

The Self-Efficacy in Hemodialysis Patients

Yosi Oktarina
Nursing Study Program
University of Jambi

Andika Sulistiawan
Nursing Study Program
University of Jambi

Abstract - Hemodialysis is one of the treatments for patient with chronic renal failure. Previous study showed that the level of self efficacy could prevent complication and improve quality of life. The purpose of this study was to determine the patients' self efficacy in chronic renal failure who underwent hemodialysis at Raden Mattaher Hospital Jambi. This study was a quantitative descriptive research. The number of samples was 62 patients. The technique sampling was used purposive sampling. Data were collected using SEMCD-6. The result of this study showed the self efficacy of patients with hemodialysis was in good category 56,5%. The implication of this study provides important information especially for nurse so that they can arrange the nursing intervention to improve self efficacy of patients who underwent hemodialysis.

Keywords: chronic renal failure, hemodialysis, self-efficacy

A. Introduction

Chronic kidney disease is a disorder of the kidney with manifestations in the form of structural damage and disruption of kidney function that has lasted more than 3 months [1]. The prevalence of chronic kidney failure in the world is estimated at 11% to 13% with the majority at stage 3.[2] Meanwhile, RISKESDAS explained that the prevalence of chronic kidney failure has increased from 0.2% to 0.38% in Indonesia from 2013 to 2018. [3]

One of therapy in patients with chronic kidney failure is hemodialysis. Hemodialysis is renal function replacement therapy using a special tool with the purpose of issuing the toxic uremic and regulate the body's electrolyte fluid [4]

Clinical features in patients with chronic renal failure who undergo hemodialysis can be found in the form of weak, tired, and lethargic conditions, nausea and vomiting, loss of appetite, and problems with the skin such as itching. Based on the physical examination, patients with chronic renal failure undergoing hemodialysis obtained peripheral edema, hypertension, and anemic conjunctiva [5]. In

addition, the psychological problems were found in patient who's undergoing hemodialysis. Psychological problems that are commonly experienced by people with chronic renal failure who undergo hemodialysis are depression and self-esteem disorders. [6][7][8]. Various problems experienced by patients with chronic renal failure who undergo hemodialysis will have an impact on the quality of life. A study showed the majority quality of life of patients with chronic renal failure who underwent hemodialysis included in the category of less good (61%) [9].

One of the factors that influence the quality of life of patients with chronic renal failure is self efficacy. [10][11]. Several studies have shown that chronic renal failure patients who undergo hemodialysis with high self efficacy have a better quality of life compared to patients who have low self efficacy [12][13]. Self efficacy is a form of individual's confidence in himself in carrying out an action [14]. The existence of these individual beliefs will affect the self-care of patients with chronic renal failure who undergoing hemodialysis such as doing daily activities and adherence to treatment. Research conducted by Li et al., [15] also showed that self efficacy has a positive correlation with self care in patients undergoing hemodialysis. The results of the study showed that low self-efficacy was associated with non-compliance in undergoing treatment in patients with chronic renal failure [16]. In other words, someone with high self efficacy will have good self care and vice versa.

The purpose of this study was to determine the description of self efficacy in patients with chronic renal failure undergoing hemodialysis at Raden Mattaher Regional Hospital in Jambi.

B. Method

This research was conducted in the Hemodialysis Center of Raden Mattaher Regional Hospital which took place in June-July 2019. The population in this study were all patients with chronic renal failure who underwent hemodialysis. The number of samples in this study amounted to 62 people. The sampling technique in this study was *purposive sampling*. The inclusion criteria in this study were patients who had

undergone hemodialysis for more than three months and the age is more than 17 years old. The exclusion criteria in this study was patients whose condition experienced worsening. This study used a 6-Item Scale Self Efficacy for Managing Chronic Disease questionnaire . This questionnaire was translated into Indonesian by the Language Institute of the University of Jambi. The results of the validity test questionnaire were in the range of 0 , 67 -0.96 and the *Cronbach alpha* value of 0.957. Data were analyzed using quantitative descriptive techniques and presented as percentages. If the score was more than median, it included to high self efficacy. But, when the score less than equal to median, it included to low self efficacy.

C. Results

Based on the research, the following results were obtained :

Table 1. Distribution of Frequency Self-Efficacy of Chronic Kidney Failure Patients Underwent Hemodialysis at Raden Mattaher Hospital Jambi (n = 62)

Self Efficacy	f	%
Low	27	43,5
High	35	56,5

Based on table 1, it is found that more than half of the respondents belong to the high self efficacy (56 , 5 %) and the rest belong to the low self efficacy (43.5%).

Table 2. Mean score of self efficacy question items for chronic renal failure patients undergoing hemodialysis at Raden Mattaher Regional Hospital Jambi (n = 62)

Items How confident are you that you can control	Mean±SD
1. Fatigue caused by your disease from interfering with that you want to do?	7,33±1,30
2. Physical discomfort or pain of your disease from interfering with the things you want to do?	6,50±1,51
3. Emotional distress	7,00±1,59

Items How confident are you that you can control	Mean±SD
caused by your disease from interfering with the things you want to do?	
4. Other symptoms or health problems you have from interfering with the things you want to do?	7,08±1,08
5. The different tasks and activities needed to manage your health condition so as to reduce you need to see a doctor?	7,25±1,21
6. Other than just taking medication to reduce how much your illness affects your everyday life?	7,25±1,48

Based on table 2, it can be seen that the lowest average belief of patients regarding the management of discomfort in the body (Mean = 6,50 ; SD = 1.51), confidence to overcome emotional distress (mean = 7.00; SD = 1.59) , and belief in managing symptoms and other health problems (mean = 7.08; SD = 1.08).

D. Discussion

Based on the results of research respondents with good self-efficacy amounted to 56 , 5 %. Meanwhile, respondents with low self-efficacy amounted to 43 , 5 %. The results of this study were in line with research conducted by Purba et al. [17] where respondents with high self-efficacy were 54.7%. Although in this study the number of respondents with high self-efficacy was greater, the respondents with low self-efficacy were almost half of the respondents.

Self efficacy will affect the ability of self-care , compliance with treatment, and promotion of physical and mental health [14]. Increased self efficacy is associated with positive changes in behavior and health status. [18]

The research conducted by Shakya [19] at Kathmandu Medical College showed the result there were several factor-related to self-efficacy such as age, income, marital status, education level, occupation, smoking behaviour, exercise, and length of stay in patients with disease chronic.

Based on this research, from the question items that self efficacy against the ability to manage discomfort and pain has the lowest score (mean = 6 ,50) compared to other question items . Some symptoms experienced by patients with chronic kidney failure include lack of energy, pruritus, decreased consciousness, dyspnea, edema, pain, dry mouth, muscle cramps, loss of appetite, poor concentration. Dry skin, sleep disorders, and constipation. In addition, pain in patients is also experienced during hemodialysis cannulation. [20][21] .

Purba et al., [17] revealed that low self efficacy can be caused by loss of control and confidence in his life related to his current condition. Meanwhile, Hu et al. [22] revealed that the cause of low self-efficacy was influenced by low income and generally occurred in younger patients.

The research conducted by Bonsaken et al. [23] showed that good comprehension and the perception about the disease associated with the high self efficacy in patients. Tsay & Healstead [24] suggested that patients with high self efficacy had lower depression rates and better quality of life.

Therefore, it is important for patients to be given education related to the disease. Research by Wayunah et al [25] shows that structured education provision can improve the self efficacy of hemodialysis patients in controlling fluid intake between dialysis times.

In this study, the patient's ignorance of pain management can be one of the causes of low self efficacy in managing pain. Therefore, nurses can provide education about non-pharmacological pain management to control patient's pain. Some non-pharmacological interventions that can be given include warm or cold compresses, acupuncture, massage, relaxation, deep breathing techniques, *imagery*, *reiky* , as well as touch therapy and nutrition [26]

In addition to the provision of education to improve self -efficacy , some results showed that the physical and psychological intervention had a positive influence on the increased of self-efficacy. Research conducted by Tang et al. [27] showed the result that there was an increase in self-efficacy in the group receiving intervention *week home-based program*. Meanwhile, research related to psychological interventions carried out by Lii et al. [28] about *cognitive behavior therapy*, restructuring mindset and belief, stress management and education cases showed an increase in self-efficacy (*p value* = 0.001) in patients undergoing hemodialysis.

It showed that self- efficacy is an important factor related to self-care and the quality of life of patients . Thus, in patients with chronic renal failure patients need to be built self-efficacy of their ability to be able to perform self-care properly . With good self-care, the quality of life of patients also improves.

E. Conclusion

Based on the results of the study, the majority of respondents had high self efficacy is 56 , 5%. While respondents with low self efficacy is 43 , 5 % . It is expected that the results of this study can be used as a preliminary data for a nurse in arranging nursing interventions to improve self efficacy, especially in patients with chronic renal failure who undergoing hemodialysis. Some interventions that can be given by nurse such as education about the disease and treatment and psychological support for patients.

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