

RELATIONSHIP OF KNOWLEDGE AND FAMILY SUPPORT WITH COMPLIANCE WITH DIET IN CHRONIC KIDNEY DISEASE PATIENTS (CKD) UNDERGOING HEMODIALYSIS AT RSUP DR. M. DJAMIL PADANG

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ABSTRACT

Management of PGK patients undergoing hemodialysis one of which is diet, adherence in the diet is influenced by knowledge and family support. The purpose of this study was to determine the relationship of knowledge and family support with adherence to implement the diet in patients with Chronic Kidney Disease (PGK) who underwent hemodialysis in RSUP DR. M. Djamil Padang in 2017. This type of research is an analytic survey with cross sectional design. The sampling technique was accurate sampling with 41 samples. The data collection used primary data using knowledge and family support questionnaires, while for dietary compliance using secondary data looked at references from nurse or medical records. Univariate analysis is shown in frequency distribution and bivariate table by using chi-square test with 95% confidence $\alpha = 0.05$. The results showed that there was a correlation between knowledge and adherence in the implementation of diet in patients with Chronic Kidney Disease (PGK) who underwent hemodialysis at RSUP.DR.M.Djamil Padang in 2017 (P value = 0.048) and there was a relationship between family support with Obedience in carrying out the diet in patients with Chronic Kidney Disease (PGK) undergoing hemodialysis at RSUP.DR.M.Djamil Padang in 2017 (P value = 0.042). It is suggested to the head of the hemodialysis room to educate the patient about the importance of carrying out the diet regularly and provide direction to the families who accompany the patient in order to pay more attention to the patient's compliance in following the recommended diet.

Keywords: Knowledge, Family Support and Diet Compliance

INTRODUCTION

Chronic Kidney Disease (CKD) is a progressive and irreversible renal function disorder that causes the body's ability to fail to maintain metabolism, fluid and electrolyte balance which causes uremia or retention of urine and nitrogen waste in the blood (Haryono R, 2013).

According to the World Health Organization (WHO), globally more than 500 million people have CKD. In the United States, every year, CKD has always increased by 2.1% and in 2014 the prevalence of CKD continued to increase to more than 50% (Nastiti, 2015). In Indonesia, based on data obtained from Basic Health Research (RIKESDAS) in

2013, the prevalence of CKD based on a doctor's diagnosis in Indonesia is 0.2%.

According to the Indonesia Renal Registry (IRR) in the Indonesian Nephrology Association (PERNEFRI) in 2014, CKD can be caused by Hypertensive Kidney Disease as much as 37%, Diabetic Nephropathy by 27%, in Primary Glomerulopathy as much as 10%, after that Chronic Pyelonephritis, Obstructive Nephropathy and Disease others as much as 7%, unknown causes of disease as much as 2%, then uric acid nephropathy, polycystic kidney and lupus nephropathy as much as 1%.

One of the management of CKD patients is diet. Diet is an important factor in the management of kidney failure



patients undergoing hemodialysis such as limiting the intake of protein, salt, potassium and fluids. Diet therapy only helps slow the progression of chronic kidney disease (Hartono, 2006). The therapy that is often recommended for CKD patients is hemodialysis. The purpose of hemodialysis is to remove toxic residues, excess fluid and to correct electrolyte imbalances with the principle of osmosis and diffusion using external and internal dialysis systems (Wijaya, AS & Putri, YM 2013).

Adherence to diet control is a very important factor in determining the level of and well-being of patients. Adherence can also be defined as positive patient behavior in achieving therapeutic According to goals (Kozier, 2011). Feuerstein et al (1986) in Niven (2012) factors that influence adherence include: education level, knowledge, family support, changes in therapy models, quality of health professional interactions and beliefs, attitudes and personality.

In hemodialysis patients the increase in IDWG should not exceed 5% because it can cause new problems for patients including hypertension, impaired physical function, shortness of breath, pulmonary edema and heart failure (Smelter & Bare, 2009). The increase in IDWG can be controlled with knowledge so that it will have an effect on patient behavior, especially adherence to diet control (Bots, 2006 in Alisa, 2014).

Knowledge determines a person's behavior towards the problems it faces. Someone who has good knowledge will easily apply their knowledge into positive behavior and allows patients to control themselves in overcoming the problems at high self-confidence, hand. Having experience and having the right estimate of how to deal with events and easy to what health workers understand recommend, will reduce anxiety so that it the individual in making decisions (Notoatmodjo, 2010).

Family support is also very much needed for patients who are on a diet or medication, because one of the functions of the family is to provide health care to its members, both to prevent disease and to care for sick family members (Padila, 2012). Family support is a comfort, attention, appreciation or helping people with an attitude of accepting their condition. Family can be a very influential factor in determining the beliefs and health values of individuals and can also determine the treatment program they can receive (Niven, 2012).

RSUP Dr. M Djamil Padang is a hospital that has hemodialysis facilities with 24 units of machines. The average patient undergoing hemodialysis from January 2017 to April 2017 was 156 patients. The average patient who has undergone hemodialysis therapy is 7-10 months, some patients have undergone hemodialysis for more than 1 year. Based on the initial survey on January 20, 2017, as many as 7 outpatients, 4 patients (57.1%) did not adhere to the recommended diet, as evidenced by the results of the IDWG analysis of more than 5% patients. Patients do not adhere to the diet because they feel bored eating and drinking should be limited as recommended, they also rarely keep food and fluids after hemodialysis and 3 patients (42.8%) adhere to the recommended diet. as evidenced by the results of the IDWG analysis of patients less than 5%. Patients adhere to the diet because they have a desire to recover and improve their quality

Based on the results of the interview, 4 patients said they did not get family support, because the family did not care about the patient's condition such as: not providing food according to the recommended diet, the family did not provide enough motivation or attention to remain obedient to the recommended diet and 3 patients said they received family support such as: family giving attention to



what food and drinks are allowed according to the diet, the family pays for every patient's needs. 4 out of 7 patients know less about the diet they should live, such as: what foods should be avoided and foods that are allowed according to the diet and 3 out of 7 patients have knowledge about the recommended diet such as: the benefits of following a diet, the impact of not following the diet, - the kind of diet you have to live.

Based on the above phenomena, the researcher is interested in examining whether there is a relationship between knowledge and family support with dietary compliance in Chronic Kidney Disease (CKD) patients undergoing hemodialysis at RSUP DR. M Djamil Padang in 2017.

MATERIAL AND METHOD

The research design in this study was an analytic survey with a cross sectional study approach. The sample in this study were 41 respondents who met the inclusion criteria with the accidental sampling method.

After finding respondents who match the inclusion criteria, the researcher then explains the research objectives. After the respondent signed the informed consent, the questionnaire for knowledge and family support was read by the researcher in a guided manner to be filled in and completed. Then for the assessment of dietary adherence in this study, researchers looked at references to nurse records or medical records to see the weight of patients who had been weighed using internationally calibrated weight scales so that the measurements made were valid.

This study carried out univariate and bivariate analysis identify to characteristics of the respondents (name, age, occupation, education, gender, length hemodialysis) and variables knowledge, family support and dietary compliance. Bivariate analysis using the Chi Square test with an alternative testContinuity Correction to determine the between knowledge relationship family support with dietary compliance in patients with chronic kidney disease (CKD) undergoing hemodialysis with a p value < 0.05.

RESULTS

The results obtained from the study are as follows:

A. Univariate Analysis

Table 1. Distribution of Respondent Characteristics

No.	Respondent Characteristics	f	%
1.	Gender:		
	Male	21	51.2
	Women	20	48.8
	Total	41	100.0
2.	Age:		
	32-35 Years	3	7.3
	36-45 years	14	34.1
	46-55 Years	20	48.8
	56-64 years	4	9.8
	Total	41	100.0
3.	Education:		



	No school	2	4.9
	SD	5	12.2
	SMP / equivalent	3	7.3
	SMA / equivalent	23	56.1
	University	8	19.5
	Total	41	100.0
4.	Profession:		
	IRT	18	43.9
	entrepreneur	15	36.6
	Civil servants	7	17.1
	Retired	1	2.4
	Total	41	100.0
5.	Hemodialysis		
	duration:	26	63.4
	1-2 years	15	36.6
	> 2 years	41	100.0
	Total		

Based on Table 1 above, it can be seen that the majority of respondents were male as many as 21 people (51.2%), age 46 - 55 years as many as 20 people (48.8%), high school education / equivalent as many as

23 people (56.1 %), the work of IRT was 18 people (43.9%), while the length of hemodialysis 1 - 2 years was 26 people (63.4%).

Table 2. Distribution of Respondents Based on Knowledge

Knowledge	Frequency	Percentage		
High	19	46.3		
Low	22	53.7		
Total	41	100.0		

Based on Table 2 above, it can be seen knowledge is low, namely as many as 22 that the majority of respondents' people (53.7%).

Table 3. Distribution of Respondents Based on Family Support

Family support	Frequency	Percentage		
Well	24	58.5		
Not good	17	41.5		
Total	41	100.0		

Based on Table 3 above, it can be seen that the majority of respondents' family

support is good, namely as many as 24 people (58.5%).

Table 4.Distribution of Respondents Based on Compliance with the Diet of Patients with Chronic Kidney Disease (CKD) Who Underwent Hemodialysis

Obedience	Frequency	Percentage		
Obey	16	39.0		



Not obey	25	61.0
Total	41	100.0

Based on Table 4 above, it can be seen that compliance with the majority of

respondents' diet is not obedient, namely as many as 25 people (61.0%).

B. Bivariate Analysis

C.

Table 5. The Relationship between Knowledge and Compliance with Diet in Chronic Kidney Disease (CKD) Patients Undergoing Hemodialysis

Knowledg e	Compliance with Diet Obey Not				Total		P valu e
		ьеу	Not obey				
	\boldsymbol{F}	%	f	%	\boldsymbol{F}	%	
High	11	57.9	8	42 .1	19	100	-
Low	5	22.7	17	77 .3	22	100	0.04 8
Total	16	39	25	61	41	100	-

Based on Table 5 above, it can be seen that the relationship between knowledge and compliance with diet in patients with chronic kidney disease (CKD) undergoing hemodialysis. Based on the results of Chi Square, the p value $(0.048) < \alpha (0.05)$ was

obtained. These results indicate a relationship between knowledge and compliance with diet in patients with chronic kidney disease (CKD) who undergo hemodialysis.

Table 6.The Relationship between Family Support and Compliance with Diet in Chronic Kidney Disease (CKD) Patients Undergoing Hemodialysis

	Adherence to Diet						P
Family support	Obey		Not obey		- Total		valu e
	\overline{f}	%	F	%	\overline{f}	%	
Well	13	54	11	45	24	100	0.04
		.2		.8			2
Not good	3	17	14	82	17	100	2
		.6		.4			
Total	16	39	25	61	41	100	-

Based on Table 6 above, it can be seen that the relationship between family support and compliance with diet in patients with chronic kidney disease (CKD) undergoing hemodialysis. Based on the Chi Square results obtained p value (0.042) $<\alpha$ (0.05). These results indicate a relationship between family support and compliance with diet in patients with chronic kidney disease (CKD) who undergo hemodialysis.

DISCUSSION

A. Univariate Analysis Respondent Characteristics

1. Gender:

Based on research conducted at RSUP. DR. M. Djamil Padang found that male sex was the highest number of respondents



who underwent chronic kidney disease (CKD) who underwent hemodialysis, namely 21 people (51.2%), while female sex was 20 people (48.8%). Basically every disease can affect humans, both men and women, but there are several diseases, there are differences in frequency between men and women. There is no literature that states that gender is a benchmark for causing a person to experience chronic kidney failure. This is due to factors of diet and lifestyle of male respondents who like to smoke and drink coffee (Nurchayati, 2012)

2. Age:

Through this research, the most respondents age data is obtained, namely 46 - 55 years with a total of 20 people (48.8%). This is because renal function will change with age, where after the age of 40 there will be a progressive decrease in the glomerular filtration rate until the age of 70, which is \pm 50% of normal (Smelzert & Bare, 2012).

3. Education:

Based on this research, it was found that the most recent education of the respondents, namely SMA / equivalent with a total of 23 people (56.1%). The results of this study are supported by the theory of Wawan & Dewi (2011), which explains that the higher a person's education, the higher one's knowledge will be. However, someone with low education is not necessarily low knowledge.

4. Profession:

Based on the results of this study, it was found that the occupations of the most respondents were IRT with 18 people (43.9%). This is due to the inability to do a job because they do not have the opportunity so that they are more focused on undergoing hemodialysis therapy. Work is an activity to carry out an activity with the intention of earning income, the amount of income received will affect the work done (Sunaryo, 2008).

5. Hemodialysis duration:

Based on the results of this study, it was found that the length of hemodialysis of the most respondents was 1-2 years with a total of 26 people (63.4%). The length of time undergoing hemodialysis has an influence on knowledge, attitude and dietary compliance. Each sufferer requires a different level of knowledge and attitude. patient longer the undergoes hemodialysis, the more knowledge will be gained and can be positive about dietary compliance. This is supported by Sapri's (2008) research, which states that the longer the patient undergoes hemodialysis the more obedient the patient is because the patient has reached the acceptance stage.

6. Knowledge:

this Based on study, from respondents, it was found that the number of high knowledge was 19 people (46.3%), while 22 people (53.7%) had low knowledge. Knowledge may be influenced by information received by respondents about the diet they must adhere to in undergoing hemodialysis therapy. Knowledge is also formed from experience and non-formal education such as reading and getting counseling. The lower a person's knowledge of health, the lower the practice of health, healthy living behavior (Notoatmodjo, 2012).

7. Family support:

Based on this research, from 41 respondents, it was found that the number of good family support was 24 people (58.5%), while the poor family support was 17 people (41.5%). According to Sitiaga (2015), family support is very important in influencing patient recovery. Because family apart from providing motivation also affects patient adherence in treatment. Motivation is a condition that drives behavior and directs activities towards achieving goals.

Family can be a very influential factor and determine the beliefs and health values of an individual and can also determine the treatment program received



(Niven, 2012). According to Niven (2012), family support is one of the factors that influence non-compliance. The family can help remove the temptation to disobedience and the family can often be a support group for achieving obedience.

8. Diet Compliance:

Based on this study, from 41 respondents, it was found that the number respondents who obeyed implementing the diet was 16 people (39.0%), while those who did not comply with the diet were 25 people (61.0%). According to Niven (2012), adherence is the extent to which patient behavior is in accordance with the provisions given by health professionals. Compliance is also the level of individual behavior in taking medication, meeting the recommended diet or lifestyle changes. Adherence can also be defined as positive patient behavior in achieving therapeutic goals (Kozier, 2011).

B. Bivariate Analysis

9. Relationship between Knowledge and Compliance with Diet in Chronic Kidney Disease (CKD) Patients Undergoing Hemodialysis:

Based on the results of research on 41 respondents in the hemodialysis room in RSUP DR. M. Djamil Padang stated that 77.3% of respondents who had low knowledge were not obedient implementing the diet, while only as many as high knowledge42.1% of patients do not adhere to diet. Respondents' knowledge about CKD and diet may be influenced by how long the patient has undergone hemodialysis therapy so that a lot of information has been obtained from various media and health education. Someone who has low education but gets good information from various media will their knowledge. Ease increase obtaining information can help accelerate a acquiring new knowledge. Knowledge is very important in shaping

one's actions. One form of action based on the knowledge of chronic renal failure patients is food intake. Knowledge of the disease they are suffering from and the diet they must follow are very important for patients with chronic kidney disease (CKD) so that malnutrition does not occur. In addition, it is also to prevent complications and not worsen complications that have already occurred (Desitasari, 2014).

From the results of data processing carried out using SPSS shows that there is a relationship between knowledge of compliance with diet in patients with chronic kidney disease (CKD) undergoing hemodialysis. Based on the calculation of the computerized Chi Square test, it was found that p value = $0.048 < \alpha 0.05$, then accepted and was this result meansthere is a relationship between knowledge with dietary adherence in Chronic Kidney Disease (CKD) patients undergoing hemodialysis at RSUP DR. M. Djamil Padang.

10. Relationship between Family Support and Compliance with Diet in Chronic Kidney Disease (CKD) Patients Undergoing Hemodialysis:

Based on the results of research on 41 respondents in the hemodialysis room in RSUP DR. M. Djamil Padang stated that 82.4% of respondents who had poor family support were not obedient in carrying out the diet, while only as much as good family support was 45.8% of patients do not adhere to diet. According to research Desitasari (2014), is expected motivation create circumstances within emerges, individual is directed, and behavior dietary intake maintain restrictions. Thing iThis requires motivation and appreciation either in a person or health practitioner so can improve behavior health in particular diet This compliance behavior. research supported by theory according Niven (2012) states that family support is one of the factors which influence obedience.



Family support is needed for patients undergoing diet and medication, because one of the functions of the family is to provide health care to its members, both to prevent disease and to care for sick family members (Padila, 2012).

From the results of data processing carried out using SPSS shows that there is a relationship between family support with adherence to diet in patients with chronic kidney disease (CKD) who undergo hemodialysis. Based on the calculation of the computerized Chi Square test, it was found that p value = $0.042 < \alpha 0.05$, then Ha was accepted and this result meansthere is a relationship between family support with adherence to diet in patients with chronic kidney disease (CKD) who undergo hemodialysis at RSUP DR. M. Djamil Padang.

CONCLUSION

than half (53.7%) More respondents have low knowledge about diet, Less than half (41.5%) of respondents have poor family support in implementing diet, more than half (61%) of respondents do not comply with the diet. There is a betweenknowledge relationship withAdherence to dietary compliance in patients with chronic kidney disease (CKD) undergoing hemodialysis at RSUP. DR. M Diamil Padang(P value = 0.048) and there is a relationship between family support with Adherence to dietary compliance in patients with chronic kidney disease (CKD) undergoing hemodialysis at RSUP. DR. M Diamil Padang (P value = 0.042).

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