

The Relationship between Self-Management and Quality of Life in the Elderly with Hypertension in the Working Area of the Limboto Health Center

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ABSTRACT

This study aims to determine the relationship between self-management and the quality of life of the elderly with hypertension in the working area of the Limboto Health Center. This research is included in quantitative research using a cross-sectional approach. Self-management of elderly people with hypertension in the Limboto Health Center Working Area is in the good category, namely as many as 43 respondents (65.2%), enough as many as 21 respondents (31.8%) and 2 respondents (3.0%) are in the poor category. The quality of life of elderly people with hypertension in the Limboto Health Center Working Area was in the good category as many as 24 respondents (36.4%), while as many as 20 respondents (30.3%), very good as many as 19 respondents (28.8%) and 3 respondents (4.5%) were in the bad category. There is a relationship between self-management and the quality of life of elderly people with hypertension in the Limboto Health Center Working Area. Significance value (p-value) = 0.000 (<0.05) which means that there is a significant relationship between self-management and the quality of life of the elderly with hypertension. The correlation coefficient value of 0.717 indicates the strength of the relationship with the direction of a positive relationship, which means that the increase in the respondents' self-management ability contributes to an improvement in quality of life.

INTRODUCTION

Aging is a natural part of human life. The aging process lasts throughout life, starting at the beginning of life and continuing over time (Erawan *et al.*, 2025). Biologically, aging is the impact of the accumulation of various molecular and cellular damages. As a result, physical and mental abilities decrease, the risk of developing diseases increases to cause death (WHO, 2024).

The elderly are individuals both men and women who are 60 years old and older (Ministry of Health, 2023). The elderly have a high risk of developing degenerative diseases, one of which is hypertension. This is caused by the aging process that causes changes in the body's functions, one of which is the cardiovascular system. As we age, the walls of the blood vessels will become stiffer and there will be a decrease in elasticity, so that dccc u hypertension occurs (Anggraini, 2024).

Hypertension or known as high blood pressure is a condition medical where the pressure in a person's blood vessels is above the normal range (140/90 mmHg or higher). People with hypertension may not feel symptoms (WHO, 2025). Even though this condition is classified as serious, because if not treated properly, it can cause a significant impact on a person's health (Adisa, 2025). Further, Hypertension is classified as a degenerative disease, which is a chronic disease that lasts for a long time and has an impact on the quality of life and productivity levels of individuals. This disease is referred to as "Silent Killer" Because it often appears without obvious symptoms, so many sufferers are unaware of the problem (Alpha *et al.*, 2024).

Based on data from the *World Health Organization* (WHO) in 2023, an estimated 1.28 billion adults aged 30-79 worldwide suffer from hypertension, most of whom live in low- and middle-income countries. An

estimated 46% of adults with hypertension are unaware that they have the condition. Hypertension is the leading cause of premature death in the world.

The Ministry of Health, through the 2023 Indonesian Health Survey (SKI), reported that the prevalence of hypertension in the population aged ≥ 18 years in Indonesia is still quite high. Based on the measurement results, the prevalence of hypertension nationally reached 30.8% while based on doctor's diagnosis it was recorded at 8.6%. Data also shows that the prevalence of hypertension in Indonesia tends to increase with age. In the age group of 18-24 years, the prevalence of hypertension based on measurement results is only 10.7%. However, this figure increased significantly at the age of 55-64 years, which was 49.5%. This continues until in the age group of 65-74 years, the prevalence reaches 57.8% and at the age of ≥ 75 years it is 64%. This shows that the risk of hypertension increases with the aging process. If viewed by province, there is a variation in the prevalence of hypertension throughout Indonesia. On the island of Sulawesi, Gorontalo ranks third highest. The findings of this SKI provide an idea that hypertension is still a major health problem in Indonesia, including in Gorontalo Province (Ministry of Health, 2023).

Based on data from the Gorontalo Provincial Health Office, the incidence of hypertension in Gorontalo is increasing from year to year. In 2023, there will be 85,829 people with hypertension. Furthermore, in 2024 as many as 92,229 people will be diagnosed with hypertension (12.56%). In the second half of 2025 (starting until July), 259,566 people have been screened with a total of 47,886 people diagnosed, which means that 18.45% of those screened are declared to have hypertension. Data from the Gorontalo Provincial Health Office also shows that the prevalence of hypertension was recorded at 17.3% of all diagnosed cases. However, of this number, when viewed from the control aspect, only 11.4% were declared under control (Gorontalo Provincial Health Office, 2025).

Based on the results of the recapitulation of public health screening data, the highest prevalence of diagnosed hypertension in Gorontalo Province was in Gorontalo Regency, which reached 31.16%, followed by Boalemo Regency 13.54%, North Gorontalo Regency 13.18%, Bone Bolango Regency 10.36%, Pohuwato Regency 6.98% and Gorontalo City 6.39% (Gorontalo Provincial Health Office, 2025).

Data from the Gorontalo Regency Health Office in 2024, the estimated number of hypertension patients aged ≥ 15 years is 86,623 people. The Limboto Health Center has the highest number of hypertension patients at 10,670 people consisting of 5228 men (49%) and 5442 women (51%). However, of this number, only 7885 people (73.9%) have obtained/used health services (Gorontalo Regency Health Office, 2024).

When a person is diagnosed with hypertension, their blood pressure should be monitored regularly. However, many sufferers are not aware of this condition, so it will negatively impact their quality of life (Damayanti *et al.*, 2022). In other words, hypertension is not just a medical problem in the form of high blood pressure numbers, but it is closely related to the quality of life of the individual who suffers from it.

Quality of life is a person's perception of their position in life, in the context of the culture and value system in which they live (WHO, 2025). Quality of life is a concept related to the welfare of sufferers which includes physical, psychological, social and environmental aspects. This aspect needs special attention because it has a close relationship with morbidity and mortality rates (Erawan *et al.*, 2025). Meanwhile, The quality of life of people with hypertension will improve if they are able to accept the condition or disease and undergo regular treatment. One of the important efforts in improving the quality of life of hypertension patients is to implement *Self-management* (Alpha *et al.*, 2024).

Self-management (Self-management) is a person's activity to control symptoms, carry out physical and psychological treatment and change lifestyle in accordance with the condition of the disease experienced to maintain life, health, and well-being. The main purpose of the application *Self-management* is that the client can effectively manage his or her health, especially in clients with chronic diseases (Orem, 2001 in Fadilah *et al.*, 2023). According to Akhter (2018) quoted in (Sari, 2023) *Self-management* Hypertension can be done by applying 5 components consisting of self-integration, self-regulation, interaction with health workers and others, blood pressure monitoring and compliance with recommended rules.

Based on the results of research from (Karmila *et al.*, 2025) shows that most of the hypertension patients at the Garuda Health Center have *Self-management* poor (41.2%) and low quality of life (36.8). In conclusion, patients with *Self-management* the bad will experience a decrease in quality of life. Meanwhile, patients with *Self-management* Good people tend to have a better quality of life.

If *Self-management* (self-management) It is still less than optimal, especially in aspects such as weight control, stress management, blood pressure monitoring and medication adherence, this will have an impact on the low quality of life of hypertensive patients. This decrease in quality of life is not only caused by medical conditions, but also affected by the patient's inability to regulate and adjust their daily lifestyle to their health conditions. Therefore, the relationship *Self-management* With quality of life can be understood as a reciprocal process, where low ability to manage disease leads to a deterioration in quality of life and conversely, a good quality of life allows patients to be better able to carry out an active role in their self-care. This is in line with research conducted by (Windani Mambang Sari *et al.*, 2024) which shows that *Self-management* is significantly related to the quality of life of hypertensive patients.

Based on an initial survey conducted at the Limboto Health Center on August 29, 2025, there are five elderly people who suffer from hypertension. The results of the interview found that three elderly people said they were disciplined in treatment, routinely controlled at the health center, took medication regularly and followed the recommendations of health workers. The three elderly people are quite strong in carrying out daily activities and feel that their lives are quite prosperous. However, there is one elderly person who rarely checks his blood pressure, saying that he often experiences dizziness, gets tired quickly and daily activities are disrupted. And one other elderly person said that he often felt dizzy even though he had regularly taken medication.

RESEARCH METHODS

This research is included in quantitative research using the *cross-sectional*. Notoatmodjo stated that the research design *Cross-sectional* is an approach used to examine the relationship between risk factors and effects through observation or data collection at the same time or within a specific period of time (Abduh *et al.*, 2023). This research was carried out in the Working Area Limboto Health Center. This research was carried out on October 29-November 22, 2025

Data Analysis

Data analysis is a stage in research that aims to examine and discuss data in depth in order to obtain relevant meaning, interpretation, and conclusions (Qomaruddin & Sa'diyah, 2024).

Univariate Analysis

Univariate analysis is a form of data analysis that uses descriptive statistics and focuses on a single variable. (Misbahuddin & Hasan, 2022). Respondent characteristics were analyzed in a univariate manner which included gender, age, education level, occupation, length of hypertension, use of antihypertensive drugs, and comorbidities which were calculated using a table and interpreted based on the results obtained. Univariate analysis in this study was also carried out to describe the quality of life and *Self-management* elderly people with hypertension.

Bivariate Analysis

Bivariate analysis is a type of analysis used to look at the relationship or attachment between two variables, which is usually presented in the form of a cross-table (Dawis *et al.*, 2024). The data analysis technique that will be used in this study is to use the *Spearman Rank*, because the two variables studied are *Self-management* and ordinal-scale quality of life. This test aims to determine the direction and strength of the relationship between the two variables.

The results of the *Spearman Rank test* will show the value of the correlation coefficient (ρ) and the significance value (*p-value*). The direction and strength of the relationship are seen from the correlation coefficient (ρ). A positive coefficient value indicates a unidirectional relationship, while a negative value indicates an opposite relationship. The interpretation of the test results was carried out by comparing the *p-value* to the significance level ($\alpha=0.05$). Decision-making in statistical tests is based on:

If the *p-value* is <0.05 , it can be concluded that there is a significant relationship between *self-management* and the quality of life of the elderly with hypertension.

If the *p-value* is >0.05 , it can be concluded that there is no significant relationship between *self-management* and the quality of life of the elderly with hypertension.

RESULTS

Respondent Characteristics

Table 1 Characteristics of Respondents by Age

o.	Age	Freq uency (n)	Perce ntage (%)
.	60-74 years old	60	90,9%
.	75-90 years	6	9,1%
.	> 90 years old	0	0%
Total		66	100%

Source: *Primary Data, 2025*

Based on the data in table 1 about age, of the 66 respondents, there were 60 respondents (90.9%) who were included in the elderly age group (60-74 years) and 6 respondents were included in the old age group (75-90 years). Thus, most of the respondents in this study were in the elderly age group (*Elderly*) namely 60-74 years old with a percentage of 90,9%.

Characteristics of Respondents Based on Length of Suffering from Hypertension

In the study conducted on the elderly with hypertension in the working area of the Limboto Health Center, data on the characteristics of respondents based on the length of time they suffered from hypertension were obtained as follows:

Table 2 Characteristics of Respondents Based on Length of Suffering from Hypertension

o.	Long Suffering from Hypertension	Frequency (n)	Percentage (%)
	< 1 year	2	3%
	1-5 years	44	66,7%
	6-10 years	15	22,7%
	> 10 years	5	7,6%
	Total	66	100%

Source: *Primary Data, 2025*

Based on the data in table 2 about the length of time they have been suffering from hypertension, out of 66 respondents, there are 44 respondents (66.7%) who have suffered from hypertension for a long time. 1-5 years, 15 respondents (22.7%) who had hypertension for 6-10 years, 5 respondents (7.6%) who had had hypertension for >10 years and 2 respondents (3%) who had hypertension for <1 year. Thus, most of the respondents in this study had suffered from hypertension for 1-5 years with a percentage of 66.7%.

Characteristics of Respondents Based on Family History of Hypertension

In a study conducted on the elderly with hypertension in the working area of the Limboto Health Center, data on the characteristics of respondents based on family history of hypertension was obtained as follows:

Table 3. Characteristics of Respondents Based on Family History of Hypertension

o.	Family History	Frequency (n)	Percentage (%)
	There	36	54,5%
	None	30	45,5%
	Total	66	100%

Source: *Primary Data, 2025*

Based on the data in table 3 about family history of hypertension, of the 66 respondents, there were 36 respondents (54.5%) who had a family history of hypertension and 30 respondents (45.5%) who did not have a family history of hypertension. Thus, most of the respondents in this study had a family history of hypertension with a percentage of 54.5%.

Univariate Analysis

Self-Management of Hypertension Elderly in the Working Area of the Limboto Health Center

Table 4. Self-Management *Frequency Distribution*

o.	Self-Management	Frequency (n)	Percentage (%)
	Good	43	65,2%
	Enough	21	31,8%

	Less	2	% 3,0%
Total		66	% 100

Source: *Primary Data, 2025*

Based on table 4 regarding the *self-management* of the elderly with hypertension in the working area of the Limboto Health Center, of the 66 respondents, it is known that most of them have *good self-management*, namely 43 people with a percentage of 65.2%.

Quality of Life of Elderly Hypertension in the Working Area of the Limboto Health Center

Table 5. Quality of Life Frequency Distribution

o.	Quality of Life	Frequency (n)	Percentage (%)
.	Very bad	0	0%
.	Bad	3	4,5%
.	Medium	20	30,3%
.	Good	24	36,4%
.	Excellent	19	28,8%
Total		66	100%

Source: *Primary Data, 2025*

Based on table 5 regarding the quality of life of the elderly with hypertension in the work area of the Limboto Health Center, of the 66 respondents, it is known that most of them have a good quality of life, namely 24 people with a percentage of 36.4%.

Bivariate Analysis

Table 6. The Relationship of *Self-Management* with Quality of Life

Self-Management	Quality of Life					P-Value	Correlation coefficient
	Bad	Medium	Good	Excellent	Total		
Good	0 (0,0%)	2 (3,0%)	22 (33,3%)	19 (28,8%)	43 (65,2%)	0,000	0,717
Enough	1 (1,5%)	18 (27,3%)	2 (3,0%)	0 (0,0%)	21 (31,8%)		
Less	2 (3,0%)	0 (0,0%)	0 (0,0%)	0 (0,0%)	2 (3,0%)		
Total	3 (4,5%)	20 (30,3%)	24 (36,4%)	19 (28,8%)	66 (100%)		

Source: *Primary Data, 2025*

In table 6, the results of the research obtained from 66 respondents were found that respondents with *good self-management* had a good quality of life, namely 22 respondents (33.3%), very good (19 respondents (28.8%) and moderate quality of life, namely 2 respondents (3.0%). In the *self-sufficient self-management* group, respondents were in the moderate quality of life category, namely 18 respondents (27.3%), good quality

of life, namely 2 respondents (3.0%), and poor quality of life, namely 1 respondent (1.5%). Meanwhile, 2 respondents with *less self-management* were in the category of poor quality of life (3.0%).

The results of the *Spearman Rank statistical test* obtained a significance value (p -value) = 0.000 (<0.05) which means that there is a significant relationship between *self-management* and the quality of life of the elderly with hypertension. The value of the correlation coefficient, which is 0.717, indicates a strong relationship strength with the direction of a positive relationship. The direction of a positive relationship means that the improvement of *respondents' self-management* skills contributes to an increase in the quality of life.

DISCUSSION

Self-Management of Elderly Hypertension in the Working Area of the Limboto Health Center

Based on the results of the study, it was found that the majority of elderly people with hypertension in the work area of the Limboto Health Center *had good self-management*, namely 43 people (65.2%). The findings show that more than half of the hypertensive elderly in the study have understood that hypertension is a chronic disease that must be controlled throughout life. The majority of respondents have been able to implement adequate self-management in dealing with their chronic diseases.

The high proportion of *self-management* in the good category in most of the respondents can be explained through the results of the study which shows that the respondents have been able to integrate self-integration, namely integrating hypertension treatment practices into daily life. Such as considering portions and food choices, reducing foods that contain saturated fat, thinking about blood pressure when choosing food, stopping drinking alcohol and smoking and being able to control emotions. Respondents also showed good self-regulation such as being able to monitor symptoms of hypertension, recognize the triggers for increased blood pressure and take steps to handle it. Most of the elderly in this study were able to interact with health workers, this is reflected in their participation in the Chronic Disease Management Program (Prolanis) activities as a means of monitoring and health education in an ongoing manner. In addition, respondents conducted regular blood pressure monitoring, which reflected awareness of health conditions. This monitoring encourages respondents to be more compliant with the recommended rules. This can be seen from the results of studies that show that most elderly hypertensive people comply with recommendations such as taking medication regularly and following the advice of health workers in controlling blood pressure.

These results are supported by Orem's (2001) theory, which states that *Self-management* Good includes the individual's ability to regulate diet, take medication regularly, engage in physical activity as well as stress management. Elderly with *Self-management* will be better able to control the risk factors for hypertension so that the symptoms are milder (Amelia & Rosyid, 2025). Awareness of the importance of lifestyle changes encourages patients to be more motivated to take the necessary steps to manage their condition. *Self-management* It also refers to the individual's ability to overcome obstacles that may arise in the course of managing hypertension. This can include difficulties in changing eating habits, coping with stress, or physical limitations that may affect the ability to exercise regularly (Musthofa *et al.*, 2024). This research is supported by research (Laili & Tauhid, 2023), which states *Self-management* A person becomes better because of an effort and motivation that arises in a person. If the individual is able to manage the disease well, then it can be said that the individual has the ability to *Self-management* good.

Other factors that can affect *Self-management* which is good for the elderly with hypertension in the working area of the Limboto Health Center can also be seen in terms of the marital status of the respondents, the majority of whom have married status (65.2%). Seniors who have a partner tend to get emotional and instrumental support. Spouse support can help the elderly in implementing *Self-management* including adherence to taking medication and going to health services. This is in line with research (Fitriani *et al.*, 2024), which states that marriage has an effect on *Self-management* sufferers. A person who has a partner is one of the factors in getting support. The more optimal the support obtained, the more optimal it will be *Self-management* people with hypertension.

According to the researchers' assumptions, the high proportion of *self-management* in the good category indicates that respondents have high awareness and responsibility for their health conditions. This awareness encourages the elderly to actively play a role in disease management, so that they can minimize the risk of hypertension complications.

The results of the univariate analysis showed that of 66 respondents, 31.8% of them were in the category of *sufficient self-management*. The results of the study show that in the aspect of self-integration, respondents have not been completely consistent in integrating healthy behaviors, especially physical activities in daily life. In the aspect of self-regulation, respondents have tried to control emotions, but still experience difficulties in maintaining these behaviors in a sustainable manner, especially managing stress. In addition, blood pressure monitoring has been carried out by respondents but not regularly, so the ability to detect changes in blood pressure early is still limited. In the aspect of interaction with health workers, it shows that there is communication and involvement in the health service process such as discussing treatment plans with health workers. In the aspect of compliance with recommendations, respondents tend to follow treatment programs and recommendations given. Overall, these findings illustrate that the implementation of *self-*

management still needs to be strengthened so that it can be carried out consistently, especially in the aspects of self-integration, self-regulation and blood pressure monitoring.

Patients who are able to maintain healthy habits generally have better control of the hypertension they experience. Therefore, it is very important to provide support, both through the provision of health information and motivational encouragement, so that patients remain committed and consistent in managing their condition (Aryanti *et al.*, 2025). The importance of this support is in line with the findings of previous research. The results of this study are supported by research (Nabila *et al.*, 2022), which shows that most respondents have *Self-management* hypertension in the sufficient category, which is influenced by the low involvement of hypertensive patients in physical activity.

Self-management which is sufficient for some elderly hypertensive people in the working area of the Limboto Health Center is also in line with the characteristics of respondents who are mostly female and are housewives (IRT), where this group tends to have a pattern of activities that focus on domestic work in the home. This routine causes them to rarely do structured physical activities such as light exercise or regular exercise. This is supported by research (Rohmah *et al.*, 2023), it was found that there are still many patients who say that activities at home are included in the sports category. Housewives generally have a low level of physical activity. Routine activities such as cooking, sweeping, clenching and washing are time-consuming. So, housewives often forget or do not have time to do planned sports activities.

According to the researchers' assumptions, *self-management* in the elderly with hypertension is suspected to be related to the non-optimal implementation of planned physical activity. In addition, respondents were also not consistent in applying *self-management* in the aspects of self-regulation and regular blood pressure monitoring. So that the *respondents' self-management* is in the category of sufficient.

Based on the results of the study, 3.0% of respondents were in the less category. *Lack of self-management* indicates that respondents are not fully able to manage their illness independently in daily life. In the aspect of self-integration, respondents in this group stated that they rarely choose foods that are low in salt and still experience limitations in controlling emotions. In the aspect of self-regulation, respondents showed that they were not fully able to control the signs and symptoms of hypertension properly. In the aspect of interaction with health workers, respondents showed that the frequency of involvement was still low. This can be seen from the respondents' answers who stated that they rarely discuss treatment plans with health workers and never provide input related to changes in treatment plans when experiencing difficulties in adjusting to the plan. In addition, respondents have not monitored blood pressure regularly so it is not optimal in supporting self-management decision-making. Compliance with the recommended rules is also still lacking, such as rarely checking health conditions according to the scheduled time.

Other factors that affect *Self-management* less is the duration/length of suffering from hypertension. Groups that have *Self-Esteem* are less in the category of duration of suffering from hypertension of 1-3 years. These findings show that the relatively short duration of suffering from hypertension is not enough to provide experience or understanding to shape behavior *Self-management* optimal. This is in line with research conducted by (Sudrajat *et al.*, 2022), where respondents said they already understood the low-salt diet because they had been suffering from hypertension for a long time. Suffering from hypertension for a long time can make changes in the habits that are made, so that over time you will begin to get used to foods that are less salty or bland.

The maturity of treatment in a disease is based on the experience of the individual and the surrounding environment. The longer a person has experience related to hypertension, the more he understands how important points of disease management starting from disease knowledge, drug use and things that need to be improved in changing lifestyle for the better. This research is supported by previous research that states that hypertension management includes routine medication and healthy lifestyle changes and requires *Self-management* optimal. Hypertensive patients report that if they do not know the cause and how to manage the disease, then the *Self-management* hampered (Meldy *et al.*, 2022).

According to the researchers' assumptions, *the lack of self-management* in the elderly with hypertension is suspected to be caused by the low ability of respondents to manage their diseases independently. Respondents have not been able to integrate care practices into their daily lives.

Quality of Life of Elderly Hypertension in the Working Area of the Limboto Health Center

Based on table 4 about quality of life, it is known that most of the 66 respondents are in the category of good quality of life (36.4%). This shows that most of the respondents have been able to live their lives in a relatively stable and functional manner. Based on the results of the study, respondents in this category viewed from the physical health domain, most of them were satisfied with their ability to work, were able to carry out daily activities independently and had a fairly stable physical condition. Respondents in this category also showed a fairly good psychological condition, although there were still concerns about health conditions. In the domain of social relations and satisfaction with the environment, it is quite adequate, but not completely optimal.

According to (Murti, 2022), when an individual or group is considered to have a good quality of life, it shows that they have met various criteria that clearly reflect well-being, health and happiness in various dimensions of their measurement. This research is supported by research (Ode *et al.*, 2022), the majority of the elderly have a good quality of life. Elderly people who accept life as it is, are satisfied with themselves, are satisfied with their living conditions, have good family support, have enough money to meet their needs, have enough energy for activities and adequate transportation tend to have a good quality of life.

According to the researchers' assumptions, respondents who are in the category of good quality of life show effective adaptability to disease conditions, supported by positive self-perception.

Meanwhile, out of a total of 66 respondents, 20 (30.3%) of them had a moderate quality of life. These findings show that almost a third of the elderly are still in conditions of quality of life that are not optimal. The quality of life category is being shown by the results of the study which illustrate that in the physical health domain, respondents are still able to carry out daily activities independently, but often experience physical limitations. In the psychological domain, respondents sometimes feel worried about their health condition. The social domain showed that respondents were still able to interact but participation in social activities was not optimal. Meanwhile, the environmental domain shows satisfaction with housing and satisfaction with access to health services.

According to the theory *Roy Adaptation Model*, the individual is a biopsychosocial system that continuously responds to internal and external stimuli through coping mechanisms. Effective adaptation to each mode plays a role in improving physical, psychological, and social well-being, which is conceptually related to quality of life. In the context of chronic disease, conceptually suboptimal quality of life can be described as a moderate category, which indicates an adaptive response has occurred but is not yet optimal (Motaarefi *et al.*, 2025). The results of this study are supported by research (Hu *et al.*, 2024) which states that even though the elderly have hypertension, the quality of life score is in the moderate category, indicating that they are still able to carry out daily activities within certain limits.

According to the researchers' assumptions, the quality of life of the moderate category indicates that the elderly with hypertension still have a great opportunity to improve their well-being. With optimal hypertension management, the quality of life of the elderly can improve to a better category.

Meanwhile, out of a total of 66 respondents, as many as 19 (28.8%) of them have a very good quality of life, indicating that almost a third of respondents feel very satisfied with their lives. Based on the results of the study, when viewed from the physical health domain, respondents in this category showed very stable physical function, were able to carry out daily activities without obstacles and were very satisfied with their ability to work. In the psychological domain, respondents have better emotional stability. In the social domain, respondents have harmonious social relationships. In addition, in the environmental domain, respondents are very satisfied with the living environment and access to health services.

World Health Organization explained that quality of life is multidimensional and includes four main domains, namely physical health, psychological condition, social relationships and environment. An individual's positive perception of these four domains reflects a higher level of quality of life. This concept became the basis for the development of WHOQOL-Bref which is used to measure quality of life subjectively, where higher scores indicate a better quality of life based on an individual's assessment of their own life (WHO, 2025). Research by (Efriani *et al.*, 2022), indicating that most respondents had an excellent quality of life. These findings illustrate that the majority of hypertension patients in the study had a positive perception of their quality of life despite suffering from chronic diseases.

According to the researchers' assumptions, the quality of life of the very good category is influenced by the ability of the respondents to manage health conditions optimally, strong family support and social relationships, and an environment that supports physical and psychosocial needs. Good adaptability and satisfaction with health services are also thought to play an important role in achieving an excellent quality of life.

Meanwhile, of the 66 respondents, 3 (4.5%) of them had a poor quality of life. This condition indicates that there are still respondents who face various limitations due to the impact of hypertension. Based on the results of the study, respondents with poor quality of life showed low scores in several domains of quality of life (WHOQOL-Bref). In the physical domain, respondents experienced complaints such as not having enough energy, feeling dissatisfied in carrying out daily activities, dissatisfied with their ability to work and not satisfied with the quality of sleep. The psychological domain also shows respondents very often have negative feelings such as anxiety. In the social domain, respondents feel mediocre with social/personal relationships. In the environmental domain, respondents had limited recreational opportunities, which was reflected in the "few" answers to the question item related to the frequency of recreation.

According to *World Health Organization*, quality of life is an individual's perception of his or her position in life. This concept is multidimensional. Therefore, chronic diseases such as uncontrolled hypertension can interfere with physical function and emotional stability, thereby lowering an individual's perception of the overall quality of life (WHO, 2025). Other research supports these findings, where seniors with hypertension who have low physical activity abilities and ineffective stress management tend to have a

lower quality of life (Juliani *et al.*, 2024).

According to the researchers' assumptions, the poor quality of life in the elderly with hypertension shows that a small percentage of respondents have not been able to adapt optimally to the chronic disease conditions they experience. The elderly in this group tend to experience physical limitations, psychological instability and low social participation, so that daily activities are disrupted.

The Relationship between *Self-Management* and Quality of Life in the Elderly with Hypertension in the Working Area of the Limboto Health Center

It is known that from 66 respondents, there are 41 people who have *good self-management* and have a good quality of life and are even very good. These findings show that optimal self-management correlates with the perception of high quality of life in the elderly with hypertension. The results of the study show that the elderly with *good self-management* are able to integrate hypertension treatment practices into their daily lives, are able to apply self-regulation, actively interact with health workers, monitor blood pressure regularly, and comply with treatment recommendations have an impact on stable physical and psychological conditions, active social participation and satisfaction with the environment so that their quality of life is at the highest level. Good and Excellent Categories.

Self-management It is a process that not only develops over time, but also develops in relation to the type of experience of a person's illness. A high sense of responsibility is very important in driving change in the individual. When a person feels that the change is the result of his own efforts, then the change tends to be more lasting. Thus, the risk of complications such as hypertensive crises, transient ischemic attacks and kidney failure can be minimized and quality of life will be improved (Damayanti *et al.*, 2022). The results of the study are supported by research (Lestari & Saraswati, 2022), which explains that the better the self-management behavior, the better the quality of life of people with hypertension. Proper self-management behavior in hypertensive patients can be in the form of lifestyle modifications by taking medications recommended by doctors, dietary arrangements, weight management, physical activity, stress management and avoiding smoking.

According to the researchers' assumptions, *good self-management* and good to very good quality of life show that the elderly who are able to manage hypertension optimally will experience higher physical, psychological, social and environmental well-being. Disciplined self-management is the main factor in achieving an optimal quality of life.

Of the 66 respondents, 18 (85.7%) of them had *sufficient self-management* and quality of life was in the medium category. The results of the questionnaire showed that the elderly with *sufficient self-management* understood the importance of hypertension management, however, the application of physical activity was not consistent. As a result, the physical and psychological condition is quite stable but there are still some limitations.

Application *Self-management* can improve the quality of life of hypertensive patients, as this helps them in better managing and controlling blood pressure and avoiding complications. This confirms that independent efforts in managing hypertension play an important role in improving patient welfare (Aryanti *et al.*, 2025). This research is supported by research (Khilafah *et al.*, 2023), with the results of the research the majority of respondents having *Self-management* Medium and quality of life are also in the medium category. According to the results of this study, it shows a relationship that has sufficient closeness. If the elderly with hypertension have *Self-management* good every day, will increase the recovery rate which has an impact on improving the value of quality of life in the individual. It is necessary to have a high awareness and willingness to be able to do *Self-management* appropriately and sustainably.

According to the researchers, *the self-management* category is quite related to moderate quality of life because the elderly are not yet fully able to integrate healthy living behaviors into their daily lives. With increased consistency in hypertension management and more intensive support, quality of life will improve to the good category.

Meanwhile, of the 66 respondents, 2 of them have *self-management* and are less likely to have a quality of life that is in the poor category. The results of the questionnaire showed that the elderly with hypertension with *less self-management* had not implemented self-integration against hypertension such as rarely choosing foods that were low in salt. In addition, *poor self-management* is reflected in the respondents' questionnaire answers, they have not monitored blood pressure regularly to help make *self-management* decisions. This condition causes physical and psychological limitations and low social participation, which affects the quality of life in the poor category.

If the elderly are not able to manage their self-care appropriately and optimally, it will have an impact on worsening the quality of life which is characterized by a higher rate of recurrence and pain (Khilafah *et al.*, 2023). The results of this study are in line with research by (Marni *et al.*, 2024), most respondents have *Self-management* that is lacking in managing hypertension. At the same time, most respondents have a low quality of life.

According to the researchers' assumptions, the hypertensive elderly with *less self-management* are at risk of having a poor quality of life because their ability to manage the disease is not optimal. This includes a lack of adherence to medication and rarely monitoring blood transfusions. As a result, physical and psychological conditions are disturbed so that the quality of life decreases.

Meanwhile, of the 66 respondents, 2 (4.7%) of them had *good self-management* but their quality of life was in the medium category. The results of the questionnaire showed that the elderly with *good self-management* were generally able to take care of themselves. However, they experience obstacles in the quality of life of the physical health domain, for example, there are physical limitations that interfere with daily activities. Limited physical activity causes dependence on others so that it can affect the quality of life.

In the elderly with hypertension, although some individuals report *Self-management* well, quality of life is not always high (Hong & Lee, 2023). The results of this study are in line with the research (Neesa *et al.*, 2021), which states that the majority of respondents in self-management are in the good category and the majority of respondents are in the adequate category. These findings indicate that even though self-management has been done, other factors can affect quality of life.

Other factors that affect *Self-management* good but the quality of life is in the medium category of age. Respondents in this group were 72 years old. Older seniors tend to have physical limitations. This is in line with research by (Ny) *et al.*, 2024), found that younger age was associated with a high WHOQOL-Bref score, while older age indicated a lower score.

The researchers assume that *good self-management* and quality of life in the medium category reflect that good self-care behaviors are indeed necessary to improve quality of life. However, this condition is likely to be aggravated by a decline in physical function due to aging, so this has an impact on quality of life.

Of the 66 respondents, 2 (9.5%) of them had *sufficient self-management* but had a good quality of life. The results of the study show that the elderly with *sufficient self-management* still have the ability in several aspects of hypertension management, but are not optimal in consistency. However, their perception of quality of life remains good.

Quality of life can be used as an indicator of the success of hypertension control in the elderly. Elderly people who can control their blood pressure through disciplined self-management tend to experience fewer health problems due to hypertension and have a better quality of life. They will benefit more from preventive measures, which positively impact their well-being (Haryanto & Sundari, 2025). This is in line with research (Alpha *et al.*, 2024), the majority of respondents have *Self-management* adequate and good quality of life. Positive impact of implementation *Self-management* That is, hypertension patients have a better understanding and skills on how to overcome the disease and how to change behavior slowly to overcome the disease.

According to the researchers' assumptions, the elderly with *sufficient self-management* but good quality of life show that social aspects, environmental support and subjective perception of well-being can compensate for the lack of self-management.

In addition, of the 66 respondents, there were 1 (4.8%) who had *sufficient self-management* and quality of life was in the poor category. The results of the questionnaire showed that the elderly with *sufficient self-management* were able to manage themselves, but were not optimal. Judging from the results of the quality of life questionnaire, respondents answered "often" to the question about activity barriers due to physical illness, indicating that there are limitations in activities that have the potential to reduce the quality of life.

If the elderly have suboptimal self-care, it will have a greater potential to cause blood pressure to increase sustainably and have implications for a decrease in quality of life (Afrilia & Kholifah, 2023). The results of this study are in line with the research (Salmanpour *et al.*, 2025), which found that although hypertensive patients applied *Self-management* Simply, their quality of life does not always improve significantly.

According to the researchers' assumptions, the poor quality of life in the elderly with hypertension with *the self-management* category is quite suspect because the implementation of self-management has not been consistent and comprehensive, so the physical and psychological impact is still felt.

Based on the results of the *Spearman Rank* statistical test, a significance value (*p-value*) = 0.000 (<0.05) was obtained with a correlation coefficient value of 0.717 which means that there is a significant relationship between *self-management* and the quality of life of the elderly with hypertension and the strength of a strong relationship with the direction of a positive relationship. This means, if the implementation of *self-management* is good, then the quality of life will be better.

The results of this study are in line with the research conducted by (Alpha *et al.*, 2024), which states that there is a relationship between self-management and quality of life in hypertensive patients. Self-management must be carried out consistently to avoid complications that can have a fatal impact on the organs. These complications cause long-term suffering for patients, both physically and mentally, so that they can reduce the quality of life.

CONCLUSION

Self-management of elderly people with hypertension in the Limboto Health Center Working Area is in the good category, namely as many as 43 respondents (65.2%), enough as many as 21 respondents (31.8%) and 2 respondents (3.0%) are in the poor category. The quality of life of elderly people with hypertension in the Limboto Health Center Working Area was in the good category as many as 24 respondents (36.4%), while as many as 20 respondents (30.3%), very good as many as 19 respondents (28.8%) and 3 respondents (4.5%) were in the bad category. There is a relationship between *self-management* and the quality of life of elderly people with hypertension in the Limboto Health Center Working Area. Significance value (*p-value*) = 0.000 (<0.05) which means that there is a significant relationship between *self-management* and the quality of life of the elderly with hypertension. The correlation coefficient value of 0.717 indicates the strength of the relationship with the direction of a positive relationship, which means that the increase *in the respondents' self-management* ability contributes to an improvement in quality of life.

ADVICE

Elderly people with hypertension are expected to maintain and improve *their self-management* skills by regularly checking blood pressure, adhering to medication recommendations, eating low-salt foods, doing regular physical activity and managing stress. In addition, the elderly are expected to be more active in participating in health education programs organized by the Health Center to strengthen their knowledge and self-care skills, so that the quality of life can be maintained properly.

The health center is expected to continue to optimize education programs and *self-management interventions* for the elderly with hypertension, including routine counseling, nutrition consultations, and regular blood pressure monitoring. In addition, the Puskesmas can increase the involvement of the elderly through group activities such as elderly gymnastics and evaluate the quality of life of the elderly to ensure the effectiveness of the programs carried out.

Researchers are further advised to conduct research that can explore other factors that affect quality of life such as family support, health literacy and comorbidities and develop community-based interventions to improve *self-management* skills and objectively assess their impact.

REFERENCES

- Abduh, M., Alawiyah, T., Apriansyah, G., Sirodj, R. A., & Afgani, M. W. (2023). Survey Design: Cross Sectional in Quantitative Research. *Journal of Science and Computer Education*, 3(1), 34. <https://doi.org/https://doi.org/10.47709/jpsk.vxix.xxxx>
- Afrilia, W., & Kholifah, N. (2023). The Relationship between Self-Care Management and Quality of Life in the Elderly with Hypertension. *Holistic Journal of Health*, 17(2), 181–188.
- Alifa, K., Hajrah, & Aryatika, K. (2024). The Relationship of Self-Management Behavior to the Quality of Life of Hypertensive Patients. *MPI (Media Pharmaceutica Indonesiana)*, 6(1), 36–44. <https://doi.org/10.24123/mpl.v6i1.6488>
- Amelia, Y. P., & Rosyid, F. N. (2025). The Relationship Between Self Care Management and Hypertension Symptoms in the Elderly with Hypertension for Optimal Quality of Life. *Journal of Ners*, 9(4), 6079–6083.
- Aminuddin, Mustain, Suhaema, Kusumaningrum, P. R., Yuliana, Saraswati, R., Yuda, H. T., Dewi, R., Shagti, I., & Ernawati. (2025). *The Basic Concept of Gerontic Nursing* (W. Gustiawan (ed.)). CV. Rey Media Grafika.
- Amira, I., Hendrawati, H., Maulana, I., Sumarni, N., & Rosidin, U. (2023). Efforts to Improve the Mental Health of the Elderly Through Early Detection and Education. *Journal of Community Service Creativity (PKM)*, 6(12), 5532–5540. <https://doi.org/10.33024/jkpm.v6i12.12578>
- Anggraini, D. (2024). RISK Factors Of Hypertension In The Elderly. *Nusantara Hasana Journal*, 3(8), 12–20.
- Association, A. H. (2022). Harmonization of the American College of Cardiology/American Heart Association and European Society of Cardiology/European Society of Hypertension Blood Pressure/Hypertension Guidelines: Comparisons, Reflections, and Recommendations. *American Heart Association*, 146(11). <https://www.ahajournals.org/doi/10.1161/Circulationaha.121.054602>
- Berek, P. A. L. (2024). *Mobilephone-Based Hypertension Self-Care Model and Infographic* (M. S. A. (ed.)). World Literacy Center.
- Damayanti, F. E., Firmanti, T. A., & Puspitasari, L. A. (2022). Self Management and Quality of Life of Hypertension Patients in the Work Area of the Klatak Health Center. *Forikes Journal of Voice Health Research*, 13 (November), 2020–2023. <http://forikes-ejournal.com/index.php/SF>
- Dawis, A. M., Wardhani, R. S., Nurlette, H., Widayaprawati, R., Milasari, L. A., Zaenudin, M., Inayah, I., Haryadi, D., Asri, Y. N., & Ulya, N. K. (2024). *A Practical Guide to Variable Analysis for Researchers* (N. Mayasari & Q. Nurlaila (eds.)). CV. Tohar Media.

- Efriani, S., Hadi, I., & Aisyah, N. (2022). The Relationship between Knowledge Level and Quality of Life on Self Care Management in Hypertension Patients at the Cangkol Health Center, Cirebon City. *Borneo Journal of Scientific Pharmacy*, 7(1).
- Erawan, T., Lestari, V. D., Durahim, D., & Islam, F. (2025). *Geriatric Physiotherapy Textbook: Practical Guide to Physiotherapy Management*. PT. Nas Media Indonesia.
- Fadilah, F. Y. N., Usman, A. M., & Suralaga, C. (2023). The Relationship between Self-Management and Blood Pressure of Hypertension Patients at the Ciwaru Health Center, Kuningan Regency. *Malahayati Nursing Journal*, 5(12), 4430–4439. <https://doi.org/10.33024/mnj.v5i12.11509>
- Fitriani, Afelya, T. I., & Nurfa'izah, D. A. (2024). Factors Affecting Self-Management of Hypertension Patients. *Journal of Tropical Nursing Papua*, 07(2).
- Fridolin, A., Musthofa, S. B., & Suryoputro, A. (2022). Factors Affecting the Quality of Life of the Elderly in the Working Area of the Gayamsari Health Center, Semarang City. *Journal of Community Health*, 8(2), 381–389. <https://doi.org/10.25311/keskom.vol8.iss2.1227>
- Gorontalo, D. K. K. (2025). Gorontalo Regency Hypertension Data. Gorontalo Regency Health Office.
- Gorontalo, D. K. P. (2025). Gorontalo Province Hypertension Data.
- Hardani, Andriani, H., Ustiawaty, J., Utami, E. F., Istiqomah, R. R., Fardani, R. A., Sukmana, D. J., & Auliya, N. H. (2020). *Qualitative and Quantitative Research Methods* (H. Abadi (ed.)). CV. Pustaka Ilmu Group Yogyakarta.
- Haryanto, M. S., & Sundari, N. R. (2025). The Relationship between Self Care Management and Quality of Life in the Elderly with Hypertension. *Journal of Nursing*, 23(2).
- Hasbiah, S., Anwar, & Hasdiansa, I. W. (2024). *Introduction to Business Research Methodology* (A. Bairizki (ed.)).
- Hijriana, I. (2023). *Home Based Exercise for Diabetic Mellitus Sufferers* (R. Awahita (ed.)). CV Jejak, a member of IKAPI.
- Hong, J., & Lee, H. (2023). Health Literacy, Self-Management Behaviours, and Health Related Quality of Life of the Elderly With Hypertension in Korea's Urban and Rural Areas. *Journal for Re Attach Therapy and Developmental Diversities*, 6(2).
- Hu, Q., Toonsiri, C., & Hengudomsub, P. (2024). Factors Affecting Quality of Life Among Older Adults With Hypertension in Wenzhou, China. *National Center for Biotechnology Information*, 10(6).
- Juliani, B., Luhut, T., Djoar, R. K., & Prastyawati, I. Y. (2024). Quality of life in the elderly with hypertension. *Journal of Health Research*, 14(1).
- Karmila, M., Kusmiran, E., & Purwanti, T. F. (2025). The Relationship between Self-Management and the Quality of Life of Hypertension Patients at the Garuda Health Center in Bandung City in 2025. *MAJU : Indonesian Journal of Community Empowerment*, 2(2), 326–333. <https://doi.org/10.62335/maju.v2i2.1099>
- Ministry of Health. (2022). *Let's Control Hypertension*. Ministry of Health of the Republic of Indonesia.
- Ministry of Health. (2023a). *Hajj and the Elderly*. Ministry of Health of the Republic of Indonesia. <https://ayosehat.kemkes.go.id/berhaji-dan-lansia>
- Ministry of Health. (2023b). *Indonesian Health Survey 2023 (SKI)*. In Ministry of Health of the Republic of Indonesia.
- Ministry of Health. (2024). *How to Overcome Hypertension*. Ministry of Health of the Republic of Indonesia.
- Khasanah, S., Sasongko, D. P., Diah Soniawati, A. S., Yudono, D. T., & Dewi, P. (2023). Validity and Reliability Test of Hypertension Self Management Behaviours Quisionnare (HSMBQ). *Al-Irsyad Health Journal*, 16(2).
- Laili, N., & Taukhid. (2023). The Relationship between Self-Management and the Level of Activity Daily Living (ADL) Independence in Post-Stroke Patients. *Scientific Journal of Nursing Health*, 19(1).
- Lestari, N. K. Y., & Saraswati, N. L. G. I. (2022). The Correlation of Self-Management Behavior With Quality of Life in Patients With Primary Hypertension. *Indonesian Journal of Global*, 4(1).
- Manafe, L. A., & Berhimpon, I. (n.d.). The Relationship of Elderly Depression Rates with Social Interaction of the Elderly at Bpslut Senja Cerah Manado. *Scientific Journal of Hospitality* 749, 11(1), 93–115. <https://doi.org/10.52157/me.v8i2.99>
- Marni, L., Maifita, Y., Safitri, E., & Marni, L. (2024). The Relationship of Self-Management with Quality Lives of Hypertension Patients. *Journal of Research in Science Education*, 10(2), 689–694. <https://doi.org/10.29303/jppipa.v10i2.6920>
- Meldy, H., Madyaning, E., & Sya, A. (2022). Factors Affecting Self Management in Hypertensive Patients. *Cikini Nursing Junal*, 3(1), 20–25.
- Misbahuddin, & Hasan, I. (2022). *Research Data Analysis with Statistics* (Suryani (ed.); Kedu Edition). PT Bumi Aksara.
- Motaarefi, H., Habibzadeh, H., & Seyednazari, A. (2025). The Effect of Roy Adaptation Model on the Quality of Life and General Health of Elderly People in Nursing Homes. *BMC Journal*, 25(880).
- Munawarah, M., Melviani, M., & Syamsu, E. (2024). Measurement of Quality of Life of Diabetes Mellitus

- Patients Users of Oral Antidiabetic Drugs in Outpatient Treatment of Sultan Suriansyah Hospital Banjarmasin. *Surya Medika Journal*, 10(1), 310–315. <https://doi.org/10.33084/jsm.v10i1.7234>
- Munawwarah, A. M. (2021). The Relationship between Family Support and Self-Management of Hypertension Clients at the Mlarak Health Center, Ponorogo Regency. Final Project.
- Murti, A. I. (2022). *Health Psychology* (Nuraini (ed.)). Rajagrafindo Persada.
- Musthofa, A. L. U., Nugroho, S. A., & Sholehah, B. (2024). The Relationship between Self Management and Hypertension Categories at the Paiton Probolinggo Health Center. *TRILOGY: Journal of Technology, Health, and Humanities*, 5(1), 29–37. <https://doi.org/10.33650/trilogi.v5i1.7304>
- Nabila, A., Arnita, Y., & Mulyati, D. (2022). Self-Management of Hypertension Patients. *JIM FKep*, 5(4).
- Neesa, Sahrul, H., & Muhlisin, A. (2021). The Relationship between Self-Management and the Quality of Life of Hypertensive Patients in the Working Area of the Baki Sukoharjo Health Center. In University of Muhammadiyah Surakarta.
- Ny, D. T. H., An, L. Van, Hai, L. T., & Quan, P. Van. (2024). Factors Affecting the Quality of Life in Hypertensive Patients. *Nurse Media Journal of Nursing*, 14(3).
- Ode, W., Zawawi, M., Kusadhiani, I., & Siahaya, P. G. (2022). The Relationship between the Incidence of Hypertension and the Quality of Life of the Elderly in the Working Area of the Rijali Health Center, Batu Merah Village, Ambon City, Maluku. *Research Articles*, 11(3), 139–146.
- Indonesian Hypertension Doctors Association. (2021). Consensus on Hypertension Diagnosis 2021 (A. A. Lukito, E. Harmeiwaty, T. D. Situmorang, N. M. Hustrini, A. S. Kuncoro, R. Barack, & E. D. Yulianti (eds.)). Indonesian Society of Hypertension.
- Pranata, M., Nurul, C., & Rofiah, K. (2025). The Role of Pharmacist Counseling on the Quality of Life Profile of Depression Patients at Soerojo Mental Hospital, Magelang City. 6(1), 18–24.
- Puput Dwi Aryanti, Retno Setyawati, & Suyanto, S. (2025). The relationship between self-care management, long suffering, and complications of hypertension with the quality of life of hypertensive patients. *Indonesian Journal of Public Health (JKMI)*, 2(3), 1–11. <https://doi.org/10.62017/jkmi.v2i3.4043>
- Qomaruddin, & Sa'diyah, H. (2024). Theoretical Studies on Data Analysis Techniques in Qualitative Research: Spradley, Miles and Huberman Perspectives. 1(2), 77–84. <https://doi.org/https://doi.org/10.52620/jomaa.v1i2.93>
- Rohmah, M., Nurhusna, & Sari, P. I. (2023). Overview of Self Care Management in Hypertension Patients in the Working Area of the Putri Ayu Health Center, Jambi City. *Journal of Ners*, 7(2).
- Sahir, Syafrid H. (2022). *Research Methodology* (T. Koryati (ed.)). KBM Indonesia.
- Salmanpour, N., Salehi, A., Nemati, S., Rahmanian, M., Zakeri, A., & Bazrafshan, H. (2025). The effect of self-care , self-efficacy , and health literacy on health-related quality of life in patients with hypertension : a cross-sectional study. *BMC Public Health*, 1(2).
- Sanulita, H., Putra, P. P., Laka, L., Amalia, M., Anggraeni, A. F., Ardiansyah, W., Azizah, N., Saktisyahputra, Suprayitno, D., Sumiati, S., & Judijanto, L. (2024). *Practical Guide to Writing Scientific Papers* (E. Efitra, S. Sepriano, W. Gustiani, & Y. Agusdi (eds.)). PT. Green Pustaka Indonesia.
- Sari, O. P. (2023). The Relationship of Self Management and Blood Pressure in Hypertension Patients at the Regional General Hospital (RSUD) Tais, Seluma Regency. *Nursing Journal*, 3(2), 1–23.
- Sholihah, N. R. (2023). Self-Management Education and Blood Pressure Control Using Audiovisual Media in Hypertensive Patients. Publisher of Tahta Media. <http://tahtamedia.co.id/index.php/issj/article/view/257%0Ahttps://tahtamedia.co.id/index.php/issj/article/download/257/254>
- Sinulingga, E. (2024). *Ethics and Law in Nursing* (Sukmareni (ed.)). Tri Scientific Education Foundation.
- Sudrajat, A., Nelly, Y., Santa, M., & H, S. N. (2022). The Relationship of Low Salt Diet and Medication Compliance with Hypertension Pre-Elderly Blood Pressure at the Teluk Pudung Village Health Center. 2(1), 1790–1800.
- Sulung, U., & Muspawi, M. (2024). Understand Research Data Sources: Primary, Secondary, Tertiary. *Journal of Edu Research*, 5(3), 112–113.
- Teoli, D., & Bhardwaj, A. (2023). *Quality of Life*. Stat Pearls Publishing LCC, National Center for Biotechnology Information.
- Vanesa Adisa. (2025). *Hypertension: Variations of Fruits, Natural Foods in Dealing with It* (M. I. Aryandhita (ed.)). Reading House.
- Wenny, & Wulaningsih, I. (2025). *Progressive Muscle Relaxation Techniques to Lower Blood Pressure in Hypertensive Patients* (S. Anwar (ed.)). Deepblish Digital.
- WHO. (2024). Ageing and Health. World Health Organization. <https://www.who.int/news-room/factsheets/detail/ageing-and-health>
- WHO. (2025a). Hypertension. World Health Organization. <https://www.who.int/news-room/factsheets/detail/hypertension>
- WHO. (2025b). WHOQOL: Measuring Quality of Life. World Health Organization. <https://www.who.int/tools/whoqol>

- Windani Mambang Sari, C., Pahria, T., & Dahlia Wardani, S. (2024). Hypertension Self-Management and Quality of Life Correlation. *Journal of Nursing, Kendal College of Health Sciences*, 16(2), 2085–1049. <http://journal.stikeskendal.ac.id/index.php/Keperawatan>
- World Health Organization. (2020). The World Health Organization Quality of Life (WHOQOL)- BREF Indonesian Edition. Program on Mental Health, 1–5. http://apps.who.int/iris/bitstream/handle/10665/77932/WHO_HIS_HSI_Rev.2012.03protectLY1extunderscoreeng.pdf;jsessionid=6BC7AC984CA0F8801C86C8296D9D4B2A?sequence=1%0Ahttp://www.springerreference.com/index/doi/10.1007/SpringerReference_28001%0Ahttp://mipa
- Yulita Meo, M., Pati Rangga, Y. P., & Ovi, F. (2023). Family Support and the Implementation of Self Care Management for the Elderly with Hypertension. *Journal of Health*, 12(1), 34–40. <https://doi.org/10.46815/jk.v12i1.127>