Family Support System and Psychological Well Being in Patients with Chronic Kidney Disease

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Abstract

Patients with chronic kidney disease rely on hemodialysis therapy for life support, and this treatment can impact their psychological well-being. Family support is a crucial factor influencing psychological well-being in these patients. This study aims to investigate the correlation between family support and the psychological well-being of chronic kidney disease patients. The research employed an observational analytic cross-sectional design, with respondents being patients at Roemani Hospital in Semarang who underwent hemodialysis in October 2022. The study utilized questions to assess perceived social support from family and a psychological well-being scale. The statistical analysis employed the Spearman rank test, revealing a strong relationship between family support and the psychological well-being of chronic kidney disease patients, with a positive correlation ($p = 0.001$, $r = 0.661$). The findings suggest that higher levels of family support are associated with better psychological well-being in chronic kidney disease patients undergoing hemodialysis.

Keywords: chronic kidney disease; family support system; psychological well-being

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Introduction

One of the global problems whose prevalence continues to increase is Chronic Kidney Disease (CKD)(Fatonah et al., 2021). The global prevalence of CKD, based on the results of systematic reviews and meta-analyses, reached 13.4% (Husna et al., 2021). The incidence rate of CKD in the United States has increased by 2.6% since 2016, reaching 746,557 cases in 2019, according to a

report from the United States Data System (Engla, Bayhakki, & Hasanah, 2019). Indonesia is one of the countries with a moderate prevalence of CKD. Riskesdas data in 2018 showed that the incidence of CKD in Indonesia reached 713,783 people (0.38%). The same data also indicated that CKD patients aged over 15 years in Indonesia numbered 2,850, with the rate of increase in CKD incidence dominated by those aged 65-74 years. Regarding gender, the prevalence of CKD is more dominant in men (Indonesian Ministry of Health, 2018). Riskesdas data in 2018 further revealed that the incidence of CKD in Central Java Province was 96,794 people (0.42%), while the percentage of those undergoing hemodialysis therapy in Central Java Province was 16.15% (277 people) (Indonesian Ministry of Health, 2018). Based on the results of the preliminary study, 96 hemodialysis patients in June 2022 underwent outpatient care at Roemani Hospital Semarang.

Patients experiencing kidney disease, particularly Chronic Kidney Disease (CKD), where proper kidney function is impaired, require dialysis therapy to sustain their lives (Alisa, F., & Wulandari, 2019). Hemodialysis and Continuous Ambulatory Peritoneal Dialysis (CAPD) are two common forms of dialysis for CKD. Hemodialysis is recommended due to its several advantages over other kidney therapies, such as CAPD and kidney transplantation. It leads to a better quality of life (QoL), with increased cardiovascular stability and tolerance to ultrafiltration, resulting in the removal of more body fluids (Nicolas, 2012). Hemodialysis therapy for CKD patients is administered continuously until the end of the patient's life, impacting them physically, psychologically, economically, and socially (Kerr et al., 2023). Physical impacts include fatigue, weakness, nausea, vomiting, chills, headache, back pain, difficulty sleeping, hypotension, and itching, leading to decreased ability and limitations in daily activities (Tsirigotis et al., 2022). These limitations affect their work, thereby impacting their economic conditions (Brown et al., 2021). In addition to the physical, social, and economic impacts experienced by CKD patients undergoing hemodialysis therapy, psychological impact is also a major concern (Priyanti, 2016). Most patients with advanced CKD, especially those requiring renal replacement therapy (RRT) such as hemodialysis (HD), often rely on assistance from family members for their daily activities (Adejumo et al., 2019).

Hemodialysis therapy is a stressful process that significantly affects the daily lives of patients. The burden of regular therapy sessions in the hospital, along with the recovery process, has physical and emotional implications. Patients may experience negative emotions related to the progression of the disease, leading to the onset of depression and anxiety (Mollahadi et al., 2018). Psychological challenges include difficulty accepting health conditions, feeling guilty for burdening others, stress, anxiety, depression, and boredom. Other issues involve the fear of being left behind by loved ones and experiencing guilt for a decline in daily activities (Priyanti, 2016). Individuals with chronic kidney disease are prone to psychological issues such as distress, depression, and anxiety, which can significantly impact their quality of life and well-being (Guerra et al., 2021). Psychological well-being is a crucial aspect of mental health, encompassing the ability to accept strengths and weaknesses, form healthy relationships, have a sense of purpose, and be self-reliant. It involves maintaining control over one's surroundings and realizing one's potential (Adha, 2018). Psychological well-being includes both hedonic (enjoyment, pleasure) and eudaimonic (meaning, fulfillment) happiness, as well as resilience (coping, emotion regulation, healthy problem-solving) (Tang et al., 2019). Individuals with strong psychological well-being can navigate disturbances and adapt to new environments, feeling valued and content with their lives. On the contrary, those lacking psychological well-being may find it easier to experience depression when faced with difficult problems (Saputra & Setyo, 2020).

Psychological well-being is deemed to be favorable when an individual can live each day to its fullest potential, possessing a sense of purpose, and being of benefit to both themselves and others. It encompasses six dimensions as outlined by Ryff, including environmental management, autonomy, self-development, positive relationships with others, having a clear life direction, and understanding one's own state (Ryff & Keyes, 1995). Key elements of psychological well-being entail achieving a balance across emotions, thoughts, social connections, and pursuits, necessitating active engagement in self-control processes such as emotion regulation (Tang et al., 2019). A person who is content with their life and fully functioning is considered to be in a state of psychological well-being. This state can be influenced by one's ability to judge themselves favorably and to effectively utilize their psychological resources in daily life, rather than merely being devoid of mental illness

(Adha, 2018). Additionally, psychological well-being scores often indicate diminished well-being among certain patient groups. For instance, patients undergoing hemodialysis tend to experience significantly compromised quality of life compared to those receiving other renal replacement therapies (McKeaveney et al., 2021). Furthermore, patients' psychological distress can impose burdens on their families and strain social health resources. General well-being encompasses individuals' long-term levels of positive affect, negative affect, and overall life satisfaction (Wang et al., 2020).

Factors that can affect an individual's psychological well-being include sociodemographics, their evaluation of experiences, religiosity, physical health, and social support. Family support is the closest form of social support to the patient. Support from the family or family support system plays a crucial role in achieving psychological well-being (Saud et al., 2021). Research consistently shows that individuals with close and supportive spouses, friends, and family experience greater life satisfaction and well-being, along with fewer psychological and health-related issues such as loneliness, depressive symptoms, and cognitive deficits. Conversely, a lack of social support has been associated with emotional distress, depressive symptoms, and morbidity (Shin & Park, 2022). Families can provide various forms of support to members undergoing hemodialysis therapy, including appreciation, informational, instrumental, and emotional support. Family support is integral throughout the life of the patient with CKD (Carolina & Aziz, 2019).

Previous research has indicated that social support from spouses, family, and friends has different effects, with spousal support having a particularly significant influence on well-being (Shin & Park, 2022). Social relationships are crucial predictors of health and well-being, assisting individuals in coping with stress and maintaining wellness. Longitudinal studies have consistently demonstrated that strong social relationships predict mental health and interpersonal functioning. Family relationships, as a subset of social relationships, play a vital role in providing the social context necessary for the development of a healthy personality, fostering social competencies, and enhancing the capacity for social adjustment. Higher-quality family relationships are associated with better health and well-being, increased life satisfaction, and individual salutogenic characteristics

(Grevenstein et al., 2019).

The majority of studies on the burden of CKD on its sufferers and the few that focused on family empowerment on the psychosocial needs of CKD patients have left a dearth of information regarding the relationship between the family support system and psychosocial well-being of CKD patients receiving hemodialysis. Families experience a lack of information and continuity of care by health care professionals. Added to this is the psychological burden they bear due to the feeling of indefinite care in time and uncertainty about the death of their loved one. All this, without the necessary support from their immediate family environment and social institutions. In light of these data, a paradigm shift in society and the health care received by these families is essential (Ania-González et al., 2022). Family members' experience of empowerment is dependent on their ability to assume the responsibility for a relative with chronic kidney disease when needed. The findings emphasise the need for a family perspective and the significance of a supportive environment for family members of persons in outpatient care (Nygårdh et al., 2011). While research on mental health in regard to kidney failure disease is still sparse, there is hope that with the help of a support system, individuals will be encouraged to reach out to receive professional assistance and improve their mental well-being. People with chronic kidney disease (CKD) experience high levels of psychological distress, which is associated with higher mortality and adverse health outcomes. Little is known about the rates of a range of mental health difficulties or rates of suicide attempts in people with CKD (Cogley et al., 2023). The interactions between kidney and brain are complex and multifaceted, thus justifying the significant neuropsychiatric comorbidity observed in patients with CKD. A direct link between CKD and brain damage is still elusive. Understanding the pathophysiology of these interactions between chronic renal impairment and brain dysfunction is pivotal to prevent and/or minimize the occurrence and impact of cognitive impairment, depression, and anxiety in CKD patients (Silva et al., 2019).

Based on the above background, the researcher wants to conduct a study entitled the relationship between the family support system and psychological well-being in patients with chronic kidney disease. The purpose of this study is to analyze the relationship between the family support system

and psychological well-being in patients with chronic kidney disease at Roemani Hospital Semarang. There are theoretical and practical benefits in this study. The theoretical benefits include increasing knowledge and insights related to the family support system and psychological well-being in patients with chronic kidney disease, serving as a reference for further research. The practical benefit is to provide an overview to families in caring for their family members who experience chronic kidney disease, ensuring that in practice, it can run properly and correctly, and improve the psychological well-being of people with chronic kidney disease through family support. The hypothesis in this study is that there is a relationship between the family support system and psychological well-being in patients with chronic kidney disease at Roemani Hospital Semarang.

Method

Design

This study used analytic observational research with a cross-sectional design. The research was conducted in October 2022.

Participants

The population in this study consisted of chronic kidney disease patients undergoing hemodialysis therapy at Roemani Hospital Semarang. In all cases, oral and written information was provided to patients about the aims of the research, the confidentiality, and anonymity of the answers, and their right to interrupt at any time during the research. The number of samples used in this study was 80 chronic kidney disease patients undergoing hemodialysis. The sampling technique used was total sampling. The inclusion criteria in this study were chronic kidney disease patients undergoing hemodialysis therapy at Roemani Semarang Hospital in October 2022 and actively undergoing outpatient treatment, chronic kidney disease patients who had complete medical record data, chronic kidney disease patients who were willing to become research respondents, and chronic kidney disease patients who lived with their families. While the exclusion criteria in this study were chronic kidney disease patients undergoing inpatient treatment at Roemani Hospital Semarang and chronic kidney disease patients whose data were incomplete on the questionnaire.

Measurement

Perceived Social Support from Family

The family support system of patients with chronic renal disease was measured in this study using the Perceived Social Support from Family (PSS-Fa) questionnaire. The measuring instrument used to measure the family support system in this study is the Perceived Social Support from Family (PSS-Fa) questionnaire (Procidano & Heller, 1983), have been done translation back translation procedure involving two expert English translators. The 20 statements on the questionnaire are rated on a Guttman scale. There are three categories for ranking each response on this survey: "yes," "no," and "unknown." The minimum value of the measuring instrument is 0 and the maximum value of the measuring instrument is 20. Some sample questions are "My family gives me the assistance I require", "My family is pleased to learn about my opinions", "My family and I have a great deal in common". The internal reliability of the PSS-Fa measuring instruments is α=0.902. This means that the PSS-Fa measuring instruments have very good internal consistency (Prasetio & Triwahyuni, 2022).

Psychological Well-Being Scale

The psychological well-being of patients with chronic renal disease was assessed in this study using the Psychological Well-Being Scale (PWBS) questionnaire theory from Ryff (Ryff & Keyes, 1995). A Likert scale is used in this 28-statement questionnaire. There are four categories for ranking each response on this survey: "very agreed," "agreed," "not agreed," and "very disagreed". The Indonesian version of the Psychological Well-Being scale was piloted to Indonesians of adult age, with a minimum age of 18 years coming from the islands of Sumatra and Java. The number of research subjects is 210. Where the subject is selected by incidental techniques. Based on the results of exploratory factor analysis and Alpha Chronbach reliability test, it can be concluded that the 28 items are valid and reliable. Then, the 28 items also had a relatively good Alpha Chronbach value = 0.543. Some sample questions are "I'm concerned about what other people perceive of me." with Alpha Chronbach value = 0.646, " I'm envious of what other folks possess." with Alpha Chronbach value = 0.612, "I find it hard to keep my life well-organized." with Alpha Chronbach value = 0.580 (Fadhil, 2021).

Data Analysis

Data generated were analyzed using the Statistical Package for Social Sciences (SPSS) version 17.0. Results were presented in tabular form. Univariate analysis was used in the description of the characteristics of the study population. Discrete variables were presented as frequency and percentages. The data analysis used the Spearman rank test. P values < 0.05 were considered significant.

Ethical Consideration

This study obtained a certificate of ethical feasibility from the iHealth Research Ethics Commission (KEPK) of the Faculty of Medicine, Universitas Muhammadiyah Semarang on August 31, 2022, with letter number 056/EC/KEPK-FK/UNIMUS/2022.

Result

Based on these results, the majority of respondents were aged between 40 and 55 years, comprising 41 people (51.2%). The gender distribution showed a predominance of males, with 50 respondents (62.5%). The highest educational attainment among most respondents was the latest high school level, with 35 individuals (43.8%). Additionally, a majority of respondents (46.3%) had undergone hemodialysis therapy for more than 2 years, totaling 37 people. Concerning family support systems, the majority were classified as good for 65 respondents (81.3%). Similarly, psychological well-being was predominantly high for 62 respondents (77.5%).

Table 1
Subject characteristics

No.	Subject characteristics	Category	N	%
1.	Age	< 40 years	10	12,5
		40-55 years	41	51,2
		> 55 years	29	36,3
2.	Gender	Male	50	62,5
		Female	30	37,5
3.	Education Level	Not school	3	3,8
		Elementary school	9	11,3
		High school	47	58.8
		College	21	26,3
4.	Duration of hemodialysis	< 1 years	17	21,3
		1-2 years	26	32,5
		> 2 years	37	46,3
5.	Family Support System	Poor	0	0
		Moderate	15	18,8
		Good	65	81,3
6.	Psychological Well Being	Less	0	0
		Medium	18	22,5
		High	62	77,5

Table 2
Spearman rank analysis

		Psychological well being					
		Medium		High			
		N	%	N	%	p value	r
Family support system	Moderate	12	15	3	3,8	0,001	+0,661
	Good	6	7,5	59	73,7		

Because the scales of these two variables are ordinal and categorical, a non-parametric analysis test called the Spearman rank test is run. The Spearman rank test is used to determine whether two variables have a relationship, as well as its direction, form, and strength. Based on the results of the Spearman rank correlation test, the p-value = 0.001 (<0.05), which means that there is a relationship between the family support system and psychological well-being in patients with chronic kidney disease at Roemani Hospital Semarang. The correlation coefficient is positive 0.661 (0.600-0.799), which means that the two variables have a strong relationship and a positive correlation direction, where the better the respondent's family support system, the higher the psychological well-being.

Discussion

The majority of respondents were between 40-55 years old, where the youngest patient was 21 years old, and the oldest was 81 years old. These results are supported by previous research where it was found that the age of respondents was dominated at the age of 51-60 years (Shintia & Khadafi, 2021). Other previous studies also corroborated the results of the study, where the age of respondents was dominated at the age of > 50 years. This is due to the weakening of body cells due to increasing age, as well as the kidney function where the number of functioning nephrons at the age of 40 years decreases by 10% every 10 years (Luju, 2013).

The majority of respondents were male. These results are in line with the results of previous studies where the gender of respondents is predominantly male (Ginting, 2019). These results are also reinforced by the results of other previous studies where respondents who experienced chronic kidney disease were mostly male (Baroleh et al., 2019). However, these results also contradict the results of previous studies which found that most respondents were female (Hill et al., 2016). CKD was more prevalent in women than in men. Two-thirds of studies that reported gender-specific CKD prevalence determined higher prevalence in women. Women, in general, have less muscle mass than men, and muscle mass is a major determinant of serum creatinine concentration. However, the GFR estimation equations adjust for gender differences, using a

correction factor for women (Al-Shdaifat & Manaf, 2013). Men tend to have a lifestyle that prefers to consume coffee, drink supplements, and smoke (Luju, 2013). Emotionally, women are easier to control their emotions when compared to men, so that in the presence of chronic kidney disease experienced, it is hoped that men can better control the stressors that occur to them (Ginting, 2019).

The majority of respondents have a high school education. These results are also supported by previous research where it was found that the highest level of education in respondents was high school (Shintia & Khadafi, 2021). The results of other previous studies are also in line with the results of the study where it was found that most respondents had a high school education level (Luju, 2013). These results are also reinforced by previous research where the results of the study for the highest level of education were respondents with a low level of education (Suparti & Solikhah, 2016). Having a high level of education tends to have positive behavior, besides that a high level of education can make a person have broad knowledge. However, it should be noted that a low level of education in a person does not mean that he absolutely has low knowledge as well (Luju, 2013). Patients with low or high education tend to have their way of finding out about their disease and its treatment. In general, patients will only focus on their recovery. By previous studies stated that patients with lower levels of education have a tendency to behave and have unhealthy lifestyles compared to clients with higher education because the educational level affects a person's level of awareness of health (Narva, A. S., Norton, J. M., & Boulware, 2016). Adequate knowledge regarding hemodialysis and its complications and positive attitudes toward hemodialysis and the prevention of complications would be expected to improve adherence to therapy and, hence, outcomes (Andrade et al., 2020). The previous study also identified not living alone as a factor associated with a higher knowledge score and suggested that social support from family members helps to increase knowledge but also improves adherence to hemodialysis (Xu et al., 2023).

The highest frequency of respondents undergoing hemodialysis therapy was more than 2 years. These results are in line with previous research where the results showed that most respondents underwent hemodialysis therapy for 1 to 4 years. Chronic kidney disease patients will have

dependence on regular hemodialysis therapy to maintain their quality of life (Luju, 2013). The length of hemodialysis therapy that respondents undergo is expected to control their lifestyle such as maintaining a diet, maintaining weight, and being able to routinely undergo hemodialysis therapy (Ginting, 2019). This is in line with the theory that the longer the respondent undergoes hemodialysis, the more he accepts and adapts. The longer time for hemodialysis, the more the patient will experience the benefits of undergoing hemodialysis. Respondents who can accept dependence on hemodialysis machines can have an adequate or even very good QoL (Barbosa et al., 2017).

The majority of respondents have a good family support system. These results are in line with previous research where the results showed that the majority of respondents had good family support (Harapan et al., 2019). These results are also reinforced by other previous studies where the results showed that the majority of respondents had good family support (Paath et al., 2020). Family members are one of the inseparable parts of the family environment. The family is considered a place where family members need help if needed. Assistance that can be provided by the family, such as finding information related to the hemodialysis therapy process. Families can also communicate with each other regarding complaints experienced by patients and can provide entertainment, encouragement, and motivation to patients undergoing hemodialysis therapy. So that this will make patients feel happy and not easily discouraged (Paath et al., 2020).

Psychological well-being in respondents is mostly high. These results contradict the results of previous research where more than half of the respondents had moderate psychological well-being (Fradelos, 2021). This is because the research respondents received good family support. Factors that can affect the high and low psychological well-being in a person include sociodemographics, a person's evaluation of their experiences, religiosity, physical health, and social support (Adha, 2018). Poor financial status was reported to have a negative effect on the physical and psychological well-being of patients on maintenance hemodialysis (Ng et al., 2021). The Spearman rank test was used by researchers to analyze the relationship of the two research variables, namely the family support system with psychological well-being in patients with chronic kidney disease at Roemani Semarang

Hospital. Based on the results of the Spearman rank test, it was found that there was a relationship between the family support system and psychological well-being in patients with chronic kidney disease at Roemani Semarang Hospital, where the higher the respondent's family support system, the higher the psychological well-being.

These results are supported by previous research which both examined chronic diseases, namely type 2 diabetes mellitus and found that the family support system has a relationship with psychological well-being in patients with type 2 diabetes mellitus, where the better the respondent's family support system, the higher the psychological well-being. The difference in the correlation coefficient value in the research is due to differences in the results of the psychological well-being value of the respondents; most of the respondents had sufficient psychological well-being (Sihombing, 2017).

In this study, the majority of respondents had a good family support system, and there were no respondents with a poor family support system. This is because the family plays an important role in the health of its family members. Patients with chronic kidney disease performing hemodialysis therapy view the family as a place where patients ask for help, attention, and assistance when needed. The development of a problem caused by pressure faced by family members can be prevented through support from the family so that high family support can make family members able to fight and overcome existing pressures (Handayani et al., 2013). Patients with CKD and their family members, including care-partners, should be empowered to achieve the health outcomes and life goals that are meaningful and important to them. The WHO defines patient empowerment as "a process through which people gain greater control over decisions or actions affecting their health" (Health Promotion Glossary, 1998).

Family support is one of the family's duties. The task of families in health services is to recognize abnormalities in the health development of each family member, make decisions for appropriate health actions, provide care when family members receive hospitality, and maintain a home atmosphere related to the health and personality development of family members (Wulandari et al.,

2022). Previous research has indicated that maintenance hemodialysis can have negative effects on psychological well-being and social interactions. The absence of family duties and support can reduce the psychological well-being of family members undergoing hemodialysis (Xu et al., 2023). Relationships within the family can act as a buffer against the negative consequences of stress. Interpersonal interactions involve family members' attitudes, deeds, and acceptance so that the sick family member feels loved and cared for. When a member of the family is ill, the family acts as a support system for them. Patients who have family support exhibit better coping mechanisms with their medical issues and better health habits (Manczak et al., 2018).

A person's notion of growing oneself to be happy is improved by psychological well-being because happy people successfully express good feelings including pleasure, happiness, confidence, and interest. Being stress-free and lacking any other psychological issues constitutes psychological well-being (Ruggeri et al., 2020). This study shows the results that the majority of respondents have high psychological well-being and there are no respondents with low psychological well-being. This is because research respondents have good family support. Family support plays an important role in improving psychological well-being in hemodialysis patients (Adha, 2018). Patients undergoing hemodialysis therapy where patients will undergo hemodialysis therapy for the rest of their lives will experience various psychological problems such as difficulty accepting their condition, feeling a burden on others, stress, anxiety, depression, boredom, and boredom (Rikos et al., 2023). The support of the closest person, namely the family, can overcome these psychological problems and of course will improve the psychological well-being of chronic kidney disease patients undergoing hemodialysis therapy (Bulathwatta et al., 2023). The results showed good family support accompanied by high levels of psychological well-being in hemodialysis patients, and the correlation between the two variables in the study was strong. The results of this study are also in line with the results of previous studies where family support affects the improvement of psychological well-being of patients with end-stage chronic kidney disease (Aini & Wahyu, 2020). Psychological well-being includes positive self-perception, good relationships with others, environmental control, independence, life goals, and emotions that tend to lead to the development of health. Physical health issues are affected by poor psychological well-being (Hamdan-Mansour et al., 2015).

According to (Jahangir, 2017), social support is crucial for community members' survival, particularly when it comes to their psychological health. A patient's psychological illnesses and bad sentiments may be made worse by a lack of family support, which can result in sadness, a lack of motivation to take care of one's health, and a lower quality of life (Wang & Chen, 2012). The best source of assistance for several facets of life is the family. In order for hemodialysis patients to resume living a normal, active life, family support is crucial (Naderifar et al., 2017).

Family support can improve psychological well-being and adaptability through feelings, identity clearance, increasing self-esteem, reducing stress, and providing needed resources (Muris & Otgaar, 2023). Studies all over the world have associated self-esteem with human health and psychological well-being. This effect may be interpreted through the scope of resources increase and active coping against life's problems. Individuals with higher self-esteem are more satisfied with their lives, have fewer interpersonal problems, achieve at a higher and more consistent level, and are less susceptible to psychological problems (e.g., anxiety and depression) and physical illness (Galanakis et al., 2016; Baroleh et al, 2019). The availability of social support has a direct impact on depression and psychological health. The demand for competence, communication, and its indirect impacts on self-esteem all contribute to better psychological health and a decline in depressive symptoms (Jahangir, 2017). However, stress can occasionally be felt by other family members if there are chronically unwell family members. The patient believed his family had abandoned him because of this misunderstanding. Family is the major source of support and the most valuable asset that patients have, according to prior study. The family provides the most social assistance at all levels. Patients feel they still need extra help even when they already have family support. Families should help CKD patients as a result (Silva et al., 2019).

The limitation of this study is that respondents were taken only per October; this study did not analyze the relationship between each dimension of the family support system and psychological well-being in chronic kidney disease patients, and the results of the study obtained depended on the honesty of patients when filling out questionnaires.

Suggestions for the next researcher are better if they deepen the discussion of the relationship between the family support system and psychological well-being in patients with chronic kidney disease, such as analyzing the relationship between each dimension of the family support system and psychological well-being.

Conclusion

The majority of patients with chronic kidney disease who underwent hemodialysis therapy at Roemani Hospital Semarang have a good family support system. The majority of chronic kidney disease patients undergoing hemodialysis therapy at Roemani Hospital Semarang have high psychological well-being. There is a strong relationship between family support system and psychological well-being in patients with chronic kidney disease at Roemani Hospital Semarang. The better the family support system, the higher the psychological well-being of patients with chronic kidney disease at Roemani Hospital Semarang.

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