Original Article

Evaluation of Self-Care Agency and Perceived Social Support in Patients Undergoing Hemodialysis

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Abstract

Background: Chronic Renal Failure is an important health problem affectin quality of life negatively and has a high rate of mortality and morbidity. Hemodialysis treatment applied in chronic renal failure leads to physiologic and psychosocial changes during the medical treatment and care of the patients and causes them to experience inadequacy in fulfilling their self-care, resulting in an expectation for social support.
Aims: To evaluate the self-care agency and perceived social support in hemodialysis patients.
Methodology: This descriptive research conducted in the Dialysis Unit of a Training and Research Hospital in Turkey between August and September 2018. The study population consisted of patients who were treated at the dialysis unit between the specified dates. The study sample consisted of 63 patients who met the inclusion criteria. Data were collected through interview using a descriptive characteristics information form, self-care agency scale and multidimensional scale of perceived social support. In the evaluation of the data, percentile, mean, Pearson correlation analysis and Cronbach's Alpha internal consistency test were used.
Results: A 61.9% of patients was male, 34.9% had hemodialysis treatment for 1-5 years, and 77.8% was receiving social support from his/her family. The Self-Care Agency Scale score was found to be 22.76±6.12, indicating a low level of self-care agency. Patients received a total score of 49.44±16.83 in the Multidimensional Perceived Social Support Scale, and the major support received from their families. There was a positive and a low-level significant relationship between the total Self-Care Agency score and the perceived social support total score was (p<0.05).
Conclusions: The total perceived social support score of the patients included in the study was found to increase as their total self-care agency score increases. Increasing the social support systems of patients will help perform their self-care activities independently.

Keywords: Hemodialysis, Self-care, Social support, Nursing.

Introduction

Chronic renal failure (CRF) is a major public health problem that negatively affects quality of life, it also has a high mortality and morbidity rates, has a high incidence and higher health expenditures, but preventable or its progress can be slowed down if diagnosed early, despite the difficulty in early diagnosis (Ministry of Health, 2014, Himmelfarb & Sayegh, 2010, Kafkia, Vehvilainen-Julkunen and Sapountzi-Krepia 2018).CRF is a disease in which chronic and progressive impairments occur in the fluid electrolyte balance and metabolic function of the kidney, along with a progressive and irreversible reduction of glomerular filtration rate (GFH) (Karaca, 2013). CRF is also defined as the decrease of GFH below 60 mL/min, with objective kidney damage lasting at least three months, regardless of the underlying factor (Cetin et al., 2018). The degree of this disease ranges from 1st stage to 5th stage. Stage 5 is characterized by the diagnosis of hemodialysis (HD), peritoneal dialysis (PD), or end-stage renal failure, which may require kidney

transplantation. Renal replacement therapies (RRT) such as HD, PD and kidney transplantation are applied to these patients.Hemodialysis is the most commonly applied RRT method in Turkey. According to the report by the Turkish Society of Nephrology, the number of patients undergoing dialysis treatment in Turkey is 56687 (Suleymanlar et al., 2017). The normal lifestyles of patients undergoing dialysis treatment deteriorate significantly. Many psychosocial problems arise in these patients due to their dependence on medical care and medical personnel, fluid restriction and limited diet, drug use, role change, restricted work life and social life (Karaca, 2013). These problems disrupt overall well-being and quality of life and cause a decrease in longevity (Durmaz Akyol, 2013, Kafkia, Vehvilainen-Julkunen and Sapountzi-Krepia 2017). Self-care is an important key point in patients undergoing hemodialysis. Ability to carry out self-care activities such as proper diet and fluid intake to keep their disease under control, adherence to drug treatment, prevention of complications and monitoring their symptoms, providing communication, self-advocacy, and seeking medical attention plays an important role for an acceptable lifestyle for these patients (Simmons, 2009).The physiologic and psychosocial changes during the medical treatment and care process of the patients undergoing hemodialysis treatment leads to inadequacy in fulfilling their self-care, and an increase in level of anxiety, resulting in an expectation for social support. Social support has an important role in improving health, preventing diseases and fulfilling self-care activities (Nurullah, 2012). Family members, friends, healthcare workers and colleagues are among those who provide social support and positively affect the adherence to acute and chronic disease (Patel et al., 2005). In their study with 258 hemodialysis patients, Alexopoulou et al. found that patients received most of the social support from the family members, and that life satisfaction was found to increase, and psychosocial problems and disease burden were found to decrease in patients with social support (Alexopoulou et al., 2016).Nurses, one of the health professionals, should assist patients in ensuring patients' self-care activities and developing social support systems. They should contribute to the fulfillment of activities of daily living by training patients about their self-care requirements and supporting patients' self-care management. In addition, nurses should

determine the challenges that patients face and decide the type of social support they should get and assess the effectiveness of the social support provided.

This study was conducted to evaluate the "self-care agency and perceived social support of hemodialysis patients".

Methods

This descriptive type study was conducted in the Dialysis Unit of a Training and Research Hospital in Turkey between August and September 2018. The study population consisted of 66 patients who were treated at the dialysis unit between the specified dates, and the study sample consisted of 63 patients who agreed to participate in the study, received regular hemodialysis treatment for at least 6 months, who were 18 years of age and older, and were not diagnosed with psychiatric disorders. Patients were informed about the research for their voluntary participation. Prior to conduct the study, necessary permissions from the institutions were obtained.Data were collected through face-to-face interviews by the researcher using a descriptive characteristics information form, self-care agency scale and multidimensional scale of perceived social support.

Introductory information form: This form consists of a total of 12 items containing the sociodemographic characteristics of the patients and the information about their disease.

Self-Care Agency Scale: It was developed and investigated for its reliability and validity by Enc and Gunes Oren in 2014. The scale is a 3-point Likert type scale consisting of 25 items (Oren & Enc, 2014). Items no 12, 22, 23, and 25 on the scale are reverse coded. These items are scored in reverse. Each item is marked with one of the "Always apply, "Apply sometimes", and "Never apply" responses. The form is scored by 2 points for the "always apply" response, 1 point for the response "sometimes apply", 0 points for the response "never apply". The scores taken on the scale are in the range of 0-44. The sub-scale scores are obtained by adding up the points of the items in each sub-scale. Accordingly, drug use is scored between 0-12, diet is between 0-10, self-monitoring is between 0-8, hygienic care is between 0-4, and mental status is scored between 0-6. In the assessment, low scores indicate poor self-care agency, whereas high erscores indicate a good self-care agency. In the scale, a raw score up to 25th percentile is considered low score, and

75th percentile and over is considered high score. In this study, Cronbach's alpha coefficient of the Self-Care Agency Scale was found to be 0.67.

Multidimensional Perceived Social Support Scale: The Multidimensional Perceived Social Support Scale Total, which has been developed by Zimet et al. in 1988, has been adapted to Turkish culture by Eker and Arkar in 2001 (Zimet et al., 1988, Eker & Arkar, 2001). The scale, which subjectively assesses the adequacy of social support from three different sources, consists of 12 short items. There are three groups related to the source of the support, each consisting of four items. These include family (3rd, 4th, 8th and 11th items), friends (6th, 7th, 9th and 12th items) and a significant other (1st, 2nd, 5th and 10th items). Each item is scored using a 7-point scale. Higher scores in the scale indicate higher social support. In this study, Cronbach's alpha coefficient of the perceived social support scale was found to be 0.91

Data Analysis: The data were analyzed using the SPSS package program. In the evaluation of the data, percentile, mean, Pearson correlation analysis and Cronbach's Alpha internal consistency test were used.

Results

Of the patients surveyed, 61.9% was male, 73% was married, 47.6% was primary school graduate, 47.6% was retired, an 55.6% had moderate economic status. Of the patients in the sample group, 96.8% was living with the family, and 77.8% was receiving social support from the family. The average age of the patients was 60.37 ± 15.76. When the disease characteristics of the patients were examined, 17.5% of the patients was receiving hemodialysis treatment for 10 years and longer, 68.3% had other accompanying chronic disease, 85.7% was complying with medication and 50.8% was found to comply with the diet (Table 1).

Table 1. Results on sociodemographic characteristics and disease of patients (n=63)

Sociodemographic Characteristics		n	%
Gender	Female	24	38.1
	Male	39	61.9
Marital Status	Married	46	73.0
	Single	17	27.0
Educational Status	Literate	13	20.6
	Primary school	30	47.6
	Secondary-High School	14	22.2
	Illiterate	6	9.5
Occupation	Housewife	25	39.7
	Retired	30	47.6
	Officer	2	3.2
	Other	6	9.5
Income Status	Good	13	20.6
	Medium	35	55.6
	Poor	15	23.8
Number of People Stayed Together	Alone	2	3.2
	With the family	61	96.8
Support from Family	Yes	49	77.8
	No	6	9.5
	Sometimes	8	12.7
Duration of Dialysis	6-12 months	17	27.0
	1-5 years	22	34.9
	5-10 years	13	20.6
	10 years and over	11	17.5

Accompanying Chronic Illnesses	Yes			43	68.3
	No			20	31.7
Compliance with Drug Therapy	Yes			54	85.7
	No			9	14.3
Adherence to Diet	Yes			32	50.8
	No			31	49.2
	n	**Min.**	**Max.**	**Avg.**	**SD.**
Age	63	21.00	91.00	60.37	15.76

When examining the distribution of the total and sub-scale self-care agency scale scores, the patients were found to receive 6.27±2.15 points in the drug use sub-scale, 5.81±1.86 points in the hygienic care sub-scale, and 22.76±6.12 points in the total self-care agency scale. When the total score taken from the scale is evaluated with the percentile values of the scale, it was found that the patients' self-care was low, as it was close to the scores corresponding to the 25th percentile.

When the distribution of the total and sub-scale scores of the patients in the multidimensional perceived social support scale were examined, it was found that the total score taken from the scale was 49.44±16.83, and that the major support received was from the families of the patients (21.86±6.66). This support was followed by friends (14.13±7.36) and significant other support (13.46±7.70), respectively (Table 2).

Table 2. Distribution of Patients' Self-Care Agency and Multidimensional Perceived Social Support Scale Total and Sub-Scale Score Averages (n=63)

Scale	n	Min.	Max.	Avg.	SD
Drug Use	63	2.00	11.00	6.27	2.15
Self-Monitoring	63	0.00	7.00	2.73	2.07
Diet	63	1.00	10.00	5.97	1.99
Hygienic Care	63	0.00	8.00	5.81	1.86
Mental Status	63	0.00	6.00	1.98	1.90
Total Self-Care Agency Scale	63	10.00	39.00	22.76	6.12
Family	63	4.00	28.00	21.86	6.66
Friend	63	4.00	28.00	14.13	7.36
Significant Other	63	4.00	28.00	13.46	7.70
Total Multidimensional Perceived Social Support Scale	63	12.00	84.00	49.44	16.83

According to Table 3, when the relationship in total and sub-scale scores between the Self-care Agency Scale and the Multidimensional Perceived Social Support Scale was examined, a positive low-level relationship was found between the drug use sub-scale score and the friends sub-scale score (p<0.05), whereas the relationships between the drug use sub-scale score and the family, significant other and total perceived social support were not significant (p>0.05).

As the drug use score of the patients increases, the support from a friend score also increases.

While a positive low-level relationship was found between the self-monitoring sub-scale score and a significant sub-scale score (p<0.05), the relationship between family, friends, and perceived social support scale total score was not found to be significant (p>0.05). Patients' support from a significant other was found to increase, as their self-monitoring score increased.There was no statistically significant relationship between the diet sub-scale score and the family, friends, a significant other and the total perceived social support scale scores (p>0.05).While a positive low-level relationship was found between the hygienic care sub-scale score and the family sub-scale score (p<0.05), the relationship between friends, significant other and perceived social support scale total score was not found to be significant (p>0.05).A positive low-level relationship was found between the mental status sub-scale score and the perceived social support scale total score (p<0.05), while the relationship between family, friends, and a significant other sub-scale score was not significant (p>0.05). As patients' mental status score increases, the perceived social support scale total score also increases.There was a positive low-level significant relationship between the total self-care agency score of the patients and the family, a significant other and the total perceived social support score (p<0.05). The family, significant other and total perceived social support scores were found to increase as the self-care agency total score increases.

Table 3. Relationship between Patients' Self-Care Agency and Sub-Scales and Multidimensional Perceived Social Support Scale and Sub-Scales (n=63)

		Family	Friend	Significant Other	Multidimensional Perceived Social Support Scale Total
Drug Use	r	0.186	0.265	0.042	0.233
	p	0.144	**0.036**	0.744	0.066
Self-Monitoring	r	0.175	0.034	0.275	0.203
	p	0.170	0.791	**0.029**	0.111
Diet	r	0.074	0.047	-0.018	0.042
	p	0.565	0.716	0.891	0.745
Hygienic Care	r	0.412	-0.031	0.225	0.224
	p	**0.001**	0.806	0.076	0.077
Mental Status	r	0.243	0.114	0.222	0.252
	p	0.055	0.374	0.080	**0.046**
Self-Care Agency Scale Total	r	0.342	0.203	0.269	0.333
	p	**0.006**	0.111	**0.033**	**0.008**

Discussion

It will be possible to determine patients' goals more effectively and thus ensure that patients have better quality lives by revealing the relationship between their self-care agency and social support.

The self-care agency is of great importance for patients undergoing hemodialysis to adhere to their own treatment program, to meet the requirements for taking self-care responsibility, and to cope with the negative effects of the disease. Self-care agency is an important determinant for individuals to live longer and have a better quality of life (Durmaz Akyol & Karadakovan, 2002). In this study, hemodialysis patients were found to have low levels of self-care agency.

Similarly, Mollaoglu stated in a study that self-care agency was low in hemodialysis patients (Mollaoglu, 2006), while in some studies, it was moderate (Gunes Oren & Enc, 2010, Muz & Eglence, 2013, Alemdar & Cinar Pakyuz, 2015, Atashpeikar et al., 2012, Kurbun & Metin Akten, 2018, Unsar et al., 2006), but it was reported as high level in one study (Akyol & Karadakovan, 2002). It is believed that self-care agency was low because of the failure to comply with diet and presence of an accompanying chronic disease in nearly half of the patients included in the study.

Many mental problems such as anxiety and depression can be seen in patients receiving hemodialysis treatment (Topbas & Bingol, 2017). In the study, patients receiving hemodialysis treatment had the lowest score in the mental status sub-scale of the self-care agency scale. Similar results have also been obtained in several studies (Gunes Oren & Enc, 2010, Kurbun & Metin Akten, 2018). Another study found that hemodialysis treatment leads to severe depression in patients (Bulut, 2017). It is believed that coping with many symptoms in their treatment process could affect mental status of these patients.

Social support is of great importance in patients receiving hemodialysis treatment for coping with physical and mental symptoms, performing self-care and achieving psychosocial adaptation (Topbas & Bingol, 2017). In this study, patients indicated that they received the most of the social support from their families. In some studies, the most important source of social support for patients receiving hemodialysis treatment was found to be families (Karabulutlu et al., 2005, Theodoritsi et al., 2016, Alexopoulou et al., 2016, Lilympaki et al., 2016, Ahrari et al., 2004, Kara et al., 2007, Karadag & Parlar Kiliç, 2013).

These results show similarities with the present study. Patients may become dependent or semi-dependent on family members during the treatment process, which may be considered to be effective in these results.

The levels of self-care agency and presence of social support systems is crucial for ensuring compliance with the disease symptoms and treatment process of patients with chronic disease. Self-care agency is affected by many conditions, including age, gender, chronic illness, physical, psychological and cultural factors, decision making ability, and social support systems. In this study, a positive low-level significant relationship was found between the total self-care agency score of the patients and the total perceived social support score, and the perceived social support was found to increase as the self-care agency of the patients increases. Similar results have also been obtained in many studies (Mollaoglu,2006, Donmez, 2019, Park & Kim, 2012). With the increase in self-care agency, patients can be said to feel better physically, mentally and socially.

Conclusion and Recommendations

The results of the study showed that patients receiving hemodialysis treatment had 22.76±6.12 points in the total self-care agency scale, had a low level of self-care agency, and had the lowest score in the mental status sub-scale of the self-care agency scale. The multidimensional perceived social support score of the patients included in the study was 49.44±16.83, and the most of the support received was from their families, followed by friend and significant other support, respectively.

A positive low-level significant relationship was found between the total self-care agency score of the patients and the total perceived social support score, and the perceived social support was found to increase as the self-care agency of the patients increases.

In line with these results;

The frequency of training programs given by health professionals to improve the self-care activities of patients should be increased for a better quality of life.

Training given by health professionals to

patients in certain periods is not only for the individual, their families should also be encouraged to participate in this training. Thus, social support systems will contribute to individual's self-care management.

Hemodialysis patients' adherence to medical treatment and participation in quality holistic care programs will ensure that they feel better mentally, physically and socially.

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