

THE RELATIONSHIP BETWEEN KNOWLEDGE AND SELF-CARE IN ELDERLY PATIENTS WITH HYPERTENSION

Oktawiani Catur Widiasti¹, Adi Buyu Prakoso^{2*}, Insanul Firdaus³

Universitas Duta Bangsa^{1,2,3}

*Correspondence Email : adi_buyuprakoso@udb.ac.id

ABSTRACT

Hypertension is one of the degenerative diseases commonly experienced by the elderly and is known as the "silent killer." Knowledge of hypertension among the elderly plays an important role in disease control through effective self-care. This study aims to determine the relationship between the level of knowledge and self-care among elderly patients with hypertension in the Working Area of Colomadu II Health Center, Karanganyar Regency. The research method used a quantitative cross-sectional approach with 58 elderly respondents suffering from hypertension who actively participated in the Prolanis program at the Colomadu II community health center. The instrument used was a questionnaire that had been tested for validity and reliability. Data analysis employed the Spearman rank test. The results showed that the level of knowledge of the respondents was in the good category (51.7%) and self-care of the respondents was in the good category (79.3%). The results of the Spearman rank test indicated a relationship between the level of knowledge and self-care with a p-value of 0.001 (p-value < 0.005). Good knowledge contributes to optimal self-care behavior.

KEYWORDS

Elderly, Hypertension, Knowledge, Self-care



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INTRODUCTION

Hypertension is one of the most common degenerative diseases experienced by the elderly and is known as the 'silent killer' because it often does not show early symptoms. As people age, the elderly experience cellular degeneration and a decline in physiological function that increases the risk of various chronic diseases, including hypertension. (Firdaus *et al.*, 2023). Global data indicates that the prevalence of hypertension will

continue to rise, with an estimated 1.5 billion sufferers and an estimated 9.4 million people expected to die from hypertension and its complications by 2025 (WHO, 2023). In Indonesia, although the latest health survey shows a decrease in the prevalence of hypertension from 34.1% in 2018 to 30.8% in 2023, the figure is still considered high and remains a major challenge for public health (Kemenkes RI, 2023; Sholihah *et al.*, 2024). In Central Java Province, according to the Non-Communicable Disease Prevention and Control Section (P2PTM) of the Central Java Health Office in 2023, the prevalence of hypertension is estimated to reach 38.2% (Dinkes Jateng, 2023), and in Karanganyar Regency, hypertension ranks second on the list of the 10 most common diseases (Dinkes Karanganyar, 2023). Colomadu II Health Center recorded 200 cases of hypertension from 448 laboratory tests in 2024, indicating that hypertension remains a significant health issue in the area.

Elderly knowledge about hypertension plays an important role in disease control through effective self-care behaviors, which include independent efforts to maintain blood pressure through dietary management, medication adherence, blood pressure monitoring, and lifestyle modification. Adequate knowledge will facilitate the formation of attitudes and behaviors to prevent complications, while low knowledge can become a major barrier in the management of chronic diseases (Gusty *et al.*, 2022). Because the lack of insight related to health can affect the way of thinking, making respondents ineffective in managing their health issues (Puspita *et al.*, 2024). Literature indicates that a good level of knowledge significantly contributes to optimal self-care behavior, which can reduce the rates of relapse and long-term complications. For example, the studies by Utomo (2013) and Maulidah *et al.*, (2022) in the areas of Karanganyar and Karawang found a positive relationship between the elderly's knowledge about hypertension and their efforts in preventing and controlling the disease. Similarly, the research by Anggraeni & Nasution (2019) in Deli Serdang confirmed a meaningful correlation between knowledge and blood pressure control in elderly hypertensive individuals.

Although some studies prove a positive relationship between knowledge and self-care in elderly people with hypertension, there are differences that can affect the results, such as the sample used, which consists of elderly individuals attending Posyandu and whose education level is only up to elementary school. In fact, Prolanis participants (Chronic Disease Management Program) regularly receive education and monitoring, making their knowledge and self-care characteristics different compared to non-Prolanis elderly. The difference in education levels between elementary school and junior high school also influences the knowledge held by the elderly, where elderly individuals with junior high school diplomas have easier access to information due to their higher literacy levels.

RESEARCH METHOD

This research uses a quantitative method with a cross-sectional design aimed at determining the relationship between knowledge level and self-care among elderly hypertension patients at the Puskesmas Colomadu II, Karanganyar Regency. A sample of 58 respondents was selected through purposive sampling from a population of 138 active elderly Prolanis with hypertension. The research instruments consisted of the Hypertension Knowledge-Level Scale (HK-LS) questionnaire and a self-care questionnaire that have been tested for validity and reliability. Data were analyzed using the Spearman rank test with the assistance of SPSS 26, and this study has obtained ethical clearance from RSUD Dr. Moewardi Surakarta.

RESULT AND DISCUSSION

Table 1. Characteristics of the respondents

Characteristics of the respondents	Frequency (f)	Percent (%)
Gender :		
Male	10	17.9
Female	46	82.1
Last education :		
No school	2	3.6
Elementary school	17	30.4
Junior high school	26	46.4
Senior high school	8	14.3
Higher education	3	5.4
Occupation :		
Unemployed	32	57.1
Civil servant	1	1.8
Entrepreneur	11	19.6
Farmer / Laborer	3	5.4
Others	9	16.1
Grade Hypertension :		
Grade 1	12	21.4
Grade 2	40	71.4
Crisis Hypertension	4	7.1

Table 1 shows the most common gender, which is Female with 46 respondents (82.1%), the majority of the elderly are at the junior high school education level with 26 respondents (46.4%), there are 32 respondents who are unemployed (57.1%), and the majority of the elderly are in grade 2 hypertension with 40 respondents (71.4%). This is consistent with global findings that show a higher prevalence of hypertension in older women, particularly post-menopause, when estrogen levels decrease, making it easier for atherosclerosis to occur and blood pressure to increase. In addition, women tend to be more actively involved in primary health activities such as Prolanis and elderly posyandu, making them more detectable in this survey.

Table 2. The level of knowledge of the elderly regarding hypertension

Knowledge	Frequency (F)	Percent (%)
Good	29	51.8
Sufficient	24	42.9
Insufficient	3	5.4
Total	56	100.0

Table 2 shows that out of 56 respondents, there are 29 respondents with a good level of knowledge (51.8%), 24 respondents with a sufficient level of knowledge (42.9%), while 3 respondents have a poor level of knowledge (5.4%).

Table 3. Self-care for the elderly regarding hypertension

Self-care	Frequency (F)	Percent (%)
Good	45	80.4
Sufficient	11	19.6
Total	56	100.0

Table 3 shows that out of 56 respondents, there are 45 respondents with good self-care (80.4%) while 11 respondents have moderate self-care (19.6%).

Table 4. Spearman rank test correlation

The level of knowledge	Self Care				P- Value (Sig)
	Sufficient		Good		
	n	%	n	%	
Insufficient	3	5,2	0	0	0,000
Sufficient	7	12,1	17	31,0	
Good	1	3,4	28	48,3	

Table 4 shows that there is a relationship between the level of knowledge and self-care of elderly patients with hypertension in the Working Area of Colomadu II Puskesmas, Karanganyar Regency, with a significance value of 0.000 (p-value < 0.05).

Research results show that out of 56 respondents, the majority of elderly participants in Prolanis at Colomadu II Health Center are women (82.1%), have an education level of junior high school (46.4%), and are unemployed (57.1%). Findings from this demographic data strengthen previous literature that hypertension is more frequently diagnosed in post-menopausal elderly women, which is caused by a decrease in estrogen hormone that can increase the risk of developing hypertension (Lukitaningtyas, D., & Cahyono, 2023). In addition, the level of education is closely related to knowledge, where the higher the level of education a person has, the better their literacy will be (Darsini *et al.*, 2019). The education level of junior high school allows for a positive response to the education provided, so many elderly individuals already have health literacy about hypertension. Health literacy can help individuals visit health service centers, understand, and use health information well, thus aiding in the self-care they engage in (Safitri *et al.*, 2024). Work can also affect the level of knowledge and self-care in hypertensive patients because the elderly who are busy working will have little time to seek information about their illness and are less concerned about their health as they are already busy with their work (Amila *et al.*, 2018).

Based on the results of the Spearman's rho statistical test, a p-value of 0.000 was obtained, indicating that $p < 0.05$, thus resulting in the acceptance of H_a and the rejection of H_o , which means there is a relationship between the level of knowledge about self-care in elderly patients with hypertension participating in Prolanis in the working area of the Colomadu II Health Center in Karanganyar Regency. These results are in line with the study conducted by Yulidar *et al.*, (2023) with elderly respondents in the Grogol Community Health Center Work Area, which stated that there is a significant relationship between the knowledge of hypertension sufferers and preventive behavior. According to Notoatmodjo's opinion in Yulidar *et al.*, (2023), the knowledge possessed influences behavior; the better the level of knowledge, the better the behavior, and vice versa.

The level of knowledge possessed by the elderly plays an important role in determining the self-care they undertake. Respondents with good knowledge and self-care do so because they have been exposed to information about hypertension and its dangers. Respondents with sufficient or even low levels of knowledge and self-care occur because they do not understand their illness and feel that they have no complaints, thus they believe they are healthy and only take antihypertensive medication when they experience symptoms (Dedy Kuswoyo, 2022).

The statement above is evidenced by the researchers during the distribution of the questionnaire where many of the elderly participants in the prolanis program in the Colomadu II Health Center working area already have quite good self-care, specifically by regularly taking antihypertensive medication, routinely checking their blood pressure both at health centers and independently, and regularly exercising since many of the elderly no longer work, allowing them free time to participate in prolanis activities like healthy gymnastics. However, salt consumption has not been completely prevented, as many

elderly people feel that food without salt tastes bland. Some elderly individuals, especially males, still smoke, although not as frequently as before they were diagnosed with hypertension.

CONCLUSION

This study shows that there is a significant relationship between the level of knowledge and self-care behavior in elderly patients with hypertension in the working area of the Colomadu II Community Health Center, Karanganyar Regency. The majority of respondents have a good level of knowledge and self-care, indicating that adequate understanding of hypertension contributes to more optimal self-care. These findings emphasize the importance of ongoing health education for the elderly as a preventive and promotive effort in hypertension management.

REFERENCES

- Amila, A., Sinaga, J., & Sembiring, E. (2018). Self Efficacy dan Gaya Hidup Pasien Hipertensi. *Jurnal Kesehatan*, 9(3), 360–365. <https://doi.org/10.26630/jk.v9i3.974>
- Anggraeni, N., & Nasution, J. D. (2019). Hubungan pengetahuan dan sikap lansia dengan riwayat hipertensi dalam pengendalian tekanan darah pada lansia di Puskesmas Sibolangit Kabupaten Deli Serdang Tahun 2019. *Journal of Chemical Information and Modeling*, 53(9), 2–9. https://ecampus.poltekkes-medan.ac.id/xmlui/bitstream/handle/123456789/2065/JURNAL_NOVITA.pdf?sequence=1&isAllowed=y
- Bratajaya, C., & Rejeki, G. (2020). Hubungan Pengetahuan, Sikap, Dan Perilaku Tentang Perawatan Hipertensi Pada Lansia Yang Menderita Hipertensi di Johar Baru Jakarta Pusat. *Jurnal Medika Cendikia*, vol 2(7), h 90.
- Darsini, Fahrurrozi, & Cahyono, E. A. (2019). Pengetahuan ; Artikel Review. *Jurnal Keperawatan*, 12(1), 97.
- Dedy Kuswoyo, S. M. A. T. (2022). Hubungan Pengetahuan Dan Sikap Dengan Kejadian Hipertensi Pada Lansia. *Journal of Language and Health*, 3(2), 71–78. <https://jurnal.pijarkesehatan.org/index.php/jkp/article/view/11%0Ahttps://jurnal.pijarkesehatan.org/index.php/jkp/article/download/11/15>
- Dinkes Jateng. (2023). *Profil Kesehatan Jawa Tengah Tahun 2023*.
- Dinkes Karanganyar. (2023). *Buku Profil Kesehatan Kabupaten Karanganyar Tahun 2023* (p. 194).
- Elfina Yulidar, Dini Rachmaniah, & Hudari Hudari. (2023). Hubungan Pengetahuan Dengan Perilaku Pencegahan Hipertensi Pada Penderita Hipertensi Di Wilayah Kerja Puskesmas Grogol Tahun 2022. *Detector: Jurnal Inovasi Riset Ilmu Kesehatan*, 1(1), 264–274. <https://doi.org/10.55606/detector.v1i1.1531>
- Firdaus, I., Sulityoningsih, H., Marni, & Ain Nur Rohmah, R. (2023). Hubungan Tingkat Stres Terhadap Pola Makan Dan Pola Aktivitas Pada Lansia Penderita Hipertensi. *Prosiding Seminar Informasi Kesehatan Nasional (SIKESNAS), 2015*, 513–517.
- Gusty, R., Effendi, N., Abdullah, K. L., & Syafrita, Y. (2022). Association between Knowledge and Self-care Adherence among Elderly Hypertensive Patient in Dwelling Community. *Open Access Macedonian Journal of Medical Sciences*, 10, 206–212. <https://doi.org/10.3889/oamjms.2022.8342>
- Lukitaningtyas, D., & Cahyono, E. A. (2023). Hipertensi; Artikel Review. *Jurnal Pengembangan Ilmu Dan Praktik Kesehatan*, VIII(1), 1–19.
- Maulidah, K., Neni, N., & Maywati, S. (2022). Hubungan Pengetahuan, Sikap Dan

- Dukungan Keluarga Dengan Upaya Pengendalian Hipertensi Pada Lansia Di Wilayah Kerja Puskesmas Cikampek Kabupaten Karawang. *Jurnal Kesehatan Komunitas Indonesia*, 18(2), 484–494. <https://doi.org/10.37058/jkki.v18i2.5613>
- Puspita, T. I., Ulkhasanah, M. E., & Prakoso, A. B. (2024). Pengaruh Support Educative Terhadap Perilaku Manajemen Perawatan Diri Pada Penderita Hipertensi. *OVUM: Journal of Midwifery and Health Sciences*, 4(1), 9–16. <https://doi.org/10.47701/ovum.v4i1.3851>
- Safitri, D. E., Aminah, T., Ristanto, R., Rizzal, A. F., & Laksono, B. B. (2024). Self-Management in Hypertension Patient. *Ijens: Indonesian Journal of Empirical Nursing Sciences*, 1(1). <https://doi.org/10.47794/ijens.v1i1.10>
- Sholihah, I., Majid, S. A. ., Salsabila, S. ., Ayuningtyas, R. ., Lathifah, N. F. ., Hadi, L. A. ., ... Sawitri, A. N. . (2024). *Edukasi Tentang Gaya Hidup Bagi Penderita Hipertensi*. 5(4), 7072–7078.
- Utomo, P. T. (2013). Hubungan Tingkat Pengetahuan Tentang Hipertensi dengan Upaya Pencegahan Kekambuhan Hipertensi pada Lansia di Desa Blulukan Kecamatan Colomadu Kabupaten Karanganyar. *Fakultas Ilmu Kesehatan Universitas Muhammadiyah Surakarta*, 12.
- WHO. (2023). Global report on hypertension. In *Universitas Nusantara PGRI Kediri* (Vol. 01).