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THE RELATIONSHIP BETWEEN THE NURSE'S ROLE AS EDUCATOR AND MEDICATION ADHERENCE IN HYPERTENSIVE PATIENTS

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ABSTRACT

Background: Hypertension has become a public health problem in the community. According to data from the Jambi City Health Office, there were 7,063 cases of hypertension at the Pakuan Baru Community Health Center (Puskesmas), one cause of which is medication non-adherence. The role of nurses as educators is needed for the success of treatment and lifestyle changes. **Purpose:** This study aimed to determine the relationship between the nurse's role as educator and medication adherence among hypertensive patients in the working area of Pakuan Baru Public Health Center, Jambi City.
Methods: his was a quantitative study using a cross-sectional design. The study population consisted of all hypertensive patients in the working area of Pakuan Baru Community Health Center, Jambi City, totaling 7,063 people, with a sample of 95 respondent's selected using purposive sampling technique. Data were collected using a nurse's role as educator questionnaire and the Morisky Medication Adherence Scale-8 (MMAS-8) questionnaire. Data analysis was conducted using univariate and bivariate analysis with the Chi-square test. **Results**: The results showed that 53 respondents (55.8%) rated the nurse's role as educator in the good category, 46 respondents (48.4%) had moderate medication adherence, and there was a significant relationship between the nurse's role as educator and medication adherence among hypertensive patients, with a p-value = 0.001. **Conclusion**: There is a relationship between the nurse's role as educator and medication adherence among hypertensive patients. It is recommended that the Puskesmas ensure nurses have a consistent schedule for providing continuous, structured, and easily understandable health education to improve medication adherence among hypertensive patients.

Keywords: Hypertension, Medication Adherence, Nurse's Role as Educator

INTRODUCTION

Hypertension is a non-communicable disease whose prevalence continues to increase with age and changes in people's lifestyles. Degenerative diseases are chronic conditions that affect a person's quality of life and productivity, and are closely related to long-term management (Manurung, 2018). Globally, the prevalence of hypertension in adults ranges from 30–45% and increases progressively with age, with a prevalence of more than 60% in the age group above 60 years. The prevalence of hypertension is increasing fastest in developing countries, where hypertension treatment is still difficult to control, contributing to the growing epidemic of cardio-cerebrovascular disease (Kemenkes RI, 2021). The World Health Organization (2023) reported that approximately 1.28 billion adults aged 30–79 years worldwide suffer from hypertension, most of whom live in low- and middle-income countries, and nearly half of them are unaware of their condition. In Indonesia, the prevalence of hypertension in 2023 was

recorded at 30.8%, a decrease compared to 2018 (34.1%), but this figure remains quite high, especially among the productive age group (Kemenkes RI, 2023).

Hypertension generally progresses without symptoms, but in advanced, untreated cases it can cause headaches, shortness of breath, easy fatigue, blurred vision, and even loss of consciousness (Kartini, 2023). If left uncontrolled, hypertension can lead to serious complications such as heart disease, stroke, and chronic kidney disease. One key to preventing these complications is patient adherence to taking antihypertensive medication routinely and regularly, and in this regard nurses play an important role as educators who provide information about the disease, treatment, and lifestyle changes to patients (Asriwati, 2019; Luthfia, 2025). Through effective communication and appropriate education, nurses can improve patient understanding, foster positive attitudes, and encourage patient independence in medication management to prevent complications (Berardinelli et al., 2024).

Several previous studies support the existence of a relationship between the nurse's role as educator and medication adherence in hypertensive patients. Ulfa (2024) found that most of 83 respondents rated the nurse's role as educator as still poor and had low medication adherence, with a p-value of 0.001. Daling (2024) also reported a significant relationship between the two variables ($p = 0.019$), while Muhadzir (2025) found a significant relationship with a p-value of 0.028. Rakhmawanto (2025) added that of 96 respondents, a good nurse role rating was largely followed by moderate to high adherence levels, with a significant relationship ($p = 0.001$). Based on the explanations above, both theoretically and from the research findings, the nurse's role as educator can improve medication adherence. This educational role includes explaining the definition of hypertension, the success of treatment, and the further consequences or complications that can occur due to medication non-adherence.

The results of a preliminary survey conducted by the researcher in November 2025 on 10 hypertensive patients at Pakuan Baru Public Health Center, Jambi City, found that only 3 people (30%) adhered to taking their medication on schedule, while 7 people (70%) were non-adherent due to forgetfulness, feeling they had already recovered, or experiencing drug side effects. Most of them also admitted to lacking detailed information about the long-term impact of uncontrolled hypertension. Pakuan Baru Public Health Center is also the health center with the highest number of hypertensive patient visits in Jambi City in 2024. Based on the above description, this study aimed to determine the relationship between the nurse's role as educator and medication adherence in hypertensive patients in the working area of Pakuan Baru Public Health Center, Jambi City, in 2026. The novelty of this study lies in examining medication adherence in relation to the nurse's role in providing education, including the educational content, personal approach, and video shown during the education session.

METHODS

This study was a quantitative study with a cross-sectional design aimed at determining the relationship between the nurse's role as educator and medication adherence in hypertensive patients. The study was conducted in the working area of Pakuan Baru Public Health Center, Jambi City, from June 22 to July 6, 2026. The study population comprised all hypertensive

patients who visited Pakuan Baru Public Health Center, Jambi City, in 2024, totaling 7,063 people (Arikunto, 2016). The sample size was calculated using the Lemeshow formula and yielded 95 respondents selected using the purposive sampling technique (Sugiyono, 2018), based on inclusion criteria (hypertensive patients ≥5 years without complications who visited the health center) and exclusion criteria (unable to read and write, and uncooperative).

The nurse's role as educator variable was measured using a Likert-scale questionnaire consisting of 10 questions with four response options (never, sometimes, often, and always). The questionnaire had been tested for validity and reliability on 10 respondents at Talang Banjar Public Health Center, Jambi City, with calculated r-values of 0.733–0.914 (r-table 0.631) and a Cronbach's Alpha value of 0.969, indicating that the instrument was valid and reliable. The medication adherence variable was measured using the Morisky Medication Adherence Scale (MMAS-8) questionnaire, which has been validated (Cabral et al., 2018), with categories of high adherence (score 8), moderate (score 6–<8), and low (score <6).

Data were analyzed univariately to describe respondent characteristics and the profile of each variable, and bivariately using the Chi-square test to examine the relationship between the nurse's role as educator and medication adherence, with a significance level of 5% ($\alpha = 0.05$) (Notoatmodjo, 2018). This study obtained ethical clearance from the Health Research Ethics Commission under Number LB.02.06/2/0298/2026, and each respondent signed an informed consent form prior to data collection, with the principles of respondent anonymity and data confidentiality maintained throughout.

RESULTS

This study was conducted in the working area of Pakuan Baru Public Health Center, Jambi City, from June 22 to July 6, 2026, involving 95 respondents.

Table 1. Frequency Distribution of Respondents by Characteristics among Hypertensive Patients in the Working Area of Pakuan Baru Public Health Center, Jambi City

Characteristic	n	%
Age		
18–44 Years (Early Adulthood)	26	27.4
45–59 Years (Late Adulthood)	69	72.6
Sex		
Male	28	29.5
Female	67	70.5
Last Education		
Elementary School	13	13.7
Junior High School	20	21.1
Senior High School	53	55.8
Higher Education	9	9.5
Total	**95**	**100**

Based on Table 1, most respondents were aged 45–59 years (late adulthood), totaling 69 respondents (72.6%), were female, totaling 67 respondents (70.5%), and had completed senior high school, totaling 53 respondents (55.8%).

Table 2. Frequency Distribution of Respondents by Nurse's Role as Educator in the Working Area of Pakuan Baru Public Health Center, Jambi City

Nurse's Role as Educator	n	%
Good	53	55.8
Poor	42	44.2
Total	95	100

Based on Table 2, most respondents rated the nurse's role as educator in the good category, totaling 53 respondents (55.8%).

Table 3. Frequency Distribution of Respondents by Medication Adherence among Hypertensive Patients in the Working Area of Pakuan Baru Public Health Center, Jambi City

Medication Adherence	n	%
High	23	24.2
Moderate	46	48.4
Low	26	27.4
Total	95	100

Based on Table 3, most respondents had moderate medication adherence, totaling 46 respondents (48.4%).

Table 4. Relationship between the Nurse's Role as Educator and Medication Adherence among Hypertensive Patients in the Working Area of Pakuan Baru Public Health Center, Jambi City

Nurse's Role	High n (%)	Moderate n (%)	Low n (%)	Total n (%)	p-value
Good	18 (34.0)	28 (52.8)	7 (13.2)	53 (100.0)	0.001
Poor	5 (11.9)	18 (42.9)	19 (45.2)	42 (100.0)	
Total	**23 (24.2)**	**46 (48.4)**	**26 (27.4)**	**95 (100.0)**	

Table 4 shows that of the 53 respondents who rated the nurse's role as good, most had moderate adherence, totaling 28 respondents (52.8%), while of the 42 respondents who rated the nurse's role as poor, most had low adherence, totaling 19 respondents (45.2%). The Chi-square test yielded a p-value = 0.001 ($p < 0.05$), indicating a significant relationship between the nurse's role as educator and medication adherence among hypertensive patients in the working area of Pakuan Baru Public Health Center, Jambi City

DISCUSSION

Nurse's Role as Educator

The results showed that most respondents rated the nurse's role as educator in the good category (55.8%). This finding is consistent with Rakhmawanto's (2025) study at Larangan Utara Public Health Center, Tangerang City, which showed the nurse's role as educator was rated good by 70.8% of respondents, as well as Manoppo et al.'s (2018) study at Tahuna Timur Public Health Center, which showed similar results (74.8%). The nurse's role as educator includes delivering health information, demonstrating skills, facilitating discussion, providing motivation, and evaluating learning outcomes (Wijayanti, 2024; Akbar, 2019). PPNI (2021) affirms that nurses have a professional responsibility to provide comprehensive health education to patients, families, and communities, while Potter and Perry (2021) explain that education provided by

nurses helps patients acquire the knowledge and skills needed for self-care and improves adherence to therapy. The good rating given by respondents is thought to be related to the delivery of education using easily understood language, accompanied by a friendly and communicative attitude among nurses in the working area of Pakuan Baru Public Health Center, Jambi City.

Medication Adherence

Most respondents had moderate medication adherence (48.4%). This result is consistent with Juniarti's (2023) study in Talang Jawa Village, Baturaja, which showed a moderate adherence level in 49.4% of respondents, although it differs from Annisa's (2024) findings, which reported a high adherence level in 58.6% of respondents. Adherence is a form of active patient involvement in managing their illness in accordance with healthcare providers' recommendations (Ulfa, 2020; Nuridayanti, 2024). The International Society of Hypertension (2020) affirms that adherence to antihypertensive therapy is a key factor in successful blood pressure control, and non-adherent patients are at higher risk of cardiovascular complications. The moderate adherence level found in this study is thought to be influenced by respondent characteristics, most of whom had completed senior high school and were in late adulthood, making them reasonably able to receive health information (Notoatmodjo, 2018); however, this understanding has not been fully translated into consistent medication-taking behavior, for example due to forgetfulness or discontinuation of treatment once symptoms subside.

Relationship between the Nurse's Role as Educator and Medication Adherence

The results of the bivariate analysis showed a significant relationship between the nurse's role as educator and medication adherence in hypertensive patients (p-value = 0.001). The better the nurse's role as educator perceived by patients, the higher their adherence to taking antihypertensive medication. This finding is consistent with Muhadzir's (2025) study, which showed a significant relationship with a p-value of 0.028, as well as Rakhmawanto's (2025) study, which found a significant relationship (p = 0.001) between the two variables. The World Health Organization (2013) explains that adherence to long-term therapy is influenced by five dimensions, one of which is the healthcare system and health workforce factor, in which effective communication and continuous education from health workers improve patient adherence. This is also supported by the National Guidelines for Medical Services in the Management of Adult Hypertension (Kemenkes RI, 2021), which emphasize that successful hypertension control depends not only on medication but also requires continuous education from health workers. Nurses, as the health workers who most frequently interact directly with patients, hold a strategic role in improving patients' understanding of the benefits and risks of treatment, thereby encouraging patients to be more adherent to antihypertensive therapy.

This study has several limitations, including the use of a self-report questionnaire that may introduce information bias, a cross-sectional design that cannot establish causal relationships, and a study scope limited to a single health center working area, so the results cannot be broadly generalized.

CONCLUSIONS

This study concludes that most respondents rated the nurse's role as educator in the good category (55.8%) and had moderate medication adherence (48.4%). There was a significant relationship between the nurse's role as educator and medication adherence among hypertensive patients in the working area of Pakuan Baru Public Health Center, Jambi City, in 2026 (p-value = 0.001), meaning that the better the nurse's role as educator, the higher the patients' medication adherence. It is recommended that Pakuan Baru Public Health Center, Jambi City, continue to improve the nurse's role as educator by providing continuous, structured, and easily understood health education, and that future researchers develop this study further using a design capable of revealing causal relationships and a broader regional scope.

REFERENCES

1. Akbar, 2019. Buku Ajar Konsep-Konsep Dasar dalam Keperawatan Komunitas. Yogyakarta: Deepublish Publisher.
2. Annisa, 2024. Analisis kepatuhan minum obat pada penderita hipertensi. Jurnal Media Keperawatan: Politeknik Kesehatan Makassar, 15(2).
3. Arikunto, S., 2016. Prosedur Penelitian: Suatu Pendekatan Praktik. Jakarta: Rineka Cipta.
4. Asriwati, 2019. Buku Ajar Antropologi Kesehatan dalam Keperawatan. Yogyakarta: Deepublish Publisher.
5. Berardinelli, D., Conti, A., Hasnaoui, A., Casabona, E., Martin, B., Campagna, S. and Dimonte, V., 2024. Nurse-led interventions for improving medication adherence in chronic diseases: a systematic review. Healthcare, 12(23), p.2337.
6. Cabral, M., Moura-Ramos, M., Castel-Branco, M., Fernandez-Llimos, F. and Figueiredo, I.V., 2018. Cross-cultural adaptation and validation of a European Portuguese version of the 8-item Morisky Medication Adherence Scale. Revista Portuguesa de Cardiologia, 37(4), pp.297–303.
7. Daling, 2024. Hubungan peran perawat sebagai edukator dengan kepatuhan minum obat pada pasien hipertensi di Puskesmas Bitung Barat. Jurnal Riset Rumpun Ilmu Kesehatan (JURRIKES), 3(1).
8. International Society of Hypertension (ISH), 2020. Global Hypertension Practice Guidelines. Geneva: ISH.
9. Juniarti, 2023. Tingkat pengetahuan dengan kepatuhan minum obat pada penderita hipertensi. Cendekia Medika: Jurnal STIKES Al-Ma'arif Baturaja, 8(1).
10. Kartini, 2023. Epidemiologi Penyakit Tidak Menular. Purbalingga: Eureka Media Aksara.
11. Ministry of Health of the Republic of Indonesia (Kemenkes RI), 2021. Pedoman Nasional Pelayanan Kedokteran Tata Laksana Hipertensi Dewasa. Jakarta: Kemenkes RI.

12. Ministry of Health of the Republic of Indonesia (Kemenkes RI), 2023. Survei Kesehatan Indonesia. Jakarta: Kemenkes RI.

13. Luthfia, 2025. Peran Tenaga Kesehatan dalam Pengelolaan Hipertensi. Jakarta: PT Optimal Untuk Negeri.

14. Manoppo, E.O., Masi, G.M. and Silolonga, W., 2018. Hubungan peran perawat sebagai edukator dengan kepatuhan penatalaksanaan hipertensi di Puskesmas Tahuna Timur. e-Journal Keperawatan (e-Kp), 6(1).

15. Manurung, N., 2018. Keperawatan Medikal Bedah. Jakarta: Trans Info Media.

16. Muhadzir, 2025. Hubungan peran perawat sebagai edukator dengan kepatuhan minum obat pada pasien hipertensi. Jurnal Kesehatan Jompa, 4(2).

17. Notoatmodjo, S., 2018. Metode Penelitian Kesehatan. Jakarta: Rineka Cipta.

18. Nuridayanti, 2024. Edukasi Diet dan Terapi Obat pada Penderita Hipertensi. Jakarta: NEM.

19. Persatuan Perawat Nasional Indonesia (PPNI), 2021. Kode Etik Perawat Indonesia. Jakarta: DPP PPNI.

20. Potter, P.A., Perry, A.G., Stockert, P.A. and Hall, A.M., 2021. Fundamentals of Nursing. 10th ed. St. Louis: Elsevier.

21. Rakhmawanto, 2025. Hubungan peran perawat sebagai edukator dengan kepatuhan minum obat pada pasien hipertensi di Puskesmas Larangan Utara Kota Tangerang Tahun 2024. Jurnal Ilmu Kesehatan dan Keperawatan, 3(1).

22. Sugiyono, 2018. Metode Penelitian Kuantitatif, Kualitatif, dan R&D. Bandung: Alfabeta.

23. Ulfa, 2020. Medication Picture dan Pill Count pada Kepatuhan Minum Obat Penderita Diabetes Mellitus dan Hipertensi. Gresik: Graniti.

24. Ulfa, 2024. Hubungan peran perawat sebagai edukator dengan kepatuhan minum obat pada penderita hipertensi di Wilayah Kerja Puskesmas Langsa Timur. Public Health Journal, 1(3).

25. Wijayanti, 2024. Buku Ajar Pendidikan dan Promosi Kesehatan. Jakarta: PT Nuansa Fajar Cemerlang.

26. World Health Organization (WHO), 2013. Adherence to Long-Term Therapies: Evidence for Action. Geneva: WHO.

27. World Health Organization (WHO), 2023. Hypertension. [online] Available at: https://www.who.int/news-room/fact-sheets/detail/hypertension [Accessed 21 August 2026].