

MEDICATION ADHERENCE OF HYPERTENSION PATIENTS REVIEWED FROM MEDICATION BELIEF

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ABSTRACT

Medication adherence is a crucial factor in controlling blood pressure in hypertensive patients. One of the influencing factors is medication belief, which is the patient's belief in the benefits of treatment. This study aims to analyze the relationship between medication belief and medication adherence in hypertensive patients at the Pacet Community Health Center. The study used a correlational analytical design with a cross-sectional approach. A sample of 71 respondents was selected using a purposive sampling technique. The research instruments used were the Beliefs about Medicines Questionnaire (BMQ) and the Morisky Medication Adherence Scale (MMAS-8). Data analysis was performed using the Spearman Rank test with a significance level of $\alpha = 0.05$. The results showed a p-value of 0.000 (<0.05) with a correlation coefficient of 0.730, indicating a strong and positive relationship between medication belief and medication adherence. The higher the medication belief, the higher the adherence to therapy. Medication belief increases the perception of the importance of treatment, thus encouraging consistent adherence to therapy and supporting long-term blood pressure control and prevention of hypertension complications.

Keywords: *Hypertension, Medication Adherence, Medication Beliefs*

INTRODUCTION

Hypertension is a chronic disease characterized by elevated systolic blood pressure ≥ 140 mmHg or diastolic blood pressure ≥ 90 mmHg and is a major risk factor for cardiovascular diseases, such as stroke and heart disease (Tambunan et al., 2021). According to the World Health Organization (WHO, 2023), approximately 1.28 billion adults aged 30–79 years worldwide suffer from hypertension. In Indonesia, the prevalence of hypertension among people aged ≥ 18 years has reached 30.8% (Indonesian Health Survey, 2022). Hypertension control requires long-term antihypertensive therapy, but the success of this therapy depends heavily on patient adherence to medication (Sailan et al., 2021).

Medication adherence in patients with hypertension remains a challenge. The World Health Organization (WHO, 2023) reports that less than one in five hypertensive patients achieve optimal blood pressure control. In Indonesia, 11.1% of diagnosed hypertension patients do not take their medication, and 29.5% do not take their medication regularly (Indonesian Health Survey, 2022). One factor contributing to adherence is medication belief, which is a patient's belief in the benefits and necessity of treatment compared to concerns about side effects. Based on the Necessity–Concerns Framework,

patients with strong necessity beliefs tend to have better adherence than those dominated by concern beliefs (Blanco-castillo & Vargas-daza, 2021).

Several studies have shown that medication belief is associated with medication adherence in hypertension patients. Patients with positive beliefs about their medication tend to be more compliant with antihypertensive therapy (Cinar et al., 2020); (Mostafavi et al., 2020); (Blanco-castillo & Vargas-daza, 2021). However, research on the relationship between medication beliefs and medication adherence in hypertensive patients in primary

healthcare facilities, particularly community health centers, is still limited. A preliminary study at the Pacet Community Health Center (Puskesmas) showed that some patients did not take their medication regularly because they felt their health had improved or were concerned about the long-term effects of medication use. Therefore, this study aims to analyze the relationship between medication beliefs and medication adherence in hypertensive patients at the Pacet Community Health Center.

METHOD

This study was a quantitative study with a correlational analytical design using a cross-sectional approach. This cross-sectional approach was used to analyze the relationship between medication beliefs and medication adherence in hypertensive patients at a single observation point (Hardani, 2020). The study was conducted at the Pacet Community Health Center, Mojokerto Regency, from March to April 2026.

The population in this study was all 136 hypertensive patients undergoing treatment or routine check-ups at the Pacet Community Health Center in 2026. The study sample consisted of 71 respondents selected using purposive sampling based on established inclusion and exclusion criteria (Notoatmodjo, 2018). Inclusion criteria included hypertensive patients undergoing regular treatment, aged 18 years or older, able to communicate well, and willing to participate. Patients with serious comorbidities or not following their treatment routinely were excluded from the study.

Data collection was conducted using the Beliefs about Medicines Questionnaire (BMQ) to measure medication beliefs (Horne et al., 1999) and the Morisky Medication Adherence Scale (MMAS-8) to measure medication adherence (Morisky et al., 2011). All respondents were asked to sign an informed consent before completing the questionnaire. Data were analyzed univariately to describe the characteristics of the respondents and the distribution of medication beliefs and medication adherence. Bivariate analysis used the Spearman Rank test with a significance level of $\alpha = 0.05$ to determine the relationship between medication beliefs and medication adherence (Wahyudi & Perwitasari, 2022).

FINDING AND DISCUSSION

RESEARCH RESULT

GENERAL DATA

Table 1 Frequency Distribution of Respondents By gender, age, education, Occupation and Duration of Treatment

Respondent Characteristics	Frequency	Percentage (%)
Gender		
Male	10	14,1
Female	61	85,9
Total	71	100
Age		
18-34 Years	1	1,4
35-60 Years	37	52,1
> 60 Years	33	46,5
Total	71	100

Education		
Elementary School	35	49,3
Junior High School	29	40,8
Senior High School	6	8,5
Higher Education	1	1,4
Total	71	100
Occupation		
Employed	37	52,1
Unemployed	34	47,9
Total	71	100
Duration of Treatment		
2-6 Months	32	45,1
> 6 Months – 1 Year	29	40,8
> 1 Year	10	14,1
Total	71	100

The results of the study in table 1 show that almost all respondents were female, namely 61 respondents (85.9%). Based on age characteristics, most respondents were in the age range of 35-60 years, namely 37 respondents (52.1%). Based on education level, it shows that almost half of the respondents graduated from elementary school, namely 35 respondents (49.3%). Based on occupation, most respondents worked, namely 37 respondents (52.1%). Based on the duration of treatment, it shows that almost half of the respondents underwent treatment for 2-6 months, namely 32 respondents (45.1%).

SPECIAL DATA

1. Medication beliefs in hypertension sufferers

Table 1 Frequency Distribution of Respondents' Medication Belief

Medication Belief	Frequency (f)	Percentage (%)
High	54	76,1 %
Low	17	23,9 %
Total	71	100 %

The results of the study in table 1 show that almost all respondents have medication beliefs in the high category, namely 54 respondents (76.1%), while a small number of respondents have medication beliefs in the low category, namely 17 respondents (23.9%).

2. Medication Adherence in hypertension sufferers

Table 2 Frequency Distribution of Respondents' Medication Adherence

Medication Adherence	Frequency (f)	Percentage (%)
High	29	40,8 %
Moderate	21	29,6 %
Low	21	29,6 %
Total	71	100 %

The results in Table 2 show that less than half of the respondents had high medication adherence, 29 respondents (40.8%). Furthermore, nearly half of the respondents had moderate and low medication adherence, 21 respondents (29.6%) each.

3. The Relationship Between Medication Belief and Medication Adherence in Hypertension Patients

Table 3 Cross Tabulation of Medication Belief and Medication Adherence

Medication Belief	High Adherence n (%)	Moderate Adherence n (%)	Low Adherence n (%)	Total n (%)
High	29 (53.7)	21 (38.9)	4 (7.4)	54 (100)
Low	0 (0.0)	0 (0.0)	17 (100.0)	17 (100)
Total	29 (40.8)	21 (29.6)	21 (29.6)	71 (100)

The results of the study in Table 3 show that of the 54 respondents with high medication beliefs, the majority had high medication adherence (29 respondents (53.7%)), almost half of the respondents had moderate adherence (21 respondents (38.9%)), and a small number of respondents had low adherence (4 respondents (7.4%)). Meanwhile, of the 17 respondents with low medication beliefs, none of the respondents had high or moderate adherence (0.0%), and all respondents had low adherence (17 respondents (100%)). The Spearman test results showed a p-value = 0.000 with a correlation coefficient of 0.730, which means there is a strong and significant positive relationship between medication beliefs and medication adherence in hypertensive patients. This indicates that the higher the patient's medication beliefs, the higher the level of medication adherence.

DISCUSSION

1. Medication beliefs in hypertension sufferers

The results showed that the majority of respondents had high medication beliefs (76.1%), while 23.9% of respondents had low medication beliefs. The Beliefs about Medicines Questionnaire (BMQ) item showed that most respondents believed antihypertensive medication was necessary to maintain health, control blood pressure, and prevent worsening of the condition if not taken. Conversely, respondents with low medication beliefs still expressed concerns about medication side effects, long-term medication use, and the possibility of drug dependence.

Medication beliefs are patients' beliefs about the benefits and necessity of medication use, as well as their concerns about the treatment they are undergoing. According to Horne's theory in the Beliefs about Medicines Questionnaire (BMQ), beliefs about medication play a role in shaping patient behavior during therapy. Patients who believe that medication is important for controlling disease and preventing complications tend to have higher medication beliefs. Conversely, based on the Necessity-Concerns Framework, low medication beliefs occur when concerns about medication use outweigh the perceived need for treatment (Horne et al., 1999).

The authors argue that the high level of medication beliefs in most respondents is influenced by the belief that antihypertensive drugs provide benefits in controlling blood pressure and preventing hypertension complications, so patients view therapy as necessary. Conversely, respondents with low medication beliefs tend to focus more on

the risks of drug use, such as side effects, long-term use, and the possibility of dependence, resulting in lower belief in the importance of therapy. This finding aligns with research by (Al-noumani et al., 2020), which showed that patients with strong medication beliefs have a positive perception of the benefits of therapy and are therefore more receptive to long-term treatment. Furthermore, research by (Kretchy et al., 2014) also reported that patients with low medication beliefs tend to be more concerned about drug side effects and doubt the benefits of long-term therapy.

2. Medication Adherence in hypertension sufferers

The results of the study showed that almost half of the respondents had high medication adherence (40.8%), while the moderate and low adherence categories were 29.6% each.

Medication adherence is a patient's behavior in following treatment recommendations given by healthcare professionals, including adherence to the correct dosage, timing, and frequency of medication. Compliance is influenced by various factors, such as knowledge, education, family support, interactions with healthcare professionals, and the patient's belief in the benefits of treatment. Patients who understand the importance of antihypertensive therapy tend to be more compliant with their treatment, thereby controlling blood pressure and minimizing the risk of hypertension complications (Nur Fadil et al., 2019).

The authors argue that the high level of medication adherence among most respondents indicates an awareness of the importance of antihypertensive therapy in controlling blood pressure. This opinion is supported by the results of the Morisky Medication Adherence Scale-8 (MMAS-8) item, which shows that respondents with high adherence tend to take their medication as directed and do not stop treatment without a healthcare professional's recommendation. Conversely, respondents with moderate and low adherence still exhibit behaviors such as forgetting to take their medication, taking their medication late on schedule, or stopping treatment when they feel their condition has improved. This condition indicates that although some respondents are aware of the importance of antihypertensive therapy, some respondents are still unable to maintain consistent adherence in their daily lives. This finding is in line with research by (Cinar et al., 2020), which shows that hypertensive patients who understand the benefits of treatment tend to be more adherent to long-term antihypertensive therapy.

3. The Relationship Between Medication Belief and Medication Adherence in Hypertension Patients

The results showed a significant relationship between medication beliefs and medication adherence in hypertensive patients ($p\text{-value} = 0.000$) with a correlation coefficient of 0.730, indicating a positive relationship with strong strength. Of the 54 respondents with high medication beliefs, most had high medication adherence (53.7%), while 38.9% had moderate adherence and 7.4% had low adherence. These results indicate

that the higher the medication beliefs held by patients, the higher the tendency of patients to adhere to antihypertensive therapy.

According to the Health Belief Model (HBM), health behavior is influenced by an individual's beliefs about the disease and the benefits of treatment. Patients who believe that hypertension can cause complications and believe that treatment provides benefits will be more motivated to adhere to therapy. In line with the Necessity-Concerns Framework, patients with higher necessity beliefs than concerns tend to have better medication adherence because they perceive the benefits of treatment as greater than concerns about side effects (Alfita et al., 2025). This finding aligns with research by (Wulandari, 2018) which showed that hypertensive patients with positive medication beliefs have higher levels of medication adherence.

The authors argue that the strong correlation in this study indicates that belief in the benefits of treatment is a crucial factor driving patient adherence to medication. However, some respondents with high medication beliefs still had moderate or low adherence. Based on the results of the MMAS-8 item, this condition is indicated by behaviors such as forgetting to take medication, irregularity in taking medication, or stopping treatment when feeling better. This suggests that belief in treatment alone is not sufficient to foster consistent adherence. Medication adherence is also influenced by other factors, such as knowledge, education, family support, interactions with healthcare professionals, and length of treatment (Husnawati, 2025). Furthermore, Leventhal's Common Sense Model explains that contextual factors, such as daily routines, boredom with long-term therapy, stress, and social support, also influence a patient's ability to maintain adherence to treatment (Wahyudi & Perwitasari, 2022).

CONCLUSION

This study shows that most hypertensive patients have high medication beliefs and medication adherence. Spearman Rank test results indicate a significant positive correlation with strong correlation strength between medication beliefs and medication adherence in hypertensive patients. This finding indicates that the higher a patient's medication beliefs, the higher their tendency to adhere to antihypertensive therapy. Therefore, healthcare professionals need to improve patients' medication beliefs through education that focuses on the benefits of treatment, the importance of regular medication use, and efforts to reduce concerns about side effects. Future research is recommended to analyze other factors influencing medication adherence, such as family support, knowledge, and duration of treatment, using a longitudinal design or involving a larger number of respondents.

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