

Correlation Between Demographic Factors, Knowledge, and Motivation with Antihypertensive Medication Adherence in Patients at the Kebayoran Baru Community Health Center

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Article info:

<http://dx.doi.org/10.70848/cnj.v2i2.49>
pISSN 3063-9247
eISSN 3063-9255

Article History:

Received: May 4th, 2025
Revised: July 23rd, 2025
Accepted: August 18th, 2025

Abstract

Introduction: Hypertension is a non-communicable disease characterized by systolic blood pressure ≥ 140 mmHg or diastolic blood pressure ≥ 90 mmHg and may cause serious complications in vital organs. Adherence to antihypertensive medication is a key factor in controlling this condition. **Objectives:** This study aimed to examine the relationship between demographic factors, knowledge, motivation, and adherence to antihypertensive medication among patients at Kebayoran Baru Community Health Center. **Methods:** A cross-sectional quantitative study was conducted with 64 respondents. Data were collected using the 8-item Morisky Medication Adherence Scale and analyzed with Kendall's Tau-C and Chi-Square tests. **Results:** Most respondents were aged 46–80 years (81%), male (51.6%), had higher education (42.2%), and had lived with hypertension for 1–5 years (75%). Although 73.4% had high knowledge and 85.9% high motivation, medication adherence was low (60.7%). Significant associations were found between adherence and education ($p = 0.001$), knowledge ($p = 0.041$), and motivation ($p = 0.046$). No significant associations were found with age, gender, occupation, or duration of hypertension. **Conclusion:** Education, knowledge, and motivation were significantly associated with adherence to antihypertensive medication, while other demographic factors were not. Further studies should explore additional variables, such as attitudes, family support, and the role of healthcare providers, as well as develop engaging and accessible educational strategies to improve adherence.

Keywords:

Demographics, Hypertension, Knowledge, Medication Adherence, Motivation



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INTRODUCTION

Non-Communicable Diseases (NCDs) are illnesses that cannot be transmitted through interpersonal contact but represent a major global health challenge. Among them, hypertension has received significant attention (Sudayasa et al., 2020). Hypertension, defined as a persistent increase in systemic arterial blood pressure $\geq 140/90$ mmHg according to the 2023 ESH Hypertension Guidelines, is often referred to as the “silent killer” because it is typically asymptomatic, chronic, and progressive. Over time, it can cause damage to vital organs, including the brain (stroke), heart (myocardial infarction, heart failure, atrial fibrillation), and kidneys (Best Practice Advocacy Centre, 2023).

Globally, an estimated 1.28 billion adults aged 30–79 years were living with hypertension in 2021 (WHO, 2023). The prevalence of non-adherence to antihypertensive treatment ranges from 27% to 40% in low- and middle-income countries, compared to high-income countries (Lee et al., 2022). Such non-adherence hinders blood pressure control and increases the risk of long-term cardiovascular complications and premature mortality (Tri Wijayanti et al., 2024).

In Indonesia, the prevalence of hypertension increased from 25.8% in 2013 to 34.11% in 2018, particularly among individuals aged 45–64 years (Kemenkes RI, 2018). In South Jakarta alone, 196,237 cases of hypertension were recorded in 2021 (Kemenkes RI, 2022). At the Kebayoran Baru Community Health Center, cases rose from 5,773 in 2022 to 5,844 in 2023. Hypertension ranks as the second most common NCD after acute respiratory infections (ARI). Complications such as heart failure (1,855 cases), non-hemorrhagic stroke (363 cases), and chronic kidney disease also showed an increasing trend. Interviews with healthcare workers indicated that 58.44% of hypertensive patients who developed complications were initially non-adherent to treatment, often taking medication only when symptoms appeared. Despite the implementation of programs such as the Chronic Disease Management Program (Program Pengelolaan Penyakit Kronis/Prolanis), Post Integrated Development (Pos Pembinaan Terpadu/Posbindu), and routine check-ups, effectiveness remains limited by patients' low adherence and awareness.

Effective hypertension control requires both pharmacological (medication) and non-pharmacological (lifestyle modification) approaches (McEvoy et al., 2024). Adherence to medication is shaped by internal and external factors. According to the Health Belief Model (HBM), individuals' perceptions of susceptibility, severity, and treatment benefits influence their health behaviors (Rosaline & Rahmah, 2023). Therefore, exploring patients'

knowledge and motivation is essential in understanding adherence patterns.

Previous studies have reported inconsistent findings. Astrid et al. (2021) found that age, education, and occupation were associated with adherence, while gender and illness duration were not. Conversely, Listiana et al. (2020) reported no significant associations with gender or illness duration. Although many studies emphasize knowledge and motivation as key determinants, few have examined their combined role alongside demographic factors, particularly in primary healthcare settings such as community health center (Puskesmas).

The research gap lies in the limited number of local studies addressing the interplay of demographic characteristics, knowledge, and motivation in antihypertensive adherence, particularly in high-prevalence regions such as South Jakarta, as well as the inconsistent results reported previously. This study therefore seeks to investigate the relationships between demographic characteristics (age, gender, education, occupation, and duration of hypertension), knowledge, and motivation with medication adherence at the Kebayoran Baru Community Health Center. The findings are expected to provide a foundation for more effective interventions to improve adherence and reduce complication risks.

METHOD

1. Design

This study employed a quantitative observational analytic design with a cross-sectional approach, conducted at the Kebayoran Baru Community Health Center in May 2024. The cross-sectional design was selected because it enables simultaneous evaluation of the relationship between independent variables (demographic characteristics, knowledge, and motivation) and the dependent variable (medication adherence) at a single point in time (Adiputra et al., 2021). While this design is efficient in terms of time and resources, it has an important limitation: it cannot establish causal relationships, as it does not account for temporal sequence (i.e., which factor occurred first). Therefore, the primary strength of this design lies in its ability to demonstrate associations rather than causality (Wang & Cheng, 2020).

2. Sample Size and Technique

The study population comprised all hypertensive patients who visited the Kebayoran Baru Community Health Center in December 2023, totaling 137 individuals. Respondents were selected using purposive sampling based on predefined inclusion criteria.

The required sample size was calculated using Slovin’s formula, as the population size was known and resource considerations necessitated a balance between feasibility and statistical precision. A 10% margin of error ($e = 0.1$) was applied, which is considered acceptable for small populations (Sugiyono, 2021):

$$n = \frac{N}{1 + N(e^2)}$$

$$n = \frac{137}{1 + 137 (0,10)^2}$$

$$n = \frac{137}{1 + 137 (0,01)}$$

$$n = \frac{137}{1 + 1,4}$$

$$n = \frac{137}{2,37}$$

$$n = 57,80 \quad n = 58$$

To account for potential dropouts or missing data, the sample size was increased by 10%, resulting in a final sample of 64 respondents. This number was considered sufficient to represent the population with an acceptable margin of error while balancing time and resource constraints. This approach is consistent with Amin et al. (2023), who emphasized that sample size determination should consider resource availability (funding, time, and manpower), noting that a smaller margin of error requires greater resources and vice versa.

3. Data Collection Process

Data were collected directly by the researchers through respondent participation. Eligible participants met the following inclusion criteria: (a) diagnosed with hypertension for more than one year, (b) with or without comorbidities or complications, (c) able to communicate effectively, and (d) willing to participate in the study.

4. Research Instruments

The research instrument was a structured questionnaire consisting of three main variables: knowledge, motivation, and medication adherence. The knowledge and motivation instruments were adapted from Pratiwi et al. (2020), with a validity coefficient of 0.361 and a reliability coefficient of 0.954. Medication adherence was measured using

the Morisky Medication Adherence Scale (MMAS-8), which has been widely validated ($r = 0.763$) and demonstrated good reliability ($\alpha = 0.76$).

5. Data Analysis

Data analysis was conducted in two stages: univariate and bivariate analysis. Univariate analysis was used to describe the frequency distribution of demographic characteristics, knowledge levels, motivation, and medication adherence. Bivariate analysis was performed to examine the associations between demographic characteristics, knowledge, and motivation with medication adherence using the Chi-square test and Kendall’s Tau-c/b test. A significance level of $p < 0.05$ was applied.

6. Research Ethics

This study adhered to the principles of research ethics, including respect for human dignity, beneficence (doing good), and non-maleficence (avoiding harm). Ethical approval was obtained under permit number 077/Riset.Akd.Eks/S1Kep/IV/2024 and ethics clearance number 022/KEPPKSTIKSC/IV/2024.

RESULT

1. Univariate Analysis

The distribution of respondent characteristics ($n = 64$) is presented in Table 1. Most respondents were aged 46–60 years (81.2%), with a nearly balanced gender distribution (51.6% male and 48.4% female). Educational attainment varied, with 42.2% holding a bachelor’s degree or diploma, 35.9% completing senior or vocational high school, and 21.9% completing only elementary or middle school. Employment status was evenly distributed, with 51.6% employed and 48.4% unemployed. The majority of respondents (75%) had been diagnosed with hypertension for more than five years.

In terms of psychosocial and behavioral variables, 73.4% of respondents demonstrated high knowledge about hypertension, and 85.9% had high motivation. However, only 35.9% reported high medication adherence, indicating a notable gap between knowledge, motivation, and actual treatment behavior.

Table 1. Frequency distribution of respondent characteristics and research variables ($n = 64$)

| Responden Characteristics | Frequency | Percentage (%) |
|---------------------------|-----------|----------------|
| Age | | |
| 18-25 Years | 8 | 12,5% |
| 26-45 Years | 4 | 6,3% |
| 46-60 Years | 56 | 81,2% |
| Gender | | |
| Male | 33 | 51,6% |

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| | | |
|---|----|-------|
| Female | 31 | 48,4% |
| Education | | |
| Elementary/Middle School | 14 | 21,9% |
| Senior High School/Vocational High School | 24 | 35,9% |
| Bachelor's/Diploma | 26 | 42,2% |
| Employment Status | | |
| Employed | 33 | 51,6% |
| Unemployed | 31 | 48,4% |
| Duration of Hypertension | | |
| ≥ 5 Years | 16 | 25% |
| 5 Years | 48 | 75% |
| Knowledge | | |
| Low | 17 | 26,6% |
| High | 47 | 73,4% |
| Motivation | | |
| Low | 9 | 14,1% |
| High | 55 | 85,9% |
| Medication Adherence | | |
| Low | 41 | 64,1% |
| High | 23 | 35,9% |

2. Bivariate Analysis

Bivariate analysis was conducted to examine the association between respondent characteristics and adherence to antihypertensive medication (Table 2). The results demonstrated a statistically significant relationship between education level, knowledge, and motivation and medication adherence ($p < 0.05$).

Respondents with higher education were nearly three times more likely to adhere to their medication regimen compared to those with lower education (OR = 2.89; 95% CI: 1.14–7.31). This finding suggests that educational attainment enhances the ability to understand the importance of sustained antihypertensive therapy. Motivation also emerged as an important factor: respondents with

high motivation were more than five times more likely to adhere than those with low motivation (OR = 5.28; 95% CI: 0.56–49.5). Similarly, respondents with higher knowledge levels had 1.46 times greater odds of adherence compared to those with lower knowledge (OR = 1.46; 95% CI: 0.29–7.33). However, because the confidence intervals for both knowledge and motivation included 1, these associations, although significant by p-value, should be interpreted cautiously.

In contrast, no significant relationship was found between medication adherence and age, gender, employment status, or duration of hypertension ($p > 0.05$). These findings indicate that demographic factors did not significantly influence adherence in this study population.

Table 2. Relationship between respondent characteristics and medication adherence (n = 64)

| Variables | Medication Adherence | | | | p-value | OR | Confidence Interval (95%) |
|---------------------------------|----------------------|------|----------|------|---------|--------|---------------------------|
| | Non-adherent | % | Adherent | % | | | |
| Age | | | | | 0.867 | – | – |
| 18–25 years | 5 | 62.5 | 3 | 37.5 | | | |
| 26–45 years | 3 | 75.0 | 1 | 25.0 | | | |
| 46–60 years | 33 | 63.5 | 19 | 36.5 | | | |
| Gender | | | | | 0.942 | – | – |
| Male | 21 | 63.6 | 12 | 36.4 | | | |
| Female | 20 | 64.5 | 11 | 35.5 | | | |
| Education | | | | | 0.001* | 2.885* | 1.140–7.305 |
| Elementary/Middle | 12 | 85.7 | 2 | 14.3 | | | |
| High School/Vocational | 18 | 75.0 | 6 | 25.0 | | | |
| Bachelor/Diploma | 11 | 42.3 | 15 | 57.7 | | | |
| Employment Status | | | | | 0.942 | – | – |
| Employed | 21 | 63.6 | 12 | 36.4 | | | |
| Unemployed | 20 | 64.5 | 11 | 35.5 | | | |
| Duration of Hypertension | | | | | 0.881 | – | – |
| <5 years | 10 | 62.5 | 6 | 37.5 | | | |
| ≥5 years | 31 | 64.6 | 17 | 35.4 | | | |
| Knowledge | | | | | 0.041* | 1.461* | 0.291–7.325 |

| Variables | Medication Adherence | | | | p-value | OR | Confidence Interval (95%) |
|-------------------|----------------------|------|----------|------|---------|--------|---------------------------|
| | Non-adherent | % | Adherent | % | | | |
| Low | 14 | 82.4 | 3 | 17.6 | 0.046* | 5.280* | 0.563–49.50 |
| High | 27 | 57.4 | 20 | 42.6 | | | |
| Motivation | | | | | | | |
| Low | 8 | 88.9 | 1 | 11.1 | | | |
| High | 33 | 60.0 | 22 | 40.0 | | | |

Notes: OR = Odds Ratio; *p < 0.05 (significant)

DISCUSSION

1. Univariate Analysis

1.1 Age

Age is a major risk factor for hypertension. In this study, most respondents (81%) were aged 46–80 years, a group that physiologically experiences baroreceptor decline and vascular aging, leading to arterial stiffness (Shaulian et al., 2022). Interestingly, 12.5% of respondents aged 18–25 years were also diagnosed with hypertension. Meher et al. (2023) identified obesity and unhealthy lifestyles as dominant contributors among young adults, while Rusmawati et al. (2023) noted that limited access to sufficient and nutritious food in developing countries, including Indonesia, also plays a role.

1.2 Gender

The majority of hypertensive patients at the Kebayoran Baru Community Health Center were male (51.6%). This is consistent with findings by Rahayuni et al. (2024), who reported that men are more prone to hypertension due to risk factors such as smoking, alcohol consumption, and occupational stress. Jareebi (2024) also observed that cultural normalization of smoking among men increases the risk of systolic hypertension, particularly in older age groups. However, this contrasts with Ryczkowska et al. (2023), who found that postmenopausal women are at greater risk due to estrogen decline.

1.3 Education

In this study, 42.2% of hypertensive respondents held a diploma or university degree. Higher education does not necessarily protect against hypertension, particularly when associated with high-demand occupations, chronic stress, and unhealthy lifestyles (Khonde Kumbu et al., 2023). Stress activates the sympathetic nervous system, releasing catecholamines that increase heart rate and blood pressure (Pereira-Figueiredo & Umeoka, 2024). The relatively high percentage of respondents with higher education may reflect the socioeconomic profile of South Jakarta, consistent with Astrid et al. (2021), who reported that more than half of hypertensive respondents in their study had higher education.

1.4 Employment status

The sample showed a balanced distribution between employed (51.6%) and unemployed (48.4%) respondents. Occupational stress among employed

individuals may contribute to hypertension risk through sympathetic activation and catecholamine release (Pereira-Figueiredo & Umeoka, 2024). However, similar prevalence among unemployed respondents, such as retirees and homemakers, suggests that age-related physiological changes remain a dominant risk factor (Shaulian et al., 2022).

1.5 Duration of hypertension

Most respondents (75%) had lived with hypertension for 1–5 years and regularly attended follow-up visits at the health center, likely due to the implementation of the Chronic Disease Management Program (Program Pengelolaan Penyakit Kronis/Prolanis). This aligns with Astrid et al. (2021), who reported that patients with 1–5 years of hypertension were more likely to access health services and adopt lifestyle modifications. However, Hamrahian et al. (2022) found that less than 60% of patients continued therapy after two years, often due to inadequate medication adjustment, which can undermine motivation for long-term adherence.

1.6 Knowledge

Respondents generally demonstrated high levels of knowledge about hypertension, supported by educational activities at the health center and Chronic Disease Management Program (Program Pengelolaan Penyakit Kronis/Prolanis). According to the Health Literacy Theory, the ability to acquire and comprehend health information is essential for adopting healthy behaviors, including medication adherence (Rosaline & Rahmah, 2023). This finding is consistent with Prihatin et al. (2022), who highlighted the role of health personnel in enhancing patient knowledge. Practical tools such as pillboxes have also been shown to improve adherence, particularly among older adults (Gentizon et al., 2022).

1.7 Motivation

Most respondents exhibited high motivation, with interviews indicating a strong willingness to follow medical advice and take medication consistently. This aligns with the Health Belief Model, which posits that the desire to avoid illness and belief in treatment effectiveness influence preventive behavior (Rosaline & Rahmah, 2023). Tri Wijayanti et al. (2024) emphasized that intrinsic motivation is critical for maintaining blood pressure control, while Asmoro et al. (2025) reported that motivation is

positively associated with better health knowledge and adherence, including regular visits for monitoring.

1.8 Medication adherence

Medication adherence was suboptimal, with 63.6% of respondents occasionally forgetting to take their medication, 51.5% not carrying medication while traveling, and 53% reporting non-adherence within the last two weeks. This may be explained by the older age of most respondents, as forgetfulness is more common in this group. Astrid et al. (2021) similarly reported that 60.7% of hypertensive patients at Hospital X in Bekasi exhibited poor adherence.

2. Bivariate Analysis

2.1 Relationship between age and adherence medication

Age is frequently considered a determinant of adherence to antihypertensive therapy, although previous studies have reported inconsistent findings. In the present study, most respondents were older adults (46–80 years) and tended to show lower adherence. Cognitive decline, such as reduced memory capacity and difficulty remembering medication schedules, was identified as a primary contributor to non-adherence. This is consistent with Abbas et al. (2020), who reported that aging impairs short-term memory, thereby directly affecting adherence to antihypertensive treatment. Questionnaire data in this study further supported this, as many respondents admitted to frequently forgetting their medication.

Nonetheless, some older adults exhibited high levels of adherence. This finding aligns with the Health Belief Model (HBM), which emphasizes that the perceived threat of illness and belief in the effectiveness of treatment are key drivers of health behavior (Rosaline & Rahmah, 2023). Wawomeo et al. (2022) similarly observed that elderly patients with strong family support demonstrated better adherence, while Togatorop (2024) highlighted that family involvement enhances psychosocial well-being and motivates older adults to follow treatment. Older patients who feel valued and supported by their families are often more committed to recovery, which positively influences adherence and overall quality of life.

Thus, age should not be regarded as the sole determinant of adherence. Other factors, particularly intrinsic and extrinsic motivation, play an equally important role in shaping adherence to antihypertensive medication.

2.2 Relationship between gender and adherence medication

This study did not find a significant difference in adherence between male and female patients, even though the World Health Organization (WHO, 2021) has emphasized the complex interactions between sex and gender that influence health

behaviors, including health-seeking, service access, treatment response, and health outcomes. Women are often considered more proactive in health care.

In a large population-based study in Italy, Rea et al. (2020) examined new users of antihypertensive medications (50% women) and reported that 30% of patients experienced at least one episode of therapy discontinuation within one year of follow-up. Male patients demonstrated better adherence (53% vs. 42%), a 10% lower risk of discontinuation, and greater persistence, regardless of age or type of medication. However, no significant differences were observed in patients with more severe comorbidities or those prescribed combination therapy.

In contrast, a study by Biffi et al. (2020) involving 174 patients (48% women) with poorly controlled blood pressure despite being prescribed three or more antihypertensive medications found an overall non-adherence rate of 40%. Female patients were three times more likely to be non-adherent than male patients after adjusting for confounding variables. The study also revealed an independent positive association between the number of medications and non-adherence, indicating that the greater the number of prescribed drugs, the higher the likelihood of non-adherence.

In summary, the role of gender in determining adherence to antihypertensive therapy remains inconclusive. The inconsistent findings may be explained by methodological limitations, including variations in adherence assessment methods, differences in cultural and demographic characteristics of study populations, and discrepancies in inclusion criteria and outcome measures. Further research is therefore required to clarify the influence of gender on adherence among hypertensive patients.

2.3 Relationship between education and adherence medication

Education significantly influenced medication adherence in hypertensive patients. In this study, 57.7% of respondents with higher education (university degree or diploma) adhered to their medication regimen at a higher rate than those with lower levels of education.

Higher education was associated with better adherence, consistent with Health Literacy Theory, which posits that the ability to locate and comprehend health information is essential for applying it in daily life. Improved health literacy promotes better health behaviors, including medication adherence. Higher education facilitates understanding of health information and cultivates awareness of the importance of treatment (Rosaline & Rahmah, 2023).

This finding was consistent with Zou et al. (2024), who demonstrated that patients with higher levels of health literacy tend to have greater self-confidence in their own abilities, ultimately leading to better self-management.

However, some highly educated respondents were still non-adherent due to occupational demands. This aligns with the findings of Kvarnström et al. (2021), who reported that the demands of daily routines could negatively affect medication adherence, often resulting in missed doses. Tri Wijayanti et al. (2024) further emphasized the importance of intrinsic motivation, noting that intrinsically motivated patients are more likely to recognize the importance of maintaining stable blood pressure to prevent complications such as stroke and heart disease. This awareness encourages greater discipline in taking medication, adopting a healthy lifestyle, and engaging in responsible treatment behavior. Therefore, education alone is not sufficient without the support of personal motivation and commitment.

2.4 Relationship between employment status and adherence medication

This study found no significant association between employment status and medication adherence among hypertensive patients. This may have been attributed to the fact that working respondents tended to have demanding schedules, which could lead to lapses in medication intake, as noted by Astrid et al. (2021). These findings were also supported by Kvarnström et al. (2021), who emphasized that daily routine demands could interfere with treatment adherence, often resulting in missed doses.

However, adherence levels were relatively similar between employed respondents (36.4%) and unemployed respondents (35.5%). This suggests that other factors, such as self-motivation, may play a more substantial role in influencing adherence. Tri Wijayanti et al. (2024) highlighted the importance of intrinsic motivation, explaining that intrinsically motivated patients are more likely to recognize the importance of maintaining stable blood pressure to prevent complications such as stroke and heart disease. This awareness encourages greater discipline in taking medication and adopting a healthy lifestyle. Therefore, education alone was not sufficient without support from personal motivation.

According to the researchers' analysis, non-adherence among unemployed respondents, such as retirees and housewives, most of whom were elderly, was largely due to age-related factors and cognitive decline, particularly forgetfulness.

2.5 Relationship between length of hypertension and adherence medication

The results of this study indicated that there was no significant relationship between the duration of hypertension and the level of medication adherence ($p = 0.881$). This finding was consistent with Astrid et al. (2021) and Prihatin et al. (2022), who stated that the duration of hypertension does not always influence adherence, as other factors, such as

motivation, educational level, and the number of medications taken, play a more prominent role.

The Common-Sense Model (CSM) explains that a person's perception of their health condition and illness, along with their subjective experiences, influences how they cognitively and emotionally regulate themselves when facing health challenges. This process contributes to a deeper understanding of a patient's illness perception and its impact on behavioral choices and self-management strategies (Huang et al., 2024).

In this study, patients who had been living with hypertension for five years or more were found to be more adherent due to concerns about potential complications. However, the majority exhibited poor adherence due to therapy fatigue and the complexity of their treatment regimens. This was consistent with findings by Y. Wang et al. (2025), who reported that patients with a longer duration of hypertension tend to become accustomed to their condition and neglect treatment, whereas newly diagnosed patients are generally more vigilant.

This study also acknowledged the limitation of not evaluating the number of medications taken as a variable in the analysis. Nevertheless, no significant reports of side effects from medications were found during interviews with respondents. However, Di et al. (2025) revealed that the most common side effects of amlodipine include edema, dizziness, flushing, and tachycardia. These side effects not only directly impact.

2.6 Relationship between knowledge and adherence to taking medication

The results of the Kendall's tau-b test showed a significant relationship between knowledge and medication adherence among hypertensive patients at the Kebayoran Baru Community Health Center, with a p-value of 0.041 ($p < 0.05$). This finding was consistent with Health Literacy Theory, which emphasizes that the ability to access and understand health information is fundamental to performing health-related actions, including medication adherence. Education level enhances comprehension of health information, increasing awareness of the importance of treatment (Rosaline & Rahmah, 2023).

Consistent with this finding, Zou et al. (2024) reported that patients with higher health literacy exhibited greater self-efficacy and self-management skills. Liu et al. (2024) found that individuals with competent health literacy demonstrated a clearer understanding of their health status and better mastery of necessary health knowledge and skills. These capabilities promoted optimal self-management, reduced negative outcomes, enabled effective use of health risks, and improved blood pressure control.

Overall, the results aligned with Wu et al. (2022), who concluded that enhanced knowledge

leading to improved self-care literacy fosters sustained health management behaviors.

2.7 Relationship between motivation and adherence to taking medication

The results of the Kendall's tau-c test showed a significant relationship between motivation and medication adherence among hypertensive patients at the Kebayoran Baru Public Health Center. Most adherent respondents had at least upper-middle education, which further reinforced their motivation to comply with treatment.

This finding was consistent with the Health Belief Model (HBM), which posits that the intention to avoid disease and belief in preventive or curative health actions are key drivers of behavior. Individuals with poor health perceptions are more likely to neglect their condition (Rosaline & Rahmah, 2023).

The results were supported by Tri Wijayanti et al. (2024), who emphasized that intrinsic motivation is essential. Patients drawing from internal conviction were better able to recognize the importance of maintaining blood pressure stability to prevent complications such as stroke and heart disease. Awareness of treatment importance led to disciplined medication intake, healthy lifestyle practices, and responsible health management. High motivation levels were reflected in questionnaire responses, where most respondents reported perceiving the importance of adhering to physicians' prescriptions.

Nevertheless, non-adherence was still observed among some respondents with high levels of motivation (60%), indicating that internal motivation alone was not sufficient. Such motivation needs to be supported by environmental factors, such as family support (Wawomeo et al., 2022). Tjahjono (2025) also demonstrated that motivational interviewing can be utilized by healthcare professionals as a counseling approach to encourage behavioral change, address patient ambivalence, and sustain long-term motivation.

Therefore, intrinsic motivation driven by internal factors, such as belief in the benefits of treatment, must be reinforced by external support, including family involvement and healthcare provider engagement, to optimally improve patients' adherence to antihypertensive treatment.

CONCLUSION

This study demonstrated a significant relationship between education level, knowledge, and motivation with medication adherence among hypertensive patients, whereas age, gender, employment status, and duration of illness were not significantly associated. Overall adherence rates remained relatively low. Primary health centers are encouraged to enhance routine patient education, implement structured supervision for elderly patients,

and develop more engaging counseling programs on hypertension management. Patients are advised to actively participate in community-based initiatives such as the Chronic Disease Management Program (Program Pengelolaan Penyakit Kronis/Prolanis). Future research should include additional variables, such as family support and patient attitudes, to gain a more comprehensive understanding of adherence. Community nurses are also recommended to play an active role in strengthening patient motivation, delivering regular adherence education, and involving families in treatment monitoring. Furthermore, the integration of adherence screening into primary care visits should be considered to support sustainable blood pressure control.

Conflict of Interest

The authors declare no conflict of interest

Acknowledgments

The authors express their sincere appreciation to all respondents for their participation and willingness to provide valuable information. Gratitude is also extended to the healthcare providers and colleagues who supported the research process.

Funding

No funding

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