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The Relationship Between Nutritional Status and Quality of Life Patient Disease Kidney Chronic Undergoing Hemodialysis

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ABSTRACT

The prevalence of Protein Energy Malnutrition is reported to vary between 10% and 36% of all patients undergoing hemodialysis. Patients with chronic kidney failure undergoing hemodialysis need good nutritional status to improve their health. This situation requires a deeper analysis of important chronic kidney disease nutrition aimed at improving quality of life. This study aimed to analyze the relationship between nutritional status and quality of life of chronic kidney disease patients undergoing hemodialysis. This research method uses exploratory descriptive research with cross-sectional design. The population is all patients undergoing hemodialysis therapy. A sample of 63 clients was recruited by purposive sampling technique, the criteria were Undergoing hemodialysis therapy 2x/week and aged between 18-55 years. Variables are nutritional status (Subjects Global Assessment/ SGA and Body Mass Index/ BMI) and quality of life as measured by a modified questionnaire from previous studies. Data analysis was carried out using Logistic Regression and Spearman's rho with a degree of significance $p < 0.05$. The results showed that nutritional status was not related to the quality of life of chronic kidney disease patients undergoing hemodialysis (0.988 and 0.952). Follow-up analysis found that BMI and SGA had a significant relationship with the burden of kidney disease and role-physics, which are indicators of quality of life. Nutritional status is not related to the quality of life, and remains an important factor to improve health. Future research needs to look at the biomolecular of nutritional status and its relation to health.

Keyword: Body mass index; chronic kidney disease; medical-surgical nurse; Malnutrition.

ABSTRAK

Prevalensi Malnutrisi Energi Protein bervariasi antara 10% hingga 36% dari seluruh pasien hemodialisis. Pasien gagal ginjal kronik yang menjalani hemodialisis memerlukan status gizi yang baik. Situasi ini memerlukan analisis yang lebih mendalam mengenai gizi pada penyakit ginjal kronik yang bertujuan untuk meningkatkan kualitas hidup. Penelitian ini bertujuan untuk menganalisis hubungan antara status gizi dan kualitas hidup pada pasien penyakit ginjal kronik yang menjalani hemodialisis. Metode penelitian yang digunakan adalah penelitian deskriptif eksploratif dengan desain potong lintang. Populasi adalah seluruh pasien yang menjalani terapi hemodialisis. Sebanyak 63 sampel dipilih dengan teknik purposive sampling, dengan kriteria pasien yang menjalani terapi hemodialisis 2 kali/minggu dan berusia antara 18-55 tahun. Variabel yang diteliti adalah status gizi (Assessment Global Subjective/SGA dan Indeks Massa Tubuh/BMI) dan kualitas hidup yang diukur dengan kuesioner modifikasi dari penelitian sebelumnya. Analisis data menggunakan Regresi Logistik dan uji Spearman's rho tingkat signifikansi $p < 0,05$. Hasil penelitian menunjukkan status gizi tidak berhubungan dengan kualitas hidup pasien hemodialisis (0,988 dan 0,952). Analisis lanjutan menunjukkan bahwa BMI dan SGA memiliki hubungan yang signifikan dengan beban penyakit ginjal dan peran fisik. Status gizi tidak berhubungan dengan kualitas hidup, namun tetap merupakan faktor penting untuk meningkatkan kesehatan. Penelitian selanjutnya perlu meneliti biomolekuler status gizi dan hubungannya dengan kesehatan.

Kata Kunci: Indek Massa Tubuh; Penyakit Ginjal kronik; keperawatan medical bedah; Malnutrisi

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Introduction:

Nutritional status has an important role in the quality of life of chronic renal failure patients undergoing hemodialysis and malnutrition is a major factor in morbidity and mortality in hemodialysis patients (Dharmeizar, 2013; PERNEFRI, 2013). The most common complication of malnutrition in hemodialysis is Protein Energy Malnutrition (MEP) because hemodialysis will increase protein catabolism (Dharmeizar, 2013). In addition, anorexia, nausea, and vomiting as uremia syndrome can also affect the food intake of hemodialysis patients (Black & Hawks, 2021). Chronic kidney disease patients undergoing hemodialysis need good nutritional status to improve their health (Bunga Allo et al., 2020). The most common complication of malnutrition in hemodialysis is Protein Energy Malnutrition because hemodialysis will increase catabolism proteins (Marsen et al., 2017). The prevalence of MEP is reported to vary between 10% and 36% of all patients undergoing hemodialysis. In addition, anorexia, nausea, and vomiting as uremia syndrome can also affect the food intake of hemodialysis patients. Decreased food intake for a long time will lead to insufficient nutritional needs which will have an impact on decreasing the nutritional status of chronic renal failure patients and accelerating disease progression. (Mihaescu et al., 2021).

Hemodialysis patients are vulnerable to malnutrition caused by protein catabolism, poor appetite, infections, comorbidities and indiscipline in dieting. Inadequate hemodialysis can be an important cause of malnutrition (Mihaescu et al., 2021). Chronic kidney disease patients undergoing hemodialysis require good nutritional status to improve their health. Nutritional management in chronic kidney disease aims to reduce uremia toxicity, improve metabolic disorders and prevent PEW so that it can improve quality of life, and reduce cardiovascular morbidity and mortality in chronic kidney disease.

Hemodialysis is an action to replace some of the kidney functions. This action is routinely performed in patients with Chronic Kidney Disease. Chronic Kidney Disease patients will undergo hemodialysis therapy when the Glomerular Filtration Rate (GFR) is less than 15 ml/minute/1.73 ml (Suhanda et al., 2014). The patient undergoes hemodialysis activities continuously throughout his life (Sharma, 2018). Although the action of hemodialysis extends life indefinitely, hemodialysis will not restore all kidney function. The patient continues to experience several problems and complications (Black & Hawks, 2021). hemodialysis therapy that requires a long term will result in changes in the ability to carry out daily life functions that can affect the quality of life of hemodialysis patients. Besides that, the emergence of several long-term complications such as mineral and bone disorders, anaemia, malnutrition, and cardiovascular problem can provide physiological stressors to patients. In addition to experiencing physiological stressors, patients undergoing hemodialysis also experience psychological stressors. These psychological stressors include fluid restrictions, food consumption restrictions, sleep disturbances, uncertainty about the future, restrictions on recreational activities, decreased social life, time and place restrictions, and economic factors. Patients will lose their freedom because of various regulations and are very dependent on health workers, this condition results in unproductive patients, and income will decrease or even disappear. So that it can affect the quality of life.

Quality of life is a term used to describe a sense of well-being, including aspects of happiness, life satisfaction and so on. Quality of life is a subjective assessment that can only be determined according to the patient himself and is multidimensional in nature which covers all aspects of the patient's life holistically (biopsycho-sociospiritual). Quality of life is multidimensional, consisting of four main areas of life: health and functioning, socio-economic, psychological and spiritual and family (Khan & Alam, 2014). The quality of life of hemodialysis patients is influenced by several factors, including individual factors, medical conditions and functional status.

Other studies have looked at the relationship between Hb and the quality of life of chronic kidney disease patients based on age and

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anaemia therapy, showing a negative correlation in geriatric patients, while other studies have found that Hb has a significant relationship and is a parameter that greatly influences the quality of life (Sharma, 2018). However, there have been no studies that have combined other parameters, namely albumin and patient characteristics. This study aimed to determine the effect of hypo albumin (using albumin parameters) and subject characteristics on the quality of life of chronic kidney disease patients.

Nurses who work in the hemodialysis room have an important role as caregivers, advocates, consultants and educators to help patients with chronic kidney disease achieve a better quality of life. Dialysis nurses must have professional skills in preparing patients before hemodialysis, observing patients during hemodialysis, and collaborating in evaluating the attainment of good nutritional status to improve quality of life. The ability to assess the nutritional status of hemodialysis patients is a basic competency at level one that must be possessed by surgical medical nurses in the hemodialysis room.

From the results of observations and interviews conducted in the hemodialysis room of Dr Soetomo Hospital on 10 patients, 6 patients came on foot, were in good condition, and communicated normally, 4 people came in wheelchairs and were weak and looked thin. 5 people continued to work as usual even though they had to undergo hemodialysis every two times per week, 3 people said they decided to stop working and 2 people said they reduced physical activity because they felt weak and tired easily due to low Hemoglobin (Hb) and albumin levels and complained of decreased appetite. Patients say that they are resigned to their illness, but sometimes feel frustrated with dietary restrictions, especially fluids that have been determined.

Based on this phenomenon, medical-surgical nurses see changes in aspects of life and quality of life of hemodialysis patients which may be affected by nutritional status. Therefore medical-surgical nurses are interested in conducting research with the title "The Relationship between Nutritional Status and Quality of Life of Patients with Chronic Kidney Disease Undergoing Hemodialysis at Dr Soetomo Hospital, Surabaya".

Methods:

Design Research :

The research design used is descriptive exploratory with a *Cross-Sectional design* to analyze the relationship between nutritional status and quality of life in patients with kidneys undergoing chronic hemodialysis. The research statement is that there is a relationship between nutritional status to quality of life in patient disease kidneys undergoing chronic hemodialysis.

Variable study

Variable independents are Nutritional Status (Global Assessment Subjects, and Body Mass Index) and Variables dependent is Quality of life. Assess nutrition in Global Assessment Subjects (SGA), and Body Mass Index (BMI). Quality Valued life is (Symptoms of problems, the effect of disease kidney, the Burden of the disease kidney, employment status, function Cognitive, Quality interaction social, function sexual, Quality sleep, Support social, Quality dialysis staff services, Satisfaction patient Function physical, Role-physical, Perception of pain, General health, Well-being emotion, Emotional role, Function social, Energy/ fatigue).

Population & Sample:

The population in this study is all patients undergoing therapy hemodialysis at Dr Soetomo Surabaya Hospital (315 in three months). A sample of 63 patients was recruited by purposive sampling technique. The technique is done by determining the criteria patient that is Undergoing therapy hemodialysis 2x/a week, aged between 18-55 years, Hemodialysis by schedule and routine, No own complications disease disturbance liver, cancer and HIV. No decline condition/ prognosis.

Place Research:

Data were collected for 3 months, from 1 November 2020 to 31 January 2021 at Dr Sutomo Surabaya Hospital.

Research Instruments:

Global Assessment Subject Questioner that has been published in the study before (Fitranti et al., 2020). Questionnaire quality of

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life using kidney disease quality of life short form-36 (KDQoL SF-36) which has been published by the study before (Nur Shabrina & Supadmi, 2019). Results Validity and reliability obtained show good results ($r \geq 0.25$ and Alpha-Cronbach ≥ 0.712) from the previous study.

collection process:

After the respondents signed informed consent, data collection was carried out by meeting respondents one by one at a time doing hemodialysis for sent *Google Forms links* related to biodata questionnaires, Global Assessment Subjects, and quality of life use (KDQOL-SF)-36. After finishing charging, the researcher takes medical records from respondents to copy existing data like weight, height and causes fail kidney chronic. Data already collected entered in Global Assessment Subjects and (KDQOL-SF)-36.

management process:

The data is analyzed by looking at the frequency and percentage. Main data analysis (IMT, SGA and Quality of life) with logistic regression statistical tests. While data on BMI, SGA and Quality sub-variables Alive (Symptoms problem, the effect from disease kidney, Burden of disease kidney, employment status, function Cognitive, Quality interaction social, function sexual, Quality sleep, Support social, Quality dialysis staff services, Satisfaction patient Function physical, Role- physical, Perception of pain, General health, Well-being emotion, Emotional role, Function social, Energy/ fatigue) with Spearman's rho test with degrees significance ($p \leq 0.05$).

Research ethics:

The research procedure has been tested and declared ethically feasible by the Commission Ethics Hospital Health Research Dr Soetomo Surabaya on 20 November 2020 with number certificate ethics No. 0090/KEPK/XI/2020. The ethical principles applied to this study included participants being given information and filling out the informed consent before data collection. They have the right to confidentiality of data by using their initials.

Results:

Research results in 63 samples were obtained study with characteristics sample as written in Table 1. Gender respondents half manifold sex male (50.8 %) with part big own age elderly initial (46.0%). Of long-lived hemodialysis respondents, more than half had more than 3 years (63.5%) with half of respondents own disease co-morbidities suffering from 1 disease (55.6%).

Regression calculation and test results logistics Nutrition to Quality of life Patient Hemodialysis shown in Table 2. Almost whole respondents have excess body mass index (BMI) (93.7%), as well as results subject of global assessment in a category less (93.7%). Quality of life patients are mostly in the category of ugly (76.2%). The statistical results show that No There is relationship between BMI and SGA with Quality of life patient Hemodialysis.

Results of the analysis of nutritional status (Body Mass Index/ BMI, and Global Assessment Subjects/ SGA) with Quality indicators of life showed in Table 3. There are 19 (nineteen) quality indicators of life that consist of: Symptoms problems, the effect of the diseased kidney, the Burden of the diseased kidney, function Cognitive, Quality interaction social, Quality sleep, Quality dialysis services, role physics, perception of pain, general health, well-being emotion, Emotional role, Function social, and Energy/ fatigue. Only 2 Indicators of quality of life have the category Good, which is Effect disease Kidneys and Support Social. There are only 2 indicators that have a connection significant that is burden disease kidney and role-physics.

Table 1 Characteristics Patient hemodialysis
n = 63

characteristic	n	%
Type gender :		
Man	32	50,8
Woman	31	49,2
Age :		
17- 25 years	2	3,2
26- 35 years	6	9,5
36- 45 years	14	22,2

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characteristic	n	%
46- 55 years	29	46.0
56- 65 years	12	19.0
Hemodialysis Time:		
06- 12 Months	6	9,5
01- 02 years	10	15,9
02- 03 years	7	11,1
> 03 years	40	63.5
Disease Participant :		
No There is	5	7,9
1 Disease	35	55,6
2 Diseases	17	27.0
3 Diseases	6	9,5

Table 2. Results of calculations and regression tests logistic

Variable	n	%	p.s
X1 Body Mass Index (BMI)	2	3.2	
Normal	59	93.7	0.988
Excess	2	3.2	
Not enough			
X2 Global Assessment Subject (SGA)	0	0	
Good	59	93.7	0.952
Not enough	4	6.2	
Bad			
Y Quality of life			
Good	0	0	
Enough	15	23.8	
Bad	48	76.2	

Table 3 Results of calculations and tests of Spearman's Rho Nutrition to Quality of life Patient Hemodialysis n = 63

Variable	X1 Body Mass Index (BMI)							X2 Global Assessment Subject (SGA)						
	Normal		Excess		Not enough		p.s	Good		Not enough		Bad		p.s
	n	%	n	%	n	%		n	%	n	%	n	%	
Y1.1 Symptoms problem														
Good	0	0.0	11	17.5	1	1.6	0.454	0	0.0	12	19.0	0	0.0	0.497
Enough	1	1.6	**36**	**57.1**	0	0.0		0	0.0	**34**	**54.0**	3	4.8	
Bad	1	1.6	12	19.0	1	1.6		0	0.0	13	20.6	1	1.6	
Y1.2 Effect disease kidney														
Good	1	1.6	**29**	46.0	0	0.0	0.565	0	0.0	29	46.0	1	1.6	0.784
Enough	0	0.0	8	12.7	1	1.6		0	0.0	7	11.1	2	3.2	
Bad	1	1.6	22	34.9	1	1.6		0	0.0	23	36.5	1	1.6	
Y1.3 Disease burden kidney														
Good	0	0.0	1	1.6	1	1.6	**0.017**	0	0.0	1	1.6	1	1.6	**0.046**
Enough	0	0.0	1	1.6	0	0.0		0	0.0	1	1.6	0	0.0	
Bad	2	3.2	57	90.5	1	1.6		0	0.0	57	90.5	3	4.8	
Y1.4 Employment status														
Good	0	0.0	6	9.5	0	0.0	1,000	0	0.0	6	9.5	0	0.0	0.510
Enough	0	0.0	0	0.0	0	0.0		0	0.0	0	0.0	0	0.0	
Bad	2	3.2	53	84.1	2	3.2		0	0.0	53	84.1	4	6.3	
Y1.5 Function cognitive														
Good	0	0.0	20	31.7	0	0.0	0.515	0	0.0	19	30.2	1	1.6	0.214
Enough	2	3.2	32	50.8	1	1.6		0	0.0	34	54.0	1	1.6	
Bad	0	0.0	7	11.1	1	1.6		0	0.0	6	9.5	2	3.2	
Y1.6 Quality social interactions														
Good	0	0.0	17	27.0	0	0.0	1,000	16	25.4	1	1.6	17	27.0	0.854
Enough	1	1.6	31	49.2	1	1.6		31	49.2	2	3.2	33	52.4	
Bad	1	1.6	11	17.5	1	1.6		12	19.0	1	1.6	13	20.6	
Y1.7 Function sexual														
Good	0	0.0	16	25.4	0	0.0	1,000	0	0.0	15	23.8	1	1.6	0.824
Enough	0	0.0	4	6.3	0	0.0		0	0.0	4	6.3	0	0.0	

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Bad	2	3.2	39	61.9	2	3.2		0	0.0	40	63.5	3	4.8	
Y1.8 Quality Sleep														
Good	0	0.0	6	9.5	0	0.0	1,000	0	0.0	6	9.5	0	0.0	0.615
Enough	0	0.0	15	23.8	0	0.0		0	0.0	13	20.6	2	3.2	
Bad	2	3.2	38	60.3	2	3.2		0	0.0	40	63.5	2	3.2	
Y1.9 Social support														
Good	1	1.6	41	65.1	2	3.2	0.330	0	0.0	40	63.5	4	6.3	0.186
Enough	1	1.6	13	20.6	0	0.0		0	0.0	14	22.2	0	0.0	
Bad	0	0.0	5	7.9	0	0.0		0	0.0	5	7.9	0	0.0	
Y1.10 Quality dialysis service														
Good	0	0.0	10	15.9	0	0.0	0.293	0	0.0	10	15.9	0	0.0	0.079
Enough	2	3.2	48	76.2	1	1.6		0	0.0	48	76.2	3	4.8	
Bad	0	0.0	1	1.6	1	1.6		0	0.0	1	1.6	1	1.6	
Y1.11 Satisfaction patient														
Good	0	0.0	8	12.7	1	1.6	0.222	0	0.0	8	12.7	1	1.6	0.414
Enough	0	0.0	11	17.5	0	0.0		0	0.0	10	15.9	1	1.6	
Bad	2	3.2	40	63.5	1	1.6		0	0.0	41	65.1	2	3.2	
Y2.1 Function physique														
Good	0	0.0	1	1.6	1	1.6	0.153	0	0.0	1	1.6	1	1.6	0.097
Enough	0	0.0	11	17.5	0	0.0		0	0.0	10	15.9	1	1.6	
Bad	2	3.2	47	74.6	1	1.6		0	0.0	48	76.2	2	3.2	
Y2.2 Role- physical														
Good	0	0.0	1	1.6	1	1.6	**0.054**	0	0.0	1	1.6	1	1.6	**0.001**
Enough	0	0.0	3	4.8	0	0.0		0	0.0	2	3.2	1	1.6	
Bad	2	3.2	55	87.3	1	1.6		0	0.0	56	88.9	2	3.2	
Y2.3 Perception of pain														
Good	0	0.0	17	17.0	0	0.0	0.509	0	0.0	15	23.8	2	3.2	0.836
Enough	1	1.6	21	33.3	0	0.0		0	0.0	22	34.9	0	0.0	
Bad	1	1.6	21	33.3	2	3.2		0	0.0	22	34.9	2	3.2	
Y2.4 Public health														
Good	0	0.0	5	7.9	0	0.0	1,000	0	0.0	5	7.9	0	0.0	0.858
Enough	0	0.0	12	19.0	0	0.0		0	0.0	11	17.5	1	1.6	
Bad	2	3.2	42	66.7	2	3.2		0	0.0	43	68.3	3	4.8	
Y2.5 Welfare emotion														
Good	0	0.0	1	1.6	0	0.0	1,000	0	0.0	1	1.6	0	0.0	0.775
Enough	1	1.6	9	14.3	1	1.6		0	0.0	10	15.9	1	1.6	
Bad	1	1.6	49	77.8	1	1.6		0	0.0	48	76.2	3	4.8	
Y2.6 Emotional role														
Good	0	0.0	7	11.1	1	1.6	0.164	0	0.0	7	11.1	1	1.6	0.583
Enough	0	0.0	2	3.2	0	0.0		0	0.0	2	3.2	0	0.0	
Bad	2	3.2	50	79.4	1	1.6		0	0.0	50	79.4	3	4.8	
Y2.7 Social function														
Good	0	0.0	14	22.2	1	1.6	0.477	0	0.0	15	23.8	0	0.0	0.139
Enough	1	1.6	32	50.8	0	0.0		0	0.0	31	49.2	2	3.2	
Bad	1	1.6	13	20.6	1	1.6		0	0.0	13	20.6	2	3.2	
Y2.8 Energy/fatigue														
Good	0	0.0	2	3.2	0	0.0	0.302	0	0.0	2	3.2	0	0.0	0.794
Enough	1	1.6	16	25.4	0	0.0		0	0.0	16	25.4	1	1.6	
Bad	1	1.6	41	65.1	2	3.2		0	0.0	41	65.1	3	4.8	

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Discussion:

The results showed that the nutritional status of the patients was poor, indicated by a high BMI and a low SGA. This condition can be said that chronic kidney disease patients undergoing hemodialysis are in a state of malnutrition. Malnutrition is a condition that is often found in chronic kidney disease patients undergoing routine hemodialysis. This condition is possible due to disturbances in protein and energy metabolism, micronutrient deficiencies, hormone dysregulation, infection, anorexia, inadequate intake, uremic syndrome, and chronic systemic inflammation (Sharma, 2018). Other possible factors are sensory, hedonic, physical, iatrogenic, and psychosocial problems of patients undergoing hemodialysis that affect their food intake, reduce nutritional status, and worsen their quality of life.

The results of the study also showed that the patient's quality of life was in the poor category. This result is to the theory which states that influencing factors quality of life patient fail kidney chronic that is factor individual, circumstance medical and functional status (Rustendi et al., 2022). Other studies report Influencing factors quality of life of patients with chronic kidney disease who undergo hemodialysis consists of four factors: nutritional status, condition comorbid, long-lived hemodialysis and management medical (Sarastika et al., 2019).

Statistical tests show that nutritional status has no significant relationship with the quality of life of patients undergoing hemodialysis. This is in line with previous research which concluded that No There is connection between nutritional status with quality of life for patients who fail kidneys undergoing chronic hemodialysis (Ullu et al., 2018). These results are indeed slightly different from most previous studies which found a relationship between nutritional status and quality of life (Fajriansyah et al., 2020; Prabhaswari et al., 2020). This difference is possible because the content of the quality of life questionnaire that we use does not lead to physical function, but rather cognitive, emotional and psychological. Questionnaires that do not direct questions to physical function, it is possible that the results are less than optimal. This condition can be seen from the theory which states that the quality of life of chronic kidney disease patients is influenced by various factors such as physical condition, mental health, the effect of kidney disease on daily life, the burden of kidney disease suffered and the symptoms that arise.

Even though the results have no relationship, with the data that chronic kidney disease patients are in a state of malnutrition, the results of this study must still be followed up. The nutritional condition of hemodialysis patients is very important for the patient's health. Nutritional status is also one of the main factors that can affect the quality of life of patients with end-stage chronic kidney disease. The presence of comorbid factors such as diabetes mellitus can also worsen the quality of life and increase the mortality of chronic kidney disease patients undergoing dialysis therapy. Psychological factors can also have an effect where depression and anxiety disorders are common in end-stage chronic kidney disease patients. An unfavourable mental state can cause sleep disturbances, poor eating patterns, and reduced quality of life. Research states that hemodialysis patients tend to have more severe psychological stress. This is related to therapy schedules that are less flexible and require longer visits to the hospital.

Previous research states that poor nutritional status can cause sufferers to experience symptoms such as fatigue and malaise, headaches, weight loss, muscle weakness, recurrent infections, slow wound healing, and bone disorders, this can lead to decreased quality of life in hemodialysis patients (Zoya et al., 2019). Other research that supports this states that there is a significant relationship between nutritional status and quality of life (Oktiadewi & Partiningrum, 2012). The intended nutritional status indicators were albumin levels with the physical health dimension (p= 0.02), the PG-SGA score category with the physical health dimension (p= 0.037) and the PG-SGA score category with the dimensions of problems due to kidney disease (p= 0.031). Other studies say there is a strong correlation between inadequate hemodialysis and malnutrition (Mahayundhari et

al., 2018). Inadequate hemodialysis can cause a buildup of urea in the body, causing anorexia, nausea, vomiting and decreased food intake and if this lasts a long time it will cause Energy wasting proteins.

Quality indicators life that has category Good that is Effect disease Kidneys and Supports Social. this result from a study previously which also found the two indicators are also deep good results, though other results were not the same as the study previously (Fajriansyah et al., 2020). These indicators get great value possible because for the most part patient Already undergo hemodialysis for more than three years. Condition This possible patient Already know the perceived condition from the effect of disease on his kidneys and they always accompanied his family.

This result is different from indicators that have a connection significant with the burden of disease kidney and role physics. this result has Not yet been found in research previously Because the study previously only discuss category just (Fajriansyah et al., 2020). The burden of disease greatly affected him Because the Required hemodialysis therapy period long will result happening a change in his ability To undergo a function of life a day which can influence the quality of life of the patient's hemodialysis (Ebrahimi et al., 2016). Besides that appearance, several complications period long like mineral and bone disorders, anaemia, malnutrition, and problems cardiovascular can provide a physiological stressor to patients. Besides getting physiological stressors, patients undergoing hemodialysis also experience psychological stressors. Psychological stressors among them are restrictions on liquids, restrictions on consumption of food, distracting sleep, obscurity about the future, restrictions on activity and recreation, a decline in life social, restrictions in time and place of work, as well factors of the economy (Daniel et al., 2021; Purwanti et al., 2020). Patients will be lost freedom Because of various rules and are heavily dependent on power health, and conditions This results in patients' No productivity, and income will the more decrease or even loss. So that matter the can influence quality live.

An influential physical role among them, increasing Lots condition comorbidities suffered by patients with chronic kidney disease will the more bad quality his life (Sarastika et al., 2019). this is caused by therapy no hemodialysis in a manner adequate can emit all toxic uremia in the body Where matter This will cause abnormalities such as organ systems system cardiovascular system respiratory, gastrointestinal, disorders neurological disorders, musculoskeletal disorders, haematology, and others. Complications period experienced length patient disease kidney chronic undergoing hemodialysis influence quality of life patient. The limitations of this study include not analyzing the degree of kidney damage in patients and other diseases they are suffering from.

Conclusions:

Research results show that nutritional status (BMI and SGA) which is not related to quality of life, is still become a factor important for improving Health. Indicator quality of life that has the category Good that it Effect disease Kidneys and Supports Social. indicators that have a connection significant that is burden disease kidney and role-physics. The study furthermore needs to see related to the quality of life with more population-wide as well as other parameters like infection, a questionnaire related to symptoms else, risk of falls, as well qualifications for each type of dialysis.

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