Giving Effect Module For Healthy Lifestyle To Interdialysis Weight Gain (IDWG) and Quality of Life of The Chronic Renal Failure Patients Undergoing Therapy Hemodialysis

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Submitted:18/7/2021 **Conferrence:** 17/10/2021 **Accepted:** 22/2/2022 **Published online**: 8/3/2022

Abstract: Almost every form of health problems preceded by a form of lifestyle. These factors can be controlled or controlled and will be positive or negative impact on health. Lifestyle is one of the triggers various chronic diseases of modern and one of them is chronic kidney disease (CKD). The purpose of this study modules determine the effect of a healthy lifestyle to Interdialysis weight gain (IDWG) and the patient's quality of life, good health domains of physical, psychological, social relationships and environment. This research method is Quasi experimental by using one-group pretest-posttest design. A sample of 30 patients, the results of analysis using correlation and multiple linear regression showed that there was significant effect between the provision of a healthy lifestyle module to IDWG (-6,904> -2.4.495> 2.056) variable confounding (characteristics of respondents) influence on quality of life (p = 0.000).

Keywords: Healthy lifestyle, IDWG, hemodialysis, quality of life.

Introduction

Lifestyle is one of the important internal factors that can affect health which is included in the cognitive dimension. How a person lives his life, including the choice of place to live and the individual's own behavior patterns. This condition is strongly influenced by sociocultural factors and individual characteristics. These factors can be controlled or controlled and will have a positive or negative impact on health depending on the individual's own choices. Negative lifestyles such as smoking, consuming alcohol, insufficient activity and rest will trigger the emergence of various modern chronic diseases and one of them is chronic kidney failure.

The incidence of chronic kidney disease (CKD) varies in various countries with the number between 100-150 per one million population per year in Europe, 300 per one million population per year in the United States, and 400 per one million population per year in Taiwan. Stages 1 and 2 chronic kidney failure for 6% of the adult population, while stages 3 and 4 are estimated to for 4% of the population(USRDS, 2005).

According to data from the Indonesian Kidney Care Foundation (YAGINA, 2014) Currently in Indonesia there are 40,000 patients with chronic renal failure. However, of this number, only about 3,000 patients can enjoy dialysis or hemodialysis services and havethe rest, can only surrender to live his life. Data report (Riskesdas, 2018)stated that the prevalence of chronic kidney failure in Aceh increased by 0.4% from 2013 and the highest prevalence occurred in

the Bireun district of 1.1%. Complications that often occur in hemodialysis patients are weight gain between two hemodialysis times (Interdialysis weight gain) caused by the inability of the kidney's excretory function. Besides that, this is also influenced by several other factors, namely: environment, nutrition, behavior, physiological and psychological(Hwang, 2007)

The low awareness in implementing a healthy lifestyle among patients undergoing hemodialysis therapy is also a trigger for the factors mentioned above (Dewantari, 2020). Likewise, what happened at the Cut Meutia General Hospital in North Aceh, where 65% of the 72 patients who routinely underwent hemodialysis therapy at the Cut Meutia Hospital North Aceh experienced weight gain between the two times of dialysis. This is due to the low awareness of implementing a healthy lifestyle in their lives such as uncontrolled eating habits, inappropriate fluid restriction patterns, inadequate sleep and rest patterns, lack of physical activity, inappropriate self-coping abilities, carrying capacity. family, social and environmental relationships are still low, in addition to the low role of health promotion personnel in facilitating patients to behave in good healt

Method

This type of research is a quasi-experimental one group pretest posttest design. This type of study was chosen because of the limited number of patients. The data obtained before the treatment in the form of test results and other data were classified as data from the control group, while the data collected after the treatment was classified as data from the experimental group. Samples were patients with chronic kidney failure who underwent hemodialysis therapy at the hemodialysis unit of RSUD Cut Meutia North Aceh. The sampling technique was purposive sampling and met the inclusion and exclusion criteria until the required number of respondents was met (30 samples).

The study was conducted for 3 months, namely October-December 2019 at the hemodialysis unit of the Cut Meutia Hospital, North Aceh. The instruments used consist of, 1) a) module that contains a healthy lifestyle arrangement (intervention), 2) a questionnaire on the characteristics of respondents, 3) a questionnaire on questions about quality of life (*WHOQOL-Breff*) and a table for weighing pre and post dialysis. The statistical test used is correlation analysis and simple linear regression.

Result and Discussion

1. Age

The results of this study indicate that the age of the majority of respondents who underwent hemodialysis therapy at the hemodialysis unit of RSUD Cut Meutia was in the age category 50-55 (50%) thus the age factor affected the incidence of chronic kidney failure. This is in line with the results(Riskesdas, 2018)which states that the prevalence of chronic kidney disease increases with age, where there is a sharp increase in the 55-64 year age category (1.0%). research conducted by(Kim S, 2009)of 2,356 Koreans, there was an increase in the incidence of chronic kidney disease from 8.8% at the age of 35-44 years to 31% at the age of 65 years.

Likewise, research conducted by(Chen, 2009)in Taiwan reported the prevalence of chronic kidney disease at the age of 75 years is 17-25 times greater than the age of less than 20 years. Likewise, research conducted(latifah, 2012)at Dr. Hospital. Moewardi in December 2012 of 30 patients with chronic kidney failure who are most vulnerable to the incidence of kidney failure are young adults aged 18-40 years. Report(IRR, 2018) obtained as many as 89% of CKD patients undergoing hemodialysis aged 35-70 years with the most age group 45-54 years, namely 27%.

Theoretically increasing age will affect the anatomy, physiology and cytology of the kidneys. After the age of 30 years, the kidneys will atrophy and the thickness of the renal cortex will decrease by about 20% every decade. Other changes that will occur with age are thickening of the glomerular basement membrane, expansion of the glomerular mesangium and the occurrence of extracellular matrix protein deposits that cause glomerulosclerosis.

2. Gender.

The results of this study indicate that the majority of the sex respondents who experienced chronic kidney failure and underwent hemodialysis therapy were 23 men (76.7%) while only 7 women (23.3%). This shows that there is an influence of gender on the incidence of chronic kidney failure. This is in line with research, Research conducted at the hospital, Dr. Moewardi Surakarta The results that the average respondents who suffered from chronic kidney failure were 53.3% male and 47.6% female. From the analysis of the relationship, it was found that there was a relationship between gender and the incidence of chronic kidney failure. (Purwati, 2018). Research conducted at the Wates Hospital Kulon Progo found that: gender and age were associated with the incidence of chronic renal failure with odds ratios of OR=2.033, $p<0.05$, Cl=1.028 - 4.023 and OR=2.235, $P<0.05$, Cl=1.139 -4.385.(Pranandari, 2015)

In contrast to research conducted in: Research conducted at Dr. RSUP. Mohammad Hoesin Palembang found that CKD is more common in women (53%) than men (47%) and increases with age. (Tjekyan, 2014)

4. Education Level

The results of this study indicate that the majority of respondents who underwent hemodialysis therapy in the hemodialysis unit of the Cut Meutia General Hospital, North Aceh, were the majority of high school graduates (43.3%). This is in line with the results of the research conducted: The Aceh Basic Health Research report states that the lower the level of education, the prevalence of chronic kidney failure is increasing. (Riskesdas, 2018). Research conducted at Prof Kandaou Hospital Manado states that the higher a person's education level, the lower the risk of kidney failure. (Wua, 2019)

The results of this study are supported by a theory where knowledge or cognitive is an important domain for the formation of action, behavior based on knowledge will be more lasting than one that is not based on knowledge. (Notoatmodjo, 2012). Education can bring insight or knowledge of a person. In general, a person with higher education will have a wider

knowledge than someone with a lower level of education. The higher a person's level of education, he will tend to behave positively because the education obtained can lay the foundations of understanding in a person. Education is the process of delivering information to someone to get behavior change. The higher a person's level of education, the more critical, logical, and systematic way of thinking is.

5. Types of Work

The results of this study indicate that the majority of respondents are entrepreneurs (46.7%) while the lowest is farmers (3.3%). Someone who works with low activity with more sitting and continues for a long time, for example entrepreneurs, office workers, drivers, is very at risk for the incidence of kidney failure. Low activity does not stimulate sweating, so there is no stimulation of thirst in addition when the person does not consume enough water at least 1.5 liters / day. Based on data report (Riskesdas, 2018)states that the prevalence of chronic kidney failure in low activities is 0.3%, (entrepreneurs, employees, not working) while in high activities 0.7% (farmers, fishermen, laborers)

Likewise, the results of research conducted at the Haji Hospital Medan that the biggest risk factor for chronic kidney failure 68% with the category of heavy activity is associated with unhealthy behavior which is one of the risk factors for chronic kidney failure.(Rizki, 2017).

6. Marital Status

The results of this study indicate that the distribution of respondents based on marital status is the majority in the married group (90%). Judging from marital status, most patients still have a life partner and this can be a good support system in improving the patient's health condition. The results of this study are in line with the results of(Arifa, 2017)The proportion of married respondents who experience CKD is more (84.7%) than respondents with other statuses.

Marriage is an individual activity will generally be related to a goal to be achieved by the individual concerned, as well as in the case of marriage. Marriage is an activity of one partner, so they should also have a specific purpose. But because marriage consists of two individuals, it is possible that their goals are not the same. If this happens, then the goal must be rounded so that there is a unity in the goal. Spouse support is very helpful in setting goals so that a better quality of life for chronic kidney failure patients can be better(Hutagaol, 2017).

Marital status is the best predictor of overall quality of life. This generally indicates that individuals who are married have a higher quality of life than individuals who are not married, divorced, or widowed/widowed due to the death of a spouse. because the family has a function to provide support (Both material, social, and emotional).

7. Length of Hemodialysis.

Based on the results of this study, the majority of respondents with long undergoing hemodialysis were < 1 year, namely 16 people,

(53.3%) and the lowest respondents who underwent hemodialysis 1-3 years were 6 people (20%). These results illustrate that the life expectancy of patients is fairly high. This research is supported by: The Indonesian Renal Registry report states that, the percentage value of survival of patients with hemodialysis from 3,907 data analyzed by age, it was found that age < 50 years had a 47.99% chance of survival compared to age > 50 years of 52.01%, while the chance of surviving one month for people hemodialysis was 87.3% and the chance of survival for one year was 46.7%. (IRR, 2018). Research conducted at Djamil Hospital Padang stated that there was a relationship between length of time undergoing hemodialysis and the quality of life of patients with chronic kidney failure at Dr. M Jamil Hospital Padang (sig. 0.000).(Wahyuni P. , 2018)

8. Respondent's Healthy Lifestyle Outside Hemodialysis Schedule

The results of this study indicate that a healthy lifestyle outside the hemodialysis schedule, some respondents who undergo hemodialysis therapy at the Cut Meutia General Hospital in North Aceh are in the moderate category (60%) and the good category only (40%), this shows that there is still a lack of awareness in lifestyle behavior. healthy life in the majority of respondents who underwent hemodialysis therapy outside the hemodialysis schedule. The results of this study are strengthened by the results of research conducted by: Research conducted at RSAI Bandung on kidney failure patients with hemodialysis therapy found that they had a high level of confidence in their health and on average they also showed high compliance behavior. (Nadianti, 2015).

Various theoretical studies explain that chronic kidney failure is based on many factors and one of them is lifestyle which is a supporting factor that triggers an increase in a person's risk of suffering from chronic kidney failure. Lifestyles are patterns or actions that distinguish one person from another and function in interaction in ways that may not be understood by people who do not live in modern society.

Lifestyle has many components. But in general it includes several factors, including: Adequate and regular rest, consuming healthy and balanced food regularly, maintaining an ideal body weight, doing physical exercise regularly, correctly, measurably and continuously, having a positive view and conducting regular health checks. routine and regular. Healthy until the end of life is a dream of all people during life in the world, efforts to maintain health will not succeed if there is no change in mental attitude and behavior. Of the various kinds of diseases that exist today, the root source is none other than the wrong lifestyle. If we live a healthy and correct lifestyle, disease will be far from us.

9. Interdialysis Weight Gain (IDWG).

The results of this study indicate that of the 30 respondents studied 53% of respondents experienced weight gain between two dialysis times an average of 4-6% of dry weight, 33% were in the danger category with an increase of > 6% of dry weight. dry weight, while the good category is only 13% with an increase of 2% from dry weight. This indicates that the expected IDWG value has not been met. The results of this study are strengthened by the results of the

study: Research at Panembahan Senopati Hospital Bantul, showed that patients who were included in the category of light weight gain mostly had good quality of life, namely 14 (51.9%). While the categories of average weight gain and danger have the same results, namely most of the respondents have a good quality of life, namely 9 (52.9%). It means that it can be concluded that in each category of weight gain, most of the respondents have a good quality of life(Wahyuni, 2014**).** From the 2014 Indonesia Renal Registry data, it was reported that the percentage of survival of hemodialysis patients from 3,907 data analyzed by age was found to be 47.99% aged <50 years and >50 years of age 52.01%, while the chance of surviving one month for people with hemodialysis is 87.3% and the chance of survival for one year is 46(IRR, 2018)

The presence of weight gain between two times of dialysis (IDWG) needs serious attention, because a high IDWG can cause various complications due to excess fluid including edema, shortness of breath and cardiomegaly.

Conclusion

The results showed that there was a significant effect between giving a healthy lifestyle module to IDWG (-6.904>-2.056) and quality of life in all domains, physical health domain (8.468 > 2.056) psychological domain (8.517 > 2.056) social relations domain (9,934 < 2.056) and environmental domain (11,399 > 2.056) and lifestyle behavior outside the dialysis schedule (4,495 > 2.056) Confounding variables (respondent characteristics) have an influence on quality of life (p = 0.000).

Recommendations for further research are to examine the effect of the role of family support on the effectiveness of modules, motivation, culture and customs on improving the quality of life and with a larger sample size.

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