Proceeding
3rd International Nursing Conference
Community Health Empowerment: Step Up Action Attaining Sustainable Development Goals
Faculty of Nursing University of Jember
November 4-5, 2017 Royal Hotel Jember, East Java-Indonesia
ISBN: 976-602-5617-11-9

ANXIETY, DEPRESSION AND QUALITY OF LIFE OF INDIVIDUAL WITH HEMODIALYSIS THERAPY

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ABSTRACT

Background: Chronic Renal Failure patients on hemodialysis have risk factors for psychological disorders such as anxiety and depression. The cause of chronic renal failure is a stressful condition in hemodialysis treatment, including frequent visits and long waiting times in the dialysis unit, the patient must continue to connect to the hemodialysis machine during dialysis resulting in restrictions in independent life. The anxiety and depression experienced to contribute to a decline in the quality of life. **Methods**: This research is a correlation study with the cross-sectional quantitative approach, which was performed on twenty patients with hemodialysis at Bhakti Husada Hospital, with accidental sampling technique. The instruments used Hamilton Anxiety Rating Scale (HARS), Beck Depression Inventory (BDI) and Word Health Organization Quality of Life – BREF (WHOQOL-BREF) questionnaires. The bivariate analysis used by Pearson product-moment and multivariate using multiple linear regression. **Results**: The results of this research indicate that r-0.143 and p = 0.274> 0.05 means there is no effect of anxiety on quality of life while the correlation of depression on quality of life shows r-0.532 with p 0.008 <0.05 means there is an influence. Regression analysis results in p 0.055> 0.05, indicating that almost no effect of anxiety, depression on quality of life. And seen R = 0.538 and R2 = 0.289 (28.9%) conclusion the anxiety and depression are moderately correlated to the quality of life. **Conclusion**: Chronic Renal Failure Patients who have hemodialysis have an effect on the condition of both physical and psychic, and therapy Hemodialysis can improve the quality of life.

Keywords: Anxiety, Depression, Quality of Life, Patient with Hemodialysis

INTRODUCTION

Chronic Renal Failure (CRF) is a disease caused by many factors, which can lead to progressive renal dysfunction and require prolonged treatment from weeks to months (Tucker, 2010). Good treatment is necessary if treatment is not optimal, can result in irreversible kidney failure and hemodialysis as a solution to help kidney function (Gerogianni and Babatsikou, 2014). Hemodialysis is a process of separation of substances to assist kidney function, this action takes a long time and repeatedly, not infrequently among patients who undergo this process experiencing feelings of worry, frustration feelings of guilt, despair, fear even to cause symptoms of anxiety and depression (Jauhari, 2014) which ultimately leads to a decrease in the quality of life of the sufferer (Valderra, Fort, Jofre, & Lo, 2005).

The prevalence of kidney disease in the world for example in America is estimated at 1,901/1 million population while in Indonesia 250.000-300.000/1 million population. In 2011 patients with chronic renal failure who underwent hemodialysis 112,788 and 2,885

ISBN: 976-602-5617-11-9

performed transplantation (Mardyaningsih, 2014). Data RISKESDAS that 0.2% of Indonesian population experience chronic renal failure and 60% of total chronic renal failure patients undergoing dialysis therapy (Trihono, 2013). Data in Banyuwangi that the number of dialysis patients in Hemodialysis Department on Blambangan hospital seen there is a significant increase, in January 2015 there were 504 acts per month for dialysis patients then in January 2016, the number increased to 815 actions and in January 2017 increased to 1,072 actions (Radar Banyuwangi, 2017). Data from Bhakti Husada hospital CRF patients with dialysis in March 2017 amounted 80 acts to 20 patients.

Chronic renal failure in which the kidney is damaged that cannot be recovered at this stage the kidney has uremia, azotemia to help normalize kidney function should be done hemodialysis (Mardyaningsih, 2014). Patients who undergo hemodialysis experience different life experiences and feel the pain, fear of fatigue and the threat of death (Safitri & Sadif, 2013). Various problems in patients with renal failure who undergo hemodialysis therapy both physical and psychological problems, stress (Courts, 1991), the anxiety of fear and depression can result in decreased quality of life of patients (Seidel et al., 2014). Various ways can be done to fix the problem of patients both physically and psychologically. Some ways to reduce anxiety and depression include praying (William, James, & Stephen, 2001), reading the holy book of Al'Quran to reduce anxiety (Babamohamadi, Sotodehasl, Koenig, Jahani, & Ghorbani, 2015) and counseling (Courts, 1991). While to improve the physical aspects in addition to pharmacotherapy patients can also do hemodialysis therapy (Barreto, Luciana, Silva, & Behrens, 2014). According to above explanation, this research was conducted to determine the effect of anxiety on the quality of life, the effect of depression on quality of life and the influence of anxiety, depression on the quality of life of patients with hemodialysis therapy.

METHODS

This research is a non-experimental quantitative research, with descriptive cross- sectional and method aims to determine the effect of anxiety and depression on the quality of life of patients with chronic renal failure who undergo hemodialysis therapy. The population of this research was all patients with chronic renal failure who underwent hemodialysis therapy at Bhakti Husada hospital. The sampling technique using accidental sampling. Variable in this study consisted of the independent variable (X1) that is anxiety, the independent variable (X2) is the quality of life in patients with chronic renal failure done hemodialysis. Data collection techniques using Hamilton Anxiety Rating Scale (HARS) questionnaires, Beck Depression Inventory (BDI) questionnaires, and Word Health Organization Quality of Life (BREF) (WHOQOL-BREF) questionnaires. Data analysis is done with computers using the program SPSS for window version 19.0. Data analysis consists of the univariate analysis used by descriptive analysis to see the characteristic of each variable studied, the bivariate analysis used Pearson product- moment that to know the influence of each independent variable to

dependent variable that is anxiety on quality of life and depression on quality of life. And multivariate analysis is done to see the influence of independent variables with the dependent variable that is the influence of depression and anxiety to the quality of life. The statistical test used multiple linear regression to see the effect of variables X1 and X2 to Y.

RESULTS

Table 1 shows frequency distribution based on the gender of most males of most elementary school 8 (47%), marital status distribution mostly married 19 subjects (95%), age distribution most age 51-60 as many as 10 subjects (40%), distribution of health insurance all clients have BPJS(Health Insurance), distribution of work most clients do not work 11 subjects (55%), income distribution of more than 1 million as many as 11 subjects (55%).

The average anxiety level of 16.30 (moderate anxiety) and the average depression rate of 14.5 (normal to mild depression) and the quality of life of renal failure patients who performed hemodialysis therapy 81.15 (good). Based on table 3 shows that anxiety variables with the quality of life in patients with chronic renal failure performed hemodialysis therapy with correlation coefficient r-0.143 and p = 0.274> 0.05 that results show that there is no effect anxiety on quality of life. The calculation of correlation between depression variable with the quality of life r-0.532 with p 0.008 <0.05 that conclusion there is the effect of depression on quality of life. And table 4 shows the multiple regression analysis results obtained R = 0.538 and R2 = 0.289 (28.9%) and p 0.055> 0.05, indicating that there is no effect anxiety, depression on quality of life.

Table 1. Distribution of frequency of respondents

Characteristics	F	%
Gender		
Man	13	65
Women	7	35
Education		
Elementary School	8	40
Junior High School	3	15
Senior High School	6	30
College	3	15
Marital Status		
Marriage	19	95
Single	1	5
Work		
Work	9	45
Jobless (Do not work)	11	55
Age		
20-30	1	5
31-40	3	15
41-50	5	25
51-60	10	50
>60	1	5
Social Activity		
Active	18	90
Less Active	2	10
Health Insurance		
BPJS	20	100
Income		
> 1 million	11	55
< 1 million	9	45

Table 2. Mean and Standard deviation

Descriptive Statistics	Mean	Std. Deviation	N
Anxiety	16.30	4.985	20
Depression	14.05	5.799	20
Quality of life	81.15	8.707	20

Table 3. Effect of anxiety on quality of life and the effect of depression on quality of life

Correlations		Quality of Life	Anxiety	Depression
Pearson Correlation	Quality of life	1.000	-.143	-.532
	Anxiety	-.143	1.000	.118
	Depression	-.532	.118	1.000
Sig. (1-tailed)	Quality of life	.	.274	.008
	Anxiety	.274	.	.310
	Depression	008	310	.

Table 4. Multiple Linear Regression Statistics Test

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.538[a]	.289	.206	7.760	.289	3.460	2	17	.055	1.380

DISCUSSION

The Effect of Anxiety on Quality of Life

The result of analysis test show that correlation between variable anxiety score to the quality of life obtained r = -0.143 with probability 0,274 <0.05. The conclusion Ho is accepted which means there is no effect anxiety on the quality of life in patients with hemodialysis therapy. The results also showed that most patients had moderate anxiety level of 50%, and the patient's quality of life was good and 100% very good. The results of previous research that anxiety patients with kidney failure who undergo hemodialysis therapy 78% (NA, Panggabean, Lengkong, & Christine, 2012). Anxiety is a pathological condition caused by a stressful threat (Smith, Gomm, Ann, & Dickens, 2003). Chronic kidney disease characterized by kidney function decline, to help the kidney function return to work the action that can be done is hemodialysis therapy, but the therapy process is a long time and it takes more times, so the patients have a anxieties experience (NA et al., 2012). Anxious patients can affect their ability in poor coping mechanisms (Taluta & Hamel, 2014) so that the patient becomes bored undergoing hemodialysis process as a result of incomplete therapy and increasingly severe kidney disease (Babakal, 2015). Hemodialysis is needed to help the kidney function, during the treatment process in patients there is a change of habits, eating patterns sometimes arise health problems, and socio-economic and can affect the quality of life of patients (Gerogianni and Babatsikou, 2014).

Quality of life can be influenced by the age factor. Age factor can improve quality of life, the result of research from Putri et al that age group of 45-65 years as much as 82,60% have the quality of life in the good category. When entering old age a person's quality of life becomes better because the individual has passed through a period of change in his life and the older

ISBN: 976-602-5617-11-9

individual has more ability to steer and evaluate himself towards the better (Putri, Sembiring & Bebasari, 2014). According to this research that 41-60 years age group as much 75%. It is concluded that patients with hemodialysis feel anxious with the situation but with their old age still have a good quality of life.

The Effect of Depression on Quality of Life

The result of the analysis that depression impact quality of life with r-0.532 with p 0.008 <0.05. The results show there is effect depression on the quality of life of patients with hemodialysis therapy. And the results show the patients with hemodialysis therapy 55% did not experience depression and followed by good quality of life and very good 100%. Depression is the most common factor associated with the quality of life of individuals (Kaawoan, 2012). Chronic kidney disease is a long and complicated disease that often appears to make people unable to cope with illness and stress and depression (Andri, 2013). Chronic illness is a dominant disease associated with the incidence of depression (Safitri, 2013).

Based on Setyowati (2015) the results of literature review shows from 17 research articles, 15 of which said women with chronic diseases have a lower quality of life than men. Women have negative effects in various domains of quality of life, especially the mental domain, which may cause women to pay more attention to their health and spend more time consulting with their illness (Gao et al., 2012). So it can be concluded that most respondents did not experience depression because 65% of respondents male sex so it has a good quality of life and very good.

Effect of Anxiety and Depression on Quality of Life

The results of the analysis test using multiple linear regression coefficients of determination which is the result of measurement R2 (R Square) 0.289, which means that the effect of anxiety and depression on the quality of life of 28.9%., Is in the range of low influence. While the rest (100%-28.9% = 71.1%) were obtained from other variables outside the un-researched variables. The coefficient of determinism R square = 0.239 which shows the influence of anxiety and depression on the quality of life of hemodialysis in patients with chronic renal failure is in the low range. With the significance level α = 5% obtained from f arithmetic 0.055> 0.05 which means there is no influence of anxiety and depression on the quality of life of hemodialysis in patients with chronic renal failure, but from the results almost affect because of only a few advantages. The results of this study are similar to the previous that anxiety does not affect the quality of life of patients with renal failure who undergo hemodialysis therapy (NA, et al., 2012). This opinion is equal to Mardyaningsih's (2014) that hemodialysis actually maintains the quality of life of patients with renal failure who undergo hemodialysis therapy rather than hemodialysis. Disease of kidney failure mostly cause health problems and cause serious problems including the quality of life of the sufferer (Gerogianni and Babatsikou, 2014), but the support of the family is able to maintain the quality of life (Yusra, 2011and Hakim etc., 2010). Social support can increase life satisfaction and also affect the quality of life for the

ISBN: 976-602-5617-11-9

better (Huda, 2013). Family support can decrease anxiety, depression and can lead to positive emotions (Pangastuti, 2008) so that may affect the quality of life (Kusuma, H., 2011). In this study, the anxiety and depression experienced by the respondents only affect the low range of quality of life.

There are several factors that can improve the quality of life of respondents such as duration of hemodialysis therapy. Based on the inclusion criteria that the respondents who were taken had received hemodialysis therapy more than three times. Ananta & Mardianto, (2014) has observed that the long span of hemodialysis on patients with chronic renal failure is very influential in the condition of patients both physical and psychic, feelings of fear are the expression of emotions from patients most often disclosed. Fear and despair also often come from having to rely on hemodialysis. The longer the patient undergoes hemodialysis, the patient will be more adherent in the therapy because patient has reached the receiving stage and the patient has also obtained additional information about his illness and the importance of hemodialysis therapy.

Another factor that can improve the quality of life is health insurance, the results showed that 100% of respondents have health insurance (BPJS). The health insurance ownership status can be related to Health- Related Quality of Life (HRQL), where individuals who do not have health insurance have very low QOL scores while patients who have full health insurance coverage have more QOL scores high (Penson, 2001). Other research results Juutting (2003), Bharmal et al. (2005) and Kusuma (2011) point out the importance of having health insurance because each member has a higher chance of getting health care and paying fewer medical services than those who do not have health insurance. So with the health insurance of respondents still get the optimal care so that the quality of life of respondents good.

CONCLUSION

There is no impact anxiety on the quality of life of hemodialysis in patients with chronic renal failure in Bhakti Husada Hospital Glenmore Banyuwangi. There is impact depression on the quality of life of hemodialysis in patients with chronic renal failure in Bhakti Husada Hospital Glenmore Banyuwangi. There is no impact anxiety and depression on the quality of life of hemodialysis in patients with chronic renal failure at Bhakti Husada Hospital Glenmore Banyuwangi. For institutions where the research to maintain and improve services to patients, especially patients with chronic renal failure who underwent hemodialysis. For the patient that anxiety and depression can increase the quality of life when done hemodialysis. Lecturer of medical nursing subject to provide nursing care guidance patient management experience anxiety and depression. To the next researcher to research with more subjects.

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