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Nursing

Evaluation of Self Care Ability and Quality of Life of Patients Undergoing Hemodialysis Treatment

M.Serpil Talas	PhD RN, Ass.Prof. Dr-Surgical Nursing, Nursing Faculty of Hacettepe Universty
Senay Pehlivan	PhD RN,Vice-Dean of Faculty of Health Sciences,Alanya Alaaddin Keykubat University
Pelin Uymaz	PhD RN, Head of Nursing Depatment, Faculty of Health Science, Alanya Alaaddin Keykubat University

ABSTRACT The aim of this study was to evaluate the self-care and quality of life (QOL) of patients undergoing hemodialysis treatment. This descriptive and cross-sectional study was carried with 144 volunteers aged between 18-65-year-old who were enrolled in the Hemodialysis in one of the University Hospital in May-August 2016. Data were collected by using data form, Self-Care Scale, Short Form -36, QOL Scale and Kidney Disease QOL Form-36. A positive correlation was found between the scores of the Self-Care Scale of the patients and the SF-36 QOL Scale and the subscale scores of the Kidney Disease QOL Scale. As a result we determined that QOL and Kidney Disease QOL Form-36 scale scores increased depends on patients' score of Self Care Scale increased.

KEYWORDS : Self-care, renal dialysis, chronic renal failure, quality of life, nursing

INTRODUCTION

End-Stage Chronic Renal Failure (ESCRF) is one of the major chronic diseases that cause a chronic and progressive deterioration in the metabolic and endocrine functions of the kidneys. ESCRF is a serious health problem since it causes high morbidity and mortality, seriously affects the QOL of individuals and relatives, and imposes a burden on the economy with high diagnosis and treatment cost. Three renal replacement therapies consisting of hemodialysis (HD), peritoneal dialysis and renal transplantation are mainly administered in ESCRF patients. Among them, the most commonly used method is HD. According to the records of the Turkish Society of Nephrology in 2010, 86.8%, 9.5% and 3.7% of ESCRF patients in Turkey were administered with HD, peritoneal dialysis and renal transplantation therapies, respectively.

HD therapy administered due to End-stage Chronic Renal Failure allows patients to survive and treats the impaired metabolic condition. However, HD has a number of negative effects such as patients' dependence on the machine and the treatment team, the role changes in the family and disturbances in their work/school orders, constant thoughts of death, sadness and despair, changes in body image, a strict diet and fluid restriction, physical weakness, and low self-esteem. This situation negatively affects the patients' self-esteem, QOL and self-care agency.

Self-esteem can be defined as the person's positive or negative attitudes towards himself/herself. The person has high self-esteem if he/she has a positive attitude in self-assessment, but he/she has low self-esteem if he/she has a negative attitude. One of the conditions that cause a decrease in self-esteem is the changes in body image arising due to diseases and treatments. The decrease in self-esteem because of contracting a chronic disease may cause a person to lose his/her self-confidence and to stop fighting against the disease and may cause damage to his/her social relationships. One of the important consequences of the deterioration of self-esteem is a self-care deficiency.

Self-care can be defined as the continuous and personal efforts of individuals for their lives, health, and well-being. In other words, regulation of self-care behaviors, dealing with the specific issues related to self-care for maintaining and improving health: Understanding and comprehension, observing the activities organized, the use of knowledge, and decision-making power are the factors affecting the self-care success of individuals. Self-care agency is closely associated with the QOL of the individual.

In general terms, QOL is defined as a degree of well-being. A number of components, such as functional abilities, social role, mental health, pain, somatic senses and satisfaction with life, are mentioned in this regard. The QOL is an important outcome measure in the evaluation of health status and treatment effects. Health-related QOL is a component of the overall QOL, which is primarily determined by the person's health and can be affected by clinical interventions.

In patients with ESCRF administered with hemodialysis therapy, it is of great importance that the lifelong QOL is kept at the highest level and that patients maintain their life by taking the responsibility of their own treatment and care. Self-care agency behaviors and self-esteem are thought to be associated with the QOL. Therefore, it is thought that the evaluation of self-esteem, self-care agency and QOL of patients with ESCRF and HD therapy will shed light on the studies and clinical practices performed by the dialysis team to help the patient's compliance to treatment and improvement.

The study was carried out to evaluate the self-care agency and QOL of the patients who were diagnosed with ESCRF and who received HD therapy and to determine the factors affecting them.

MATERIALS AND METHODS
Design and Sample
This descriptive and cross-sectional study is a single-center study.

The population of the study consisted of a total of 270 patients aged between 18-65, registered to the Hemodialysis Unit of University Hospital. In the study, sample selection was made from 144 volunteered patients. Three inclusion criteria were used to ensure accurate data collection. The first criterion restricted participation to patients who had been on HEMO therapy for more than 3 months, to exclude the influence of metabolic factors such as uremic encephalopathy on the level of consciousness. The second criterion required that patients should have no apparent cerebro-vascular disease or serious intellectual impairment, to avoid miss-interpretation of the questions. The third criterion required participants to be over 18 years old, the legal age for informed consent.

Instruments
The data of the study were collected by face-to-face interviews using the data collection forms listed below and consisting of two sections and by examining the patient's records.

Section I:
34 questions consisting of two chapters.
The first chapter consists of the data on socio-demographic characteristics, ESCRF, and HD.

Section II:
: In this section, there are a total of three scales that determine Exercise of Self-Care Agency Scale (ESCA), Short Form-36 (SF-36) QOL, and Kidney Disease Quality of Life Form   36 (KDQOL-36).

ESCA: The scale, which was developed by Kearney and Fleischer in 1979 and is used to determine people's ability to and agency to look after themselves, consists of 43 items. The scale was adapted by Nahcivan (1993) to young people in Turkish society, and its validity and reliability were determined. Each item is scored from "0" to "4", and evaluation is performed based on the response given through a 5-point answer option. In the evaluation of the self-care agency scale, the responses of "Never describes me", "Doesn't describe me too much", "I have no idea", "Defines me a little" and "Defines me a lot" were scored 0-1-2-3-4, respectively. 8 statements in the scale (3,6,9,13,1922,26,31) were considered negative, and the scoring was reversed. The lowest score is 35, and the highest score is 140. The highest score indicates the greatest degree of self-care agency.

Short Form-36 (SF-36) QOL: The SF-36 is a short and general scale with 36 items that can be used to evaluate the QOL of the patient and healthy population and is also suitable for comparison between different patient groups. It is considered to be potentially useful for valid, reliable, comprehensive, short and individual patient practices.

The SF-36 has been translated into many languages and adapted to different cultures to obtain comparable data on the international health status, and has become a general scale which is commonly used all over the world. The SF-36 has been translated into many languages, and for Turkish, its validity and reliability in patients with physical disease were defined by Koçyiğit et al. (1999). The scale evaluates 8 dimensions related to health with 36 items.

8 sub-dimensions of the SF-36 can be summarized in two main areas: physical component and mental component. Physical function, physical role limitations, and pain are the main components of the physical component summary. Mental health, emotional role limitations and social function are the main members of the mental component summary. General health and energy are considered to be the members of both areas. The question of change in health of the SF-36 can be considered as a single item. The average scoring for each subscale is performed based on the 0 (worst) and 100 (best) scale using the Likert method according to the standard SF-36 scoring algorithm. High scores indicate better functionality or better QOL.

KDQOL-36: This form is the most frequently used disease-specific scale in ESCRF patients. KDQOL-36 was developed by Ron Hays et al. in the USA in 1994, and its Turkish validity and reliability study was performed by Yıldırım et al. (2007). This scale is used to monitor patients with ESRF and is a scale in which various treatment effects and well-being status are evaluated by the patient himself/herself.

The Turkish version of KDQOL-36 was obtained through the website of the KDQOL study group. It has both general and specific sections on kidney disease. It is a self-administered scale which is based on the SF-36 as a general scale and includes the questions addressing certain health-related problems of individuals with kidney disease or ESCRF patients followed by renal replacement therapy   as a specific scale. The questionnaire contains 36 items divided into 5 dimensions; List of symptoms/problems (12 items), The effect of kidney disease (8 items), The burden of kidney disease (4 items), physical component (6 items), mental component (6 items). The Likert method will be used while performing scoring for each item. The scores range from 0 to 100 in all dimensions, and higher scores indicate the better health-related QOL.

Ethical consideration
Pre-application was performed before starting the study. Institutions and ethical permits were obtained for the research. Volunteers were included in the study. Some data were obtained from hospital records.

Data Collection
All research forms was tested by pre-application on 10 patients, and the necessary corrections and adjustments were made.

Data Analysis
In the statistical analysis, basic descriptive statistics (mean, median, standard deviation, frequency), Pearson correlation analysis, $\chi 2$ test and normal distribution data were evaluated by Independent Samples t test and One Way Anova test and Mann Whitney U test was used.

Demographic and general knowledges of the Samples

The mean age of the cases in the sample was 48.58 ± 12.91 and 51.4% in the 51-65 age group. 53.5% of the cases were male, 17.4% were high school + college graduates, 70.8% were married and 88.8% did not work+retired+housewife. 64.6% of the patients stated that they received support from their families regarding the economic income level of the middle, 20.8% of the smokers and 87.5% of the patients. 54.4% of the participants included in the sample were overweight-obese and morbid obese group. 72.9% of the patients had another comorbid disease.

RESULTS
According to the educational status of the patients (p = 0.002), the economic status (p=0.000) and the presence of cigarette smoking (p=0.000), the difference between the scores of ESCA was found to be statistically significant. According to this, high school+university graduates had higher scores in patients with middle and higher economic status and those with non-smokers.

A positive correlation was found between the scores of the Self-Care Scale of the patients and the SF-36 QOL Scale and the subscale scores of the Kidney Disease QOL Scale. It was determined that QOL and KDQOL-36 Scale scores increased as the patients' score of ESCA increased. SF36-Physical Function (r = 246; p = 0.003), SF36-Physical Role Difficulty (r = 0.87; p = 0.298), SF36-Emotional Role Difficulty (r = 0.092; p SF36-Energy / Viability / Vitality (r=0.289; p =0.000), SF36-Spiritual Health (r=0.240; p=0.004), SF36-Social Functionality (r = 0.201; p = 0.016), SF36 - Pain (r = 0.328; p = 0.000), SF36-General Health Perception (r = 0.149; p = 0.074), KDQOL-36 / SF12-Physical and Mental Function (r = .184; p = 0.028), KDQOL- 36 / Burden of Kidney Disease (r = .156; p = 0.062), KDQOL-36 / Symptom / Problems (r = .186; p = 0.025) and KDQOL-36 / Effect of Kidney Disease (r = .276; p = 0.001) positive correlation. Participants were found to have a moderate self-care power. SF 36 Quality of Life Scale, physical function and general health perception scores were found to be quite low. It is an important result that one out of every ten participants (13.2%) stated that self-care power was bad.

DISCUSSION
When data is examined; although the median values of SF 36 scale were very low, physical function (22.91) and general health perception (37.50) were the sub-dimensions of the lowest values. KDQOL score was the lowest in the sub-dimension of kidney disease burden (25.00) and the high score (81.25) was the symptoms and problems in the sub-dimension. These results showed that the physical strengths of ESCRF patients receiving HD treatment are insufficient and their general health perceptions are poor. In a study that supports this finding, patients experience limitations such as breathlessness, fatigue, dizziness caused by ESCRF and treatment. Most of them talk about the fact that they couldn't do what they did before. Many patients, especially emphasizes the lack of sufficient energy to cope with these limitations (Krespi et al., 2008). carried out a review in KDQOL-36 scale, with outgoing international

comparison results in HD patients undergoing quality of life perception in Turkey / scores is higher compared to other countries The result does not match the results of the research (Nişel et al., 2016)).

When data is examined, it can be seen that the majority of individuals (8.9) who participated in the study had a moderate self-care power (93.9931 ± 23.057). It is an important result that one out of ten respondents (13.2) stated that self-care power was bad. The fact that the majority of individuals have moderate self-care power is similar to the results of other studies (Alemdar and Pakyüz, 2015, Kıyak and Ergüney, 2002, Kurbun and Akten, 2018).

According to the results of the study, individuals with high school or higher education level had higher BNPE scores than the patients with a moderate or higher economic status. As a result of the research of Alemdar and Pakyüz (2015), it was found that the self-care power of the low level of education was low. As the level of education and income increased, self-care power score increased in the literature (Kıyak and Ergüney, 2002, Kurbun and Akten Metin, 2018). In another study, unlike the results of the present study, it was determined that smoking status did not affect self-care power (Kurbun and Akten Metin, 2018). According to the Body Mass Index (BMI) classification of the participants in the sample, T.4 is in the overweight obese and morbid obese group. This ultimately suggests that the risk of cardiovascular problems is high even if the participants are not.

A positive correlation was found between the scores of the Self-Care Scale of the patients and the SF-36 QOL and the subscale scores of the KDQOL. Quality of life and KDQOL-36 Scale scores were increased as the patients had higher LOS scores. In the study conducted by Kurbun and Akten Metin (2018), a statistically significant and positive relationship was found between the self-care power and quality of life of the patients. The studies of Ayoub and Hijjazi (2013) showed that having a chronic disease treated with dialysis negatively affected the quality of life of individuals. In the same study, socio-demographic variables were found to have significant effects on quality of life (Ayoub and Hijjazi 2013).

CONCLUSION

Ensure that nurses help and support patients to do this function, KDQOL symptoms and problems sub-dimension has received a high score among participants. Quality of life and KDQOL-36 Scale scores were found to be higher as the scores of the patients were higher. It was observed that the average self-care power score of the patients with good education and income status was high. Therefore, measures should be taken regarding the economic conditions and education level of patients.

results of hemodialysis patients self-care and quality of life to determine self-care deficiencies and to improve the quality of life self-care activities of patients, self-care and self-care deficiencies it is recommended to support them to provide care.

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