

Relationship Between The Level Of Knowledge And Attitudes Of The Community With Hypertension Control In People Aged 35-70 Years In Panggong Village, Johan Pahlawan District, West Aceh Regency

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Abstract

Hypertension is a global health problem and a major contributor to coronary heart disease, kidney failure, and stroke. In Indonesia, the prevalence of hypertension reached 34.1% in 2018, but decreased to 30.8% in 2023. Despite this decline, there is still a large gap between those diagnosed with hypertension and those undergoing regular treatment. According to data from the West Aceh Health Office, there was an increase in hypertension cases from 10,054 cases in 2022 to 12,570 cases in 2023, and again to 16,487 cases in 2024. In the working area of the Johan Pahlawan Community Health Center, the prevalence of hypertension reached 95.2% in 2024. This high figure shows that controlling hypertension is still a challenge, especially in relation to the level of knowledge and attitude of the community in maintaining blood pressure. Therefore, this study was conducted to identify the relationship between the level of knowledge and attitude of the community towards controlling hypertension. This study aims to determine the relationship between the level of knowledge and attitudes of the community towards hypertension control in people aged 35-70 years in Gampong Panggong, Johan Pahlawan District, West Aceh Regency. This study used a quantitative cross-sectional design with 58 respondents in Gampong Panggong, Johan Pahlawan District, West Aceh Regency. Data were collected through structured interviews and questionnaires, then analyzed using the chi-square test. The results showed that most respondents had good knowledge, namely 39 people (67.2%), while 19 people (32.8%) had poor knowledge. There was a highly significant relationship between the level of knowledge and hypertension control in respondents aged 35–70 years in Gampong Panggong ($p = 0.000$). In terms of attitude, 43 respondents (74.1%) showed a positive attitude and 15 respondents (25.9%) had a negative attitude. Meanwhile, good hypertension control was found in 44 respondents (75.9%), and 14 respondents (24.1%) had poor hypertension control. There was a significant relationship between attitude and hypertension control ($p = 0.018$).

Keywords: Hypertension, Knowledge, Control, Attitude.

Introduction

Hypertension, or high blood pressure, is often called the silent killer because it often develops without any noticeable symptoms. Hypertension symptoms can vary from person to person. These variations can be seen in the type of symptoms that appear, their severity, and the frequency of complaints experienced. In some people, hypertension can cause headaches, dizziness, palpitations, fatigue, nosebleeds, or vision problems. However, in other individuals, the



symptoms that appear can be very mild or even not felt at all. Because of these differences, hypertension is said to have varying symptoms and is often unrecognized by sufferers (Isnaini, 2024).

Hypertension is a condition in which blood pressure is above normal levels, namely 120/80 mmHg. A person can be classified as hypertensive if blood pressure measurements show systolic values ≥ 140 mmHg and/or diastolic values ≥ 90 mmHg (Indonesian Ministry of Health, 2021). This condition is known to be one of the main risk factors for coronary heart disease, kidney disorders, and stroke in Indonesia. Hypertension has the potential to cause serious health effects because it can hinder daily activities and increase the risk of dangerous complications if not managed properly and preventive measures are not taken early on (Muhammad Cristanto, Monica Saptiningsih, 2021).

Various international health organizations have also highlighted the high burden of disease caused by hypertension worldwide. The World Health Organization (WHO) states that hypertension is a major factor in premature death globally. It is estimated that more than one billion adults worldwide live with hypertension, of which approximately 54% have been diagnosed, 42% receive treatment, but only 21% are able to control their condition through a healthy lifestyle. During the period 2010–2030, the World Health Organization (WHO) has set one of its global targets for the control of non-communicable diseases, namely to reduce the prevalence of hypertension by 33% (WHO, 2023).

Hypertension in Indonesia remains one of the main risk factors for non-communicable diseases, which are a public health problem. Based on data from the Basic Health Research (RISKESDAS), the prevalence of hypertension in Indonesia was recorded at 34.1% in 2018 and decreased to 30.8% in 2023 (Indonesian Ministry of Health, 2024). Despite this decline in prevalence, there is still a significant gap between the number of diagnosed hypertension patients and those undergoing regular treatment. The prevalence of hypertension in Indonesia varies between provinces, with the highest rate recorded in South Kalimantan Province at 44.1%, while Papua Province has the lowest prevalence at 22.2%. In addition to regional differences, an increase in hypertension cases is also observed among the productive age group. In 2018, the prevalence of hypertension increased significantly in the 18–24 age group by 13.2%, the 25–34 age group by 20.1%, and the 35–44 age group by 11.3% (Muhammad Cristanto, Monica Saptiningsih, 2021).

Knowledge is the result of a person's recognition of an object through their five senses. The level of knowledge of each individual can vary, depending on the sensory processes experienced, such as information, experience, and certain conditions received and understood by the individual (Arsyad, G., Silfia, N.N., 2021). Knowledge is the result of the process of knowing, which is the state when a person realizes, recognizes, and understands an object after undergoing the sensory process. This process of knowing occurs when information received through the five senses, including sight, hearing, smell, taste, and touch, is processed by the brain so that a person is able to identify, explain, and remember the object or information. Thus, knowing is not just seeing or hearing, but includes understanding the meaning of the observed object, which then becomes the basis for the formation of a person's knowledge (Nur'aini, 2021).

Many members of the community, especially among the elderly, still lack understanding of hypertension. The lack of information and inability to recognize the condition they are experiencing are the main causes of this lack of understanding. Conversely, individuals who are highly aware of hypertension tend to have more in-depth knowledge, which in turn influences their attitude towards controlling blood pressure. In addition, factors such as age and educational background also play a role in shaping a person's level of knowledge. The higher the level of education achieved, the

higher the level of knowledge possessed. The knowledge possessed by people with hypertension greatly determines their compliance in carrying out treatment (Simanjuntak & Situmorang, 2020).

The attitude and level of understanding of patients with a history of hypertension are important factors in the success of efforts to prevent and control high blood pressure. Increased knowledge tends to be followed by more positive attitudes toward managing the disease. The results of the study show that respondents with a history of hypertension who have a good level of knowledge show more optimal blood pressure control efforts compared to respondents who have a poor level of knowledge. This condition is caused by one of the factors that influence a person's compliance in undergoing hypertension treatment, namely adequate access to and acceptance of information (Priyadarsani, 2021).

According to Lawrence Green, behavior in hypertension management can be examined through the theory of individual behavior, which is influenced by three main factors. Predisposing factors include individual characteristics such as age, gender, education level, knowledge level, and attitude. Meanwhile, enabling factors include ease of access to health care facilities and the availability of medications needed for hypertension management. Meanwhile, reinforcing factors include support from family and healthcare workers (Maulidah et al., 2022).

According to research conducted by the West Aceh Health Office in 2022, there were 10,054 cases of hypertension in the region. This number increased to 12,570 cases in 2023 and rose again to 16,487 cases in 2024 (West Aceh Health Office, 2024). This data shows an upward trend in the number of hypertension patients each year in Aceh Barat, which has become a serious concern for the local government and health office. Referring to hypertension data at the Johan Pahlawan Community Health Center, the percentage was recorded at 95.2% in 2024 (Aceh Barat Community Health Center, 2024).

Research by Simanjuntak and Situmorang (2024) found a significant relationship between knowledge levels and blood pressure control in hypertensive patients, as indicated by a p-value of 0.004. In addition, patient attitudes were also found to have a significant relationship with blood pressure control, with a p-value of 0.002. Meanwhile, research by Patimah (2019) revealed that most of the community's knowledge about hypertension was in the adequate category, namely 37.5%. This finding is in line with the theory that states that the more information a person obtains, whether from family, neighbors, print media, or health workers, the higher their level of knowledge will be (Simanjuntak and Situmorang, 2024). The study conducted by Patimah (2019) also shows a significant relationship between knowledge and attitudes about hypertension and blood pressure control. The results of the study illustrate that most people with hypertension have positive attitudes, supported by a sufficient level of understanding about hypertension, so that efforts to control blood pressure tend to go well (Patimah, 2019).

Based on preliminary surveys in Gampong Panggong, it was found that community understanding of hypertension control is still low. Most people do not have their blood pressure checked regularly, do not know what normal blood pressure is, and do not adhere to treatment and healthy lifestyles. Community participation in health education activities is also low. These conditions indicate a gap between the community's knowledge and attitudes towards hypertension control. Therefore, Gampong Panggong was chosen as the location for a study entitled "The Relationship Between the Level of Knowledge and Attitudes of the Community Towards Hypertension Control in People Aged 35-70 Years in Gampong Panggong, Johan Pahlawan District, West Aceh Regency."

Method

This study used a quantitative approach with a cross-sectional design. The study was conducted in September 2025 in Gampong Panggong, which is part of the working area of the Johan Pahlawan Community Health Center. The population in this study consisted of all hypertensive patients aged 35–70 years who were registered in the PTM/hypertension program and resided in Gampong Panggong. The research location was determined using purposive sampling, based on secondary data from the Johan Pahlawan Community Health Center, which showed that Gampong Panggong had the highest incidence of hypertension during the study period. The sampling technique in this study used total sampling, so that the entire population that met the inclusion criteria, namely 58 respondents, was used as the research sample. The independent variables studied included the level of knowledge and attitude, while the dependent variable was hypertension control efforts. Data collection was carried out through structured interviews and the use of questionnaires that had undergone a validity test. The data obtained was then analyzed using the Chi-Square statistical test to determine the relationship between the level of knowledge and attitude of the community and hypertension control efforts.

Result

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1. Respondent Characteristics Based on Age, Gender, Education, Occupation

Tabel 1. Frequency distribution of respondents based on age, gender, education, and occupation in Gampong Panggong, Johan Pahalwan District, West Aceh Regency, 2025.

No	Usia	(n)	(%)
1	35-44 year (Early risk age)	13	22.4
	45-54 year (Medium risk age)	19	32.8
3	55-64 year (High-risk age)	22	37.9
4	65-70 year (Very high risk age)	4	6.9
Amount		58	100
No	Gender	(n)	(%)
1	Woman	50	86.2
2	Men	8	13.8
Amount		58	100
No	Education	(n)	(%)
1	Basic Education	5	8.6
2	Secondary Education	39	67.2
3	Higher Education	14	24.1
Amount		58	100
No	Work	(n)	(%)
1	Not Working	11	19.0
2	Fisherman	5	8.6
3	PNS	5	8.6
4	Others	37	63.8
Jumlah		58	100

Sumber : Data Primer (2025)

Based on the table above, we can see that in terms of age, the majority are in the 55–64 age group (High Risk), accounting for 37.9%, followed by the 45–54 age group (Medium Risk) at 32.8%. Meanwhile, the 35–44 age group (Early Risk) accounts for 22.4%, and the smallest group is the 65–70 age group (Very High Risk) at 6.9%. Based on the gender table, the majority of respondents were female at 86.2%, while males only accounted for 13.8%. Based on the education table, most respondents had a secondary education at 67.2%. This was followed by respondents with higher

education at 24.1%, and the smallest group was those with elementary education at 8.6%. Based on the occupation table, the majority of respondents were in the “other occupations” category at 63.8%. Respondents who were not working numbered 19.0%, while those working as fishermen and civil servants each numbered 8.6%.

Tabel 2 Frequency Distribution of Knowledge, Attitudes, and Control of Hypertension in People Aged 35-70 Years in Gampong Panggong, Johan Pahlawan District, West Aceh Regency

No	Pengetahuan	Frekuensi (n)	Presentase (%)
1	Baik	39	67.2
2	Kurang	19	32.8
	Jumlah	58	100
No	Sikap	Frekuensi (n)	Presentase (%)
1	Positif	43	74.1
2	Negaif	15	25.9
	Jumlah	58	100
No	Pengendalian Hipertensi	Frekuensi (n)	Presentase (%)
1	Baik	44	75.9
2	Kurang	14	24.1
	Jumlah	58	100

Sumber : Data Khusus Hasil Penelitian (2025).

Based on the knowledge table, the majority of respondents had a good level of knowledge, namely 39 people (67.2%), while 19 people (32.8%) had poor knowledge. In terms of attitude, the majority of respondents showed a positive attitude, namely 43 people (74.1%), while 15 people (25.9%) had a negative attitude. In terms of hypertension control, the majority of respondents had good hypertension control, namely 44 people (75.9%), while 14 people (24.1%) had poor hypertension control.

Bivariate Analysis

Tabel 3. The Relationship Between Knowledge and Hypertension Control in People Aged 35-70 Years in Gampong Panggong, Johan Pahlawan District, West Aceh Regency

No	Pengetahuan	Pengendalian Hipertensi		Jumlah		P-Value	
		Baik		Kurang			
		f	%	f	%		
1	Baik	35	60.3	4	6.9	39	67.2
2	Kurang	9	15.5	10	17.2	19	32.8
	Total	44	75.9	14	24.1	58	100

Sumber : Data Primer Hasil Penelitian (2025).

Based on the table, most respondents with a good level of knowledge showed good hypertension control, namely 35 people (60.3%). Meanwhile, only a small number of respondents with good knowledge had poor hypertension control, namely 4 people (6.9%). Conversely, in the group of respondents with poor knowledge, the majority showed poor hypertension control, namely 10 people (17.2%). The results of the analysis using the Chi-Square test showed a p-value of 0.000 ($p < 0.05$), indicating a highly significant relationship between knowledge level and hypertension control among respondents aged 35–70 years in Gampong Panggong, Johan Pahlawan District, West Aceh Regency.

Tabel 4. Hubungan Sikap Masyarakat Terhadap Pengendalian Hipertensi Usia 35-70 Tahun Di Gampong Panggong Kecamatan Johan Pahlawan Kabupaten Aceh Barat

No	Sikap	Pengendalian Hipertensi	Jumlah	P-Value
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	Baik		Kurang		χ^2
	f	%	f	%	
1 Positif	36	62.1	7	12.1	43
2 Negatif	8	13.8	7	12.1	15
Total	44	75.9	14	24.1	58
					0.018

Sumber : Data Primer Hasil Penelitian (2025).

Based on the table above, the majority of respondents with a positive attitude had good hypertension control, totaling 36 people (62.1%), while a small number had poor hypertension control (7 people or 12.1%). Among respondents with negative attitudes, the number with good and poor hypertension control was almost equal (8 people or 13.8% and 7 people or 12.1%, respectively). The results of the Chi-Square statistical test showed a p-value of 0.018 ($p < 0.05$), indicating a significant relationship between the attitudes of respondents and their efforts to control hypertension in the 35–70 age group in Gampong Panggong, Johan Pahlawan District, West Aceh Regency.

Discussion

1. The Relationship Between Knowledge and Hypertension Control in People Aged 35-70 Years in Gampong Panggong, Johan Pahlawan District, West Aceh Regency

Based on the results of research in Gampong Panggong, aged 35–70 years, the majority of respondents who had good knowledge about hypertension showed good blood pressure control (35 out of 39 respondents, 60.3%), while in the group with less knowledge, only 9 out of 19 respondents (15.5%) had good hypertension control. Statistical test results showed a value of $p = 0.000$ ($p < 0.05$), which indicates a very significant relationship between the level of knowledge and the ability to control hypertension. This indicates that knowledge plays an important role in the success of blood pressure control.

Knowledge is considered an important factor in shaping a person's awareness and motivation to engage in hypertension control behaviors, such as regular blood pressure measurements, adherence to medication, healthy eating patterns, and physical activity. Individuals who understand the risks, complications, and methods of hypertension control are more likely to take preventive measures. In other words, knowledge acts as a predisposing factor in the health behavior model, which determines the extent to which an individual engages in disease control measures (Amalia and Putri, 2023).

Sults of this The restudy are in line with research conducted by Sumantri (2023), which showed Chi-Square test results with a p-value of 0.000, so it can be concluded that there is a significant relationship between the level of knowledge and blood pressure control in the working area of the Kemalaraja Community Health Center UPTD in 2023. Knowledge or cognitive aspects are a very important domain in shaping a person's actions. Knowledge acts as an internal factor that influences the formation of behavior, which ultimately has an impact on an individual's health status. In addition, research conducted by Nurhaliza et al. (2023) also showed similar results, with a p-value of 0.000 ($\alpha < 0.05$), indicating a relationship between knowledge about hypertension and nutritional status with blood pressure control. The level of knowledge about hypertension is known to have a positive correlation with compliance in undergoing treatment and success in blood pressure control in hypertensive patients. This confirms that knowledge must be accompanied by a continuous educational approach and community intervention so that it can truly be translated into concrete actions in controlling hypertension.

According to the researchers' assumptions, improving health literacy about hypertension through counseling, education, and community campaigns has the potential to improve hypertension control in the community. Therefore, health programs in Gampong Panggong should emphasize health education and promotion so that the knowledge possessed by the community can be internalized into consistent hypertension control behaviors, thereby minimizing the risk of complications.

2. Attitudes Towards Hypertension Control Among People Aged 35-70 Years in Gampong Panggong, Johan Pahlawan District, West Aceh Regency

Based on the results of research in Gampong Panggong, aged 35–70 years, the majority of respondents who had a positive attitude toward hypertension showed good blood pressure control (36 respondents, 62.1%), while in the group with a negative attitude, only 8 respondents (13.8%) had good hypertension control. Statistical tests showed a p-value of 0.018 ($p < 0.05$), indicating a significant relationship between attitude and the ability to control hypertension. This indicates that attitude plays an important role in successful blood pressure control.

Attitude is considered a predisposing factor that influences a person's awareness and motivation to engage in healthy behaviors such as regular blood pressure measurement, adherence to medication, a healthy diet, and physical activity, all of which are important in controlling hypertension. Individuals with a positive attitude toward hypertension tend to be more motivated to take preventive measures and be consistent in controlling their blood pressure (Dhrik et al., 2023).

This study is similar to the research conducted by Nurhaliza et al. (2023), with chi-square test results guaranteeing optimal hypertension control. Other factors such as knowledge, family support, access to health services, consistency of treatment, and social factors also influence the success of hypertension control. Therefore, health interventions that only focus on attitude formation may not be sufficient and need to be accompanied by education, routine monitoring, and environmental support so that positive attitudes can be translated into sustainable real actions.

According to the researchers' assumption, the formation of positive attitudes towards hypertension through education, counseling, health campaigns, and community approaches will improve blood pressure control in the community. The practical implication is that health programs in Gampong Panggong should not only increase knowledge but also shape positive attitudes among the community towards hypertension control so that preventive actions can be carried out consistently.

Conclusion

Based on the results of research on factors related to the level of knowledge and attitudes of the community in controlling hypertension in respondents aged 35–70 years in Gampong Panggong, Johan Pahlawan District, West Aceh Regency, it can be concluded that:

1. Knowledge is significantly related to hypertension control ($p = 0.000$). Respondents with a good level of knowledge are more likely to control hypertension optimally than those with less knowledge.
2. Attitude is significantly related to hypertension control ($p = 0.018$). Respondents who have a positive attitude towards hypertension control efforts show better ability to keep their blood pressure under control than respondents with a negative attitude.

Recommendations

This study is aimed at people aged 35–70 years to increase their knowledge and form positive attitudes towards controlling hypertension through regular blood pressure checks, adherence to medication, adoption of a healthy diet, and a consistent healthy lifestyle. Community health centers and health workers are expected to be more active in providing education, counseling, and guidance on hypertension through various media such as direct counseling, seminars, leaflets, videos, and social media so that the community can better understand the importance of controlling hypertension. Local governments also need to strengthen health promotion programs and provide adequate support in the form of health facilities, blood pressure monitoring services, and guidance for the community. Further research is needed to examine other factors that influence hypertension control, such as family support, treatment adherence, access to health services, and psychosocial factors, as well as considering the use of qualitative methods to explore the barriers experienced by the community in implementing hypertension control.

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