

# QUALITY OF LIFE OF CHRONIC KIDNEY FAILURE PATIENTS UNDERGOING HEMODIALYSIS THERAPY IN OMNI HOSPITAL PULOMAS JAKARTA: SOCIAL AND PSYCHOLOGICAL PERSPECTIVE

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## ABSTRACT

**Background:** Quality of life is a condition where a person gets satisfaction or enjoyment in everyday life. Indicators of quality of life include the dimensions of physical health, dimensions of psychological well-being, dimensions of social relations, and dimensions of environmental health. The purpose of the study was to describe the quality of life in chronic kidney failure patients undergoing hemodialysis therapy from the social and psychological aspects at Omni Hospitals Pulomas Jakarta.

**Subjects and Method:** This study uses a descriptive study with a cross-sectional approach. The sample consisted of 30 respondents who were taken using purposive sampling method. Instrument using a quality-of-life questionnaire from WHOQOL-BREF. Data analysis used univariate and bivariate analysis with Chi-Square.

**Results:** The study on the quality of life based on social aspects were obtained: 22 respondents (73%) less, 7 respondents (23%) sufficient, and 1 respondent (3%) good; quality of life based on psychological aspects obtained: 27 respondents (90%) less, and 3 respondents (10%) enough. Quality of life seen from social and psychological aspects (OR= 5.70 : 99% CI= 1.07 to 10.95; p= 0.004).

**Conclusion:** there is a relationship between the quality of life of the social aspect and the quality of life of the psychological aspect of chronic kidney failure patients undergoing hemodialysis at OMNI Hospitals Pulomas Jakarta in 2020.

**Keywords:** quality of life, chronic kidney failure, hemodialysis, social, psychology.

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## BACKGROUND

The 2010 Global Burden of Disease stated that Chronic Kidney Disease (CKD) was the 27th leading cause of death in the world in 1990 and increased to 18th in 2010 (Infodatin, 2017). Based on the World Health Organization (WHO) in 2011 patients with CKD reached 50% and received treatment only 25% and 12.5% were treated well (Indrasari, 2015). According to Hill et al. (2016) the

global prevalence of Chronic Kidney Disease (CKD) is 13.4% with 48% of whom have decreased kidney function and are not undergoing dialysis and as many as 96% of people with kidney damage or reduced kidney function are not aware that they have Chronic Kidney Disease (PGK).

The prevalence of CKD in Indonesia from year to year continues to increase. The Indonesian Nephrology Association (PERNEFRI) (2017)

in the Indonesian Renal Registry (IRR) Program reported that the number of patients with CKD in Indonesia in 2011 was 22,304 with 68.8% new cases and in 2012 it increased to 28,782 with 68.1% new cases (IRR, 2017) .

Based on the prevalence of chronic kidney failure (permil) from a doctor's diagnosis according to the 2018 Basic Health Research (Riskesdas), the highest region is North Kalimantan (6.4% /mile). Jakarta ranks 10th highest out of 34 provinces and has increased since 2013 (Riskesdas, 2018). According to Moeloek in 2018, it was stated that CKD sufferers in Indonesia reached 499,800 people (2%/mile). Riskesdas (2018) states that Jakarta occupies the first position in 38.7% of 34 provinces in Indonesia with the proportion of patients diagnosed with CKD who have had and are undergoing hemodialysis. Deaths in patients undergoing hemodialysis during 2015 were recorded as 1,243 people with a length of life with HD 1-317 months. A proportion of the world's z receive treatment with dialysis or a kidney transplant and only about 10% actually experience such treatment. Ten percent of the world's population suffers from Chronic Kidney Failure and millions die every year because they do not have access to treatment (Aulia, 2017). Patients undergoing hemodialysis perceive their quality of life at a low level with physical conditions feeling tired, in pain and often restless. This is due to the lack of will to quality of life who have started to surrender to the condition of the disease. In patients with chronic renal

failure in improving the quality of life itself is influenced by several factors, including: age, gender, CKD stage, frequency of hemodialysis therapy, social support. These factors are expected for the patient to be able to adapt and cope with changes in the environment so that it becomes a coping ability. CKD patients undergoing hemodialysis are often reported to have decreased quality of life (Mulia, 2018).

Patients with CKD have decreased quality of life in terms of physical, mental, social and environmental. Several studies have shown that patients undergoing hemodialysis have a poor quality of life and are more likely to experience complications such as depression, malnutrition, and inflammation. Many of them suffer from cognitive disorders, such as memory loss, low concentration, physical, mental, and social disorders which will interfere with daily activities (Mailani, 2015).

The quality of life of hemodialysis patients is influenced by the individual's understanding of the disease so that a person knows how to maintain health, as well as economic factors where this is a particular concern for the cost of treatment. The dominant aspect of forming the quality of life of hemodialysis patients is the psychosocial aspect including physical, psychological support and spirituality (Prastiwi, 2012). Where physical health can be assessed from physical function and physical role limitations, it depends on how the individual patient is coping. Psychological aspects include mental health which can be assessed from social

function and the limited emotional role of the environment, in this case family support plays a very important role (Supriyadi et al., 2011).

The results of Suwanti's research (2019) get an overview of the quality of life of patients with chronic kidney failure seen from the physical health dimension 56.1% have a poor quality of life, the psychological health dimension has a poor quality of life (58.5%), the social relationship dimension has a good quality of life (51.2%), the environmental dimension has a good quality of life 53.7%, and the description of the quality of life of kidney failure patients undergoing hemodialysis has a poor quality of life (61.0%), while 39.0% have a good quality of life. Based on the results of a survey conducted by researchers, data obtained that hemodialysis patients at OMNI Hospitals Pulomas Jakarta in the last 3 months, namely July - September 2019 there were 30 patients. Based on the results of the initial survey through observations made by researchers from 10 patients undergoing hemodialysis, 7 patients had very high motivation in undergoing hemodialysis therapy according to a predetermined schedule and 3 patients had no enthusiasm for hemodialysis therapy. This study aims to determine the quality of life of patients with chronic kidney failure (CKD) undergoing hemodialysis seen from the psychosocial aspect at Omni Pulomas Hospital, East Jakarta.

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## SUBJECTS AND METHOD

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### 1. Study design

This descriptive research was conducted using a cross-sectional approach.

### 2. Study sample

30 respondents from the total population of patients undergoing hemodialysis at OMNI Hospitals Pulomas Jakarta in the period March-May 2020 who have met the research criteria and were taken by purposive sampling

### 3. Study instrument

Data collection was carried out by distributing questionnaires on the quality of life of CKD patients viewed from 2 aspects, namely psychological and social which were made by researchers with modifications from the WHOQOL-BREF.

### 4. Data analysis

The data obtained were analyzed using the frequency distribution and chi-square.

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## RESULTS

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Table 1 showed that 60% of sample was male, 46% were at age 41-60 years, 50% attained senior high school, and two-third (67%) of them were unemployed.

Table 2 showed that two-third of sample has lack social life quality (73.3%) but has enough psychology life quality (90%).

Table 3 showed that there was a significant relationship between quality of social life and quality of psychological life ( $p= 0.040$ ).

### 1. Distribution of gender, age, education and occupation

**Table 1. Distribution of research subjects by gender, age, education, and occupation**

Variable	Frequency	Percentage (%)
<b>Gender</b>		
Male	18	60
Female	12	40
<b>Age (Year)</b>		
18-40	3	11
41-60	14	46
>60	13	43
<b>Education</b>		
Junior high school	1	3
Senior high school	15	50
Academy/College	14	47
<b>Working status</b>		
Working	10	33
Not working	20	67

### 2. Distribution of social and psychological quality of life

**Table 2. Distribution of research subjects based on social and psychological quality of life**

Quality of Life	Frequency	Percentage (%)
<b>Social Life Quality</b>		
Lacking	22	73.3
Enough	7	23.4
Good	1	3.3
<b>Psychology Life Quality</b>		
Lacking	3	10
Enough	27	90

### 3. Relationship of Social Quality of Life with Psychological Quality of Life

**Table 3. Relationship between social quality of life and psychological quality of life**

Quality of Social Life	Psychological Quality of Life				p
	Lack		Enough		
	n	%	n	%	
Lack	0	0	22	73.3	0.040
Enough	2	6.7	5	16.7	
Good	1	3.3	0	0	

## DISCUSSION

### 1. Distribution of Respondents by Gender

This study shows that there are far more male respondents than female respondents. The results of this study are the same as the research

conducted by Jos (2016) at Tarakan Hospital, where male respondents were 67.9%, while female respondents were 32.1%. Likewise with the research of Dani et al. (2015) at the Arifin Achmad Hospital Riau stated that the average patient suffering

from chronic kidney failure and undergoing hemodialysis was 61.1% male and the remaining 38.9% female. Researchers assume that in responding to the severity of the disease, gender can affect the incidence of chronic kidney failure depending on the accompanying disease.

The results showed that as many as 14 respondents or (46%) aged 41-60 years, as many as 13 respondents or (43%) aged >60 years and as many as 3 respondents or 11% aged 18-40 years. Most of the respondents in this study were old. Jos' research (2016) at Tarakan Hospital found that the average age of CKD patients undergoing hemodialysis was 53.5 years (Jos, 2016). According to Tilong (2014) the most patients with kidney failure are aged 36-40 years (55%) with an average of 34.4 (Mean= 34.4.; SD= 6.75), the most occurring at the age of 40 years are 14 people (17.5%) classified as adults. The risk of young people in that group is very large because an unhealthy diet, lack of movement, obesity and an unhealthy lifestyle can cause stiff blood vessels, resulting in hypertension. Handayani's research (2013) showed in her research that the average age of the research respondents was 48.74 years with the youngest-oldest age range being 12 to 76 years. Based on Hanifa's research (2009) at H Adam Malik Hospital, Medan, most patients with chronic kidney failure are in the 31-50 year age group (50.5%).

Harahap's research (2018) stated that the majority of chronic kidney failure occurred in patients

aged 46-55 years (early old age) as many as 10 people (27%), while patients aged 36-45 years (late adulthood) were 9 people (24.3%), patients aged 56-65 years (late old age) as many as 8 people (21.6%), patients aged 26-35 years (early adults) as many as 7 people (18.9%), patients aged 17-25 years (late adolescents) as many as 2 people (5.4%), and patients aged >65 years (elderly) as many as 1 person (2.7%) The increasing age and added with chronic diseases such as high blood pressure (hypertension) or diabetes, the kidney tends to become damaged and cannot be recovered.

Patients with chronic kidney disease begin to develop symptoms when there is a buildup of metabolic waste products such as urea, creatinine, electrolytes and fluids. Elevated blood urea levels are a common cause of a collection of symptoms known as the uremic syndrome in patients with chronic kidney disease. The uremic syndrome occurs when the glomerular filtration rate is less than 10 ml/min/1.73 m<sup>2</sup>. Increased blood urea levels due to impaired renal excretory function cause multi-system disorders (Lewis, 2011). Meanwhile, Nurcahyati (2010) in her research stated that the average age of CKD patients undergoing hemodialysis was 44.82 years. Renal function will change with age. After the age of 40 years there will be a progressive decline in the glomerular filtration rate.

Age is one of the biggest factors affecting metabolism. Metabolic decline occurs with age. Metabolism drops by 50 percent every 10 years

after age 40. This is because humans tend to lose muscle mass. With aging, the kidneys become less able to respond to acute fluid and electrolyte changes. This was also found in the results of this study, where it was found that the average age of patients undergoing hemodialysis due to CKD was 55.6 years. This is consistent with the theory which states that there is a decline in kidney function after the age of 40 years, as well as the theory regarding old age as a specific risk factor for the progression of CKD that cannot be modified.

Researchers assume that in essence the quality of life is something subjective and multidimensional so that each individual assesses the quality of life from a different point of view. These results are in accordance with Nurchayati (2010), which states that there is no relationship between age and quality of life of chronic kidney failure patients undergoing hemodialysis.

## **2. Distribution of Respondents Based on Education**

Education is an effort to foster and develop the human personality either in the spiritual or in the physical. There are also some experts who interpret education as a process of changing the attitudes and behavior of a person or group of people in maturing through teaching and training. According to the National Education System Law No. 20 of 2003, education is a conscious and planned effort to create a learning atmosphere and learning process so that students actively develop their potential to have religious spiritual strength, self-control, personality, intelligence,

noble character, and the necessary skills. himself and society.

The risk of complications of kidney disease occurs in patients who have low education. This is in line with what Notoatmodjo (2007) stated that education is one of the factors that directly influence health behavior. The longer a person undergoes hemodialysis, the more obedient and regularly he will carry out hemodialysis (Suparti, 2016).

The results showed that 15 respondents or (50%) had high school education, 14 respondents or (47%) had Academy/University education, 1 respondent or 3% had elementary school education, besides that there were no elementary school educated respondents. In this study, there were more respondents with high school education than others, but not much different from respondents with academic or college education. In the highly educated group, the quality of life, both good and bad, is almost the same.

Researchers assume that CKD patients with low education have less knowledge or may receive misinformation from others. People with low levels of education are also more likely to believe in inaccurate information about hemodialysis procedures. This can be seen from the lack of respondents in the low education group. In this group, almost all of the respondents have a fairly good quality of life. Suparti and Solikhah (2016), basically a person's level of education does not significantly affect knowledge and quality of life, but patients with high and low education have their own way of

seeking information related to their illness and treatment. Quality of life is subjective so it is not determined by the level of education. In fact, they both don't care about the condition they are currently experiencing, all they know is that at this time they are only seeking treatment to recover without thinking about the needs that support their quality of life. Researchers believe that education does not affect the quality of life of patients with chronic kidney failure (CKD) undergoing hemodialysis therapy at the Omni Pulomas Hospital in 2020. Every disease attacks from various educational groups and the lower the education level of the patient eats will affect his quality of life.

### **3. Distribution of Respondents by Occupation**

The results showed as many as 20 respondents or 67% did not work and as many as 10 respondents or 33% were still working. Most of the respondents are as many as not working, and as many as working. Generally, respondents who do not work answered that their daily work or activities are just sitting around, watching, sleeping, eating and no more activities are being done, this happens because if they do strenuous activities or work they are not as strong as before. sick and feel tired quickly. Individuals who undergo HD often feel worried about their illness after being diagnosed with HD therapy, usually the patient will experience financial problems and difficulty in maintaining a job. Asri (2010) stated that 2/3 of patients who received dialysis therapy never

returned to their usual activities or work so that many patients lost their jobs.

### **4. Quality of life of CKD patients undergoing hemodialysis seen from a psychological perspective**

The results showed that of the 30 respondents, 27 respondents (90%) had a quality of life in the poor category and 3 respondents (10%) had a quality of life in the sufficient category. The results of Marta's research (2017) state that they feel that life satisfaction is ordinary (39.7%), respondents do not enjoy life (27.6%), feel that their lives are less meaningful (58.6%), respondents are also unable to concentrate optimally (34.5%), respondents do not have enough money to meet their needs (46.6%), respondents feel lonely, hopeless, anxious, and depressed (36.2%) and respondents feel dissatisfied with their sexual life (74.1%). While the psychological health in the good category was 17 people (41.5%).

Assessing the good quality of life which is included in the good category, namely the psychological dimension where most of the respondents answered the questionnaire questions given by the researcher to the respondents with the results of the answers that many respondents felt often worried, sad, bored with their respective circumstances, but there were also patients who answered that there is still enthusiasm from family or closest people. Patients who have been on hemodialysis for a long time tend to perceive their quality of life to be decreasing.

This declining quality of life can also be related to changes in economic life because respondents are no longer working and have income. This is what is often felt to be a burden for sufferers and their families.

#### **5. Quality of life of CKD patients undergoing hemodialysis seen from the social aspect.**

The results showed that of the 30 respondents, 22 respondents (73%) had a quality of life in the poor category, 7 respondents (23%) had a quality of life in the sufficient category. Respondents as much as 1 respondent (3%) have a good quality of life.

The results of this study indicate that the quality of life of hemodialysis patients from a social perspective is relatively poor. This was stated from the respondents' answers to the questionnaire which stated that they rarely participated in social activities outside the home due to fatigue and chronic kidney failure. Reduced social relations with friends.

From the results of the researchers' observations during the study, there was not a good relationship between the patient and the patient's friends and family, it was seen from the results of the researcher's observation that each respondent scheduled for hemodialysis was only delivered to the room after being left and picked up after hemodialysis was completed.

Another limitation is the large number of patients who must be treated so that medical personnel rely on the active participation of the family undergoing hemodialysis therapy, which can indirectly motivate patients to get better. Several

respondents said that the support provided by friends or family made patients more enthusiastic about undergoing hemodialysis and motivated to recover from their illness. This shows that there is still a lack of attention and support from friends for every activity that chronic kidney failure patients participate in by providing correct directions and information on these activities.

In addition to relationships with relatives, from the results of research through questionnaires, respondents are also less satisfied with their sexual needs during illness. The opinion of Hudak and Gallo (2010) which states that patients undergoing HD will experience a decrease in sexual function (libido) in men: impotence often occurs, perhaps because of the disease or side effects of antihypertensive drugs. Women during the hemodialysis process do not experience menstruation due to the influence of immunosuppressive drugs. This makes patients not getting what they need so that they feel less valuable in living their lives. Information provided by others will influence a person to increase knowledge, abilities, and skills so that it will make the belief to do something great (Sarafino, 2014). According to the researcher's assumption that dependence on hemodialysis machines, also makes the patient's activity limited and decreases physical and psychosocial health conditions from time to time.

Based on the results of the study, it can be concluded that the quality of life of chronic kidney failure patients undergoing hemodia-



lysis therapy at OMNI Hospitals Pulomas Jakarta in 2020 is in the quality of life of less to adequate from social and psychological aspects, and there is a relationship between quality of social life and quality of psychological life. Concrete efforts in improving nursing services comprehensively to improve the quality of life of patients with chronic kidney failure, especially those undergoing hemodialysis need to be carried out and improved, and further research is also needed on other factors that can reduce or improve the quality of life of patients with chronic kidney failure.

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