# CORRELATION OF HEALTH LITERACY AND SELF-MANAGEMENT BEHAVIOR AMONG HYPERTENSION CLIENTS

Andi Muthahharah Mutiara[1*], Rasdiyanah[1], Aidah Fitriani[1], Eny Sutria[1], Titi Mildawati[1]
[1]Faculty of Medicine and Health Sciences, State Islamic University, Alauddin Makassar
*E-mail : mutiaramalikah0531@gmail.com

***Abstract***

*Hypertension is the main cause of premature death worldwide. Hypertension has become a global, regional, national, and local public health problem. The World Health Organization (2023) estimates that 1.28 billion adults aged 30-79 years worldwide suffer from hypertension. The prevalence of hypertension will continue to increase sharply. In 2025, it is predicted that around 29% of adults worldwide will suffer from hypertension. Hypertension has caused the deaths of around 8 million people each year. 1.5 million deaths occur in Southeast Asia, where one-third of the population suffers from hypertension (WHO, 2011). Hypertension requires proper self-management and health literacy in handling it. .Objective: The purpose of this study was to analyze the correlation between health literacy and hypertension management behavior in the hypertension group in the Pacellekang Health Center work area, Gowa Regency. Methods: This research was conducted in the working area of Pacellekang Health Center, Pattallassang District, Gowa Regency, South Sulawesi Province on June 21 – July 21, 2023. Correlational anality descriptive research design using a cross-sectional study approach. The population in this study was 165 people. The sampling technique used non-probability sampling with purposive sampling technique. The sample obtained is 128 people. Data collection used the HELIA Questionnaire (Health Literacy Instrument for Adults) and the HBP-SCP Questionnaire (High Blood Pressure-Self Care Profile). The analysis tests used in this study were univariate and bivariate. The bivariate analysis in this study was by using the Chi-Square Test. The results showed that the majority of respondents had low health literacy with a percentage of 56.3% and the majority had poor hypertension management behavior with a percentage of 54.7%. The results of the bivariate test using the Chi-Square test with a significance value of 0.006 <0.05, so that the better a person's health literacy, the better his hypertension self-management behavior. The conclusion of this study is there is a significant correlation between health literacy and hypertension management behavior in the community in the Pacellekang Health Center work area, Gowa Regency. Suggestions for research locations so that they can increase posyandu and prolanis activities while also implementing health promotion on GERMAS and CERDIK as a form of increasing interest in controlling hypertension for the community. In addition, health centers can also add health information sources.*

***Keywords:*** *Health Literacy, Hypertension, Management Behavior*

## Introduction

Hypertension has become a world, national, regional, and local public health problem. Hypertension is currently a big challenge in Indonesia due to conditions that are often found in primary health services. The World Health Organization (2023) estimates that 1.28 billion adults aged 30-79 years worldwide suffer from hypertension. The highest prevalence of hypertension is in the African region (27%) while the lowest prevalence is in the Americas (18%). The number of adults with hypertension increased from 594 million in 1975 to 1.13 billion in 2015. Hypertension has caused the deaths of around 8 million people each year. 1.5 million deaths occur in Southeast Asia, where one-third of the population suffers from hypertension (WHO, 2011)

Based on Basic Health Research (2018), the prevalence of hypertension in Indonesia is 34.1%. This has increased compared to the prevalence of hypertension in Riskesdas 2013 of 25.8%. Based on Basic Health Research (2013), the

prevalence of hypertension in Indonesia obtained through measurements at age ≥18 years is 25.8%. South Sulawesi Province itself is ranked eighth highest with a prevalence of 28.1%. One of the areas in South Sulawesi that has a high prevalence is Gowa Regency.

According to the South Sulawesi Provincial Health in 2018 there were 229,720 cases of hypertension that occurred, then increased in 2020 by 381.13 cases, one of the districts in South Sulawesi with 33,721 people with hypertension, namely Gowa Regency2. One of the areas in Gowa Regency with a fairly high prevalence of hypertension is the working area of Public Health Care Pacellekang. Based on data obtained at the Pacellekang Health Center, Gowa Regency in 2022, the number of people suffering from hypertension in the last three months was 150 people. And in 2023, the number of people suffering from hypertension in the last three months was 251 people. These data show an increase in the number of hypertension sufferers in the area.

One of the efforts to handle hypertension complications is to increase the prevention of hypertension. Individuals with heart disease are advised to carry out self-management as one of the disease management in everyday life (Inda & Isnaini, 2018). Management of a chronic disease requires self-care-management, adherence to recommended medications, and self-modification and lifestyle. This is related to the level of health literacy. Health literacy or health literacy has an important role in health promotion. This is because health literacy plays a role in community empowerment.

Health literacy can be used to determine the motivation, level of knowledge, and ability of the community to access, assess, understand, and apply health information by making considerations and decision-making in daily life related to health. Based on the description above, researchers are interested in conducting research related to the correlation between health literacy and self-management of hypertension groups in the working area of the Public Health Center Paclelekang, Gowa Regency. The purpose of this study was to determine the correlation between health literacy and hypertension management behavior in the hypertension group in the work area of Pacellekang Health Center, Gowa Regency.

## Method

This type This research was conducted in the working area of the Public Health Care Pacellekang, Gowa Regency, in June-July 2023. This research design includes quantitative research, namely descriptive correlational analytics with a cross sectional study approach. Related to this study, the population used is all hypertensive clients in the work area of the Pacellekang Health Center. Based on patient visit data for the last 3 months, there were 165 hypertensive clients in the work area of the Pacellekang Health Center. The sampling technique used in this study is the purposive sampling technique,  where samples are taken Based on the Slovin formula, a sample of 128 people was obtained. Someone or something is taken as a sample because the researcher assumes that someone or something has the information needed for the research. The sample is selected based on the researcher's assessment through inclusion and exclusion criteria.

The instruments used in this study were the HBP-SCP (High Blood Pressure-Self Care Profile) questionnaire and the HELIA (Health Litercay Instrument for Adults) questionnaire. The analysis tests used in this study were univariate and bivariate. The univariate analysis tests in this study include: characteristics of hypertensive clients, description of health literacy of hypertensive clients, and a description of hypertension management behavior The bivariate analysis in this study was by using the Chi-Square Test.

The study team strictly followed ethical standards in research, ethics approval documents are available by No. C.012/KEPK/FKIK/II/2023 ethical committee UIN Alauddin Makassar; we ask for approval before becoming a participant, all individual information was strictly kept confidential and not reported in the paper.

## Results

Table 1. Frequency Distribution of Respondent Characteristics Based on Gender, Age, Recent Education, Occupation, and Health Resources (n=128)

| Characteristics | f | % |
|---|---|---|
| Gender | | |
| Male | 27 | 21,1% |
| Female | 101 | 78.9% |
| Total | 128 | 100 % |
| Age | | |
| 12-16 years | 0 | 0% |
| 17-25 years | 0 | 0% |
| 26-35 years | 5 | 3,9% |
| 36-45 years | 11 | 8,6% |
| 46-55 years | 44 | 34,4% |
| 56-65 years | 43 | 33,6% |
| > 65 years | 25 | 19,5% |
| Total | 128 | 100% |
| Recent Education | | |
| Elementary School | 57 | 44,5% |
| Junior High School | 26 | 20,3% |
| Senior HighSchool | 17 | 13,3% |
| Bachelor | 3 | 2,3% |
| Magister | 0 | 0% |
| No school/not finished school | 25 | 19,5% |
| Total | 128 | 100 % |
| Work | | |
| Employees | 10 | 7,8% |
| Student | 0 | 0 |
| Pensiun | 5 | 3,9% |
| Housewives | 88 | 68,8% |
| Unemployment | 5 | 3,9% |
| etc | 20 | 15,6% |
| Total | 128 | 100 % |
| Resources Health | | |
| TV/Radio | 38 | 29,7% |
| Doctor/Health provider | 60 | 46,9% |
| paper/jurnal | 1 | 0,8% |
| friends | 16 | 12,5% |
| Internet | 13 | 10,2% |
| Book/pamflet | 0 | 0% |
| Total | 128 | 100% |

The characteristic description of hypertensive clients is the majority aged 45-55 years with a percentage of 34.4%, female gender as many as 101 respondents (78.9%). Community respondents had the last level of elementary education as many as 57 respondents (44.5%). The most jobs were housewives as many as 88 respondents (68.8%), and the most sources of information used were through doctors/health services at 46.9%.

Table 2. Results of Data Analysis of the Correlation between Health Literacy and Hypertension Management Behavior in the Community in the working area of the Pacellekang Health Center

| Literacy Health | HT Management Behavior | | P Value |
| --- | --- | --- | --- |
| | Bad (f) | Good (f) | |
| Low | 47 | 25 | |
| High | 23 | 33 | 0.006 |
| Total | 70 | 58 | |

In table 2, it shows an overview of the level of health literacy and hypertension management behavior in hypertensive clients in the Public Health Center Pacellekang Work Area. Most respondents had a low health literacy rate of 72 people (56.3%) and those with a high health literacy rate of 56 people (43.8%). Meanwhile, most respondents had a poor level of management behavior of 70 people (54.7%) and those with good management behavior of 58 people (45.3%). Based on the results of bivariate analysis using the *Chi Square alternative test* , p values were obtained *from 0.006* $< 0.05$. This shows that there is a significant correlation between health literacy and hypertension management behavior in the community in the working area of the Pacellekang Health Center.

## Discussion

Based on univariate analysis, respondents' characteristics based on sex are dominated by the female group. One of the factors causing women to have a tendency to have a higher incidence of hypertension than men is that women experience menopause[5]. The characteristics of respondents in terms of age found that the average respondent was at the age of 46-55 years. It is known that with age, the prevalence of hypertension increases. This is due to physiological features in the body, such as the thickening of artery walls due to plaque buildup in the endothelial layer so that blood vessels experience narrowing and stiffness, resulting in changes in blood pressure to be higher. The characteristics of respondents based on the last level of education are most elementary schools. This is in accordance with the statement of Notoatmodjo (2012) which states that the level of education related to the health information obtained influences a person's ability to receive information and process it into good behavior so that it has an impact on their health status.

Characteristics of respondents based on work, the results of this study show that respondents who experience hypertension are respondents who are IRT. This is supported by research conducted by Elsi (2022) which shows that good hypertension prevention behavior based on the work of working respondents is higher than that of non-working respondents[8]. Based on the RISKESDAS Indonesia-Year 2013 report, the highest prevalence of hypertension is found in non-working groups. The risk of hypertension in people who do not work can be greater because of the lack of regular physical activity. The characteristics of respondents based on health information sources show that respondents obtain the most health information through doctors/services. One Research found that there is a significant correlation between information sources and the application of clean and healthy living behaviors (PHBS) in the family.

Based on these results, researchers argue that the health literacy of hypertensive clients in the work area of the Pacellekang Health Center still shows low health literacy. This is because the level of education of the community is also still relatively low, which affects the level of health literacy. This study is also in line with the study conducted by Soemitro (2014) which found that most of the health literacy levels of hypertension sufferers at the Malang Regency Health Center were in the poor category with a percentage of 65.35%. This was caused by various factors such as increasing age, educational attainment, motivation, and individual behavior.

Age and education level play an important role in health literacy, as older individuals with low levels of education may have limitations in their ability to read, understand, analyze, and apply information. This can make it difficult for them to make good decisions regarding their health (Sørensen et al., 2012). In addition, another challenge for individuals with

low levels of education and older age is the difficulty in actively seeking information through sources such as libraries and available information media (Sørensen et al., 2012). Based on univariate results using frequency distribution, it was found that the average hypertension management behavior in respondents in the work area of the Pacellekang Health Center was in the poor category. This is due to the lack of knowledge related to hypertension control, as well as less exposure to health information in carrying out hypertension self-management.

According to researchers, hypertension management behavior in clients in the Pacellekang Health Center work area showed less than good results in managing hypertension such as, doing physical activities, following a low-salt and low-fat diet, controlling blood pressure and being obedient in taking medication and managing stress. This is due to the lack of knowledge related to hypertension control, as well as lack of exposure to health information in managing hypertension. Based on the results of bivariate analysis using the *Chi-Square alternative test*, p values were obtained *from 0.006* $< 0.05$. This shows that there is a significant correlation between health literacy and hypertension management behavior in the community in the working area of the Pacellekang Health Center. A similar study was also conducted by Lia, et al., (2022) who found that health literacy has a positive correlation with coping mechanisms in the elderly with hypertension. In this study, elderly respondents generally like to do light physical activities. As they get older, the majority of elderly respondents use their time for positive things. Good coping will have an impact on improving self-care skills from the results of good access to health information, resulting in an increase in the status of good hypertension control management in the elderly.

This is also in line with Notoatmodjo's statement (2012) that high knowledge about hypertension control can influence the behavior of someone who has hypertension in controlling lifestyle, exercise/activity, stress management that can trigger increased blood pressure. The higher a person's knowledge, the better their behavior in managing hypertension. According to researchers, health literacy in hypertension clients showed low results with a percentage of 56.3%, thus affecting hypertension management behavior, which on average respondents were not good at managing hypertension.

There are several factors that affect *self-management* in people with hypertension, including knowledge, education level, social support, self-confidence, and long-suffering from hypertension. Patients who have a high level of knowledge will increase self-confidence and grow patient awareness regarding the importance of treatment. Thus, understanding of a disease must be done holistically from all aspects, such as aspects of diagnosis, risk factors, prevention efforts, and also complications. If people with hypertension do self-management effectively, it will certainly be useful to generate satisfaction in their health, reduce the cost of treatment, generate confidence and independence of patients, and improve the quality of life of patients (Sutandi, 2012).

*Health literacy* is related to the disease experienced by a person. In addition, confidence in health also acts as a guide to the coping that will be applied by individuals when overcoming their health problems. The limitation in this study is that the data recording at the Pacellekang Health Center is still incomplete, because some data were not found, so researchers had difficulty identifying data on clients with hypertension.

## Conclusion

There was a correlation between health literacy and hypertension management behavior in Pacellekang Village showing significance values (p value $0.006 < 0.05$). Therefore, community health care can increase posyandu and prolanis activities as well as carry out health promotion as a form of increasing interest in hypertension control for the community. In addition, hopefully, community health care can also add sources of health information such as pamphlets or distribution/brochures in their work area, so that people can be exposed to health information, not only orally but also in writing.

## References

Anih. (2020). Self Management Hipertensi. CV. Jakad Media Publishing.

Badan Penelitian dan Pengembangan Kesehatan Departemen Kesehatan RI. (2013). Riset Kesehatan Dasar. Jakarta : CV Kiat Nusa.

Dhiny Easter Yanti, Andoko, & Eva Mayasari. (2020). Tingkat Literasi Kesehatan Pada Penderita Hipertensi Di Uptd. Puskesmas Bandar Jaya Lampung Tengah. 9.

Fauziah, Y., & Syahputra, R. (2019). Hubungan Antara Efikasi Diri Dengan Manajemen Perawatan Diri Pada Penderita Hipertensi Di Puskesmas Indrapura Kabupaten Batubara Tahun 2019. In Journal Of Midwifery Senior (Vol. 4).

Lestari, P. (2021). Faktor-Faktor Yang Berhubungan Dengan Kejadian  Hipertensi Di Puskesmas Kabupaten Magelang.

Luh, N., Ekarini, P., Wahyuni, J. D., Sulistyowati, D., Keperawatan, J., Kemenkes, P., & Iii, J. (2020). Faktor-Faktor Yang Berhubungan Dengan Hipertensi Pada Usia Dewasa. JKEP, 5(1).

Notoatmodjo. (2012). Metode Penelitian Kesehatan. Jakarta: PT Rineka Cipta

Rahman, Nita. (2014). Faktor-Faktor Yang Berhubungan Dengan Perilaku Personal Hygiene Pada Saat Menstruasi Di SMP Muhammadiyah 5 Yogyakarta. [Skripsi]. STIKes Aisyiyah Yogyakarta

Rezkisa. (2020). Faktor Yang Berhubungan dengan Tingkat Health Literacy pada Pasien dengan Hipertensi.

Roiefah, A. L., Pertiwi, K. D., & Siswanto, Y. (2021). Hubungan Tingkat Literasi Kesehatan dengan Perilaku Pencegahan PTM Pada Remaja di Kabupaten Semarang. In Pro Health Jurnal Ilmiah Kesehatan (Vol 3, Issues 2).

Soemitro, D. H. (2014). Analisis Tingkat Health Literacy dan Pengetahuan Pasien Hipertensi di Puskesmas Kabupaten Malang. (Skripsi). Repositori Universitas Surabaya.

Sørensen K, Broucke SV, Fullam J et al, 2012, Health Literacy and Public Health: A Systematic Review and Integration of Definitions and Models, BMC Public Health, 12:80

Sutandi A. Self Management Education ( DSME ) Sebagai Metode Alternatif Dalam Perawatan Mandiri Pasien Diabetes. Majalah Ilmiah Widya. 2012;(321):47–52.

Purnamasari, A., Prima, A., Harahap, D., & Andas, A. M. (2022). The correlation between body temperature and diet on typhoid fever among toddlers aged 3 – 5 years. *The Journal of Palembang Nursing Studies*, *1*(3), 101–106. https://doi.org/10.55048/jpns.v1i3.28

Purnamasari, A., Wahyuni, S., & Purnama, P. A. (2020). Hubungan Pola Asuh Orang Tua terhadap Perilaku Anak Autis di Pusat Pelayanan Autis Kendari. *Nursing Inside Community*, *3*(1), 32–37.

World  Health  Organization. (2021). *The Unicef/WHO/WB Joint Child Malnutrition Estimates (JME) Group Released New  Data  For  2021*. WHO. https://www.who.int/news/item/06-0502021-the-unicef_who-wb-joint-child-malnutrition-estimates-group-released_new-data-for-2021.