



INCREASING QUALITY OF LIFE IN PATIENTS WITH HEMODIALYSIS THROUGH EDUCATION BASED ON SELF-EFFICIENCY THEORY

Fermata Sari, Lindesi Yanti* Ahmad Badaruddin

Akademi Keperawatan Kesdam II/Sriwijaya, Jalan Sultan Mahmud Badaruddin II Palembang

South Sumatra 30132, Indonesia

*desirozak@gmail.com

ABSTRACT

Chronic kidney disease patients with hemodialysis cause lifestyle changes, one of which is fluid restriction. Poor management of fluid restriction can lead to increased cardiovascular mortality, morbidity, and decreased quality of life. To improve the quality of life in patients with hemodialysis is provide education based on the theory of self-efficacy so that it can increase the patient's self-confidence to carry out self-management. The purpose of this study was to determine the effect of providing educational interventions based on the theory of self-efficacy on quality of life in hemodialysis patients. This type of research is a quantitative research design One-Group Pretest-Posttest Design and the approach used a Kidney Disease Quality Of Life Short Form 1.3(KDQOL-SF1.3) questionnaire. The instrument consists of 19 domains which are grouped into three domains, namely the physical health component (PCS), the mental health component (MCS) and the kidney disease component (KDCS).The number of samples in this study was 34 people with the sampling method, namely probability using a simple random sampling technique. The results of the paired sample T-test on quality of life P-value 0.000 (< 0.05). The conclusion of education based on self-efficacy theory is that it is effective in improving the quality of life and can be used as consideration for educational innovations in hemodialysis patients in hospitals in improving the quality of life.

Keywords: education; hemodialysis self-efficacy; quality of life

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INTRODUCTION

Hemodialysis is the process of removing nitrogen (and other) waste products and correcting electrolyte, water, and acid-base abnormalities associated with kidney failure. (Levy, Brown, & Lawrence, 2016). Hemodialysis is performed in patients with acute renal failure or patients with irreversible chronic kidney disease and fluid and electrolyte imbalances (Black & Hawks, 2014). Fluid restriction in hemodialysis patients is the most difficult thing to do. according to Taormina et al., (2019)The most difficult component of compliance in hemodialysis patients is a fluid restriction, where patients on hemodialysis experience increased thirst due to the disease process. The sensation of thirst in patients with chronic kidney disease is caused because the disease process can affect the salivary glands and cause a decrease in saliva production thereby increasing the sensation of thirst, and contributing to excessive fluid intake(Bruzda-Zwiech, Szczepańska, & Zwiech, 2018).

Non-adherence in fluid restriction can be seen from weight gain between dialysis times (Interdialytic Weight Gain / IDWG). IDWG in hemodialysis patients should not be more than 5%, IDWG. Increased IDWG can lead to the risk of death and decreased quality of

life(Kahraman, 2015). Quality of life is a multidimensional concept with a state that is perceived relatively by individuals or society as good (or high) or low (Ogunseitan, 2018). According to research Suwanti (2017) There were 39% of hemodialysis patients with good quality of life, and 61% had poor quality of life. Poor quality of life in patients with chronic kidney disease will affect the increase in repeated treatments, higher morbidity, and mortality (Porter, Fitzgibbon, & Michael, 2017).

Research conducted Liza Fitri Lina (2016)by providing education to patients with chronic kidney disease who underwent hemodialysis for 4 weeks, the average quality of life in the physical domain before being given education was 44.53 and after being given education an average of 64.07, this result was significant ($p < 0.05$). Improving the quality of life of patients on hemodialysis depends on a good knowledge of the amount of fluid intake. This knowledge can be obtained from health workers, one of them by nurses. Nurses act as educators, namely by providing health education that can help hemodialysis patients in compliance with fluid restrictions. Health education is a learning experience created to help individuals and communities improve their health (Nadi et al., 2015). Health education in patients with end-stage chronic kidney disease is not only about knowledge, but the most important thing is to ensure that patients can be taught to be involved in self-care management. (Narva, Norton, & Boulware, 2016). Self-management is influenced by social support, and self-efficacy (Ramezani, Sharifirad, Gharlipour, & Mohebi, 2019).

Self-efficacy is defined as the belief in oneself and the ability to achieve success under certain conditions (Bandura, 1997). Intervention studies Sharoni, et al (2017) showed that there was a significant improvement in adherence after implementing educational strategies based on self-efficacy theory, educational programs based on self-efficacy theory could also improve the quality of life of respondents for physical symptoms. High self-confidence can increase one's ability to self-manage chronic disease, a person is more likely to engage in compliance, so that health outcomes tend to improve, and can improve quality of life(Joboshi & Oka, 2016). This study used a One-Group Pretest-Posttest Design and the approach used a Kidney Disease Quality of Life Short Form 1.3 (KDQOL-SF 1.3) questionnaire. The purpose of this study was to improve the quality of life in hemodialysis patients.

METHODS

The research design used was One-Group Pretest-Posttest Design and the approach used a Kidney Disease Quality Of Life Short Form 1.3 (KDQOL-SF 1.3) questionnaire, the KDQOL-SF 1.3 questionnaire has a reliability value, and the relevant validity is above 0.8 except for the cognitive function aspect (0.68) and the quality aspect of social interaction (0.61) and the Content Validity Index value is 0.89(Wulandari, 2015). The purpose of this study was to improve the quality of life in hemodialysis patients. The population in this study were all hemodialysis patients at PUSRI Palembang. The sampling technique used simple random sampling with a total sample of 34 hemodialysis patients.

The study was conducted for 6 weeks (10 February-21 March). *Pretest* In the first week, a pretest was conducted by assessing the quality of life of the research subjects. Implementation:

- 1) In the second week, the cognitive formation stage was carried out by providing education about the concept of disease, kidney, fluid management, and stress management.
- 2) In the second week, the motivational formation stage was carried out by bringing in hemodialysis patients with good self-care to share experiences with research subjects and also a discussion process was carried out in which the research subjects also shared their

experiences, after which the research subjects and their families made their choice for fluid restriction which was written on the fluid management book.

- 3) In the fourth week of the affective formation stage, the researcher checked the fluid management book and gave reinforcement in the form of rewards to research subjects who succeeded in limiting fluids.
- 4) In the fourth week of the selection process, the research subjects were given a guide to fill the liquid intake that was drunk for 2 weeks at home.

Posttest, In the sixth week, a post-test was conducted by assessing the quality of life of the research subjects.

RESULTS

Table 1. Data analysis used Distribution frequency, and shows the number of respondents in this study amounted to 34 respondents. Characteristics of respondents indicate that the majority are early elderly (64.7%) more male (55.9%), and have high school education (47.1%), all research subjects are married (100%), most are not working (58.8%). Tabel 2. Data analysis used a parametric paired sample T-test. The intervention used was education based on self-efficacy theory shows that the mean quality mean before intervention was 51.72 and after intervention was 62.47 standard deviation before intervention was 4.86 and after intervention was 6.44 with the lowest before intervention was 42.65 and after intervention was 51.10, while the highest value before the intervention was 61.20 and after the intervention was 79.61.

Table 1.
 Distribution of Research Subjects by Age, Gender, Education, Marital Status, and Occupation

Characteristics	f	%
Age (years)		
Early Adults (26-35)	4	11.8
Adult (36-45)	8	23.5
Elderly (46-55)	22	64.7
Gender		
Male	19	55.9
Female	15	44.1
Last education		
Elementary school	7	20.7
Middle School	5	14.7
High school	16	47.1
College	6	17.6
Marital status		
Married	34	100
Single	0	0
Employment		
Civil servants/police/army	2	5.9
Office employee	1	2.9
Farmers	1	2.9
Entrepreneur / Private	8	23.5
IRT	2	5.9
Unemployment	20	58.8

Table 2.
 Differences in Quality of life scores before and after being given education based on self-efficacy theory

Variable	Pretest		Posttest		P.
	M (\pm SD)	Min-Max	M (\pm SD)	Min-Max	
Quality of Life	51.72 (4.86)	42.65- 61.20	62.47 (6.44)	51.10- 79.61	0.000

Note: M \pm SD = Mean \pm Standard Deviation, Min-Max = Minimum-Maximum

The results of this study indicate that the mean quality before the intervention was given was 51.72 and after the intervention was given 62.47 standard deviations before the intervention was 4.86 and after the intervention was 6.44 with a p-value of 0.000 (<0.05).

DISCUSSION

In research conducted by researchers obtained differences in the average score of quality of life before being given treatment and after being given. Improved quality of life scores is influenced by education based on self-efficacy theory. In line with the research conducted Bakarman, Felimban, Atta, & Butt (2019) stated that education programs based on self-efficacy for patients with hemodialysis can improve social function, emotion, physical function, general health on quality of life scores. This research is in line with the research conducted by Abolfathi, et al (2018) which shows that there is an effect of being educated based on efficacy theory between the two groups on the quality of life of patients with chronic diseases. In line with research et al (2014) also stated that after conducting training based on self-efficacy in hemodialysis patients, quality of life, and self-efficacy increased (p-value 0.001) in the intervention group. The results showed that the training program based on self-efficacy affects the quality of life of patients undergoing hemodialysis treatment.

This increase is following the efficacy theory which is a theory of increasing perception in self-care activities, where individuals will more easily participate in self-care activities thereby increasing adherence to the therapy regimen (Bandura, 1997). In addition, exploring the patient's personal experience about controlling fluid intake in the form of interviews can foster patient self-efficacy through performance achievement, individual experience, verbal persuasion, and providing feedback so as to increase the confidence of research subjects in self-management.

In the questionnaire analysis that researchers from 34 research subjects used the KDQoL 1.3 questionnaire which consisted of 24 questions, before being given education based on self-efficacy theory, they did questions related to physical health components, namely overall health assessments, more than some research subjects (85.3%) answered under 50. Patients undergoing the hemodialysis process experience various problems both biological and psychosocial that arise in the patient's life. This state of dependence on patients with hemodialysis results in changes in their lives, namely biopsychosocial spiritual changes, patients will also face financial problems, inability to maintain work, the disappearance of sexual urges, and impotence, Praise, (2017). In line with research Nayana et al (2017) Patients undergoing hemodialysis will experience physical health problems including activities of daily living, dependence on medicinal materials and medical assistance, energy and fatigue, mobility, pain and discomfort, sleep and rest, decreased work capacity thereby reducing the quality of life.

The results of the quality of life questionnaire analysis after being given an intervention on questions related to mental health components showed an increase after being given the intervention, namely most of the research subjects (41.17%). These changes in his life shape the perceptions and beliefs of patients on hemodialysis about their poor health. The quality of life of hemodialysis patients depends on awareness of self-care. Education based on the theory of self-efficacy theory consists of 4 stages. In the first stage of cognitive development, trust is built with the patient by face-to-face communication and information sharing. At the cognitive stage, patients are encouraged to build their confidence to apply self-management, this process is prepared to change the patient's behavior. Then the next process to maintain self-management behavior is to bring in motivators of people with good self-care, then the patient chooses the needs and goals he wants to achieve in the affective and selection process. Patients undergoing hemodialysis treatment showed a reduced quality of life in all health domains. This is a major challenge for health care providers to develop strategies to help improve quality of life as part of a well-designed care program. Education-based self-efficacy in patients on hemodialysis is effective in improving the quality of life in hemodialysis patients.

CONCLUSIONS

The results of the paired sample T-test in this study found that there were differences in the quality of life of pretest and posttest, so it can be concluded that there is an effect of providing educational interventions based on self-efficacy theory on quality of life in hemodialysis patients.

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