and more efficient than drug therapy and it works after a period of 6 to 12-month follow-up is continued. Lovas and Barsky (2001) in a research concluded that cognitive therapy (MBCT) significantly improves anxiety disorders in both sexes (11). Dobson (12) with comparison of cognitive therapy with other treat systems found that the rate average receiving cognitive therapy is much higher and people who were placed under cognitive therapy of 98% of individuals were better than untreated control group. Brown and colleagues (1991) in the research indicated that the cognitive treatments are better toward drug treatment (13). Treatments that recommended for anxiety and depressive disorders of adult are cognitive therapies that have had successful outcomes (Clark and Wels, 1995; 14). Strauss (1998) in a research used a multiple content treatment program and the results demonstrate the superiority of cognitive therapy in depression and anxiety (15). Hughes (16) used Cognitive behavioral therapy as a method of self-control and to modify maladaptive cognitions. The results showed the effectiveness of cognitive behavioral therapy in modifying maladaptive cognitions and the subjects were negative. Lassiter (17) knew Cognitive therapy in method of Beck in create a process of information of depressed patients was effective. Dalgleish and Watts (18) in a study on patients suffer from generalized anxiety disorder reported that the severity of symptoms and cognitive therapy has been able to significantly reduce the stress response. The research results of Beck (1967) suggest that cognitive therapy can significantly reduce shyness at school; findings friends and have a significant effect on social relationships (19). According to the report of Turner and Beadle (20), the results of the application of cognitive therapy for depressed patients showed that 85% of these patients in terms of academic performance, 95% of them in terms of their job and 69% in terms of the social function may improve. GoodsteinandLanyon research results (21) showed that cognitive therapy increased psychological compatibility level of anxious and depressed patients and reduces their negative self-assessment behaviors. Narimani and Rafighirany (22) in a study entitled the relationship between coping strategies and mental health in patients undergoing hemodialysis found that between psychologically healthy and cognitive coping strategies, self-control, social support, problem solving and reassessment thoughts there is a significant positive correlation. Khodayarifar and colleagues (23) in a research found that the cognitive-behavioral interventions were effective on the mental health of prisoners. Mousavinezhad (24) in a research reported cognitive problem-
solving skills to enhance social adjustment of students. Kaviani and colleagues (25) approved the effectiveness of cognitive therapy on increasing the quality of life in people with depression and lower levels of depression. Nazemian et al. (26) in a research reported that the effectiveness of cognitive therapy on reducing depression and anxiety in hemodialysis patients and improvement of their adaptability. The findings of Masoudi et al. (27) about the effectiveness of cognitive therapy on reducing depression and anxiety in patients undergoing renal replacement therapy (dialysis patients in particular) have followed the same results. Hosseininasab and et al (28) in a research concluded that group cognitive therapy in reducing level of depression and increasing mental health in patients suffer from multiple sclerosis. Rahimian et al. (29) in a research concluded that educating assertiveness cognitive styles is effective on compatibility of students. Sharif and Vedad (30) in a study found that there is a significant relationship between some of the areas of quality of life and mental health of dialysis patients. Najmeh. (31) in a study reported the effectiveness of cognitive therapy on decreasing anxiety and depression in patients who have had heart attacks. Zamanzadeh and colleagues (32) found that the quality of life in 1/65 and social support 6/50 percent of dialysis patients is ideal and there is a significant relationship between these two variables. In the research of Salgi and colleagues (33) the effect of cognitive therapy on reducing depression of male patients suffer from confirmed HIV positive. Manouchehri and colleagues (34) in a study confirmed the effectiveness of group counseling, cognitive and emotional on mental health and reducing emotional disorders in infertile women. Foroughan and colleagues reported (35) the effect of cognitive advice on the mental health of mothers with depression and anxiety hearing impaired children. Attari and colleagues (36) found that instructions and cognitive interventions increase personal and social adjustment of criminal teenagers. Yaghmaei and colleagues (38) found that there is meaningful correlation between self-concept and various aspects of mental health of patients suffer from dialysis. Nabazadeh (39) also in a research studied the impact of social relations in mental health nursing. The finding of this research shows that there is a meaningful relationship between the quality of social relationship and social adjustment of patients. Based on mentioned information, we can say that the main objective of the present study was to evaluate the efficacy of cognitive therapy in group method to reducing symptoms of anxiety, depression, and increasing mental health and social adjustment of patients.

**MATERIALS AND METHODS**

This clinical trial is done to evaluate the efficacy of cognitive therapy on compatibility, mental health, depression and anxiety in patients who suffer dialysis. The population of this study consisted of all dialysis patients hospitalized in Taleghani (dialysis unit) volunteered to participate in this study in Torbatejam city. The sample for this study consisted of 30 patients (15 males and 15 females, married 25 to 50 years) of dialysis patients who are selected by sampling and random replacement of the two groups (n = 15) and control (n = 15 ). The Bell compatibility tests, Goldberg's General Health, Beck depression and Spielberger State-Trait Anxiety for measuring participants (pre-test) was used (subjects were tested individually and in the same condition). Then, cognitive therapy in ten sessions over one and a half hour (in group method) was applied to the experimental group, but the control group did not receive any psychological treatment (at the end of therapy, cognitive therapy was provided for this group). The first meeting was allocated to assess, familiarity with participants and communicating with them. The second to fifth sessions was held aimed at identifying negative automatic thoughts and challenging and correcting them. After completion of treatment and doing posttests, the results are analyzed by t-test in independent groups.
Measuring Tools
Bell adjustment questionnaire: This questionnaire includes five separate levels of compatibility measuring (family compatibility, health or wellness, career, emotional and social). Bell (1962) reported reliability coefficients for the subscales of family consistency, health, social, emotional, career, and for total test, respectively, 0/91, 0/81, 0/88, 0/91, 0/85 and 0/94. This test also has shown high reliability in the detection of normal groups of neurosis and also has high correlation with Aystek personality test. The reliability of the questionnaire based on the two halves of the subscales of emotional, social, occupational, respectively, 0/94, 0/93, 0/96 and 0/95 for the entire test. In the test-retest method, coefficients 0/96, 0/90, 0/93 and 0/93 in the areas of emotional, social, occupational and total achieved and this amount in method of Koudr Richardson respectively is: 0/92, 92/0, 96/0 and 9/4/0 (40). Goldberg General Health Questionnaire (GHQ): This questionnaire contains 28 items and 4 subscales of physical symptoms, anxiety, insomnia, depression and social deficient interaction. Also, the validity of its measure in the method of internal consistency (Cronbach's alpha) for the subscales of physical symptoms 0/85, anxiety 0/78, deficient interaction deficient interaction 0/79, depression 0/91 and total score of questionnaire is 0/85 and its internal consistency for whole questionnaire with Cronbach's alpha method was 0/90 (41).

Beck Depression questionnaire: This scale was developed by Beck in 1961 and has 21 articles and reviews various aspects of depression. 2 questions related to the subject's emotional state or mood, 11 questions allocated to the detection of cognitive content, 2 questions to reveal behaviors, 5 questions to physical symptoms and one question to interpersonal symptoms. To calculate scores on the questionnaire, a total of factions are specified together. As participants in a few parts of the mark must score the highest sentence is calculated. If subjects score is between zero and 9 it is considered normal. 10 to 18 scores is mild to moderate depression, 19 to 29 score is moderate to severe depression and score 30 to 63 indicates very severe depression. Beck (1972) has been reported general reliability of questions about 0/31 to 0/61 and general reliability of questions with correlation Spearman-Brawn method has been reported about 0/93(42). Schpillberger state-trait anxiety questionnaire: This test has 40 questions. These questions are two variables to measure state anxiety and trait anxiety. Reliability of both scales according to Cronbach's alpha to the scale anxiety state 0/91 and in the scale of trait anxiety is obtained 0/90. The reliability of the scale for test score has been reported 0/94(43).

Methods of data analysis
In this study descriptive statistics indexes (mean, standard deviation and histogram) and inferential statistics (e.g. t-test in dependent and independent groups and ANOVA) was used. This analysis was performed using spss software.

Findings
Table 1 Due to the fact that calculated t in men and women group (t=3/73; t=5/94) with degrees of freedom df=13 from t scale of (t=1/77; t=1/67) at level of t=0/05 is bigger, therefore, the null hypothesis is rejected and with 95% confidence conclude that the difference in means between control and experimental groups in the total scores of the Bell compatibility verification. According to data collected and with regard to the significance of differences between means, we can say that the researcher claims about the "effectiveness of cognitive therapy on subjects compatibility" is approved.

Table 2 Due to the fact that calculated t (t=6/83) with degrees of freedom df=28 from t scale of (t=1/7) at the level of t=0/05 is bigger, therefore the null hypothesis is rejected and the 95 percent confidence conclude that the difference in means between control and experimental groups in the total scores of the Bell compatibility verification. According to data collected and with regard to the significance of differences between means, we can say that the researcher claims about the "effectiveness of cognitive therapy on subjects compatibility" is approved.

Table 3 Since the calculated t (t=4/22) with degrees of freedom df=28 from t scale of (t=1/7) at the level
of $t=0/05$ is bigger, therefore with 95 percent confidence conclude that the means difference in both control and experimental groups approve on index of depression. In other words, the researcher claims that the "effectiveness of cognitive therapy on the level of testees depression" is approved.

Table 4 Due to the fact that calculated $t (t=3/365)$ with degrees of freedom $df=28$ from $t$ scale of $(t=1/7)$ at the level of $t=0/05$ is bigger, therefore the null hypothesis is rejected and the 95 percent confidence conclude that the researcher claims upon the "effectiveness of cognitive therapy on the level of testees anxiety" is approved.

**DISCUSSION & CONCLUSIONS**

The first hypothesis of research suggests that the "cognitive therapy for dialysis patients is effective in increasing the level of consistency." The results showed that the level of compatibility experimental group after implementation of cognitive therapy has increased dramatically. Findings of this study is harmonious and compatible with results of Hughes (1998), Beck (1988), Turner and Biddle (2005); Godastyn and Lannion (1995), Narimani and Rafiqirani (1382); Mousavi et al. (1379); Kaviani et al (1386); Rahimian et al (1385) Sharif and Vedad (1385); Zamanzadeh et al (1385); Manouchehri et al (1384) Attari et al (1383) and Nabazadeh (1381). According to the results of conducted researches and present study about the impact of psychological training, especially cognitive training on increasing the level of compatibility of different groups it can be claimed that because the root of the conflicts is often cognitive errors and most of unhealthy behaviors are the result of erroneous beliefs and incorrect interpretations, therefore, providing training and recognition to individuals can correct way of thinking, beliefs and ways of interpreting them and increase the level of adaptation. Of course, it can be note that increasing the cognitive skills and life, improve new and more complex skills, this create positive selfunderstanding, and the person ultimately have a better relationship with the people around him and can establish social adaptation (28).

The second research hypothesis suggests that "cognitive therapy is effective on mental health of dialysis patients." The results showed that after doing cognitive therapy mental health of experimental group has increased dramatically. Findings of this study is harmonious and compatible with results of Yaghmaei et al (1383); Manouchehri et al (1384); foroughan et al (1384) Khodayarifar et al (1386), Sharif and Vedad (1385); Zamanzadeh et al (1385); Narimani and Rafiqirani (1382); Hosseyninsb et al (1386) and Nabazadeh (1381). Ballard (44) showed that cognitive training and life skills are effective in enhancing social adjustment, but there was not a significant difference variable such as self-esteem, self-concept and self-sufficiency. Dobson (45) in the study concluded that cognitive training can improve mental health, reducing anxiety and depression and improved social functioning. Carver et al (46) in his research concluded that group cognitive advice impact positively on subjects' perceptions toward themselves and others but there is not much impact on personal and social compatibility. Greenberg and colleagues (11) reviewed the effect of a support group to reduce depression and increase Social adjustment and self-esteem of family. Results of this study showed that these instructions were effective on increasing self-esteem, social adjustment and reducing depression. Morris et al. (47) studied the effect of group cognitive counseling and problem solving model on educational and social adjustment and found no significant difference between control and experimental groups. Also, Spearman (48) in his study found that short-term therapy control was effective on improvement of social adjustment, self-esteem and subjects locus of. Therefore, it can be claimed that the results of these studies are consistent with the results of this research.

The third hypothesis was that "cognitive therapy is effective on reducing the level of depression in dialysis patients." The results showed that the experimental group depression level after the cognitive therapy has decreased substantially. Findings of this study is harmonious and
Efficacy of Cognitive Therapy on Psychologically Healthy, Social Adjustment, Depression & Anxiety in Dialysis Patients

Mahnaz Farshchian Yazdi and Hassan Toozandehjani

-compatible with results of Chapman et al (2006), Turner and Biddle (2005); Linden et al. (2004); Laskey (2004), Dobson (1999), Strauss (1998), Hughes (1998); Brown et al. (1995); Godashtin and Lannion (1995), Beck (1988), Kaviani et al. (1386); Hossyninasab et al (1386); Solgi et al (1385), Masoudi et al (1386); Nazemian et al. (1386) Najmeh (1385) and Foroughan et al (1384). Since patients who suffer from depression have many cognitive errors, cynical and negative self-beliefs and weak thoughts so cognitive therapy (which is based on correction of faulty thinking and acquiring knowledge from cognitive biases) can be the most effective solution.

The fourth hypothesis suggests that "cognitive therapy is effective on reducing anxiety in patients on dialysis." The results showed that anxiety of the experimental group after cognitive therapy significantly decreased. Findings of this study is harmonious and compatible with results of Chambliss Gylsim (1993), Durham (2002); Dalglysh and Watts (2000), Strauss (1998); Brown et al. (1995); Govadstyn and Lannion (1995); Nazemianp et al (1386); Masoudi et al (1386), Najmeh (1385); foroughan et al (1384) and Kaviani, et al (1383). Beck (42) believes that mental preoccupation of depressed and anxious person with threats or involuntary repeat and continuous automatic thoughts, visual imagination and whispered thoughts that threaten the physical and psychological content. are the cause of depression and anxiety and cognitive therapies can diagnose anxiety and depressed thoughts and replace them with more logical thoughts, and therefore increase the level of adaptation and mental health of subjects (50).

Since this study can be a preliminary investigation about the effects of cognitive therapy on increasing adaptability, mental health and reducing levels of depression and anxiety in dialysis patients, without a doubt, in some ways, is not without limitations. Using convenience sampling, lack of access to clients for follow-up studies, the lack of an independent appraiser, lack of attention to education, limited training, using amateurs in education, lack of monitoring homework subjects, limited statistical society and... are some limitations of this study.

REFERENCES


