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## Relationship Between Knowledge Of Hypertension And Compliance With Chronic Disease Services Program (Prolanis)

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### ABSTRACT

**Purpose :** The purpose of this study was to determine the relationship between knowledge of hypertension and compliance with chronic disease service programs at the Wanareja II Community Health Center, Cilacap Regency. **Methods:** This type of quantitative research with a correlational research research design (correlational research). The sample in this study were all participants in the chronic disease program with hypertension as many as 124 people, with the sampling technique using random sampling technique. Bivariate analysis was performed using Kendal's tau test. Bivariate analysis using Kendal's tau obtained Sig. (2-tailed) of 0.000 is less than alpha 0.05 which means there is a significant relationship between knowledge of hypertension and compliance with chronic disease service programs. **Results :** There is a significant relationship between knowledge of hypertension and compliance with the chronic disease service program at the Wanareja II Health Center, Cilacap Regency. **Conclusions:** Health workers in these areas are expected to be more active in providing insight to the community, especially participants in chronic disease service programs.

**Key words:** Hypertension, Compliance, Knowledge

### Introduction

The World Health Organization (WHO), states that as the population increases, the number of sufferers of high blood pressure will continue to increase, and it is estimated that around 29% of the world's population will be affected by high blood pressure in 2025 (Noviati, Sukmawati, & Kusumawaty, 2022).

According to the World Health Organization, there are 40% of sufferers of hypertension in developing countries, whereas in developed countries only 35%. According to Basic Health Research (Riskesdas 2018), the prevalence of hypertension in Indonesia is 34.1%. This figure has increased from the prevalence of hypertension in Riskesdas 2018 of 25.8%. It is estimated that only 1/3 of cases of hypertension in Indonesia are diagnosed and the rest are not diagnosed (RI Ministry of Health, 2021). Based on data from the Central Java Provincial Health Office, the number of people aged 18 years and over who suffer from high blood pressure in 2021 is 8,888,585 people or accounting for 36.53%. The proportion of women suffering from high blood pressure is lower than men, 13.10% for women and 13.16% for men. Cilacap Regency is listed as a Regency in Central Java with a prevalence of hypertension exceeding 10%, ranking 13th out of 35 districts in Central Java. According to data from the Central Java Provincial Health Office for 2021, the category of non-communicable diseases in Cilacap Regency is 12.38%. (Central Java Health Office, 2021).

Disorders that can be caused by hypertension are disorders of vital organs such as the heart and kidneys. Preventive, promotive, curative and rehabilitative management related to this condition is very important to do. An important aspect of the promotion and prevention of hypertension is the management of risk factors. There are several risk factors that can cause hypertension, namely gender, age, and heredity are risk factors that cannot be changed. The modifiable risk factors are obesity, smoking, and occupation. An increase in hypertension occurs with age, where the arteries will lose elasticity so that blood pressure increases with age (Tarigan et al, 2019).

Hypertension can increase the risk factors for cardiovascular, cerebrovascular and renovascular diseases and can be the most dangerous problem (Kusumawaty, Marliani, Sukmawati, & Noviati, 2021). The typical symptom of hypertension is that it cannot be predicted by the patient so that it can be at risk of secretly killing the patient or what is often called the silent killer. There are several risk factors including age, gender, heredity, obesity and consuming high levels of salt can also affect an increase in blood pressure (Sarumaha, 2018).

The government has provided services to help maintain blood pressure stability in people with hypertension through the chronic disease prevention program (PROLANIS). PROLANIS is a program to increase the knowledge of participants who suffer from chronic diseases in an effort to recover from disease and prevent chronic disease complications. By becoming a PROLANIS participant, the patient's health status will be more controlled, participants will receive a health status monitoring book and PROLANIS club education, and can participate in healthy gymnastics held by First Level Health Facilities (FKTP) for PROLANIS club participants so that with this special service it is expected that Health Insurance participants National – The Healthy Indonesia Card (JKN-KIS) can be more independent and aware of the illness they are suffering from so that the participant's health status can be improved gradually (BPJS, 2021).

One of the factors that influence a person's persistence in health is knowledge (Purwanto, 2016). Knowledge is the result of cognition, which is produced after people have certain feelings about certain things. Perception occurs

through the five human senses, namely sight, hearing, smell and touch (Notoatmojo, 2017). The knowledge of hypertensive patients about PROLANIS activities is the responsibility of the BPJS program. The knowledge gained by providing this information can stimulate interest or motivation to take PROLANIS, which can help maintain health by controlling blood pressure. Patient knowledge refers to whether the patient participates well in the PROLANIS program by obtaining knowledge, benefits, understanding of PROLANIS participants, implementation of PROLANIS in sepsis, suggestions and input about PROLANIS activities.

The results of a preliminary study conducted at the UPTD Puskesmas Wanareja II on November 7 2022 on 10 people with hypertension using the interview method obtained data that, 3 people know about prevention of hypertension but this is often violated, 5 people don't know what hypertension is and how to prevent it, and 2 people did not know the cause of hypertension. From the aspect of adherence to chronic disease service programs, 7 out of 10 hypertensive patients said they took part in these activities when their disease had recurred and only 3 people.

## Methods

The type of research used in this research is a quantitative approach, and the method used is descriptive correlation with the aim of studying a particular population or sample (Arikunto, 2017). The reason the researcher chose the correlation study design is because the correlation study has the same goal as the researcher. This study describes the relationship between knowledge of hypertension and compliance with the Chronic Disease Service Program (PROLANIS) at the UPTD Puskesmas Wanareja II, Cilacap Regency.

The design or research design used is a cross-sectional research design, namely a type of research design that emphasizes the time of measurement or observation of independent and dependent variable data only once at a time (Notoatmodjo, 2015).

## Results

**Table 1. Distribution of Knowledge Frequency of PROLANIS Participants**

Knowledge	Frequency	Percentage
Good	27	49 %
Enough	13	24 %
Not enough	15	27 %
<b>Total</b>	<b>55</b>	<b>100 %</b>

The data in table 1.1 shows that the highest category, namely 27 respondents (49%), has good knowledge, while the lowest category, namely 13 respondents (24%), has sufficient knowledge about PROLANIS.

**Table 2. Frequency Distribution of Compliance Following the Chronic Disease Service Program (PROLANIS)**

Compliance	Frequency	Percentage(%)
Obey	31	56 %
Not obey	24	44 %
<b>Total</b>	<b>55</b>	<b>100 %</b>

The data in table 2 shows the highest category of 31 respondents (56%) complying with the PROLANIS program.

**Table 3. The Relationship Between Knowledge of Hypertension and Compliance with the Chronic Disease Service Program (PROLANIS)**

Knowledge of Hypertension	Prolanis Compliance				Total		Sig. (2-tiled)
	obedient		disobedient		f	%	
	f	%	f	%	f	%	
Good	27	100	0	0.0	27	100.0	0.000
Currently	4	30.8	9	69.2	13	100.0	
Not enough	0	0	15	100.0	15	100.0	
Total	31	56.4	24	43.6	55	100.0	

Based on the data in table 3. it can be seen that of the 27 PROLANIS participants who had good knowledge, all (100%) obeyed PROLANIS activities, while 9 respondents (69%) did not comply with PROLANIS. As many as 4 respondents (31%) adhered to PROLANIS activities and out of 15 respondents who had less knowledge, all 100% did not comply with PROLANIS activities. The results of statistical tests using Kendall's tau obtained the value of Sig. (2-tailed) of 0.000 is less than alpha 0.05 which means there is a significant relationship between knowledge of hypertension and compliance with the chronic disease service program (PROLANIS) at the UPTD Puskesmas Wanareja II Cilacap Regency.

## Discussion

### Knowledge of PROLANIS Participants about Hypertension

The results of the research on PROLANIS participants from the aspect of knowledge about hypertension at the UPTD Wanareja II Health Center in Cilacap Regency found that almost half of the respondents had good knowledge of 49%, less knowledge of 27%, and a small portion of 24% had sufficient knowledge about PROLANIS.

Based on this analysis, it can be seen that the aspect of knowledge is still dominated by good knowledge, but the percentage of sufficient and insufficient knowledge still stands out even if the percentage value is more than 50%. Many factors can affect the lack of knowledge of PROLANIS participants at the Wanareja II Health Center, one of which is the educational aspect. Based on the demographic data obtained by the researchers, it is known that the education of

PROLANIS participants at the Wanareja II Health Center almost half of the respondents were elementary school graduates, namely 36%, a small portion did not complete elementary school by 11% and only 16% and 9% had high school and university education levels. Tall.

The good knowledge of PROLANIS participants cannot be separated from the role of the health workers at the Wanareja II Health Center. The Wanareja II Health Center has a scheduled health promotion and counseling program to provide insight into the community, so it is not surprising that PROLANIS participants have good knowledge of hypertension. Based on the results of this study it was concluded that the factor of health workers is very important in fostering the community, especially PROLANIS participants. Community health workers have the ability to understand promotive and preventive patterns regarding the prevention of chronic diseases in the community. It is needed in designing programs and policies to treat chronic diseases such as hypertension.

The results of this study are also in accordance with Notoatmojo's theory (2017), which states that knowledge is closely related to the education expected of those who have received higher education. However, it is worth mentioning that people with degrees in related fields do not necessarily have degrees in related fields. Greater knowledge does not always occur with formal education, but can also occur with informal education.

In line with this theory, Rohimah's research (2019) explains that the general public's ignorance regarding the nature of increased blood pressure, the effects of morbidity and methods of maintaining its control is widespread and contributes to the large percentage of undetected and untreated hypertension subjects in the community. In many cases, the first sign of hypertension is a sudden heart attack or stroke, which is why hypertension is often called the "silent killer".

Education is a lifelong endeavor to develop personality and skills inside and outside of school. Education enhances the learning process and makes information more accessible to educated people. People are more likely to get information from other people and social media if they have a strong educational foundation. As the amount of information in the world increases, so does our knowledge about health (Notoatmojo, 2017).

The results of the analysis showed that many PROLANIS participants had less knowledge about hypertension. This encourages health workers to carry out health education efforts regarding hypertension to PROLANIS participants through counseling in order to increase PROLANIS participants' knowledge about hypertension. Health education is a business or activity in helping individuals, groups, or communities in improving abilities (behavior) to achieve optimal health (Notoatmodjo, 2017).

### **Compliance Participating in PROLANIS Activities**

The results of research on aspects of compliance with PROLANIS showed that most of the PROLANIS participants were in the compliant category, namely

56%, and almost half of them, 44%, were disobedient in participating in PROLANIS activities.

PROLANIS is a program from BPJS Kesehatan which aims to improve the quality of life for people with chronic diseases, especially hypertension. PROLANIS activities are integrated between BPJS Kesehatan, health facilities and patients. This activity has been held routinely once a month at the Health Service, but the implementation was not optimal because many participants did not participate in these activities regularly (Ministry of Health RI, 2022).

The adherence of PROLANIS participants in participating in the activity thus the hypertensive patients adhered to the treatment of hypertension, it can be seen that the majority, namely as many as 56%, adhered to taking PROLANIS. The results of the analysis are in line with research conducted by Rohimah et al (2019), with the title of achieving healthy family indicators in Saguling Village, Baregbeg District, Ciamis Regency, this study shows that the achievement of hypertension sufferers taking regular treatment is 74%, and there are hypertensive sufferers who do not treatment by 26%. National health indicator survey data (Sirkesnas) in 2016 showed an increase in the prevalence of hypertension in people aged 18 years and over by 32.4% (Ministry of Health, 2016).

Hypertension is an incurable disease, compliance to participate in PROLANIS activities for hypertensive patients is very important, but must always be controlled or managed to prevent potentially fatal complications. The management of hypertension with PROLANIS activities is very important, but in the UPTD Puskesmas Wanreja II almost half or 44% of hypertensive patients are disobedient when participating in PROLANIS activities. Hypertension cannot be cured in a short time, because hypertension treatment is a long-term treatment.

Hypertension is also influenced by the activities of sufferers in carrying out daily activities, one of which is walking (Jajuk Kusumawaty, Dedi Supriadi, Adi Nurapandi, Heni Marliany, Lilis Lismayanti, 2023). Based on the results of research conducted by Suci Nisa Annazmi, Daniel Akbar Wibowo, and Dini Nurbaeti Zen (2022), with the title the effect of walking activity on blood pressure in the elderly in the working area of the Rajadesa Health Center, Ciamis Regency in 2022, it can be seen that there is a difference in mean blood pressure systolic before and after the walking activity intervention, which means  $\text{sig} = 0.000 < \alpha = 0.05$ , which means that there is a significant difference in systolic blood pressure before and after the walking activity. For diastolic blood pressure before and after the walking activity intervention, which was significant,  $\text{sig} = 0.000 < \alpha = 0.05$ , which means that there was a significant difference in diastolic blood pressure before and after walking activity. The conclusion from the test results is that there is an effect of walking activity on blood pressure.

Many factors influence the non-compliance of PROLANIS participants in participating in these activities, based on the researcher's assumption that these factors are due to misunderstanding and lack of information about the importance of participating in PROLANIS, support from family and closest people and besides that the quality of interaction between health workers and PROLANIS participants is considered to be lacking, the role of Health workers are expected to

be able to clearly convey information to PROLANIS participants, so that PROLANIS participants realize the importance of taking PROLANIS.

The researchers' assumptions were reinforced by research conducted by Andi et al (2018), which stated that there was a significant relationship between interaction quality and non-compliance with PROLANIS activities. The quality of interaction between healthcare professionals and patients has a significant impact on treatment rates and medication adherence. In this case, it has a significant impact on how often health workers provide information about the disease, ways of prevention, and their willingness to make statements. , an opportunity for patients to ask questions about their disease.

Another factor that influences the adherence of hypertension sufferers to the PROLANIS program is the family support factor. Based on research conducted by Pamungkas, Rohimah, and Zen (2019) with the title the relationship between family support and adherence to treatment for hypertension sufferers in the Ciamis Health Center Work Area in 2019, it is known that there is a relationship between family support and adherence to treatment in hypertension sufferers in the working area of the Ciamis Health Center . Based on the results of the Kendal-Tau analysis with a degree of confidence of 95% and an error level of 5%, the correlation coefficient of family support and adherence to treatment is  $r = 0.526$  with a p-value significance level of  $0.049 < \alpha 0.05$ . That is, the higher the family support.

### **Relationship Between Knowledge of Hypertension and Compliance with Chronic Disease Service Program (PROLANIS)**

The results of the analysis between knowledge of hypertension and compliance with the chronic disease service program (PROLANIS) show that from the results of statistical tests using Kendal's tau, the value of Sig. (2-tiled) of 0.000 less than alpha 0.05 which means there is a significant relationship between knowledge of hypertension and compliance with the chronic disease service program (PROLANIS), where out of 27 PROLANIS participants who had good knowledge all (100%) adhered to PROLANIS activities , of the 13 PROLANIS participants who had sufficient knowledge, 9 respondents (69%) did not comply with PROLANIS and 4 respondents (31%) adhered to PROLANIS activities and of the 15 respondents who had insufficient knowledge, 100% did not comply with PROLANIS activities.

The close correlation between knowledge about hypertension and compliance in participating in PROLANIS, proves that good knowledge will generally be followed by good behavior, in this case the participation of participants in PROLANIS activities. The results of the researcher's research are in line with the research of Gayatri et al (2020), with the title Sociodemography with Prolanis Participant Compliance at the Kedaton Health Center in Bandar Lampung, the sociodemography consists of education in this case factors that influence knowledge, the results of this study have a significant relationship between one another , the results of the analysis using the Chi Square test show that P-value = 0.000 which is less than the significance value of 5% (0.05), this shows that there is a significant relationship between education and PROLANIS

participant compliance. Higher education level is 7.75 times more likely to comply with PROLANIS activities.

PROLANIS is a flagship program to improve the quality of health services for BPJS Health participants and facilitate access to health services for participants with chronic diseases (BPJS Health, 2018). With the PROLANIS program, it is hoped that it can improve and monitor the health of people with chronic diseases, but a program will not run smoothly if there is no awareness from participants and the role of health workers to make the program successful. Based on the results of the analysis, it can be seen that the knowledge of PROLANIS participants, especially about hypertension, is related to the participants' adherence to participating in PROLANIS activities, thus the knowledge of PROLANIS participants must be further improved so that they are more obedient in participating in these activities. The impact of patient non-compliance is poor health and increased medical costs. Participant non-adherence is a significant health problem, both from a quality of life perspective and from an economic perspective.

The results of the author's research are in line with the research of Syafril et al (2021), with the title of determinant factors related to adherence of people with diabetes mellitus in PROLANIS activities with the results showing that there is a relationship between all variables with Compliance in Prolanis Activities BPJS Kesehatan, including knowledge of p-value 0.001, duration of suffering disease p-value 0.001, participation in counseling p-value 0.002, family support p-value 0.000 support for health workers p-value 0.0000. By providing PROLANIS participants with an understanding of the importance of undergoing regular treatment for hypertension sufferers, it will have a positive impact, namely increasing the compliance of hypertension sufferers to participate in PROLANIS activities.

The role of health workers in providing hypertension counseling and pamphlets on hypertension has indirectly proven to be able to increase the knowledge of PROLANIS participants and motivate them to comply with all PROLANIS activities. A higher level of knowledge can motivate patients to increase compliance (Wulan, 2021).

## **Conclusion**

There is a relationship between knowledge of hypertension and compliance with the chronic disease service program (PROLANIS) at the UPTD Wanareja II Health Center in Cilacap Regency by taking a sample of 55 respondents. Most of the percentage of PROLANIS knowledge have good knowledge, and more than half have a high level of compliance.

## **References**

- Aidha, Z., & Tarigan, A. A. 2019. *Survey Hipertensi Dan Pencegahan Komplikasinya Di Wilayah Pesisir Kecamatan Percut Sei Tuan Tahun 2018*. JUMANTIK (Jurnal Ilmiah Penelitian Kesehatan), 4 (1), 101.



- Badriah D.L. 2019. *Metodologi Penelitian Ilmu-Ilmu Kesehatan*. Multazam. Bandung.
- BPJS Kesehatan. 2021. *Panduan Praktis PROLANIS (Program Pengelolaan Penyakit Kronis)*. BPJS. Jakarta.
- BPS. 2021. *Profil kesehatan Provinsi Jawa Barat Tahun 2021*. Dinas Kesehatan Provinsi Jawa Barat. Bandung.
- Budiman & Riyanto. 2015. *Kapita Selekta Kuesioner : Pengetahuan dan Sikap dalam Penelitian Kesehatan*. Penerbit Salemba Medika. Jakarta.
- Dinkes Jawa Tengah. (2021). *Rencana Strategis Dinas Kesehatan Provinsi Jawa Tengah Tahun 2018-2023*. Dinas Kesehatan: Cilacap
- Garnadi, Yudi. 2018. *Hidup Nyaman Dengan Hipertensi*. Agro Media Pustaka. Jakarta.
- Hidayat A.A. 2015. *Metode Penelitian Keperawatan dan Teknik Analisis Data*. Salemba Medika. Jakarta.
- Jajuk Kusumawaty, Dedi Supriadi, Adi Nurapandi, Heni Marliany, Lilis Lismayanti, I. S. (2023). Peningkatan Kemandirian Lansia dengan Senam Lansia di Panti Werdha Welas Asih Singaparna Tasikmalaya. *Bernas: Jurnal Pengabdian Kepada Masyarakat*, 4(1), 160–164. <https://doi.org/DOI:https://doi.org/10.31949/jb.v4i1.3849>
- Kemenkes RI. (2021). *Hipertensi Penyebab Utama Penyakit Jantung, Gagal Ginjal*. Pusat Promosi Kesehatan. Jakarta.
- Kusumawaty, J., Marliani, H., Sukmawati, I., & Noviati, E. (2021). Upaya Pencegahan Dan Penanggulangan Hipertensi Di Posbindu Rungki Cigembor. *Jurnal Pengabdian Kepada Masyarakat*, 2(1), 202–205. <https://doi.org/10.31949/jb.v2i1.685>
- Maier, R. 2017. *Knowledge Management Systems Information and Communication Technologies for Knowledge Management*. In Springer (3rd ed.).
- Meiriana, A., Trisnantoro, L., & Padmawati, R. S. 2019. *Implementasi Program Pengelolaan Penyakit Kronis (PROLANIS) Pada Penyakit Hipertensi Di Puskesmas Jetis Kota Yogyakarta*. JKKI, 08, 51-58.
- Notoatmojo S. 2017. *Pendidikan dan Perilaku Kesehatan*. Rineka Cipta. Jakarta.
- Noviati, E., Sukmawati, I., & Kusumawaty, J. (2022). Happy Elderly in the Pandemic Period with Elderly Gymnastics and Counseling Methods. *ABDIMAS: Jurnal Pengabdian Masyarakat*, 4(2), 666–670. <https://doi.org/10.35568/abdimas.v4i2.1142>
- Nursalam. 2017. *Konsep dan Penerapan Metodologi Ilmu Keperawatan*. Salemba Medika. Jakarta.
- Reber, S.A., Reber, S.E. 2015. *Kamus Psikologi*. Pustaka Pelajar. Yogyakarta.
- Rumengan, D. S. S., Umboh, J. M. L., Kandou, G. D. 2015. *Faktor – Faktor Yang Berhubungan Dengan Pemanfaatan Pelayanan Kesehatan Pada Peserta BPJS Kesehatan Di Puskesmas Paniki Bawah Kecamatan Mapanget Kota Manado*. SKRIPSI. Universitas Sam Ratulangi Manado. Surakarta.
- Riyanto Agung Pamungkas, Siti Rohimah, dan Dini Nurbaeti Zen. 2020. *Hubungan Dukungan Keluarga Dengan Kepatuhan Berobat Pada*

- Penderita Hipertensi Di Wilayah Kerja Puskesmas Ciamis Tahun 2019.*  
Jurnal Keperawatan Galuh, Vol.2 No.1.
- Sarumaha, EK dan Diana, VE. 2018. '*Faktor Risiko Kejadian Hipertensi pada Usia Dewasa Muda di UPTD Puskesmas Perawatan Plus Teluk Dalam Kabupaten Nias Selatan*', Jurnal Kesehatan Global, vol. 1, no.2, Mei 2018, hlm. 70-77.
- Smeltzer, S. C., & Bare, B. G. (2017). *Buku ajar keperawatan medikal-bedah.* EGC. Jakarta.
- Siti Rohimah dan Tika Sastraprawira. 2019. *Pencapaian Indikator Keluarga Sehat Desa Saguling Kecamatan Baregbeg Kabupaten Ciamis.* Jurnal Keperawatan Galuh Volume : 1 – Nomor : 1 Tahun : 2019.
- Suci Nisa Annazmi , Daniel Akbar Wibowo, Dini Nurbaeti Zen. 2022. *Pengaruh Aktivitas Jalan Kaki Terhadap Tekanan Darah Pada Lansia Di Wilayah Kerja Puskesmas Rajadesa Kabupaten Ciamis Tahun 2022.* Jurnal Mahasiswa Keperawatan Galuh Vol 1, No 1 Halaman 31-38.
- Sugiyono. 2018. *Statistika Untuk Penelitian (Edisi Revisi).* Alfabeta. Bandung.
- Triyanto, Endang. 2018. *Pelayanan Keperawatan bagi Penderita Hipertensi Secara Terpadu.* Graha Ilmu. Yogyakarta.