

## **Quality of Life of Chronic Kidney Failure Patients Based on Hemodialysis Adherence at Lavalette Hospital**

**Ririh Wulansari\*, Nurul Mawaddah**

Undergraduate Nursing Study Program, STIKES Majapahit Mojokerto, Jl. Raya GayamanGayaman, Mojoanyar, Mojokerto, East Java 61364, Indonesia

[\\*ririhwulansari@gmail.com](mailto:ririhwulansari@gmail.com)

### **ABSTRACT**

The mortality rate in hemodialysis patients with low quality of life will increase compared to the average population. Quality of life is an essential indicator of the effectiveness of hemodialysis measures provided, so quality of life is also an essential goal in the treatment of end-stage renal failure disease. This study aimed to determine the relationship between compliance with hemodialysis and the quality of life of patients with chronic renal failure at Lavalette Hospital. This research method uses casual comparative research with a cross-sectional design. The sample was Chronic Kidney Failure patients who routinely performed hemodialysis, with as many as 98 respondents. The research instruments used were the End-Stage Renal Disease Adherence Questionnaire (ESRD-AQ) and quality of life instruments, which were also used on the KDQOL SFTM 1.3 scale. The data analysis method used chi-square correlation. The results showed that most of the respondents in the Hemodialysis Room of Lavalette Hospital Malang City were compliant with HD and had a good quality of life. The conclusion obtained from this study is that there is a relationship between HD compliance and quality of life in patients undergoing routine hemodialysis at Lavalette Hospital.

Keywords: compliance; hemodialysis; quality of life

### **INTRODUCTION**

Almost all cases of chronic renal failure require hemodialysis, but hemodialysis cannot wholly replace kidney function. Even though patients undergo routine hemodialysis, they still experience various problems due to kidney dysfunction, such as anemia, hypertension, and impaired libido. So, hemodialysis is only limited to efforts to control the symptoms of uremia and maintain patient survival but not cure chronic kidney failure (Rahayu et al., 2018). Hemodialysis patients with low quality of life will have increased mortality compared to the average population. Quality of life is an essential indicator of the effectiveness of hemodialysis measures, so quality of life is also an important goal in treating end-stage kidney disease (Kusniawati, 2018). Therefore, patients with kidney failure must be obedient in undergoing hemodialysis therapy according to a predetermined schedule.

Kidney disease is one of the most common diseases in Indonesia. Based on the results of Basic Health Research (Riskesdas) in 2018 by the Agency for Research and Community Development show that patients with kidney failure in Indonesia amounted to 3.8%, up from 2.0% in 2013 (Riskesdas, 2018). There is a relationship between compliance with hemodialysis and the quality of life of patients with chronic renal failure who undergo hemodialysis (Kusniawati, 2018). The description of the quality of life of patients with chronic renal failure seen from the physical health dimension has a poor quality of life. The dimension of social relations has a good quality of life. The picture of the quality of life of patients with kidney failure who undergo hemodialysis has a poor quality of life (Rahayu et al., 2018). Patients undergoing hemodialysis therapy experience several problems that can result in a decrease in the patient's quality of life (Indanah et al., 2018).

## METHOD

This study used a correlational research design with a cross-sectional approach method. All elective surgery activities were performed in the hemodialysis room at Lavalette Hospital from January to February 2022. The sampling technique used a consecutive sampling technique. The sample amounted to 98 respondents. This study measured compliance with the ESRD-AQ form while the quality of life was measured using KDQOL-SFTM. Calculation of statistical tests using the Chi-Square test.

## RESULTS

Table 1.  
Distribution of Respondents' Characteristics in the Hemodialysis Room (n=98)

Category	f	%
Age		
25-40 years old	52	53.1
41-50 years old	42	42.9
51-60 years old	4	4.1
Sex		
Male	52	53.1
Female	46	46.9
Studies		
Elementary	7	7.1
Junior high school	36	36.7
Senior high school	28	28.6
Diploma	9	9.2
Bachelor of degree	18	18.4
Duration of hemodialysis		
<3 years	76	77.6
>3 years	22	22.4

Table 1 shows that most of the respondents were male as many as 52 respondents (53.1%) and aged 25-40 years as many as 52 respondents (53.1%) with the most junior high school education as many as 36 respondents (36.7%). The majority of respondents had HD experience <3 years as many as 76 respondents (77.6%).

Table 2.  
Distribution of HD compliance results of patients undergoing routine hemodialysis in the hemodialysis room (n=98).

Category	f	%
Obedience of dialysis		
Obey	96	98,0
Not obey	2	2,0
Quality of life		
Poor	1	1.0
Moderate	14	14.3
Good	83	84.7
Very good	0	0
Excellent	0	0

Table 2 shows that almost all respondents in the Hemodialysis Room of Lavalette Hospital Malang City have compliance values as many as 96 respondents (98.0%) and have a good quality of life as many as 83 respondents (84.7%).

Table 3.  
Analysis of the Relationship between HD compliance and Quality of Life in Patients Undergoing Routine Hemodialysis (n=98)

Obedience of dialysis	Kualitas hidup			Total
	Good	Moderate	Poor	
Obey	83	13	0	96
	84.7%	13.3%	.0%	98.0%
Not obey	0	1	1	2
	0%	1.0%	1.0%	2.0%
<i>Chi-Square Tests</i>				
Value	51.552 <sup>a</sup>			
Asymp. Sig. (2-sided)	0.000			

Table 3 shows that there is an association between HD adherence and quality of life in patients undergoing routine hemodialysis at Lavalette Hospital.

## DISCUSSION

The results of this study state that out of 98 respondents, the majority of respondents were male, as many as 52 respondents (53.1%), with the highest age range being 25-40 years as many as 52 respondents (53.1%). Almost half of the respondents in the Hemodialysis Room of Lavalette Hospital Malang City had junior high school level education, as many as 36 respondents (36.7%). They had HD experience for < 3 years, and as many as 76 respondents (77.6%). It was also found that 96 respondents (98.0%) were obedient to undergo HD, and 83 respondents (84.7%) had a good quality of life. From the test results using the Chi-Square Tests test, the p-value <0.05 is p = 0.000, which means that there is a relationship between HD compliance and quality of life in patients undergoing routine hemodialysis at Lavalette Hospital.

### HD compliance of patients undergoing routine hemodialysis at Lavalette Hospital.

Based on the identification of HD compliance, it was found that most of the respondents in the Lavalette Hospital Hemodialysis Room in Malang City had a compliance value of 96 respondents (98.0%). Compliance of GGK patients in conducting hemodialysis is supported by the productive age of the patients, namely 25-40 years. At this age, it is likely that patients who undergo hemodialysis still want to get better and are motivated to recover because they realize they still have responsibilities to meet the needs of their families, so patients feel hemodialysis is a critical need to maintain their survival.

The older a person gets, the more problems he will experience, especially regarding his health condition. This is due to the progressive decline in the whole body's function. Elderly people who cannot adapt to these setbacks will be frustrated, and they will have an attitude of rejection regarding the conditions they experience. If this condition continues, the elderly will not care about their condition and not comply with health recommendations. Adherence is a form of behavior that arises due to interactions between health workers and patients so that patients understand the plan with all its consequences, agree to the plan, and carry it out (Ministry of Health, 2011). Adherence is an individual's behavior (for example, taking medication, adhering to a diet, or making lifestyle changes) according to therapeutic and health recommendations. The level of adherence can range from heeding every aspect of the advice to adhering to the plan (Kozier, 2010).

Adherence to recommendations and treatments from healthcare providers is important for the success of an intervention. Unfortunately, non-adherence is a major problem, especially in

patients undergoing hemodialysis. It can impact various aspects of patient care, including consistency of visits, medication regimens, and food and fluid restrictions. It has been estimated that approximately 50% of HD patients do not adhere to at least part of their hemodialysis regimen (Kamerrer et al., 2011).

Patients on chronic hemodialysis are at risk of many problems, including salt and water retention, phosphate retention, secondary hyperparathyroidism, hypertension, chronic anemia, hyperlipidemia, and heart disease. Almost half of dialysis patients have diabetes, further leading to additional complications. To address all these issues, patients may require fluid restriction, phosphate binders, vitamin D, calcimimetic agents, antihypertensive drugs, hypoglycemic agents, erythropoietin, iron supplements, and other medications. Not to mention the diet and routine of visiting the hemodialysis unit. This causes tremendous patient saturation because they must change their lifestyles often (Kamerrer et al., 2011). Patient compliance in hemodialysis therapy and family support are needed to support the patient's quality of life. Patient non-compliance with dialysis has an impact on complications of various diseases, frequent hospitalization, decreased productivity, and can even cause death (Widyawati et al., 2018).

### **Quality of life of patients undergoing routine hemodialysis at Lavalette Hospital.**

Based on the identification of quality of life, it was found that most respondents in the Lavalette Hospital Hemodialysis Room in Malang City had a good quality of life, with as many as 83 respondents (84.7%). The excellent quality of life of GGK patients is due to patient compliance in conducting hemodialysis (98%). With hemodialysis carried out for life, patients will increasingly understand the importance of patient compliance with hemodialysis, and patients will feel the benefits if hemodialysis is carried out and the consequences if they do not do hemodialysis. The longer the patient undergoes hemodialysis, the more compliant the patient is to undergo hemodialysis therapy, where the respondent has reached the stage of accepting and getting health education from nurses and doctors about the importance of doing hemodialysis regularly, which has an impact on the patient's quality of life. The quality of life of patients with chronic renal failure undergoing hemodialysis therapy is still an issue that attracts the attention of health professionals. Achieving quality of life requires a fundamental change in how patients view chronic kidney failure disease (Butar & Siregar, 2015).

Quality of life is the concept of analyzing an individual's ability to get an everyday life related to individual perceptions of goals, expectations, standards, and specific attention to the life experienced by being influenced by the values and culture in the individual's environment. Quality of life is the main target to be achieved in the development field so that the quality of life is in line with the level of welfare. It is hoped that the quality of life will be more prosperous. This quality of life is influenced by the degree of health. The higher a person's health degree, the higher the quality of life (Hutagaol, 2017).

### **The relationship between HD compliance and quality of life in patients undergoing routine hemodialysis**

Based on the results of data analysis, it was found that most of the respondents in the Lavalette Hospital Hemodialysis Room in Malang City had HD compliance in the excellent quality of life category, with as many as 83 respondents (84.7%). From the test results using the Chi-Square Tests test, the p-value  $<0.05$  is  $p = 0.000$ , which means that there is a relationship between HD compliance and quality of life in patients undergoing routine hemodialysis at Lavalette Hospital.

Almost all cases of chronic renal failure require hemodialysis, but hemodialysis cannot completely replace kidney function. Even though patients undergo routine hemodialysis, they

still experience various problems due to kidney dysfunction, such as anemia, hypertension, and impaired libido. So, hemodialysis is only limited to efforts to control the symptoms of uremia and maintain patient survival but not cure chronic kidney failure (Rahayu et al., 2018). Hemodialysis patients with low quality of life will have increased mortality compared to the average population. Quality of life is an essential indicator of the effectiveness of hemodialysis measures, so quality of life is also an important goal in treating end-stage kidney disease (Kusniawati, 2018). Therefore, patients with kidney failure must be obedient in undergoing hemodialysis therapy according to a predetermined schedule.

Previous research states that quality of life is influenced by factors such as patient characteristics (age, gender, education level, occupation, marital status), length of hemodialysis, hemodialysis compliance, hemoglobin levels, depression, and family support. Patient compliance in hemodialysis therapy and family support are needed to support the patient's quality of life. Patient non-compliance with dialysis results in complications of various diseases, frequent hospitalization, decreased productivity, and can even cause death (Widyawati et al., 2018).

There is a relationship between compliance with hemodialysis and the quality of life of chronic renal failure patients undergoing hemodialysis (Kusniawati, 2018). The description of the quality of life of patients with chronic renal failure seen from the physical health dimension has a poor quality of life. The dimension of social relations has a good quality of life. The picture of the quality of life of patients with kidney failure who undergo hemodialysis has a poor quality of life (Rahayu et al., 2018). Patients undergoing hemodialysis therapy experience several problems that can result in a decrease in the patient's quality of life (Indanah et al., 2018).

Researchers assume that the quality of life of patients undergoing HD often decreases, forcing them to change their routine habits. Especially for patients who have not undergone HD for a long time, patients feel that they are not ready to accept and adapt to the changes that occur in their lives. Inability, dependence on others, and medical expenses will interfere with everyday activities. Discipline, willpower, and family support are needed to improve patient compliance with HD.

## **CONCLUSION**

Most of the respondents in the Hemodialysis Room of Lavalette Hospital Malang City were compliant with hemodialysis and had a good quality of life. This study can conclude that there is a relationship between HD compliance and quality of life in patients undergoing routine hemodialysis at Lavalette Hospital Malang.

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