

# The Study of Dialysis Effects on the Iranian Renal Patients Mental Characteristics

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## ABSTRACT

Renal diseases and dialysis as its commonest protective treatment impose many complexities and tensions to patients. They suffer from various tensions and pressures, such as severe stress, financial problems, restrictive diets, physical side effects of medications, and dependence to the machine. They use combative adjusting techniques such as protective actions. This project is a correlative study and the testees are hospitalized through class sample taking from dialysis patients. To evaluate the patients, Goldberg general health standard questionnaire, with 28 questions, was used, and for the combative technique Lazarus and Folkman, with 65 questions, analyzing the Pearson correlation coefficient and the multi-variable regression analysis were applied. In this plan, the mental health of dialysis patients was investigated on the psychological and mental characteristics perspective. The results indicate that these patients suffer from suspicion, hopelessness, remoteness, and boredom during dialysis process. Furthermore, there is a correlation between combative techniques and mental health. Mental health has a positive correlation with confrontation (r=0.12, p=0.001), tolerance (r=0.16, p=0.001), and reassessment (r=0.26, 0.001). Avoidance (r=-0.9, p=0.05) and escape and avoidance (r=0.12, p=0.001) have a significant negative correlation with mental health. Avoidance (t=-6.06, p=0.000), escape and avoidance (t=-7.53, p=0.000) and reassessment (t=3.11, p=0.02) combative techniques may predict mental health.

**KEYWORDS:** dialysis effects , mental characteristics, renal patients , stress

## **INTRODUCTION**

Dialysis patients suffer from various stresses in the society. Giving wrong responses to them may bring about mental and physical problems. According to some prior studies on dialysis stressful situation reaction which includes emotional, physical, and mental responses which it has caused much more mental pressure control get along with it and live their daily life. The number of dialysis patients is frequently increasing. In recent years, it has got increased for a third.

Chaker et al (1996) and Senksi et al (1993) believed that mental disorders in the people who suffer from dialysis effectiveness are because of the decrease in treatment effectiveness. They said it may lead to hospitalization and has a direct relationship with life length and survival. Howir (2000) using interview therapy said that about 1.3 of these patients suffer from psychiatric disorders. Hence, it was clarified that more than half of these people suffer from depression and anxiety disorders. Sultan (2007) indicated that when combative techniques with stress for the people who suffer from hemodialysis is taught, their confrontation power with disease is increased. Shahmuhammadi et al (1997) concluded that the existence of depression symptoms in the mental condition of these patients in women is more than men. Sakhaiie (2001) indicates that among physiologic stressful factors, fatigue has the highest degree (35.5%) and the lowest degree is for joints firmness (13.5%) among the mental-social stressful factors dialysis machine dependence (48.6%) future obsession (0.40%) and body function change (35.1%) stressful fighting techniques religious beliefs and faith (100%), consulting with the doctor and the treatment personnel (81%) and tell out ones grievances (54%). Bagerian et al found that dialysis patients tend to use less direct combating technique and use most of the alleviating techniques to encounter difficulty. Hilly and McNealy (2000) said that combating strategy helps preserving the career position of these patients. Beben (2001) indicated that dialysis patients more use problem-centered technique. In spite of tormenting experiences, they use active measures in confronting difficult conditions. Those who use emotion-centered combating techniques enjoy lower levels of psychological adaptation. According to Bambardir et al (1990) studies on various medical problems, emotioncentered combat, distance-choosing, escape, and avoidance have positive correlation with weak psychological and depression adaptation. Hence, there is a relationship between dialysis patients' mental health and their combating techniques. Teaching combating techniques to these patients may bring about their mental health. Agathoa and Markito (1977) show that generally the psychiatric disorders break out, and not specifically depression, have more prevalence in lower educated individuals. Richman (1972) said depression is a natural stage in adapting with dialysis

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life method passing time stability clinical situation. On one hand, it is likely that depression gets continued and not gets eliminated in some patients. According to Lock (1966), there is a positive statistic relationship between tension factors and adaptation techniques. Adaptation techniques are divided into two main groups emotion-centered and problem-centered. Baqerian and Ahmadzade (2006) conclude that these patients face tension factors and use emotion-centered techniques.

## The effect of combating techniques in recovery of dialysis patients

Dialysis affects the patient pre-awareness and depends on some factors such as the patient body, protein reception, dialysis time period, and the applied equipments in dialysis process and using and producing appropriate changes in each of these factors for each patient hemodialysis favorable dose. Psychiatric disorders are highly widespread among dialysis patients and include mood diseases especially depression, brain organic diseases, schizophrenia, and personality disorders which causes dialysis patients to be hospitalized more than other patients. That is why death toll of these patients increases. Due to psychiatric reasons, dialysis patients are hospitalized more than the ones under peritoneum dialysis. This difference is because of patient selection for a particular dialysis related to behavioral disorders results in hospitalization in hemodialysis patients. However, it seems that the dialysis type does not have a significant effect on depression, physical disorders, and life satisfaction (Fokonishi et al, 2002).

One of the main concepts from researches is that living with machine as the most important part of patients life. A assume as other necessary activities for life and continuing their life without dialysis equal to death. Furthermore, effective adaptation is among the concepts from these studies. Dialysis patients according to conditions need time to adapt with new life procedure and get along with it regarding the complicated nature of living with dialysis feel physical restrictions and slow recovery (Pectores, 1998).

Appropriate confrontation to dialysis disease including combating techniques to adapt with the changes due to dialysis which change according to situation awareness degree an important factor to predict the adaptation type psychology after dialysis process and individuals that attribute their life asset to dialysis and experience it with complete awareness may adapt with life style much better and easier with the changes. Psychological conformity of patients to dialysis machine has a significant effect on the individual life quality (Higinson, 2001).

Hence, we should resort to the techniques which reinforce the patient confrontation power, thus proper combating techniques, increases power and patience improves. Spirituality is a technique which patients experience. Spirituality is defined in the viewpoint of divine love, sympathy, care, elevation, and the relationship among body, mind, and soul as power source and energy which motivates them to combat. D dialysis patients, hemodialysis enables the patients to live more, but this brings about complicated restrictions in these people life (Rambod et al, 2008).

In this regard, the main objective of dialysis program according to a different treatment effectively helps saving the patients and promotes their life quality. According to Shindler, Peterson, and Kimel depression is common in dialysis patients. Tolerance, adaptation with the disease procedure, life style, and registering the mental condition. Because these people during the sickness period physical pains and mental injuries in addition to complaining have confronted psychological problem and depression (Wright et al, 1999).

The present study is correlative and the statistic population was selected through classified sampling. Data was collected by Goldberg mental health questionnaire (1972) and combative techniques questionnaire Lazarus and Folkman was used. The collected data were analyzed by the multi-variable Pearson and regression correlation coefficient

#### Lazarus and Folkman questionnaire (1985)

This questionnaire includes 65 questions and analyzes 8 common combative techniques based on problemcentrality or emotion-centrality which include confrontation, planned problem solution, escape-avoidance, responsibility, seeking social protection, reassessment, and avoidance. Lazarus and Folkman reported the internal coefficient 6 for each of the reported combative techniques as 6% to 79%

### Health questionnaire CHQ-28

It is the most known screening test which has mostly affected the researches advancement in psychiatry. This questionnaire was made by Goldberg (1979) to distinguish the mental disorder patients from the population client to the general practitioner centers. This questionnaire has been translated into 36 languages. Many researchers have said that it can be used both in clinics and society. It is necessary to mention that the result of cutting in this questionnaire is considered as 23.

Reliability: the initial and original form of this questionnaire includes 60 questions. Shorter forms of the general health questionnaire including 12, 28, and 30 articles were provided according to the conditions. The 1 adjusted or 28-question form was made according to the meaning complete form factor analysis to increase variance. The results of Benjamin et al (1982) studies indicates that there is strong correlation between the results of 28- and 60-article questionnaire of general health and diagnosing psychological disorders.

Rapizza and Virax (1981) believe that general health test has the sufficient capacity to assess the psychological disorders, and suggests that it is better to use the short 28-article questionnaire of general health to save time and money. The questionnaire content on the individuals' general health condition emphasizes on the present psychological problems. For all the questions, the testee should determine the options which mostly conforms the situation. The testee's answer to each of the questions is clarified based on a four-degree continuum as very lower than ever, as usual, and more than ever. The lower degrees indicate health and the high degrees indicate non-health for all the options.

CHQ includes four peripheral scales as the following:

- a) Physical symptoms which include seven articles. It studies headache, fatigue, reinforcement medicine need, hotness or coldness.
- b) Anxiety scale which includes seven articles. It studies anxiety, insomnia, pressure, anger, and stress.
- c) Social performance disorder which includes seven articles. It studies personal ability to do the daily activities, satisfaction feeling in doing the duties, usefulness feeling, learning power, and pleasure of the life daily activities.
- d) Depression symptoms which includes seven articles. It studies worthlessness feeling, hopelessness, life worthlessness feeling, suicide thoughts, death desire, inability to do jobs.

Internal homogeneity is the reliability which has the highest relationship with the screening techniques. It is measured by Cronbach  $\alpha$  coefficient. Different studies indicate the high reliability of the questionnaire GHQ28. According to Chan and John (1983) studies by 30-article questionnaire GHQ based on Licker simple scoring technique, the internal correlation coefficient of this scale was reported as 85%.

Scoring technique: the options are scored by Likert simple model which are allocated as options, conventional scores 0, 1, 2, 3. In their studies on 92 women, Benjamin et al (1982) found that only half of the mental patients identified were identified by the traditional scoring technique of the general health test, and some of the patients who suffer from chronic disorders were not identified. Using Likert simple scoring, the result significantly improved, and 40% were not identified. According to this study, using 28-question short copy by Likert scoring technique significantly increased the test sensitivity, but it decreases the test property a little.

According to Barconi (1986), using Likert simple scoring technique to cope with the restrictions of inefficiency general health questionnaire in identifying the chronic mental disorders is preferred to the other techniques. In the present research, the scoring manner which is based on Likert model is as the following. For a, b, c, and d, the scores are zero, 1, 2, and 3, respectively. Since this test has 28 questionnaires, and each one may get between zero to 3, and the 28-question questionnaire of each questionnaire would at least be zero and at most 82, high degree indicates disorder.

The commonest complaints of these patients were about physical problems. According to Table 1, there is a positive correlation between combating techniques and mental health. It confirms the necessity of teaching these techniques to the patients.

Research variables	Mental health	Confrontation	Avoidance	Tolerance	Social protections	Responsib ility	Escape and avoidance	Problem solving	Reassessment
Mental health	Significant level correlation coefficient	1 0	0.12 0.01	+ -0.09 0.05	++ 0.16 0.001	++ 0.17 0.001	0.08 0.09	++ 0.24 0.001	++ 0.26 0.001
Confrontation	Significant level correlation coefficient			++ 0.53 0.001	++ 0.52 0.001	++ 0.46 0.011	++ 0.45 0.001	++ 0.50 0.001	++ 0.38 0.001
Avoidance	Significant level correlation coefficient			1 0	++ 0.62 0.001	++ 0.32 0.001	++ 0.37 0.001	++ 0.64 0.001	++ 0.34 0.001
Tolerance	Significant level correlation coefficient				1 0	++ 0.27 0.001	++ 0.54 0.001	++ 0.64 0.001	++ 0.44 0.001
Social protections	Significant level correlation coefficient					1 0	++ 0.35 0.001	++ 0.43 0.001	++ 0.50 0.001
Responsibility	Significant level correlation coefficient						1 0	++ 0.43 0.001	++ 0.35 0/001
Escape and avoidance	Significant level correlation coefficient							++ 0.20 0.001	++ 0.18 0.001
Problem solving	Significant level correlation coefficient							1 0	++ 0.48 0.001
Reassessment	Significant level correlation coefficient								1 0

Table 1. The correlation coefficient between the mental health variables and the components of confronting techniques of the dialysis patients

Increase of using escape and avoidance combating techniques decreases mental health, and it increases by the increase of tolerance, social protection, problem solving, and reassessment. To determine the effect of each of the combating techniques in predicting the mental health of dialytic patients, combating techniques were analyzed as predictive variables and mental health as criterion variable in the regression equation. The results of analyzing variances and regression statistic features between mental health average score and combating techniques indicate that the observed F degree is significant. Regression coefficient of each of the predictive variables indicates that these variables can significantly clarify the mental health variance.

#### DISCUSSION

- 1. There is a positive correlation between mental health and combating techniques. Escape, avoidance, and reassessment may be appropriate predictive variables for mental health. To approve these findings, we can say that using combating techniques strategies get more prepared and experience more combating power.
- 2. Using problem-centered combating technique makes the person goal oriented, and the patient uses it when the stressful factor is perceived and assessed as a controllable factor. Hence, he goes towards self-care, deprivation decrease, spirit weakness decrease, participation increase in self-care.
- 3. The mental health of dialytic patients may be met by teaching the combating techniques. This helps taking a basic step in increasing their mental. Learning these techniques helps increasing the tolerance to succeed the disease process with complete awareness. The prior studies approve this issue.

#### Conclusions

Due to tolerating a tension situation, dialytic patients usually suffer from mental disorders. Thus, they should get along with it by the adaptation techniques, otherwise they severely get depressed. Mental health has a positive correlation with confrontation, tolerance, social protection, problem solving, and reassessment. It has a significantly negative correlation with avoidance and escape. Avoidance, escape, and reassessment may predict mental health.

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