

Overview of Medication Compliance in Hypertensive Patients in the Working Area of the Wolio Health Center

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A B S T R A C T

Background: Hypertension is a chronic disease known as the silent killer because it often does not cause symptoms until serious complications occur. The success of treatment is largely determined by the patient's adherence to taking antihypertensive drugs. This study **aims** to determine the level of compliance of hypertension patients in the working area of the Wolio Health Center in 2024. **The method** used was quantitative descriptive with the Morisky Medication Adherence Scale (MMAS-8) instrument in 48 respondents. **The results** showed that 31.25% of respondents had high compliance, 41.66% moderate, and 27.08% low. Factors that affect low adherence include advanced age, low education levels, and irregular employment, while patients with a history of hypertension of more than five years tend to be more compliant. **In conclusion**, most patients are still in the moderate compliance category, so continuous health education, family support, and regular monitoring by health workers are needed to improve compliance while preventing complications.

INTRODUCTION

Over time, either consciously or unconsciously, people often adopt a modern lifestyle. They prefer this lifestyle, people prefer everything fast. This leads to a low interest in exercising and a tendency to choose more instant foods that are high in fat and sodium. In addition, modern lifestyles often make an individual depressed with all daily routines so that they can cause stress, smoking habits, and excessive consumption of alcohol and caffeine. These things can certainly trigger the onset of various diseases including hypertension. (Syahrial, 2019)

Hypertension is a condition in which a person's blood pressure rises beyond normal limits. This can lead to higher rates of death and pain. High blood pressure in blood vessels, including the transport of blood made by the heart to ensure blood flow to all organs and tissues of the body, is known as hypertension. If a person's blood pressure exceeds the normal limit, which is more than 140 mmHg (systolic pressure) and 90 mmHg (diastolic pressure), a person is considered to have hypertension (Marianita et al., 2024) .

Until now, hypertension is still a big health issue and needs attention. The WHO states that 22% of the global population is affected by hypertension, and this figure reaches 36% in Southeast Asia. In addition, hypertension also contributes to deaths, accounting for 23.7% of the total 1.7 million deaths in Indonesia in 2016. To date, the exact cause of hypertension is still unknown, but lifestyle plays an important role in this problem. (Hariawan & Tatisina, 2020).

Based on information from the World Health Organization and The International Society of Hypertension, there are currently around 600 million people suffering from hypertension worldwide. Every year, about 3 million of them lose their lives. The WHO estimates that by 2025, the number of people with hypertension will increase by about 80%. From 639 million cases in 2000, the number is expected to reach 1.5 billion by 2025, especially in developing countries such as Indonesia. In Indonesia, hypertension is the third highest cause of death for all ages, with a percentage of 6.8%, after stroke which records 15.4% and tuberculosis with 7.5%. On the other hand, only 9.4% of hypertension patients have been diagnosed by medical personnel in Indonesia. This shows that many of them in the community, about 63.2%, have not been diagnosed by health workers. (Hazwan & Pinatih, 2017).

According to health information from the province of Southeast Sulawesi, the rate of hypertension continues to increase every year. In 2017, hypertension became the second top disease of ten diseases with a total of 11,265 cases. In 2018, the disease also ranked second in the list of the top ten diseases in Southeast Sulawesi Province, reaching 22,517 cases. Then, in 2019, hypertension still ranks second among the ten largest diseases with the number of cases reaching 57,160 or 17.67 percent (Taiso *et al.*, 2020).

In developed countries, hypertension is one of the important health issues. Meanwhile, in Indonesia, the problem of hypertension must also be a concern for doctors in primary health services, given the high prevalence rate and long-term impact it causes. Based on the cause, hypertension is categorized into two types: primary hypertension of unknown or idiopathic cause, and secondary hypertension caused by other medical conditions. Primary hypertension accounts for about 90% of the total hypertensive patients, while the remaining 10% is caused by secondary hypertension. Of the secondary hypertension group, only 50% of the causes can be identified, and of these, only a small percentage can be treated. For this reason, the treatment of primary hypertension is getting more priority. Many studies have been conducted on primary hypertension, both in terms of pathogenesis and in its treatment. (Wardani *et al.*, 2018).

Hypertension is a global health problem that affects both developed and developing countries. Often called the "silent killer", hypertension is usually unknown to sufferers because symptoms appear after there is damage to blood vessels in certain organs. Hypertension is characterized by a persistently high blood pressure, with systolic pressure exceeding 140 mmHg and diastolic pressure exceeding 90 mmHg. In the elderly, hypertension is defined by a systolic pressure of 160 mmHg and a diastolic pressure of 90 mmHg (Smeltzer *et al.*, 2002). There are classifications of hypertension based on its severity, from normal high blood pressure to malignant. This event can be divided into primary and secondary, usually arising from certain pathological conditions that can often be treated (Simandalahi & Sukma, 2019).

Hypertension is often known as the invisible disease or The Silent Disease. Many people don't realize they have hypertension until they take a blood pressure test. This disease can occur in anyone, regardless of age and economic condition. Hypertension is a symptomatic condition, in which high blood pressure in the arteries increases the risk of developing heart and blood vessel diseases, such as stroke, heart failure, heart attack, and kidney damage (Sutanto, 2010). According to the WHO (*World Health Organization*), about 30% of the world's population is not diagnosed with hypertension, symptoms such as headache, neck pain and others, it is not certain that the patient has hypertension (Susilo and Wulandari, 2011). Although hypertension clearly damages the body's organs, such as the heart (70% of people with hypertension will experience heart damage), kidneys, brain, eyes and other organs (Sundari & Bangsawan, 2015).

Hypertension disease progresses slowly and may not be felt until it causes damage to large organs. The risk of organ damage increases with higher blood pressure (Price, 2012). Various complications can arise if hypertension is not controlled. It can lead to myocardial infarction, coronary heart disease, or congestive heart failure. Instead, damage to the brain can lead to stroke or hypertensive encephalopathy. Chronic kidney failure can also occur in the kidneys, and hypertensive retinopathy can also occur in the eyes. Especially in the case of stroke, kidney failure, and heart failure, the complications that arise are very serious and affect the psychological condition of the patient due to a reduction in quality of life. The risk of these complications usually increases with high blood pressure. Hypertension can affect all organ systems and reduce life expectancy by up to 10–20 years if left untreated (Siswanto *et al.*, 2020).

Adherence to treatment is essential for continued health and well-being for patients with hypertension. For effective hypertension therapy, patient compliance and perseverance are indispensable. This provides the best opportunity to improve hypertension control through changes in patient behavior. One of the main causes of failure in antihypertensive therapy is the patient's non-

compliance in using the medication. According to WHO data (2012), of all people with hypertension, only 25 percent of people receive treatment and only 12.5 percent undergo treatment well. As a result of the Basic Health Research (Riskesdas) in 2013, 31.7% of Indonesians aged 18 years and above suffer from hypertension. However, only 7.2% of people know that they have hypertension and only 0.4% take antihypertensive medications. The level of adherence of hypertensive patients to their medication is very low, only 53.8%, according to research by Nanurlaili and Sudhana (2014). As a result, there was no significant increase in their blood pressure. Complications such as damage to vital organs such as the heart, brain, kidneys, eyes, and peripheral blood vessels can arise as a result of poorly managed hypertension (Hazwan & Pinatih).

Adherence to hypertension treatment refers to the extent to which a person follows the advice given by medical personnel or prescriptions from a doctor. Adherence to these treatments can provide benefits both clinically and financially. There are many reasons that lead to non-adherence to hypertension treatment, such as the patient's knowledge of hypertension and other conditions (Ernawati *et al.*, 2020).

Pharmaceutical services are services that directly relate to patients regarding medicines to get clear results in order to improve the quality of life of patients. Accompanying pharmacists and technical personnel (Bachelor of Pharmacy, Associate Pharmacist, Pharmacist Intermediate, or Pharmacist Assistant) assist in pharmaceutical services (Mustiqawati *et al.*, 2023)

METHOD

This type of research uses a quantitative descriptive approach. Without treating or changing the variables studied, descriptive research aims to explain the condition of the object being studied (Anggreni, 2022). The descriptive method is a way to solve a problem by describing the current situation of an object based on the facts at hand. After that, the data obtained will be analyzed and explained. These methods can be surveys, correlation studies, and developmental studies. (Anggreni, 2022).

RESULTS & DISCUSSION

This study was conducted on 48 respondents who were hypertensive patients in the Wolio Health Center Working Area. The main objective of this study is to describe minimal drug adherence based on demographic data.

Table 1. Characteristics of Hypertension Respondents at Wolio Health Center

Characteristic	Frequency	Percentage (%)
Gender		
Man	22	45,83
Woman	26	54,16
By Age		
30-40	0	0
40-50	4	8,33
≥50	34	78,83
By Occupation		
Not Working	19	39,58
Merchant	15	31,25
Farmer	7	14,58
<u>PNS</u>	7	14,58
Final Education		
SD	9	18,75
JUNIOR	16	33,33
SMA	16	33,33
BACHELOR	7	14,58
LongSuffering from Hypertension		
1-5 Years	14	28,0
≥ 5 Years	36	72,0
Total	48	100,0

Source: Primary data 2025

By **Table 1**, the majority of respondents were women (54.16%) and over 50 years old (78.83%), this situation is in accordance with the theory that old age and hormonal changes in women can increase the risk of developing hypertension. In terms of employment, most of the respondents were unemployed (39.58%) and traded (31.25%), which indicates that low physical activity and irregular work patterns contribute to hypertension. The education level of the respondents was dominated by junior high and

high school (33.33% each), which showed that education affects the understanding of hypertension prevention and management. In addition, the majority of participants had hypertension for more than 5 years (72%), indicating that hypertension is a long-term disease that requires ongoing treatment.

Table 2. Distribution of Respondent Frequency Based on Drug Consumption Habits in Hypertensive Patients

Medication Compliance	Total	
	Respondents	Percentage (%)
Tall	15	31,25
Keep	20	41,66
Low	13	27,08
Sum	48	100

Source: Primary data 2025

Based on **Table 2**, it shows that of the 48 respondents, the majority of research respondents were in the medium compliance category **with a total of 20 respondents (41.66%)**. This figure shows that most patients with hypertension are aware of the importance of taking medications, but they still face difficulties in achieving good and consistent levels of adherence. Meanwhile, 15 respondents had high compliance (31.25%) and 13 people (27.08%) had low compliance. This proportion confirms that more targeted interventions and support are urgently needed to help patients transition from moderate to high adherence.

Table 3. Characteristics of Respondents in Drug Use Compliance in Hypertensive Patients in the Work Area of the Wolio Tahun. 2024

Respondent Characteristics	High Compliance (%)	Moderate Compliance (%)	Low Compliance (%)	Total (%)
Age Group				
Age 30–40 years	0(0,0)	0(0,0)	0(0,0)	0(0,0)
Age 40–50 years	1(25)	2(50)	1(25)	4(100)
Age > 50 years	14(31,81)	18(40,90)	12(27,27)	44(100)
Gender				
Man	6(27,27)	7(31,81)	8(36,36)	22(100)
Woman	9(34,61)	12(46,15)	5(19,23)	26(100)
Work				
Not working	7(36,84)	8(42,10)	4(21,05)	19(100)
Merchant	5(33,33)	4(26,66)	6(40)	15(100)
Farmer	1(14,28)	5(71,42)	1(14,28)	7(100)
PNS	2(28,57)	3(42,85)	2(28,57)	7(100)
Education				
SD	1(11,11)	3(33,33)	5(55,55)	9(100)
JUNIOR	6(37,5)	5(31,25)	5(31,25)	16(100)
SMA	6(37,5)	9(56,25)	1(6,25)	16(100)
BACHELOR	2(28,57)	3(42,85)	2(28,57)	7(100)
Long Suffering				
1-5 Years	11(28,94)	16(42,10)	11(28,94)	38(100)
≥ 5 Years	4(40)	4(40)	2(20)	10(100)

Source: Primary data 2025

By **Table 3** It can be seen that in the age group >50 years old, the majority of respondents have moderate compliance (40.90%), in the female gender is also more in the moderate compliance category (46.15%), while men are more dominant in the low compliance category (36.36%). In terms of employment, respondents who do not work are more in moderate compliance (42.10%), traders are in low compliance (40%), and farmers are in moderate compliance (71.42%). Based on education, respondents with elementary level were dominated by low compliance (55.55%), while high school was more at medium compliance (56.25%). Meanwhile, from the length of time suffering from hypertension, the majority of respondents who suffered from 1–5 years had moderate adherence (42.10%), while respondents who suffered from >5 years had the most adherence (40%).

COVER

Based on the results of the study involving 48 respondents, it can be concluded that the results of the study show that the adherence to taking medication in hypertensive patients in the Wolio Health Center Working Area in 2024 is mostly in the medium category, namely 20 respondents (41.66%). The limitation in this study is that when data was collected, there were still some patients who did not understand filling out questionnaires, so the researcher needed to explain further.

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