



Quality of Life of Elderly Patients Undergoing Hemodialysis Therapy in a Hemodialysis Unit

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Article Info

Article history:

Received 8 June, 2024

Revised 29 July, 2024

Accepted 9 July, 2024

Keywords:

Elderly Patient;

Well-being;

Nursing Support;

ABSTRACT

Patients undergoing hemodialysis therapy who have poor quality of life tend to have higher mortality rates compared to the normal population. Quality of life can be an important measure in evaluating the effectiveness of hemodialysis; therefore, improving quality of life is a significant goal in managing patients with Chronic Kidney Disease. Generally, the quality of life of the elderly declines due to decreased physical and psychological abilities. This study aims to assess the quality of life of elderly patients undergoing hemodialysis therapy at the Hemodialysis Unit of GMIM Bethesda Hospital in Tomohon. A quantitative descriptive research method was employed with 20 respondents. The results indicate that 18 respondents (90%) reported good quality of life, while 2 respondents (10%) reported moderate quality of life. It is recommended that nurses in the Hemodialysis Unit provide increased support, especially for elderly patients, to enhance their quality of life during therapy.

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INTRODUCTION

WHO provides an explanation that quality of life is an individual's understanding of societal engagement related to standards and life expectations, as well as societal perceptions. Both external and internal societal factors influence quality of life. Generally, the quality of life of the elderly declines due to decreased physical or psychological abilities. Quality of life in this context refers to functional conditions including health status, environment, self-confidence, cognitive processes, occupation, treatment, rest, and activities undertaken (Manik, 2020).

Patients undergoing hemodialysis therapy who have poor quality of life tend to have higher mortality rates compared to the normal population. Quality of life is an important benchmark in evaluating the effectiveness of hemodialysis; therefore, improving quality of life is a significant goal in managing patients with Chronic Kidney Disease (CKD) (Septiwi in Susantri et al, 2022). The quality of life of CKD patients can be affected by the implementation of hemodialysis not just once, but repeatedly, including the duration, frequency, and length of undergoing hemodialysis, which are factors that contribute to the decline in patients' quality of life (Nusantara et al, 2021).

WHO (2020) also explains that the global incidence rate of Chronic Kidney Disease (CKD) is 10% of the population, and globally, CKD patients undergoing Hemodialysis (HD) therapy number around 1.5 million people, with an annual increase rate of 8% (Marni, et al, 2023). In 2018, there was an increase in both active

and new patients. Active patients constitute the total number of patients (both existing and new) undergoing regular hemodialysis. There were 66,433 new patients and 132,142 active patients (IRR, 2018). The prevalence of chronic kidney disease in West Java ranked sixth highest at 0.48%, with 21,051 active hemodialysis patients, increasing to 33,828 patients in 2018 (Kementrian Kesehatan, 2018). Hemodialysis is a process of collecting waste to cleanse the blood. Hemodialysis therapy in CKD patients can anticipate mortality but cannot cure or reverse kidney disease. Furthermore, it cannot compensate for the loss of endocrine or metabolic kidney functions and the impacts of kidney failure and its treatment on patient quality of life (Wiliyanarti & Muhith, 2019).

According to the Hasil Riset Kesehatan Dasar dari Kementerian Kesehatan (2018), in North Sulawesi Province, there were 1,340 new patients and 26 active patients undergoing hemodialysis therapy. Patients over 65 years old or elderly patients accounted for 15.26% of the total patients. Referring to data from the Badan Pusat Statistik (BPS), as of 2021, approximately 9.6% of Indonesia's population were elderly, totaling around 29.3 million people. If the population aged over 60 exceeds 10.82%, Indonesia would be categorized as having an aged population structure (Badan Pusat Statistik, 2019). Based on Susenas results in March 2021, 8 provinces had entered the phase of an aged population structure due to the percentage of elderly population exceeding 10%. Among them, North Sulawesi Province had an elderly population percentage of 12.74%, with young elderly at 64.87 souls, middle elderly at 26.91 souls, and old elderly at 8.22 souls, with males at 12.6 souls and females at 13.45 souls (Badan Pusat Statistik, 2021). According to data from Badan Pusat Statistik in 2021 and 2022, Tomohon City's aged population percentage was 72.06 souls in 2021 and 72.44 souls in 2022 (Badan Pusat Statistik, 2022). Elderly people can be defined as a natural process in all life forms (Simorangkir, et al, 2022). Elderly people are subject to mental, physical, and social decline, which can lead to activity limitations (Sarhini, et al, 2019). Recent research shows that 1 in 10 populations may have CKD, but the likelihood of developing chronic kidney disease in young adults is generally rare, with a 1 in 50 ratio. Chronic kidney disease occurs in 1 out of 2 people who are over 75 years of age. However, few elderly people with chronic kidney disease may not have a diseased kidney, but rather a normal aging of their kidney (NKF in Dewi, et al, 2022).

Based on the findings of Shabirah (2019), titled "Quality of life of elderly clients with chronic kidney failure undergoing hemodialysis at Haji Surabaya Hospital," it was found that out of 16 respondents aged > 60 years, 8 respondents were identified. There were 7 respondents with good quality of life and 1 patient with poor quality of life. Meanwhile, Fitriani et al.'s study (2020), on "The relationship between duration of hemodialysis therapy and quality of life of chronic kidney disease patients in the Hemodialysis Room of dr. Sitanala Hospital Tangerang," showed that out of 35 respondents, among those who had undergone hemodialysis for less than 2 years (16 individuals), 11 had poor quality of life, whereas among those who had undergone hemodialysis for more than 2 years (19 individuals), 12 had good quality of life. Another study by Lolowang, Lumi, and Rattoe (2020), on the quality of life of chronic kidney failure patients undergoing hemodialysis at a private hospital in Tomohon City, found that out of 45 respondents, 43 had poor quality of life in the physical health domain, 17 in the psychological domain, 14 in the social relationships domain, and 6 in the environmental domain, while 2 respondents had good quality of life.

A preliminary study conducted in the Hemodialysis Room of GMIM Bethesda Tomohon Hospital revealed that there were a total of 54 patients undergoing regular monthly hemodialysis. Among these, 25 elderly patients aged ≥ 60 years routinely underwent hemodialysis at GMIM Bethesda Tomohon Hospital. Based on the background described regarding the quality of life of elderly individuals undergoing hemodialysis, the researchers are interested in studying "Overview of Quality of Life of Elderly Patients Undergoing Hemodialysis in the Hemodialysis Room of GMIM Bethesda Tomohon Hospital."

METHODOLOGY

A quantitative descriptive research method was employed for this study. The research was conducted in the Hemodialysis Room of GMIM Bethesda Tomohon Hospital from December 2023 to January 2024. The population for this study consisted of 20 elderly individuals currently undergoing therapy in the Hemodialysis Room of GMIM Bethesda Tomohon Hospital. The sampling technique used was total sampling, with a questionnaire serving as the research instrument.

RESULTS & DISCUSSION

Table 1. Gender Frequency Distribution

Gender	Frequency	Percentage
Male	13	65 %
Female	7	35 %
Total	20	100 %

Based on the research conducted on 20 elderly respondents in the Hemodialysis Unit of GMIM Bethesda Tomohon Hospital, the findings reveal that the majority of elderly patients in this unit are male, comprising 65% or 13 respondents. This trend is attributed to the fact that males generally have a higher prevalence of smoking, which increases the risk of Chronic Kidney Disease (CKD) up to 7 times compared to non-smokers.

Table 2. Age Frequency Distribution

Age	Frequency	Percentage
60-70	20	100 %
71-80	-	-
81-90	-	-
Total	20	100 %

The research findings indicate that all respondents (100%) fall within the age range of 60-70 years. This concentration is largely due to the prevalence of elderly patients undergoing hemodialysis who previously had uncontrolled hypertension and diabetes mellitus. Therefore, doctors recommended hemodialysis therapy to manage these conditions effectively.

Table 3. Education Frequency Distribution

Education	Frequency	Percentage
Elementary	5	25 %
Junior High School	2	10 %
Senior High School	6	30 %
University	7	35 %
Total	20	100 %

Referring to the data, the majority of respondents, equivalent to bachelor's degree holders, amount to 7 individuals (35%). This is because individuals with higher education tend to exhibit more positive behaviors and have awareness in seeking medical treatment and care for health issues they are experiencing.

Table 4. Duration of Hemodialysis Therapy Frequency Distribution

Duration	Frequency	Percentage
<12 months	8	40 %
12-24 months	4	20 %
>24 months	8	40 %
Total	20	100 %

The research results indicate that among the 20 respondents, the majority in terms of the duration of hemodialysis therapy at GMIM Bethesda Tomohon Hospital are those who have been undergoing treatment for <12 months, totaling 8 respondents (40%), and >12 months, also comprising 8 respondents (40%). A minority have been undergoing therapy for 12-24 months, consisting of 4 respondents (20%). This trend reflects that newly initiated hemodialysis patients may not yet be fully prepared to accept and adapt to the changes that have occurred in their lives.

Referring to these results, out of the initial 25 respondents, 5 elderly individuals declined to participate, leaving a total of 20 respondents for the study. From the research involving these 20 respondents, it was found that 18 respondents (90%) have good quality of life, while 2 respondents (10%) have moderate quality of life. Based on the findings, Musniati et al. (2023) found that the majority, 17 respondents (53.1%), had good quality of life among patients undergoing hemodialysis. Similarly, Sarastika et al. (2019) reported that the highest number of patients with good quality of life was 36 respondents (51.4%) in their study. Quality of life refers to an individual's condition where they experience enjoyment and satisfaction in their daily life, related to both mental and physical health. When one is mentally and physically healthy, they are likely to achieve life satisfaction, indicating good quality of life. An individual with good spiritual well-being will have better coping mechanisms, enabling them to address life's challenges effectively (Tresnawan, 2019). This supports the individual in achieving psychological well-being. When an individual's psychological well-being is good, it enhances their overall quality of life (Nindawi, 2023).

According to the researchers, respondents with good quality of life are those who consistently receive support from family and friends and are still able to engage in light activities such as sweeping, cooking, walking, and bathing independently. This contrasts with the findings of Fathoni (2022) regarding "an overview of the quality of life of CKD patients undergoing hemodialysis at Sultan Agung Hospital Semarang," where out of 61 respondents, the majority reported moderate quality of life, totaling 36 respondents (59%). Additionally, 25 respondents (41%) reported low quality of life due to limitations in daily activities they could no longer perform, accompanied by feelings of anxiety, sadness, and irritability.

Fitriani's study (2020) on "the relationship between duration of hemodialysis therapy and quality of life among CKD patients in the hemodialysis unit of Dr. Sitanala Hospital Tangerang" showed that out of 35 respondents, 18 respondents (51%) had poor quality of life, while 17 respondents (49%) had good quality of life. According to the researcher, respondents with moderate quality of life are those who can no longer perform daily activities independently and require assistance from family members. This situation is often observed in patients who have been undergoing hemodialysis for an extended period, as prolonged therapy duration tends to worsen their quality of life. Complications from hemodialysis, such as physical stress manifested by headaches, fatigue, and cold sweats due to decreased blood pressure, further contribute to a decline in their quality of life.

CONCLUSION

In conclusion, this study investigated the quality of life among elderly patients undergoing hemodialysis at GMIM Bethesda Tomohon Hospital. Initially, 25 respondents were approached, but 5 declined, resulting in a study population of 20 respondents. Among these, 18 respondents (90%) were found to have good quality of life, while 2 respondents (10%) reported moderate quality of life. These findings are consistent with Musniati et al. (2023) and Sarastika et al. (2019), who also observed high proportions of patients reporting good quality of life in their studies.

Quality of life reflects the level of daily satisfaction and happiness, influenced by mental and physical health. Individuals with good psychological and spiritual well-being tend to have better coping mechanisms and higher life satisfaction. However, patients undergoing long-term hemodialysis therapy may also experience significant declines in quality of life due to increased physical and psychological challenges. Overall, these findings highlight the complexity of factors affecting the quality of life of elderly patients undergoing hemodialysis, including social support and overall health conditions.

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