ARCHI
Arung: Community Health Insight
ARCHI 1(1): 15–26
ISSN XXXX-XXXX

Institute for Advanced Science, Social and Sustainable Future
MORALITY BEFORE KNOWLEDGE

The relationship between family motivation and quality of life in hemodialysis patients: An analysis of hospital dialysis services

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Received Date: September 1, 2024 Revised Date: February 19, 2025 Accepted Date: February 28, 2025

ABSTRACT

Background: Quality of life is a crucial theme in the lives of individuals undergoing hemodialysis. A strong family motivation is positively associated with the physical and psychological well-being of patients receiving hemodialysis therapy. **Methods**: This study employed a descriptive-analytic approach with a cross-sectional research design and utilized the Spearman's rank correlation test for statistical analysis. The sample consisted of 45 patients undergoing hemodialysis therapy at Public Hospital (RSUD P). The results showed that the majority of respondents received strong motivation from their families, with 26 respondents (57.8%), and most of the respondents had a good quality of life, with 29 respondents (64.4%). The statistical test results indicated a significant correlation, with p-values of 0.010 and 0.038 ($\alpha = 0.05$). **Findings:** Social support emphasizes that emotional, informational, and instrumental assistance from the family can significantly influence the quality of life of patients. In the context of hemodialysis, family support may include motivational encouragement, assistance with treatment adherence, and emotional presence. Such support can enhance a sense of connectedness and reduce stress, which in turn can improve the patient's quality of life. Strong family motivation can foster more positive relationships with the patient, provide encouragement for personal growth, and help patients feel more connected to their life purpose—all of which contribute to an improved quality of life. **Conclusion**: There is a significant relationship between family motivation and the quality of life of patients undergoing hemodialysis. **Novelty/Originality of this article:** This study highlights the specific role of family motivation in improving the quality of life of hemodialysis patients within the context of a Regional Public Hospital. By integrating qualitative and quantitative methods, it offers practical insights and theoretical contributions to the development of family motivation concepts in chronic illness care.

KEYWORDS: hemodialysis; motivation; quality of life.

1. Introduction

Quality of life refers to the condition of an individual with illness who, despite physical and psychological challenges, still feels comfortable and experiences happiness for themselves and others (Bernardin & Russel, 2013; Lase, 2011). Motivation is a change within an individual that arises from feelings, mental states, and emotions, driving the person to act or perform certain behaviors based on needs, desires, and goals. Strong family motivation in patients undergoing hemodialysis therapy positively influences both their physical and psychological well-being. Individuals who receive support from their families tend to feel loved, cared for, proud, and develop self-confidence and hope, which can help reduce stress and various burdens (Bondan, 2011). According to the World Health

Cite This Article:
Latif, S. A. (2025). The relationship between family motivation and quality of life in hemodialysis patients: An analysis of hospital dialysis services. *Arung: Community Health Insight, 1*(1), 15-26. https://journal-iasssf.com/index.php/ARCHI/article/view/1088

Organization (2017), the prevalence of acute and chronic kidney failure reaches 50%, of which only 25% receive treatment, and just 12.5% receive adequate care (Hutagaol, 2017). Chronic Kidney Disease (CKD) has been increasing worldwide and is a serious health concern. The global burden of disease study in 2010 reported that CKD was the 27th leading cause of death globally in 1990 and rose to the 18th position by 2010.

Dr. A.L, PhD, Sp.PD-KGH, chairperson of the Indonesian nephrology association (PB PERNEFRI) in 2019, stated that approximately 10% of the world's population suffers from CKD, with higher prevalence in developing countries. In Southeast Asia, CKD prevalence varies, for example, 9.1% in Malaysia and 16.3% in Thailand, while Indonesia's prevalence was 12.5% at that time. The current incidence of CKD is likely higher than the 2018 Riskesdas data. CKD can progress to end-stage renal disease if not managed properly, leading to complications and death. The 2018 basic health research showed that the prevalence of CKD in Indonesia among individuals aged 15 and above based on physician diagnosis was 0.2% in 2013, increasing to 0.38% in 2018 in Tangerang City during the early JKN era. Furthermore, the Indonesian nephrology association's 2006 study reported a CKD prevalence of 12.5%.

Factors influencing the quality of life in hemodialysis patients include demographic variables such as age, gender, education, and occupation, as well as treatment duration and functional health status (Nurchayati, 2017). The solution to these issues is that chronic kidney disease patients undergoing hemodialysis should receive family support, as it plays a crucial role in health care by helping individuals cope with health problems and achieve better health outcomes. Patients also need close relationships with someone to whom they can express their feelings during stressful periods and loss of motivation during long-term hemodialysis therapy. Hemodialysis patients are vulnerable to emotional problems and stress related to their treatment.

Pangkep regional public hospital (RSUD P) is a regional public service institution providing hemodialysis services. The number of chronic kidney failure inpatients undergoing hemodialysis was 2,599 patients from January to December 2018, and 286 patients from january to september 2020, many of whom were repeat admissions. Direct interviews with five inpatients revealed that four of them were repeat admissions for chronic kidney failure patients who had undergone hemodialysis within the past year in the hospital's hemodialysis ward (Alam & Hadibroto, 2018). Motivation and support from close relatives, such as family and close friends, are very important in shaping a positive quality of life for patients undergoing hemodialysis, who otherwise tend to experience poorer quality of life. Based on the above background, this study aims to investigate the relationship between family motivation and the quality of life of patients undergoing hemodialysis at the hemodialysis clinic of Pangkep regional public hospital.

2. Methods

This study is a descriptive-analytic research using a cross-sectional design, which examines the correlation between exposure or risk factors (independent variables) and outcomes or effects (dependent variables). Data collection is conducted simultaneously at a single point in time (point-in-time approach), meaning that all variables, both independent and dependent, are observed concurrently. Analytic research aims to understand how and why a phenomenon occurs through statistical analysis, such as examining the correlation between cause and effect or between risk factors and outcomes. Furthermore, it can assess the extent to which the cause or risk factor contributes to the outcome or effect (Imas & Nauri, 2018; Nursalam, 2008; Nursalam & Efendi, 2011).

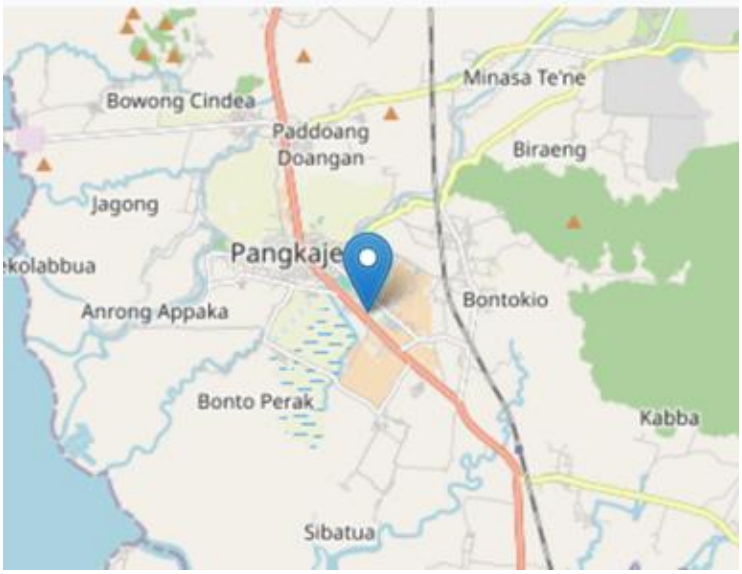

Fig. 1. Research location

3. Results and Discussion

3.1 Respondent characteristics

Based on Table 1 above, the majority of respondents were adults aged 26–45 years, accounting for 24 respondents (53.3%). Nearly half of the respondents were elderly, aged 46–65 years, totaling 16 respondents (35.6%), while a smaller portion were adolescents aged 12–25 years, comprising 5 respondents (11.9%). The majority of respondents were male, totaling 25 respondents (55.6%), while nearly half were female, comprising 20 respondents (44.4%).

Table 1. Frequency distribution of respondents undergoing hemodialysis at the hemodialysis unit (N = 45)

Variables	Frequency	Percentage (%)
Age of respondents		
Adolescents	5	11,9%
Adults	24	53.3%
Elderly / Older adults	16	35.6%
Total	45	100
Gender		
Male	25	55.6%
Female	20	44.4%
Total	45	100

Based on Table 2, the majority of respondents had a high level of education, accounting for 24 respondents (53.3%), while nearly half of the respondents had a low level of education, totaling 21 respondents (46.7%).

Table 2. Frequency distribution of respondents by education level of patients undergoing hemodialysis at the hemodialysis unit (N = 45)

Education	Frequency	Percentage (%)
High	24	53.3%
Low	21	46.7%
Total	45	100

3.2 Univariate analysis

The univariate analysis in this study includes age, gender, education, occupation, duration of hemodialysis, adherence to hemodialysis therapy, and quality of life.

Table 3. Frequency distribution of respondents by family motivation of patients undergoing hemodialysis at the hemodialysis unit (N = 45)

Family Motivation	Frequency	Percentage (%)
Strong	26	57.8%
Moderate	23	28.9%
Weak	6	13.3%
Total	45	100

Based on Table 3, the majority of respondents received strong motivation from their families, totaling 26 respondents (57.8%). Nearly half of the respondents received moderate motivation from their families, with 13 respondents (28.9%), while a small portion received weak family motivation, comprising 6 respondents (13.3%).

Table 4. Frequency distribution of respondents by quality of life of patients undergoing hemodialysis at the hemodialysis unit (N = 45)

Quality of Life	Frequency	Percentage (%)
Good	29	64.4%
Poor	16	35.6%
Total	45	100

Based on Table 4, the majority of respondents had a good quality of life, totaling 29 respondents (64.4%), while nearly half of the respondents had a poor quality of life, with 16 respondents (35.6%).

3.3 Bivariate analysis

Bivariate analysis aims to examine the relationship between family motivation and the quality of life of patients undergoing hemodialysis. This analysis employed the Spearman Rank statistical test with a significance level of 0.05, using SPSS version 16 for Windows, to determine the presence or absence of a relationship between two variables—namely, the independent and dependent variables measured on an ordinal scale (Sugiyono, 2018).

3.3.1 The relationship between family motivation and the quality of life of patients undergoing hemodialysis

Based on Table 5, the data analysis using SPSS showed a correlation coefficient of 0.378**, indicating a strong relationship between the variables of family motivation and quality of life. The double asterisks (**) denote that the correlation is statistically significant at the 0.05 significance level. The positive correlation coefficient (r = 0.378) suggests a direct (positive) relationship between the two variables, meaning that an increase in family motivation is associated with an improvement in the patient's quality of life. The significance value (2-tailed) was 0.010, which is less than 0.05, indicating a statistically significant relationship between family motivation and quality of life.

Table 5. Spearman rank correlation results between family motivation and quality of life of patients undergoing hemodialysis at the hemodialysis unit (N = 45)

		Motivation	Quality of Life
Motivation	Correlation coefficient	1	0.378*
	Sig. (2-tailed)		0.018
	N	45	45

Quality of Life	Correlation coefficient	0.378*	1
	Sig. (2-tailed)	0.010	
	N	45	45

Based on Table 6, it was found that among 26 respondents, nearly half of those who received strong family motivation had a good quality of life, totaling 13 respondents (57.8%). Among 13 respondents who received moderate motivation, a small portion—10 respondents (22.2%)—had a good quality of life. Of the 6 respondents who received weak motivation, only 6 respondents (13.3%) had a good quality of life. The statistical test yielded a p-value of 0.038, which is less than 0.05, indicating a significant relationship between family motivation and the quality of life of patients undergoing hemodialysis at the hemodialysis unit (N=45).

Table 6. Relationship between family motivation and quality of life of patients undergoing hemodialysis at the hemodialysis unit (N = 45)

Motivation	Not to good		Good		Total		*P Value*
	N	%	N	%	n	%	
Strong Motivation	13	28.9%	13	28.9%	26	57.8%	0.038
Moderate Motivation	3	6.7%	10	22.2%	13	28.9%	
Weak Motivation	0	1%	6	13.3%	6	13.3%	
total	16	25.6%	29	64.4%	45	100.%	

3.4 Discussion

3.4.1 Respondent characteristics

Based on the analysis of the pie chart in Figure 2, it is shown that the majority of respondents were adults aged 26–45 years, comprising 24 respondents (53.3%). This finding is consistent with the that the average age of CKD patients undergoing hemodialysis was 53.5 years. Similarly, Nurcahyati (2010) reported an average age of 44.82 years among hemodialysis patients. According to Moons et al., as supported by Warner et al. (2012), age plays a contributing role in quality of life, as older individuals tend to have moved past the phase of major life changes and are therefore more likely to adopt a positive outlook compared to younger individuals.

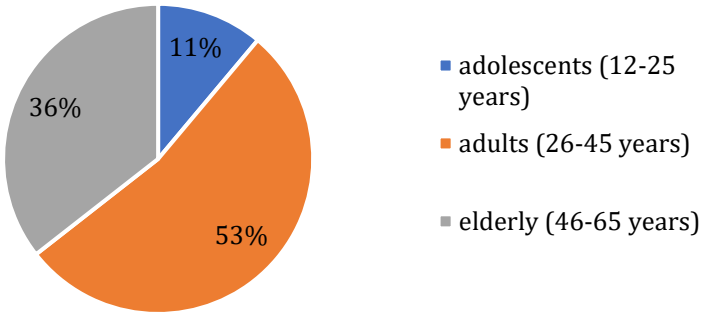

Fig. 2. Pie chart of the frequency distribution of respondents based on the age of patients undergoing hemodialysis at the hemodialysis unit (N=45)

Brunner & Suddarth (2013) stated that between the ages of 40 and 70, the glomerular filtration rate progressively declines by up to 50% from normal. This is accompanied by reduced tubular reabsorption and urine concentration capacity, decreased bladder emptying efficiency—which increases the risk of infection and obstruction—as well as lower fluid intake, all of which are risk factors for kidney damage. According to Silva et al.

(2012), hemodialysis patients often experience fatigue after treatment, particularly those aged 60 and above, due to the presence of comorbidities related to chronic kidney disease. Tanto (2014) also noted that chronic kidney disease (CKD) is a multi-hit process; once kidney function is impaired, numerous factors can exacerbate disease progression. Among these, older age is considered a non-modifiable risk factor. However, the findings of this study do not fully support this view, as respondents were not limited to the elderly. The study also identified younger adult respondents, aligning with the theory that CKD can now affect individuals of all age groups depending on the underlying etiology, as previously described (Annisa & Wahiduddin, 2013).

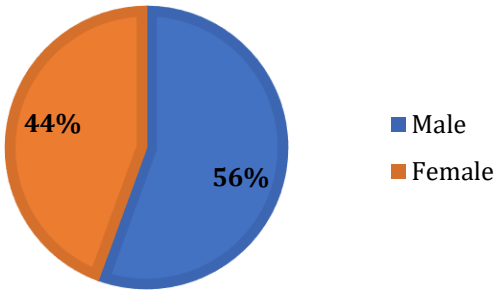

Fig. 3. Pie chart of the frequency distribution of respondents based on the gender of patients undergoing hemodialysis at the hemodialysis unit (N=45)

Based on the analysis of the pie chart in figure 3, it is shown that the majority of respondents were male, totaling 25 respondents (55.6%). This finding aligns with several previous studies, including Septiwi (2011), who reported that 58.4% of respondents were male; Suryanilsih (2010), who found that 67.6% of respondents were male; and Syamsiah (2011), who observed that 54.1% of respondents were male. The view of Moons et al. (2014) is supported by research conducted by Bain et al. (2003), which found a difference in quality of life between males and females, with males tending to have a better quality of life than females.

This study's results are supported by the theory that knowledge or cognition is a critical domain for the formation of actions, where behavior based on knowledge tends to be more lasting than behavior without it. Knowledge is the result of knowing and occurs after a person perceives a particular object (Notoadmojo, 2010). According to Tanto (2014), male gender is one of the five non-modifiable risk factors for Chronic Kidney Disease (CKD). The higher number of male CKD patients compared to females may be due to several factors. For example, prostate enlargement in males can cause obstruction and infections, which may lead to kidney failure. Additionally, kidney stones occur more frequently in males because the male urinary tract is longer, resulting in more deposition of stone-forming substances than in females.

Males also tend to have habits that affect health, such as smoking, drinking coffee, alcohol consumption, and using supplements, which can trigger systemic diseases that reduce kidney function and impact quality of life. Interviews with respondents revealed that male CKD patients commonly had underlying conditions such as hypertension, diabetes mellitus, and stroke. Hypertension in some patients may be attributed to smoking habits. Prolonged hypertension is a modifiable risk factor for CKD (Brunner & Suddarth, 2001; Black & Hawks, 2014; Tanto, 2014).

This is consistent with Astrini's (2013) study, which found that most hemodialysis patients with chronic kidney disease were male. This tendency may be due to the higher prevalence of hypertension, obesity, and diabetes mellitus among males, which are risk factors for CKD. Lifestyle factors also play a significant role in CKD development, as smoking and alcohol consumption are more prevalent among males. Generally, diseases can affect both males and females; however, for certain conditions such as chronic kidney disease,

there are differences in frequency between genders. These differences may be influenced by occupational exposure, lifestyle habits, genetics, or physiological conditions.

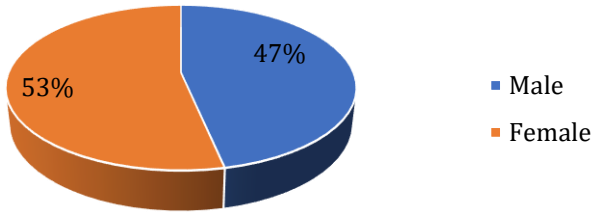

Fig. 4. Pie chart of the frequency distribution of respondents based on the educational background of patients undergoing hemodialysis at the hemodialysis unit (N=45)

Based on the analysis of the pie chart in figure 4 above, it is shown that the majority of respondents have a high level of education, totaling 24 respondents (53.3%). The author assumes that CKD patients with low education levels have less knowledge or may receive incorrect information from others. Individuals with lower education levels are also more likely to believe inaccurate information regarding hemodialysis treatment. This is evident from the smaller number of respondents in the low education group.

The theoretical review does not explicitly explain the relationship between education level and the incidence of kidney disease or patients undergoing hemodialysis therapy but is more related to the type of occupation and income. People with higher education levels and higher incomes tend to experience changes in dietary consumption patterns and have preferences regarding health-related tools or medications. Green, as cited in Achmadi (2013), states that education is a predisposing factor that influences health-related behaviors. According to Sunaryo (2013), education encompasses the entire process of an individual's life from birth to death and aims to bring about behavioral changes — from ignorance to knowledge, from misunderstanding to understanding, and from inability to ability.

Education level affects an individual's behavior concerning health promotion and maintenance, disease prevention, health-seeking behavior, recovery behavior, and the choice and decision-making regarding therapies or treatments to address health problems. The higher a person's education, the greater their awareness to seek treatment and care for their health issues. As explained by Yuliaw (2009) in Kusniawati (2018), CKD patients with higher education tend to have broader knowledge, which enables them to better control their condition, have higher self-confidence, greater experience, accurate estimation in handling events, better understanding of health professionals' recommendations, and reduced anxiety, all of which assist them in making decisions. The author believes that patients with higher education levels possess better knowledge, enabling them to control themselves in managing their health problems. The education level of patients correlates with their knowledge level, allowing them to understand and monitor their own health condition and make appropriate decisions to continue hemodialysis therapy to maintain their life (Utami 2014).

3.4.2 Univariate analysis

Based on the analysis of the pie chart in figure 5 above, it is shown that the majority of respondents receive strong motivation from their families, totaling 26 respondents (57.8%). Motive is something that complements and drives the reasons or impulses within humans that cause them to act. Human behavior is essentially motivated and inherently has a certain purpose, even though this purpose is not always consciously realized by individuals (Russell, 2016).

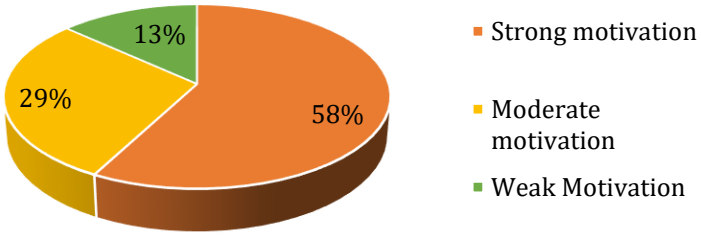

Fig. 5. Pie chart of the frequency distribution of respondents based on family motivation among patients undergoing hemodialysis at the hemodialysis unit (N=45)

Based on the data above, it can be assumed that families have fulfilled their role in supporting family health. On average, families accompany patients throughout the hemodialysis therapy process and provide motivation as well as emotional support, such as care and encouragement. However, there are also some families who provide less motivation and support to the patients—for example, family members who only accompany patients to the hospital but do not stay with them while waiting in line for hemodialysis therapy, or even families who do not accompany their relatives to undergo hemodialysis therapy at all.

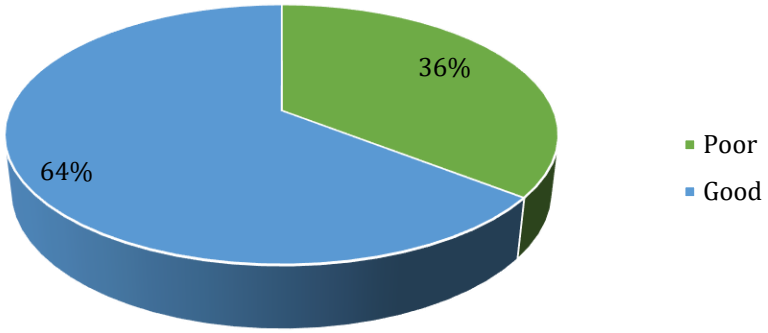

Fig. 6. pie chart of the frequency distribution of respondents based on the quality of life of patients undergoing hemodialysis at the hemodialysis unit (N=45)

Based on the analysis of the pie chart in figure 6 above, it shows that the majority of respondents have a good quality of life, totaling 29 respondents (64.4%). This finding is consistent with the study by Fatma (2018), which reported that most respondents at the Hemodialysis Clinic of RSUD Jombang experienced a less than optimal quality of life, with 16 respondents (35.6%) categorized as such. Nurchayati (2017) stated that quality of life is an individual's perception of their position in life within the context of the culture and value system in which they live, and in relation to their goals, expectations, standards, and concerns. This concept integrates various ways in which an individual attains physical health, psychological well-being, level of independence, social relationships, and interaction with their environment. In this study, quality of life refers to the patient's perception of their position in daily life while undergoing hemodialysis. Hemodialysis indirectly affects a patient's quality of life, including physical health, psychological condition, spirituality, socioeconomic status, and family dynamics (Nurani & Mariyanti, 2013).

Patients who have only undergone hemodialysis a few times tend to experience higher levels of anxiety and stress compared to those who have undergone multiple sessions.

Patients receiving hemodialysis therapy may suffer impairments in cognitive function, adaptability, or socialization compared to healthy individuals. Psychological problems often manifest from the moment patients are diagnosed with chronic kidney disease. Feelings of loss of control, guilt, and frustration also contribute to patients' emotional responses. Chronic kidney disease makes patients feel powerless and aware of their impending mortality, leading to anxiety and a sense of meaninglessness in life, which ultimately results in a decline in their quality of life (Nurani & Mariyanti, 2013).

3.4.3 Bivariate analysis

Based on the hypothesis testing using the Spearman's Rank Correlation and Chi-Square tests, the significance values (2-tailed) obtained were 0.010 and 0.038, respectively, both less than 0.05. This indicates a statistically significant relationship between family motivation and the quality of life of patients undergoing hemodialysis. According to Friedman (2010), family motivation refers to the attitudes, actions, and acceptance of the family towards the sick individual. Family motivation is closely related to supporting a person's quality of life, as quality of life is a perception formed by an individual's abilities, limitations, symptoms, and psychosocial characteristics within the context of their cultural environment and values in carrying out their roles and functions appropriately (Kalantar-Zadeh et al., 2013; Khadijah, 2013).

This study aligns with Fatma (2018) research, which also found a significant correlation between family motivation and quality of life in hemodialysis patients at the Hemodialysis Clinic of RSUD Jombang, with a Spearman rank significance value of 0.013, below the 0.05 threshold, thereby supporting the hypothesis. The theory of motivation explains that individuals have various motives driving and moving them to perform activities to achieve goals and fulfill life needs to maintain their existence (Syamsul, 2017). Motivation strongly influences the quality of life of hemodialysis patients, whether it arises internally or externally. For example, the motivation to maintain health through avoiding excessive fluid intake and adhering to scheduled hemodialysis is a form of internal motivation to preserve better quality of life. This motivation plays a crucial role in maintaining good quality of life. When a person has the desire and hope to improve their health, satisfaction increases, leading to peace of mind and fulfillment of the four dimensions of quality of life.

Based on the data above, the good relationship between the patient and their family contributes to the patient's perception of having a good quality of life. A positive relationship among patients undergoing hemodialysis indirectly motivates them to improve themselves. Family motivation is vital in supporting an individual's quality of life. Some respondents reported that family encouragement made them more enthusiastic about undergoing hemodialysis and motivated to recover from their illness. Family motivation includes encouraging patients to socialize with friends, accompanying family members during hemodialysis sessions, and controlling dietary restrictions. These actions significantly contribute to improving patients' quality of life.

According to the WHO definition, quality of life is an individual's perception of their position in life within the cultural context and value system in which they live. It broadly encompasses various aspects of a person's life, including physical health, psychological state, personal beliefs, and social relationships to interact with the environment (Niven, 2012). This definition reflects the view that quality of life is a subjective evaluation embedded in cultural, social, and environmental contexts. Quality of life should not be simplified or equated with health status, lifestyle, comfort, mental status, or sense of security. Sundara (2016) states that although kidney disease is generally recognized as a chronic illness prevalent in older adults, chronic kidney disease (CKD) can affect various age groups and genders. According to annual data from the Indonesian Nephrology Association (Pernefri) in 2011, among approximately 12,500 patients with end-stage renal disease requiring regular hemodialysis, more than 53% were under 54 years of age.

4. Conclusions

Based on the study conducted on 45 patients undergoing hemodialysis therapy at RSUD Pangkep, several conclusions can be drawn. It was identified that the majority of respondents received strong motivation from their families, totaling 26 respondents (57.8%). Additionally, most respondents were found to have a good quality of life, with 29 respondents (64.4%). Furthermore, a significant relationship was found between family motivation and the quality of life of patients undergoing hemodialysis at the Hemodialysis Clinic of RSUD Pangkep, with p-values of 0.010 and 0.038, respectively.

Acknowledgement
The author encompass all aspects from research design to dissemination of results, which are crucial for understanding and improving the quality of life of hemodialysis patients through family support.

Author Contribution
The author is solely responsible for the entire process of this research and article preparation. The contributions include formulating the research idea, data collection, data analysis, interpretation of the results, writing the manuscript, and final revisions prior to publication.

Funding
This research received no external funding.

Ethical Review Board Statement
Not available.

Informed Consent Statement
Not available.

Data Availability Statement
Not available.

Conflicts of Interest
The author declare no conflict of interest.

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