

Effect Of Education On Life Quality Of Hemodialysis Chronic Kidney Failure Patient In Dr. M.Yunus Hospital Bengkulu City

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Abstract—The life quality being a noteworthy measurement after the patient undergoes renal replacement therapy such as hemodialysis or renal transplantation. The life quality of associated with chronic kidney disease, but also associated with lifelong therapy. As a result, the life quality of the hemodialysis patient being generally lower than other patients of congestive heart failure, chronic lung disease, or cancer. Health education to any individual patients includes planning, implementing and evaluating the educational programs which are designed explicitly for patient needs. Increased knowledge and education, as well as patient experience, are designed to help any individual patients and the community to improve their health and thus affect their attitudes toward health. Nurses function as both care providers and service providers to patients, especially hemodialysis nurses, play a role in improving the patient life quality whose chronic renal failure, not only in the primary but also a secondary and tertiary failure. Undoubtedly, nurses play a role in providing health education to patients. This research was a pre-experiment with a specific design called one group pretest-posttest, which reveals a causal relationship between the educational intervention and patient life quality, by involving one subject group (Nursalam, 2013). The research location was in hemodialysis specific room in the hospital of dr. M. Yunus Hospital, Bengkulu City. There had been 15 respondents in the research. The statistical tests show that the p-value of 0.002, which conclude that the educational intervention significantly influences patient life quality.

Keywords- Education, Life Quality, Hemodialysis, Chronic Renal Failure

I. INTRODUCTION

The World Health Organization (WHO) in 1947 defined health as physically, mentally and socially prosperous and not just having no disease. The term is not only a states but also the processes. The process being life quality the adaptation of individuals to not only their physical but also their social environment (Kabby, 2015).

The world health agency showed data from 2009 to 2011 than 36 million people worldwide died from chronic kidneys disease (CKD), and more than 26 million adults in the United States or about 17% of the adult population are exposed to chronic renal failure (Bomback & Bakris, 2011 in Arditawati, 2013). The fact that the incidence of kidney failure in Indonesia is on the rise, so the disease is described as an iceberg phenomenon, where only about 0.1% of cases are detected, and about 11-16% are undetectable (Septiwi, 2011).

The Riskesdas primary health data in 2013 showed that chronic kidney failure disease was ranked 10th in Indonesia. These data suggest that the prevalence of chronic renal failure in Indonesia is based on a doctoral diagnosis in Indonesia of 0.2%.

The highest prevalence in Central Sulawesi was 0.5%, followed by Aceh, Gorontalo, and North Sulawesi respectively 0.4%. While East Nusa Tenggara, South Sulawesi, Lampung, West Java, Central Java, Yogyakarta, and East Java respectively 0.3%. While the prevalence of chronic renal failure in Bengkulu Province is 0.2%.

Data available in the Hemodialysis Room of Dr. M. Yunus Hospital, Bengkulu in 2015 the number of chronic renal failure patients undergoing hemodialysis was 1,992 patients. The total number of patients in January of 2016 was 190 patients and in February of the same year 196 patients.

There are currently three treatment modality modalities available in "Hospitals" for chronic renal failure that have reached V degrees of hemodialysis, peritoneal dialysis, and renal transplantation. The end-stage renal disease should use renal replacement therapy which is the only option to maintain body function. The limited number of renal donors available for transplantation, dialysis (hemodialysis and peritoneal dialysis) tends to be the most common method of treatment (Corrigan, 2011 in Mardyaningsih, 2014).

Providing education or individual health education, in this case, includes planning, implementing and evaluating educational programs that have been designed for the specific needs of patients (Putu et al., 2015). Increased knowledge and education are experiences designed to assist individuals and communities in their efforts to improve their health so that with increased education will affect their attitudes (WHO, 2011 in Putu et al., 2015).

As the care providers and service providers to patients, nurses, especially nurse specialist hemodialysis role in improving the life quality of patients with chronic renal failure, namely in the primary, secondary and tertiary. Nurses play a role in providing education to patients about the disease, prognosis, and treatment, so that kidney disease does not require progressive so that cause complications and death (Nurchayati, 2010 in Madyaningsih, 2014).

Based on the initial survey through "Head of Hemodialysis Room Dr. M. Yunus Hospital Bengkulu" found that there is currently no educational program for the life quality of patients in Dr. M. Yunus Hospital and also the patient informed that never got an education during hemodialysis. Patients also informed that their life quality decreased, as weak and tired quickly, four patients said they could no longer work outdoors, six patients were unable to work anymore because they were not resistant to tired

Effects, eight patients expressed sadness about their condition, three patients states cannot control emotions, and four patients expressed irritability towards their children. Patients generally claim that they need the education to increase their knowledge in order to maintain their life quality.

Based on the above description, to refer to more serious efforts, we are interested in conducting research entitled Education for Maintaining the Life quality of Chronic Kidney Failure Patients Who Underwent Hemodialysis at Dr. M. Yunus Hospital Year 2017.

II. RESEARCH METHODS

The type of research used in this study is pre-experimental research with one group pretest-posttest design that reveals causal relationships by involving one group of subjects (Nursalam, 2013).

1. Place and time of research

Place of study: This research was conducted in Hemodialysis room of Dr. M. Yunus Hospital, Bengkulu.

Research time: The study was conducted from April to October 2017.

2. Population: The population in this study were patients with chronic renal failure who underwent hemodialysis in Dr. M. Yunus Hospital, Bengkulu. Sampling in this study using purposive sampling technique is a technique of determining the sample with specific considerations as desired by researchers (Setiadi, 2013). The number of samples in this study as many as 15 people (Kasjono, 2009).

3. Data Collection Technique: The data used by the researcher are primary, secondary and tertiary data.

4. Test Validity and Reliability: The test was conducted to 10 respondents, namely patients with chronic renal failure who underwent hemodialysis in Dr. M. Yunus Hospital, Bengkulu, which they have the same homogeneity as the sample to be tested. To avoid the same respondents at the time of the study, the use of different data retrieval schedule with a questionnaire test.

5. Data Processing Technique: Data processing were done with the following steps: Editing, Coding, Tabulating, Entry Data, Cleaning Data.

6. Data Analysis: A univariate analysis to explain the number or frequency of life quality before and after being given an education. Then, Bivariate analysis to explain the effect of education on the life quality of hemodialysis patients with T-Dependent test using the SPSS program.

III. RESEARCH RESULT

Description of Research Location

1. History of Dr. M. Yunus Hospital, Bengkulu

The General Hospital of Bengkulu stationed initially in 1922 on Jl. A Yani (Kampung Cina) which is now used as the post office of Bengkulu. Then, in 1925 the location was moved to "Anggut Atas," namely in the area of "Ratu Agung" which now changed its name to "Jl. Soekarno-Hatta". The hospital's first director being a Dutch citizen doctor named Dr. Briunkop accompanied by an Indonesian citizen doctor named Dr. Assikin and equipped with several health workers, namely Zickken Oppeser (Nurse) and two administrative staff and a public servant. At that time Bengkulu Province is still a residency of the province of South Sumatra. In 1977 the Hospital was moved to Padang Harapan, and the location is maintained until 1995.

Proudly thanks to the endeavor of the ranks of hospital officials than on March 7, 1978, Bengkulu Regional Hospital inaugurated its use by the Minister of Health Prof. G. A Siwabessy, as well as Minister of Health, set March 7 as Hospital's birthday. For the first time, the Hospital was stipulated by the Minister of Health with the C classification based on Minister of Health Decree No. 51 / Menkes / SK /

II / 1978. Then in 1992, the classification increased to Class B non-educational based on Decree of the Minister of Health Number: 1065 / Menkes / SK / IX / 1992 (Profile of Dr. M. Yunus Hospital, Bengkulu, 2015).

In 1995, based on the Decree of the Minister of Home Affairs Number: 445.28.366 on July 10, 1995, the Dr. M. Yunus Hospital, Bengkulu officially became Regional General Swadana Hospital reinforced by Local Regulation No. 14 of 1994 dated November 22, 1994, and Hospital Director Decree No. 655 of 1995 dated 13 December 1995. Furthermore, based on Local Regulation Number 7 the Year 2002 on Organization Dr. M. Yunus Bengkulu, stated that Dr. M. Yunus Hospital, Bengkulu, was a regional technical body in the form of" Legal Entity. From that time the Hospital became the institution of Nursing Academy of Bengkulu Province. In 1996 the General Hospital of Bengkulu Province was transferred by the government to Dusun Sidomulyo of Bengkulu city. The location remains today.

Furthermore, based on the Decree of the Minister of Health No. 1413 / MENKES / SK / XII / 2006 dated December 15, 2006, the status of the hospital became Class B, and was the highest Referral Hospital in Bengkulu Province. Based on Governor Decree No. 320 XXVII On December 29, 2009, RSUD dr. M. Yunus Bengkulu was defined as Regional Public Service Agency (BLUD). (Profile of Dr. M. Yunus Hospital Bengkulu 2015).

Type of service conducted in Dr. M. Yunus Hospital, Bengkulu includes among other outpatient services. In 2014 M. Yunus Hospital opened Polyclinic Urology, Gastro and Kidney, for Urology Polyclinic was handled by specialist Dr. Berry A. Paraba, Sp. U, and Gastro Polyclinics by dr, Salius Salih, Sp. Pd, KGEH, and Kidney Polyclinic are handled by dr. H. Zaini Dahlan, Sp. PD. In addition to renal polyclinics, Dr. M. Yunus Bengkulu also has a Hemodialysis Room, inpatient, IGD, CT-Scan, Laboratory, Pharmacy, and various other support services. (Profile of Dr. M. Yunus Hospital, Bengkulu 2015).

2. Univariate Analysis

A univariate analysis being an analysis conducted to obtain a description of the characteristics of each variable studied. The researchers conducted a univariate analysis with the aim to describe each variable studied separately by creating a frequency table of each variable.

TABLE 4.1FREQUENCY DISTRIBUTION OF LIFE QUALITY BEFORE INTERVENTION

Variable life quality before intervention	Amount	Percentage
76-100	7	46,9 %
56-75	8	53,4 %
<56	0	0%

Table 4.1 above shows that before the intervention, the life quality of 76-100 amounted to 7 people with the percentage of 46.9%, for the life quality 56-75 amounted to 8 people with a percentage of 53.4%, while for the life quality under 56 does not exist.

TABLE 4.2 FREQUENCY DISTRIBUTION OF LIFE QUALITY AFTER INTERVENTION

Variable life quality after intervention	Amount	Percentage
76-100	15	100%
56-75	0	0%
<56	0	0%

Through Table 4.1 above can be seen that after the intervention, 76-100 life quality amounted to 15 people with 100% percentage, for life quality 56-75 with 0% percentage, equal to the value of life quality under 56 which was also 0%.

3. Bivariate Analysis

Bivariate analysis being conducted to determine the effect of life quality both before and after the intervention.

TABLE 4.3 FREQUENCY DISTRIBUTION OF LIFE QUALITY BEFORE AND AFTER INTERVENTION

Variable	Mean	SD	SE	P value	N
Life quality before intervention	75,53	8,526	2,201	0,002	15
Life quality after intervention	85,60	6,434	1,661		

Table 4.3 above shows that the value of life quality before the intervention given that the average value of 75.53 with a standard deviation of 8.526. While for the value of life quality after the intervention obtained an average value of 85.60 with a standard deviation of 6.434. Statistical test results obtained p-value 0.002, and it can be concluded that the significant influence between life quality before intervention with life quality after the intervention.

IV. DISCUSSION

From the results of the research, it is found that before the intervention, the life quality of 76-100 (good) was 7 people with the percentage of 46.9%, for the life quality 56-75 (enough) amounted to 8 people with percentage 53.4%, while for the value of quality life under 56 (bad) did not exist. From the results of the study (Rahman et al., 2016), by sex and duration of hemodialysis treatment, the percentage of poor life quality for women was higher than for men. Based on the results of this study also displayed the distribution of life quality based on extended undergoing hemodialysis, from 34 patients got seven people (31.9) with good life quality, 15 people (68.1%) with poor life quality, from 6 months. Patients with, duration of HD less than six months found five people (41.7%) with good life quality and seven people (58.3%) with poor life quality. From the results of

the study found a percentage of poor life quality more on the object of research who underwent HD more than six months (68.1%) compared with the object of research who underwent HD less than six months (56.3%).

Yuliaw (2009) in (Butar, 2015) describes the life quality of patients based on four domains of life quality finding that individual characteristics consisting of education, knowledge, age, and sex are factors that affect the life quality of chronic renal failure patients. Next, Yuwono (2000) in his study said that the factors that affect the life quality of patients with kidney failure are age, gender, renal failure etiology, substitution therapy, nutritional status, and comorbid conditions.

The result of research on the physical dimension showed that 90 people (75,6%) were in low life quality. A study conducted by Supriyadi et al. (2012) showed that patients with chronic renal failure who underwent dialysis would be severely disrupted in their activities, both for work and association, and difficulty in sleeping because of the perceived pain. Besides, the range of physical complaints of patients depends on the severity and accompanying complications, which are not the same between one patient and another. This was consistent with the theory that patients with chronic renal failure will feel discomfort, tightness, edema, chest pain, nausea, even vomiting, and muscle cramps, resulting in severe pain (Brunner and Suddarth 2002).

The results of the study on the psychological dimension showed that 88 patients (73.9%) were in low life quality. This suggests that patients with chronic renal failure, most of whom have psychological disorders. On the psychological dimension of the life quality of chronic renal failure patients undergoing HD, most feel anxious every action (Supriyadi et al. (2012).Continue, the life quality of patients with chronic renal failure on social dimension depends on the patient's moral support, both emotional support from family and a social group of respondent's environment. The result of research on social dimension showed that 66 patients (55,5%) were in low life quality indicating that the ability of respondent to do social relationship being still low Research Supriyadi et al (2012) shows that there was a dissatisfaction of respondents in sexual activity, of which male respondents are 73.3% and women 26.7% . The results of research on the environmental dimension show that 64 patients (53.8%) are at high life quality This indicates that the majority of chronic renal failure patients have an environmental dimension, which includes: safety and physical security, pollution, voice, and financial resources, information gaining opportunities, and transportation can be said to be at a high quality.

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quality before intervention with life quality after the intervention.

Research conducted by Jahri (2015) as a whole stated that the life quality of patients with chronic renal failure in hemodialysis unit, after combining the four dimensions, it was found that low life quality was 92 people (77.3%) while The high life quality was 27 people (22.7%). A study conducted by Sofiana (2011) showed that 45 patients (47.4%) were on the life quality less while 50 people (52.6%) were in good life quality.

The results showed that patients with chronic kidney disease who underwent hemodialysis had a worse life quality compared with people in general and experienced a disruption or lower score in most domains of life quality. The life quality of patients undergoing hemodialysis in four domains - physical, psychological, social and environmental - Was lower than in patients undergoing renal transplantation (Sathvik et al., 2008). Measurement of life quality by using Kidney Disease Life quality SF36 questionnaire found that the limitations of the role due to physical disturbance and vitality got the lowest score among other aspects.

Some articles emphasize that the life quality of chronic kidney disease patients undergoing hemodialysis being important to note, because the impact of chronic kidney disease and dependence on hemodialysis therapy will affect all aspects of life, including physical, psychological, social and environmental. Education can affect the life quality in hemodialysis patients. Desita (2010) stated that factors affecting patient's life quality could be divided into two parts. The first part being the socio-demographic, i.e., sex, age, ethnicity, education, occupation, and marital status. Second, being medical, that being long of hemodialysis, disease stage, and medical management that lived.

Education being a role that nurses can do, as the theory described in Wardyaningsih's research (2014). He states that the role of nurses of hemodialysis patients in providing support being very influential on the condition of the patient since the nurse being the second person after the family he often encounters for a week. In the early stages of renal failure patients who have hemodialysis, in this case, the nurse can provide moral support to the patient in making decisions to follow hemodialysis therapy, by facilitating the patient to meet and discuss with previous patients who have followed hemodialysis therapy. With such support, the patient will feel stronger and feel appreciated. Apart from nurses, support and attention from the family being a necessary thing to do considering hemodialysis patients sometimes experience psychological problems associated with the disease he suffered.

According to Rajeswari and Sivamani (2010), nurses are responsible for all forms of hemodialysis therapy. Several nursing priorities can be selected about nursing care in hemodialysis patients, i.e., preventing complications, maintaining safety, promoting homeostasis, patient support/care, and providing information about disease processes/prognosis, treatment, and education needed to improve the quality life of hemodialysis patients.

VI. CONCLUSION

From the data obtained from this study, it can be concluded that the results of statistical tests in the value of p

-value 0.002 expressing significant differences between the life quality of patients before intervention with life quality after the intervention. In other words, educational interventions have a statistically significant effect on the quality of patients with chronic renal failure who underwent hemodialysis.

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