

Quality of Life of Patients with Chronic Kidney Disease Undergoing Hemodialysis Therapy at Atma Jaya Hospital

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ABSTRACT

Chronic kidney disease (CKD) is characterized by a gradual and substantial decline in kidney function caused by various progressive diseases. This condition results in the loss of normal kidney function, leading to the accumulation of toxins in the body that can damage tissues and organs and is generally irreversible. The objective of study is determine the quality of life of patients with chronic kidney disease undergoing hemodialysis therapy at Atma Jaya Hospital. This study used a quantitative descriptive design. The study population consisted of 48 patients. Total sampling was used, and data were collected using the KDQOL-SF 36 questionnaire and analyzed using univariate analysis. Results: The findings showed that the majority of respondents had a good quality of life, with 38 respondents (88.4%). The majority of patients undergoing hemodialysis therapy adhered to the recommended schedule of twice-weekly hemodialysis and consequently had a good quality of life.

Keywords: Chronic Kidney Disease, Quality of Life, Hemodialysis Therapy.

I. Introduction

Kidneys are among the most important organs in the human body. Therefore, kidney problems can affect overall health, including chronic kidney disease (CKD). Patients with CKD experience a gradual and substantial decline in kidney function caused by various progressive diseases. This condition results in impaired kidney function and the accumulation of toxins in the body, which can damage tissues and organs and is generally irreversible (Cahyaningrum et al., 2024). The World Health Organization (WHO) (2018) reported that the prevalence of chronic kidney disease was approximately 15%, affecting 697.5 million people and contributing to 1.2 million deaths. In 2020, the number of deaths reached 254,028. These high figures indicate that CKD ranked 12th among all causes of death (Cahyaningrum et al., 2024).

According to the Ministry of Health of the Republic of Indonesia (Kemenkes, 2018), among the Indonesian population aged >15 years diagnosed with CKD, 19.3% received hemodialysis therapy, with the highest prevalence reported in DKI Jakarta at 38.7%, followed by West Java at 19.3% (Cahyaningrum et al., 2024). Kemenkes (2023) reported that the prevalence of CKD among Indonesians aged >15 years was 18%, corresponding to 638,178 people. The highest prevalence was reported in West Java at 20%, corresponding to 114,619 people, while DKI Jakarta had a prevalence of 22%, corresponding to 24,981 people. Furthermore, among Indonesians aged >15 years diagnosed with CKD, 21.1% received hemodialysis therapy, corresponding to 1,259 patients (Kemenkes, 2023).

Sarastika et al. (2019) conducted a study entitled "Quality of Life of Patients with Chronic Kidney Disease Undergoing Hemodialysis Therapy" to describe the quality of life of CKD patients in the Hemodialysis

Unit of Wijayakusuma Hospital, Purwokerto. The study used a quantitative descriptive design with a cross-sectional approach and accidental sampling, involving 94 respondents. Most respondents were aged 45–60 years (54 respondents; 57.4%), male (56 respondents; 59.6%), and had a primary education background (50 patients; 53.2%). Regarding quality of life, 41 respondents (43.6%) had a good quality of life, while 34 respondents (36.2%) had undergone hemodialysis therapy for less than 12 months.

Based on a preliminary study conducted by the researcher on June 20, 2024, at Atma Jaya Hospital, an interview with the Head of the Hemodialysis Unit indicated that 48 patients had undergone hemodialysis therapy at the hospital since the beginning of June. Among 10 patients assessed during the preliminary study, 8 patients (80%) were aged 50–60 years, underwent hemodialysis twice a week, and had received therapy for more than one year. The remaining 2 patients (20%) were aged 40–49 years, underwent hemodialysis twice a week, and had received therapy for less than one year. The researcher selected this setting because the available data indicated differences in the duration of hemodialysis therapy among CKD patients. Therefore, the researcher was interested in describing the quality of life of CKD patients undergoing hemodialysis therapy at Atma Jaya Hospital.

II. Literature Review and Hypothesis Development

2.1. Quality of Life

Quality of life is an important concept in understanding the overall condition of patients living with chronic diseases, including chronic kidney disease (CKD). It refers to an individual's overall perception of well-being and satisfaction with life, encompassing both positive and negative aspects of everyday experiences. Quality of life is not limited to physical health but also includes psychological, social, environmental, and spiritual dimensions that may influence how individuals perceive and respond to their health conditions. According to Teoli (2023), quality of life encompasses several important dimensions, including physical health, mental health, environmental conditions, social relationships, and spirituality. Therefore, quality of life should be understood as a multidimensional concept that reflects how individuals perceive their position and well-being within their daily lives. For patients with CKD, quality of life is closely associated with their physical and emotional conditions. CKD is a progressive condition that can affect an individual's ability to perform daily activities and maintain independence. Changes in physical health may be accompanied by emotional and psychological challenges, particularly when patients must adapt to long-term treatment and changes in their daily routines. Consequently, quality of life among patients with CKD cannot be assessed solely on the basis of physical symptoms but should also consider their psychological and social experiences.

Personal satisfaction is another important component of quality of life. It includes emotional well-being and reflects how individuals perceive their ability to fulfill their needs and achieve satisfaction in life. For patients with chronic illness, personal satisfaction may be influenced by their ability to adapt to changes in physical functioning and treatment requirements. The ability to maintain meaningful relationships, perform daily activities, and participate in social life may contribute to an individual's perception of well-being. The physical dimension of quality of life relates to an individual's health status and ability to carry out daily activities. In patients with CKD, physical limitations may influence their ability to perform routine activities. Treatment requirements may also affect the way patients organize their daily lives. At the same time, the psychological dimension concerns emotional and mental well-being. Patients may experience changes in their emotional condition as they adjust to the long-term consequences of CKD and the need for continuous treatment.

The social dimension is also relevant because chronic illness can affect relationships and social participation. Patients may need support from family members, healthcare professionals, and their broader social environment. Social relationships may provide emotional support and help patients adapt to changes associated with their condition. In addition, environmental factors may influence access to healthcare services and the patient's ability to maintain an appropriate daily routine. Spirituality may also form part of the quality-

of-life experience. For some patients, spiritual beliefs can contribute to their ability to cope with chronic illness and changes in their lives. Thus, quality of life represents an interaction among physical, psychological, social, environmental, and spiritual aspects of an individual's life. Based on these perspectives, quality of life can be understood as an individual's subjective perception of physical, social, and emotional health. In patients with CKD, this perception is closely related to their physical and emotional conditions and their ability to perform daily activities. Therefore, assessing quality of life is important in understanding the broader consequences of CKD and evaluating the experiences of patients who require long-term treatment such as hemodialysis.

2.2. Hemodialysis in Chronic Kidney Disease

Hemodialysis is one of the renal replacement therapies used to support patients with CKD when kidney function is no longer sufficient to maintain the body's internal balance. The therapy involves circulating the patient's blood through a dialyzer, an external device that performs functions that would normally be carried out by the kidneys. The dialyzer consists of two compartments separated by an artificial semipermeable membrane. One compartment contains the patient's blood, while the other contains dialysate, a solution formulated with electrolytes similar to those found in normal serum and free from nitrogenous metabolic waste. The fundamental process of hemodialysis involves the movement of water and solutes across a semipermeable membrane. During treatment, substances move from areas of higher concentration to areas of lower concentration, allowing certain metabolic waste products and excess substances to be removed from the blood. Through this process, hemodialysis assists in maintaining physiological balance in patients whose kidney function has been substantially reduced.

Hemodialysis is an important treatment for patients with advanced CKD because impaired kidney function can lead to the accumulation of metabolic waste and excess substances in the body. The treatment therefore serves as a supportive therapy for maintaining the patient's physiological condition. However, hemodialysis does not restore the original function of damaged kidneys. Instead, it provides a renal replacement function that must generally be continued according to the patient's clinical requirements. Hasanuddin (2022) explains that hemodialysis involves the movement of water and substances through a semipermeable membrane. The treatment is generally performed two to three times per week, with each session lasting approximately four to five hours. The frequency and duration of treatment demonstrate that hemodialysis is not a short-term intervention but rather a long-term therapeutic process that can become an integral part of the patient's daily life.

The regularity of hemodialysis may have important implications for patients' quality of life. Patients are required to attend scheduled treatment sessions, which can influence their daily routines, social activities, employment, family responsibilities, and emotional well-being. The need to undergo treatment repeatedly may require patients to make substantial adjustments to their lifestyles. Therefore, the experience of undergoing hemodialysis is closely connected to the broader quality-of-life experience among patients with CKD. The relationship between hemodialysis and quality of life is multidimensional. From a physical perspective, regular treatment helps support the patient's condition by assisting with the removal of metabolic waste and maintaining physiological balance. From a psychological perspective, however, the long-term nature of treatment may require patients to adapt emotionally to changes in their health status. Patients may also need to adjust their social activities and daily routines around their treatment schedules.

The duration of hemodialysis may further shape patients' experiences. Patients who have recently started hemodialysis may require time to adapt to the treatment routine and changes associated with CKD. As treatment continues, patients may gradually become more familiar with the procedures and develop greater acceptance of their condition. Health education provided by healthcare professionals may also help patients understand their condition and the importance of adhering to the prescribed treatment schedule. Consequently, hemodialysis should not be viewed solely as a medical procedure but also as a long-term experience that can influence various dimensions of patients' lives. The treatment may support physical health while simultaneously requiring psychological, social, and behavioral adaptation. This makes quality of life an

important consideration when examining the experiences of patients undergoing hemodialysis. Overall, CKD and hemodialysis are closely associated with the patient's quality-of-life experience. CKD may affect physical and emotional functioning, while hemodialysis introduces a regular treatment schedule that requires long-term adaptation. Quality of life therefore provides a broader perspective for understanding how patients experience their illness and treatment. Evaluating quality of life among patients undergoing hemodialysis is important because it captures not only their physical condition but also their psychological, social, environmental, and personal experiences in managing a chronic health condition.

III. Research Method

3.1. Research Design

This study employed a quantitative descriptive research design with a cross-sectional approach. A quantitative descriptive design was selected because the study aimed to provide a systematic description of the quality of life of patients with chronic kidney disease (CKD) who were undergoing hemodialysis therapy at Atma Jaya Hospital. The descriptive approach allows the characteristics of the respondents and the distribution of their quality of life to be presented based on the data obtained during the research process. The cross-sectional approach was used because data were collected at a particular period of the study rather than through repeated observations over an extended period. Through this approach, the researchers were able to obtain information concerning the quality of life of CKD patients undergoing hemodialysis at the time of data collection. The use of a cross-sectional design is appropriate for describing the distribution of a particular condition within a defined population at a specific point or period. The main focus of the study was the quality of life of patients with CKD undergoing hemodialysis therapy. Quality of life is a multidimensional concept that may be influenced by physical, psychological, social, environmental, and other aspects of an individual's life. Therefore, the quantitative descriptive design was used to present the condition of respondents based on the data obtained from the research instrument.

3.2. Research Setting

The study was conducted in the Hemodialysis Unit of Atma Jaya Hospital. The selection of this research setting was related to the availability of CKD patients undergoing hemodialysis therapy at the hospital. Based on the preliminary study conducted by the researcher on June 20, 2024, an interview with the Head of the Hemodialysis Unit indicated that 48 patients had undergone hemodialysis therapy at Atma Jaya Hospital since the beginning of June 2024. The preliminary information provided the basis for identifying the research population and determining the respondents who would be eligible to participate in the study. The research setting was considered relevant because patients undergoing hemodialysis have specific treatment schedules and experiences associated with long-term renal replacement therapy. These circumstances make the hemodialysis unit an appropriate setting for examining the quality of life of patients with CKD who routinely receive hemodialysis therapy.

3.3. Population and Sample

The population in this study consisted of patients with CKD who were undergoing hemodialysis therapy at Atma Jaya Hospital. Based on the preliminary data obtained by the researcher, the population consisted of 48 patients. The researchers initially considered using a total sampling technique, in which all members of the identified population would be included as potential respondents. However, not all members of the population ultimately met the requirements for participation in the study. The researchers applied predetermined inclusion and exclusion criteria to ensure that the respondents included in the study were appropriate for the research objectives. After the eligibility criteria were applied, 43 respondents met the

requirements and were included in the final sample. Thus, although the initial population consisted of 48 patients, the final number of respondents included in the analysis was 43. The reduction in the number of respondents was based on the application of the eligibility criteria rather than on the selection of a smaller sample through a probability sampling procedure.

3.4. Sampling Procedure

The study used a total sampling approach as the initial sampling consideration. Total sampling refers to the inclusion of all members of a defined population when the population is relatively limited and accessible to the researcher. In this study, the researchers identified 48 patients undergoing hemodialysis therapy as the initial population. Nevertheless, the researchers considered the clinical condition and eligibility of the patients before including them as respondents. Consequently, the final sample consisted of 43 patients who met the inclusion and exclusion criteria. This procedure was intended to ensure that the data collected were obtained from respondents who were relevant to the objectives of the study. The application of eligibility criteria is particularly important in research involving patients with chronic conditions. Patients undergoing hemodialysis may have different health conditions, treatment durations, and individual circumstances. Therefore, the researchers considered the established criteria when determining whether a patient could participate in the research.

3.5. Research Instrument

The study used the Kidney Disease Quality of Life Short Form 36 (KDQOL-SF 36) questionnaire to assess the quality of life of patients undergoing hemodialysis therapy. The use of a quality-of-life questionnaire was consistent with the main objective of the study, which was to describe the quality of life of patients with CKD receiving hemodialysis. The questionnaire served as the primary instrument for obtaining quantitative information from the respondents. The responses obtained through the instrument were subsequently processed and analyzed to describe the distribution of quality of life among the study participants. The use of a standardized questionnaire also facilitates the collection of information in a structured manner. Each respondent provides responses according to the items contained in the instrument, allowing the researchers to organize the data and summarize the findings quantitatively.

3.6. Data Collection

Data collection was conducted among CKD patients undergoing hemodialysis therapy at Atma Jaya Hospital. Eligible respondents were included in the study after the researchers applied the established inclusion and exclusion criteria. Data were obtained using the KDQOL-SF 36 questionnaire. The collected data represented the respondents' quality-of-life conditions during the study period. Because the study employed a cross-sectional approach, the data were used to provide a description of the respondents' quality of life at the time of the research rather than to evaluate changes in quality of life over a prolonged period. The data collection process was directed toward obtaining complete information from the respondents who met the eligibility requirements. The researchers then organized the collected responses for further statistical analysis.

3.7. Data Analysis

The data obtained from the respondents were analyzed using univariate analysis. Univariate analysis was selected because the primary objective of the study was descriptive, namely, to determine the distribution and characteristics of quality of life among CKD patients undergoing hemodialysis therapy. The analysis included the presentation of frequency distributions and percentages. These descriptive statistics were used to summarize the characteristics of the respondents and the distribution of their quality-of-life

categories. The results were subsequently presented in tables to facilitate interpretation. The final analysis involved 43 respondents. The quality-of-life data were categorized into good, fair, and poor quality-of-life groups. The frequency and percentage of respondents in each category were then calculated. Based on the results presented in the study, 38 respondents (88.4%) were categorized as having a good quality of life, four respondents (9.3%) had a fair quality of life, and one respondent (2.3%) had a poor quality of life. These findings provide a quantitative description of the quality of life of the patients included in the study.

3.8. Ethical Considerations

Because this study involved patients with CKD who were undergoing hemodialysis therapy, ethical considerations are an important component of the research process. The participation of respondents should be based on their eligibility and willingness to participate in the study. The researchers also needed to consider the condition of the patients during the data collection process. The application of inclusion and exclusion criteria helped ensure that only eligible respondents participated in the study. In addition, the collection of information through a structured questionnaire allowed the researchers to obtain data systematically while focusing on the research objectives. Overall, the methodology was designed to provide a quantitative description of the quality of life of CKD patients undergoing hemodialysis therapy at Atma Jaya Hospital. The use of a quantitative descriptive design, cross-sectional approach, eligibility criteria, KDQOL-SF 36 questionnaire, and univariate analysis provided a framework for presenting the characteristics of the respondents and describing the distribution of their quality of life. The final sample of 43 respondents constituted the basis for the analysis and interpretation of the research findings.

IV. Result and Discussion

4.1. Results

a. Characteristics of Respondents

Table 5.1. Characteristics of Respondents with Chronic Kidney Disease Undergoing Hemodialysis Therapy at Atma Jaya Hospital (n = 43)

Variable	Frequency (f)	Percentage (%)
Age		
25–35 years	9	20.9
36–45 years	7	16.3
46–55 years	14	32.6
56–65 years	13	30.2
Gender		
Female	21	48.8
Male	22	51.2
Duration of Hemodialysis		
< 1 year	10	23.3
> 1 year	33	76.7
Frequency of Hemodialysis		
2 times/week	37	86.0
3 times/week	6	14.0
Total	43	100.0

Table 5.1 presents the characteristics of 43 respondents with CKD who were undergoing hemodialysis therapy at Atma Jaya Hospital. Based on age, the largest proportion of respondents were in the 46–55-year age group, consisting of 14 respondents (32.6%). This was followed by respondents aged 56–65 years, with 13 respondents (30.2%). Meanwhile, 9 respondents (20.9%) were aged 25–35 years and 7 respondents (16.3%) were aged 36–45 years. In terms of gender, the distribution of respondents was relatively balanced, although male respondents represented a slightly larger proportion. There were 22 male respondents (51.2%) and 21 female respondents (48.8%). Thus, the difference between male and female respondents was relatively small.

Regarding the duration of hemodialysis therapy, most respondents had undergone hemodialysis for more than one year. A total of 33 respondents (76.7%) had received hemodialysis for more than one year, while 10 respondents (23.3%) had undergone the therapy for less than one year. This finding indicates that the majority of respondents had considerable experience with routine hemodialysis treatment. In terms of the frequency of treatment, the majority of respondents underwent hemodialysis twice per week. Specifically, 37 respondents (86.0%) received hemodialysis two times per week, while 6 respondents (14.0%) received treatment three times per week. Therefore, twice-weekly hemodialysis was the most common treatment frequency among the respondents. Overall, the characteristics of the respondents indicate that the study population was predominantly composed of patients aged 46–55 years, male patients, patients who had undergone hemodialysis for more than one year, and patients receiving hemodialysis twice per week.

b. Distribution of Quality of Life

Table 5.2. Distribution of Quality of Life among Patients with Chronic Kidney Disease Undergoing Hemodialysis Therapy at Atma Jaya Hospital (n = 43)

Quality of Life	Frequency (f)	Percentage (%)
Good	38	88.4
Fair	4	9.3
Poor	1	2.3
Total	43	100.0

Mean = 1.14; Standard Deviation = 0.413

Table 5.2 describes the quality of life of CKD patients undergoing hemodialysis therapy at Atma Jaya Hospital. The findings demonstrate that the majority of respondents had a good quality of life. Of the 43 respondents, 38 (88.4%) were categorized as having a good quality of life. Four respondents (9.3%) had a fair quality of life, while only one respondent (2.3%) had a poor quality of life. The mean quality-of-life score was 1.14, with a standard deviation of 0.413. The distribution indicates that the largest proportion of respondents was concentrated in the good-quality-of-life category. The relatively small proportion of respondents categorized as having fair or poor quality of life indicates that most respondents in this study were able to maintain a relatively favorable quality-of-life condition while undergoing hemodialysis therapy.

4.2. Discussion

a. Age of Respondents

The findings showed that the largest proportion of respondents undergoing hemodialysis therapy at Atma Jaya Hospital were aged 46–55 years, accounting for 14 respondents (32.6%). The second-largest age group consisted of respondents aged 56–65 years, with 13 respondents (30.2%). These findings indicate that the respondents were predominantly in the middle-aged to older adult age groups. Age is an important characteristic when considering the condition of patients with CKD because physiological changes associated with aging may influence kidney function. As individuals grow older, changes occur in various organ systems,

including the kidneys. The gradual decline in kidney function may contribute to an increased vulnerability to chronic kidney disorders.

Ariyani et al. (2019) similarly reported that many patients undergoing hemodialysis were in the older age groups. The findings of the present study are therefore consistent with previous research indicating that CKD requiring hemodialysis is commonly observed among older adults. The relationship between age and kidney function may be associated with progressive changes in the filtration capacity of the kidneys. As stated in the original study, kidney function changes with increasing age, and after approximately 40 years of age, the glomerular filtration rate may progressively decline. Aging may also reduce the kidneys' ability to maintain fluid and electrolyte balance.

Age may also influence patients' experiences while undergoing long-term treatment. Older patients may have different physical capacities and adaptation processes compared with younger patients. In addition, age may influence cognitive functioning, which can affect an individual's ability to understand health information and respond to treatment requirements. These factors may be relevant when healthcare professionals provide education and support to patients undergoing regular hemodialysis. Nevertheless, age alone cannot be used to determine the quality of life of patients undergoing hemodialysis. Quality of life is multidimensional and may be influenced by several other factors, including physical condition, psychological state, social relationships, duration of treatment, and the patient's ability to adapt to the treatment process. Therefore, the predominance of respondents aged 46–55 years in this study should be interpreted as a characteristic of the study population rather than as evidence that age directly determines quality of life.

b. Gender of Respondents

The findings showed that male respondents constituted a slightly larger proportion of the sample, with 22 respondents (51.2%), compared with 21 female respondents (48.8%). Although the difference was relatively small, the findings indicate a slightly higher proportion of male patients undergoing hemodialysis in the study setting. This finding is consistent with previous research reporting that patients undergoing hemodialysis are frequently predominantly male. Saputra et al. (2020) suggested that the higher proportion of male patients may be associated with lifestyle-related factors, including smoking and alcohol consumption. According to the findings cited in the original study, active smokers have a higher risk of developing CKD, while passive smokers also have an increased risk.

Lifestyle factors may contribute to differences in health outcomes between male and female populations. However, gender should not be interpreted as an independent determinant of CKD or quality of life based solely on the descriptive findings of this study. The present research was designed to describe the characteristics and quality of life of respondents rather than to examine causal relationships between gender and quality of life. The relatively balanced distribution between male and female respondents also indicates that both groups were represented in the study. Therefore, the quality-of-life findings should be considered in the context of the overall respondent characteristics rather than being attributed specifically to gender. From a nursing perspective, understanding the gender composition of patients may still be useful when providing health education and psychosocial support. However, interventions should remain patient-centered and should take into account the individual needs, health conditions, treatment experiences, and social circumstances of each patient.

c. Duration of Hemodialysis

One of the most prominent findings in Table 5.1 was the duration of hemodialysis therapy. The majority of respondents, 33 patients (76.7%), had undergone hemodialysis for more than one year, whereas only 10 respondents (23.3%) had received treatment for less than one year. This finding indicates that most respondents had experienced the routine and long-term nature of hemodialysis therapy. Patients with CKD who require hemodialysis generally need to undergo treatment repeatedly according to their clinical requirements. Consequently, the treatment becomes part of their regular lifestyle and requires adaptation in physical, psychological, social, and daily activities. The duration of hemodialysis may influence how patients

adapt to their illness and treatment. Patients who have recently started hemodialysis may experience difficulty accepting changes in their health condition. The diagnosis of CKD and the need for long-term renal replacement therapy may be accompanied by emotional responses such as denial, anger, sadness, or difficulty accepting the loss of normal kidney function. Over time, patients may gradually become more familiar with the treatment process. Repeated exposure to hemodialysis may allow patients to develop routines and strategies for managing their treatment schedules. Health education provided by healthcare professionals may also help patients understand their disease and the importance of adhering to regular hemodialysis.

Saputra et al. (2020) reported that adherence to regular hemodialysis may contribute to maintaining patients' health and quality of life. The longer duration of treatment may therefore provide patients with greater opportunities to adapt to the treatment routine and develop acceptance of their condition. The present study found that the majority of patients who had undergone hemodialysis for more than one year also demonstrated good quality of life. However, because the study was descriptive, the findings do not establish that longer duration of hemodialysis directly causes better quality of life. Rather, the findings show that most respondents with longer treatment experience were categorized as having a good quality of life. Acceptance of the health condition may also be important in this context. Patients who are able to accept their condition and understand the importance of regular treatment may be better able to adjust their daily activities to the requirements of hemodialysis. This adaptation may contribute to a more positive perception of their quality of life.

d. Frequency of Hemodialysis

The findings showed that 37 respondents (86.0%) underwent hemodialysis twice per week, while 6 respondents (14.0%) underwent hemodialysis three times per week. Thus, twice-weekly hemodialysis was the dominant treatment frequency among the respondents. The finding is consistent with Hasanuddin (2022), who explained that hemodialysis may generally be performed two to three times per week, with each session lasting approximately four to five hours. The frequency of treatment depends on the patient's clinical requirements and the extent to which renal function has declined. Regular hemodialysis is necessary because impaired kidney function reduces the body's ability to remove metabolic waste and maintain fluid and electrolyte balance. Hemodialysis therefore serves as a renal replacement therapy that supports physiological balance in patients whose kidney function has been substantially impaired.

The high proportion of respondents undergoing hemodialysis twice per week also demonstrates the extent to which regular treatment becomes part of the patients' daily lives. Patients must organize their activities around treatment schedules, which may affect family responsibilities, social activities, work, and other routine activities. Although most respondents in this study underwent hemodialysis twice per week and had good quality of life, the descriptive design does not allow the researchers to conclude that treatment frequency directly determines quality of life. Other factors may contribute to the quality-of-life condition of patients, including their physical health, psychological adjustment, social support, treatment duration, and acceptance of their condition.

e. Quality of Life

The most important finding of this study was that the majority of respondents had a good quality of life. Of the 43 respondents, 38 (88.4%) were categorized as having a good quality of life. Four respondents (9.3%) had a fair quality of life, while only one respondent (2.3%) had a poor quality of life. The mean score was 1.14, with a standard deviation of 0.413. The predominance of good quality of life in this study is consistent with previous findings reported by Golang et al. (2024), which indicated that most patients with CKD undergoing hemodialysis had a good quality of life. This consistency suggests that despite the challenges associated with CKD and long-term hemodialysis, patients may still maintain a favorable perception of their quality of life. A good quality of life among patients undergoing hemodialysis may reflect their ability to adapt to the treatment process and incorporate regular hemodialysis into their daily routines. The majority of respondents in the present study had undergone hemodialysis for more than one year. This longer treatment

experience may have provided patients with time to become familiar with the treatment process and develop acceptance of their condition. However, quality of life remains a complex issue. Inayati et al. (2021) explained that quality of life among patients with CKD undergoing hemodialysis may be affected by various dimensions, including physical health, psychological conditions, social relationships, personal beliefs, and expectations concerning the future.

The physical dimension is particularly important because CKD can result in limitations associated with reduced kidney function. Patients undergoing hemodialysis must also adjust to repeated treatment sessions. These circumstances may influence physical functioning and daily activities. The psychological dimension is equally important. Patients may experience emotional challenges related to living with a chronic disease and depending on long-term treatment. Acceptance of the disease may therefore become an important component of adaptation. Patients who are able to accept their condition may be better prepared to follow treatment recommendations and adjust their daily lives to their health needs. Social relationships may also influence quality of life. Support from family members and healthcare professionals may help patients cope with the demands of long-term treatment. A supportive environment may facilitate treatment adherence and help patients maintain meaningful relationships and daily activities.

The findings of this study should therefore be interpreted as a description of the quality-of-life condition of the respondents rather than evidence of a causal relationship between respondent characteristics and quality of life. The high proportion of respondents with good quality of life provides an important description of the patients receiving hemodialysis at Atma Jaya Hospital during the study period. Overall, the results demonstrate that most respondents had a good quality of life despite undergoing long-term hemodialysis therapy. The combination of regular treatment, adaptation to the treatment routine, acceptance of the health condition, and support from healthcare professionals may be relevant to patients' experiences. Nevertheless, further research using analytical or longitudinal designs would be required to determine which factors significantly influence quality of life among CKD patients undergoing hemodialysis.

V. Conclusion

This study was conducted in the Francis Unit of the Hemodialysis Room at Atma Jaya Hospital to describe the quality of life of CKD patients undergoing hemodialysis. The findings showed that the largest proportion of respondents were aged 46–55 years (14 respondents; 32.6%), more than half were male (22 respondents; 51.2%), most had undergone hemodialysis for more than one year (33 respondents; 76.7%), and most underwent hemodialysis twice a week (37 respondents; 86.0%). Overall, the majority of CKD patients undergoing hemodialysis had a good quality of life, totaling 38 respondents (88.4%).

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