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The Relationship Between Self-Efficacy and Diet Compliance in Hypertensive Patients with Comorbidities

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Abstract

Background: Hypertension is referred to as “the silent killer” because it often does not show any symptoms, so people are unaware that they have it. This condition can increase the risk of various serious diseases such as aneurysms, heart failure, metabolic syndrome which can trigger diabetes mellitus, heart disease, stroke, dementia, and an increased risk of end-stage kidney disease. Dietary compliance is very important to avoid complications of hypertension, where self-efficacy is one of the main determinants of success in maintaining dietary compliance.

Objective: This study focuses on determining the relationship between self-efficacy and diet compliance in patients with hypertension and comorbidities.

Methods: This study is a quantitative study with a cross-sectional design. The sampling technique used was purposive sampling, where 120 respondents with hypertension and comorbidities at Dr. Moewardi General Hospital, Surakarta, were selected. The research instruments used were a self-efficacy questionnaire and a dietary compliance questionnaire.

Results: Statistical test results using SPSS and Chi-Square analysis showed a significant relationship between self-efficacy levels and diet compliance in hypertensive patients with comorbidities (P-value <0.001). Most respondents had high self-efficacy and adhered to their diet, namely 59 respondents (93.7%), while 55 respondents (96.5%) of those with low self-efficacy were non-adherent.

Conclusion: This study indicates that the higher a person's self-efficacy, the higher their confidence in adhering to a diet. Therefore, interventions aimed at increasing self-efficacy can be an effective strategy for improving diet compliance.

Keywords: Comorbidities, Diet Compliance, Hypertension, Self-Efficacy

INTRODUCTION

Hypertension is one of the most common chronic diseases in society and is one of the leading causes of morbidity and mortality worldwide (1). A person is considered to have hypertension if their systolic blood pressure is above 140 mmHg and their diastolic blood pressure is above 90 mmHg for two consecutive days (2). Hypertension is also referred to as “the silent killer” because it often does not show symptoms, so people are unaware that they have it (3). This condition can increase the risk of various serious diseases such as aneurysms, heart failure, metabolic syndrome that can trigger diabetes mellitus, heart disease, stroke, dementia, and an increased risk of end-stage kidney disease (4).

The World Health Organization (WHO) states that hypertension is a serious global health problem, with the number of sufferers reportedly doubling from 650 million in 1990 to 1.3 billion in 2019. This condition causes approximately 10.8 million preventable deaths each year and 235 million years of life lost. In Southeast Asia, approximately 294 million people over the age of 30 suffer from hypertension, causing 2.4 million deaths per year (5). The 2018 National Basic Health Research Data Report states that the prevalence of hypertension cases in Indonesia is 658,201 cases, with a percentage of 34.1%, higher than the 2013 Riskesdas figure of 25.8%. Central Java alone had a prevalence rate of hypertension in 2018 of 89,648 cases (6).

The high prevalence of hypertension can be influenced by various risk factors that are divided into two main categories, namely unmodifiable risk factors, such as genetic factors, gender, and age, which naturally increase a person's likelihood of developing hypertension, and modifiable risk factors, such as smoking, physical activity, excessive salt intake, stress levels, and diet compliance (7). One factor that plays a role in dietary compliance is self-efficacy. The self-efficacy theory developed by Albert Bandura suggests that self-efficacy influences motivation and the ability to engage in self-care behaviors (8).

Self-efficacy is a person's belief in their ability to perform the actions necessary to achieve certain performance outcomes and influence their lives (9). Patients with high self-efficacy tend to be more confident in taking the necessary steps to

maintain their health, including following the recommended diet (10). Social support and observing the success of others can increase self-efficacy, thereby motivating individuals to remain disciplined in following the prescribed diet (11).

Dietary compliance is one of the efforts to implement a diet aimed at people with hypertension in order to maintain blood pressure within normal limits (12). Low dietary compliance is often caused by a lack of knowledge and awareness of the importance of a healthy diet in managing hypertension (13). There are two main factors that influence dietary compliance in people with hypertension, namely the environment as an external factor and self-care management as an internal factor. Self-efficacy is one of the factors that influence the ability to comply with a diet (14).

Poor dietary compliance causes various comorbidities in patients with hypertension (15). Hypertension accompanied by comorbidities is a condition that can increase the risk of death worldwide (16). Comorbidities such as diabetes mellitus, coronary heart disease, dyspepsia, stroke, chronic kidney disease, and obesity are often found in individuals with hypertension (17). The implementation of lifestyle changes is very important to improve hypertension control (18). According to research conducted by Syahroni et al (2024) at the Pakuhaji Coastal Health Center, understanding self-efficacy can help improve adherence to a low-salt diet in patients with hypertension (19). Therefore, the researchers were interested in conducting a study entitled “The Relationship between Self-Efficacy and Diet Compliance in Hypertensive Patients with Comorbidities.”

METHODS

Study Design

This study is a quantitative study using a correlative descriptive method with a cross-sectional approach. The correlative descriptive method was used in this study to describe the extent to which the variables of self-efficacy and diet compliance are related to each other in a population of hypertensive patients with comorbidities. The cross-sectional approach was used to assess a condition or characteristic and identify potential relationships between variables.

Participants

The sample in this study consisted of 120 patients suffering from hypertension with comorbidities at Dr. Moewardi Regional General Hospital from August 7 to 27, 2025, selected using purposive sampling. The inclusion criteria for hypertensive patients used as respondents were aged 21-70 years, willing to participate as respondents, hypertensive patients with comorbidities such as diabetes mellitus, coronary heart disease, chronic kidney failure, and stroke, and having a basic understanding of the recommended diet for hypertensive patients. The exclusion criteria for this study were patients who suffered from medical conditions that interfered with their understanding or implementation of the diet, such as severe mental disorders, patients who were unable to communicate well or understand the research instructions, and patients who were unwilling to be respondents.

Instrument For Quantitative Study

Data collection used the self-efficacy questionnaire from the self-efficacy questionnaire for managing hypertension by Warren-Findlow et al. (2013) and a questionnaire on the self-efficacy of hypertensive clients by Mahbubah (2018), developed by Sandra and Kartinah (2020), consisting of 13 statements using a 4-point Likert scale, ranging from 1 (very unsure) to 4 (very sure). The questionnaire has been tested for validity, with 13 questions found to be valid. The reliability test showed a Cronbach's Alpha value of $0.855 > 0.650$, which means that all items in the questionnaire are reliable (20). The diet compliance questionnaire from Pradwipta and Arina (2022) consists of 25 questions, including 17 positive statements and 8 negative questions, using a 4-point Likert scale. For positive questions, the score ranges from 1 (strongly disagree) to 4 (strongly agree), and for negative questions, the score ranges from 1 (strongly agree) to 4 (strongly disagree). The validity test results show that all 25 questions are valid with a significance of $P < 0.05$. The reliability test shows a Cronbach's Alpha value of $0.942 > 0.650$, which means that all questions are considered reliable (21).

Data Analysis

Research data were processed using IBM SPSS Statistics version 29.0. Descriptive statistics were applied to summarize the characteristics of demographic variables, while univariate analysis (frequency distribution and percentage) was used to measure self-efficacy and diet compliance levels. Furthermore, bivariate analysis was performed using the Chi-square test to test the significance of the relationship between self-efficacy and diet compliance. Statistical conclusions were considered significant if the p -value < 0.05 .

Ethical Considerations

Data collection was conducted after obtaining approval from Dr. Moewardi General Hospital in Surakarta. The Research Ethics Committee of Dr. Moewardi General Hospital in Surakarta approved this study with the number: 1.085/V/HREC/2025. Consent was obtained from participants by signing a consent form that had been explained by the researcher before participants filled out the questionnaire provided. Participation in completing this questionnaire was entirely voluntary, and participants had the right to refuse or withdraw from participation at any time without any consequences. The purpose and procedures of this study were explained, including that this study did not pose any risk of disease because it used a questionnaire.

RESULTS

Table 1 shows data on respondents aged 56-65 years who had hypertension with the most comorbidities, with 40 respondents (33.3%), and the fewest in the 17-25 age group (2.5%). Female respondents were more likely to have hypertension, with 63 respondents (52.5%) compared to 57 male respondents (47.5%); then the majority of respondents had a high school education level, with 43 respondents (35.8%); the majority of respondents worked as housewives, with 40 respondents (33.3%); and for marital status, the majority of respondents were married, with 104 respondents (86.7%).

Table 1. Distribution of Characteristics of Respondents with Hypertension and Comorbidities at Dr. Moewardi Regional General Hospital

Category	Frequency	Percentage
Age		
17-25 Years (Late Adolescence)	3	2,5%
26-35 Years (Early Adulthood)	13	10,8%
36-45 Years (Late Adulthood)	22	18,3%
46-55 Years (Early Old Age)	32	26,7%
56-65 Years (Late Old Age)	40	33,3%
>65 Years (Senior Citizen)	10	8,3%
Gender		
Male	57	47,5%
Female	63	52,5%
Highest Level of Education		
No schooling	6	5,0%
Elementary School	33	27,5%
Junior High School	25	20,8%
Senior High School	43	35,8%
College	13	10,8%
Occupation		
Private sector	34	28,3%
Laborer	17	14,2%
Housewife	40	33,3%
Farmer	10	8,3%
Entrepreneur	13	10,3%
Merchant	6	5,0%
Marital Status		
Married	104	86,7%
Unmarried/Widowed/Divorced	16	13,3%

Table 2. Distribution of Hypertension Cases with Comorbidities at Dr. Moewardi Regional General Hospital

Category	Frequency	Percentage
comorbidities		
- Diabetes Mellitus	18	15,0%
- Coronary Heart Disease	29	24,2%
- Chronic Kidney Failure	27	22,5%
- Stroke	26	21,7%
Total	100	83,3%
- Diabetes Mellitus + Chronic Kidney Failure	8	6,7%
- Diabetes Mellitus + Coronary Heart Disease	4	3,3%
- Diabetes Mellitus + Stroke	3	2,5%
- Coronary Heart Disease + Chronic Kidney Failure	2	1,7%
Total	17	14,2%
- Diabetes Mellitus + Chronic Kidney Failure + Stroke	3	2,5%
Total	3	2,5%
Duration of Hypertension		
1-5 Years (Short Duration)	101	84,2%
6-10 Years (Medium Duration)	10	8,3%
> 10 Years (Long Duration)	9	7,5%

Table 3. Relationship between Self-Efficacy and Diet Compliance in Hypertensive Patients with Comorbidities (n=120)

Self-Efficacy	Diet Compliance			P-value
		Compliant	Non-compliant	
High	Frequency	59	4	<0,001
	Percentage	93,7%	6,3%	
Low	Frequency	2	55	57
	Percentage	3,5%	96,5%	
Total	Frequency	61	59	120
	Percentage	50,8%	49,2%	100,0%

Table 2 shows that the status of comorbidities in hypertension is dominated by respondents who have 1 type of comorbidity, totaling 100 people (83.3%), respondents with 2 types of comorbidities totaling 17 people (14.2%), and respondents with 3 types of comorbidities totaling 3 people (2.5%). Comorbidities experienced by hypertensive patients include diabetes mellitus, coronary heart disease, chronic kidney failure, and stroke.

Based on the duration of hypertension, the majority of respondents had suffered from hypertension for 1-5 years, totaling 101 people (84.2%), while 10 people (8.3%) had suffered from hypertension for 6-10 years, and 9 people (7.5%) had suffered from hypertension for >10 years.

In Table 3, most respondents had high self-efficacy, namely 63 respondents, while 57 respondents had low self-efficacy. Meanwhile, most respondents adhered to the diet, namely 61 respondents, while the remaining 59 respondents did not adhere to the diet. The chi-square test results show that the significance value (P-value) is <0.001, which means less than 0.05, meaning that H_0 is rejected and H_a is accepted. Therefore, it can be concluded that there is a relationship between self-efficacy and diet compliance in hypertensive patients with comorbidities.

Based on Table 3, it can be seen that 59 respondents (93.7%) had high self-efficacy and adhered to the diet, while 4 respondents (6.3%) had high self-efficacy but did not adhere to the diet. For respondents with low self-efficacy and adherence to dietary compliance, there were 2 respondents (3.5%), while respondents with low self-efficacy and non-adherence to dietary compliance numbered 55 respondents (96.5%).

DISCUSSION

The findings of this study demonstrate a statistically significant relationship between self-efficacy and diet compliance among patients with hypertension and comorbidities, as shown by the chi-square test ($p < 0.001$). This indicates that patients who possess stronger confidence in their ability

of self-belief in sustaining long-term behavioural change. Patients who lack confidence in their ability to make healthy choices may be more vulnerable to dietary lapses, especially when confronted with tempting foods or social influences to manage their illness are more likely to adhere to dietary recommendations, supporting the hypothesis that self-efficacy plays a central role in shaping health-promoting behaviours.

More than half of the respondents (52.5%) exhibited high self-efficacy. These individuals were more capable of independently monitoring their blood pressure, regulating dietary intake, maintaining medication routines, and overcoming barriers when facing dietary challenges. In contrast, respondents with low self-efficacy reported psychological stress, fear of failure, limited family support, and inadequate knowledge—factors known to impair disease management motivation (Bandura, as cited in Olpah, 2023). These results align with previous research demonstrating a positive association between self-efficacy and behavioural adherence in individuals with hypertension (22).

The cross-tabulation further supports this association, where 93.7% of patients with high self-efficacy adhered to their dietary regimen, while 96.5% of those with low self-efficacy were non-adherent. This substantial contrast underscores the critical role. Similar research

conducted by Rajati & Rosyid, (2025) confirms that individuals with strong self-confidence tend to be more compliant in carrying out their self-care, including following a healthy diet and monitoring their blood pressure. These findings highlight the importance of strengthening self-efficacy in hypertensive patients to improve dietary compliance (23).

Several demographic characteristics may moderate this relationship. The majority of respondents were aged 56–65 years, a group in which hypertension prevalence is known to rise due to physiologic vascular changes and long-standing lifestyle factors (23). Age is often identified as a major risk factor for hypertension because numerous studies have shown that the older a person is, the higher their likelihood of developing high blood pressure (25). Older patients often report lower motivation and physical limitations, which may impede behavioural adherence. The predominance of female respondents (52.5%) is consistent with evidence that postmenopausal women experience increased risk of hypertension due to hormonal changes and heightened stress exposure (26).

Educational attainment may also influence health literacy. Respondents with higher levels of education tend to possess better knowledge and greater adherence to hypertension dietary management (27). Likewise, many respondents were housewives experiencing psychological stress from multiple household responsibilities, which has been linked to reduced self-care prioritization and diet control challenges. Social context—particularly marital stress and economic difficulties—also emerged as a potential contributor to non-compliance, as supported by Son et al. (28). Heavy workloads are a trigger for hypertension, increasing the risk by up to seven times. High work demands require significant skeletal muscle activity and energy, while also causing stress in individuals, which ultimately contributes to increased blood pressure (29).

Comorbidities were highly prevalent among respondents, especially diabetes, kidney disease, and heart disease. Prior literature shows that multiple chronic conditions increase treatment fatigue and reduce motivation to maintain behavioural compliance (30). Although most participants in this study had been diagnosed

with hypertension for only 1–5 years, which may support positive motivation for recovery (31), adherence remains inconsistent without targeted behavioural support.

Collectively, these findings reinforce the conceptual understanding that self-efficacy is a significant predictor of adherence to hypertension dietary regimens. Improving self-efficacy requires multifaceted strategies such as strengthening social support, increasing health literacy, and ensuring frequent positive reinforcement through nursing counselling and follow-up.

Limitations

This study has several limitations that should be considered when interpreting the findings. First, the cross-sectional design limits the ability to determine causal relationships between self-efficacy and diet compliance; therefore, the directionality of the relationship cannot be fully established. Second, the research was conducted in a single hospital setting with a relatively small sample size, which may reduce generalizability to broader hypertensive populations in different geographic or clinical contexts. Third, data on dietary adherence and self-efficacy were collected using self-reported questionnaires, which may introduce recall bias and socially desirable responses. Lastly, psychosocial factors such as family dynamics, cultural influences, and economic barriers were not measured in detail, although these factors may significantly affect adherence behaviours. Future research should implement longitudinal or intervention designs, include larger and more diverse samples, and incorporate objective behavioural measures to provide a more comprehensive understanding of dietary compliance determinants.

CONCLUSION

This study confirms a significant relationship between self-efficacy and diet compliance among patients with hypertension and comorbidities. Individuals with higher confidence in managing their condition demonstrated substantially better adherence to dietary recommendations compared to those with low self-efficacy. Given the high prevalence of non-compliance observed, strengthening self-efficacy must be prioritized as part of hypertension management strategies. Nursing interventions should focus on enhancing patient empowerment, providing tailored education,

and promoting continuous support to overcome dietary barriers. Health professionals are strongly encouraged to integrate self-efficacy-based approaches into routine clinical care to improve long-term treatment outcomes and reduce the burden of hypertension-related complications.

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Author Contributions

ADS: Conceptualization, study design, data collection, data analysis, manuscript drafting.
SR: Methodology supervision, instrument review, data interpretation, critical revision of the manuscript.

Conflict of Interest

Regarding funding, this research did not receive any specific grants from any funding agencies in the public, commercial, or non-profit sectors. This research was independently funded by the researchers. The researchers declare that there are no conflicts of interest related to the implementation, analysis, or publication of this study.

Data Availability

The datasets generated and analyzed during the current study are available from the corresponding author upon reasonable request, in accordance with ethical approval and participant confidentiality requirements.

REFERENCES

1. Tarigan AR. Analysis of family support and diet compliance in hypertension patients. *Contag Sci Period J Public Heal Coast Heal*. 2021;3(1):16.
2. Setiani R, Wulandari SA. Hubungan faktor genetik dengan kejadian hipertensi: scoping review. *J Integr Kesehat dan Sains*. 2023;5(1):60–6.
3. Juliana I, Hengky HK, Umar F, Usman U. Analisis faktor yang berhubungan dengan kejadian hipertensi pada usia produktif (15–59 tahun). *J Gizi Kerja dan Produkt*. 2024;5(1):138–48.
4. Assegaf SNYRS, Ulfah R. Analisa kepatuhan minum obat antihipertensi pada pasien peserta posyandu lansia Kartini Surya Khatulistiwa Pontianak. *J Pharmascience*. 2022;9(1):48.
5. World Health Organization. World Hypertension Day 2024: Measure your blood pressure accurately, control it, live longer. 2024.
6. Ministry of Health Republic of Indonesia. Basic Health Research (Riskesdas) Report 2018. Ministry of Health RI; 2019.
7. Datoq DNS. Hubungan antara pola makan diet tinggi garam dengan derajat hipertensi di Desa Ku'u Kecamatan Boking Kabupaten Timor Tengah Selatan. *J Sahabat Keperawatan*. 2021;3(1).
8. Schunk DH, DiBenedetto MK. Self-efficacy and human motivation [Internet]. 1st ed. Vol. 8, *Advances in Motivation Science*. Elsevier Inc.; 2021. 153–179 p. Available from: <http://dx.doi.org/10.1016/bs.adms.2020.10.001>
9. Tan FCJH, Oka P, Dambha-Miller H, Tan NC. The association between self-efficacy and self-care in essential hypertension: a systematic review. *BMC Fam Pract*. 2021;22(1):1–12.
10. Khoirunissa M, Naziyah N, Nurani IA. Hubungan self efficacy dengan kepatuhan perawatan diri pada penderita hipertensi di wilayah Puskesmas Kelurahan Ragunan. *J Keperawatan Widya Gantari Indones*. 2023;7(1):26–38.
11. Romadhon WA, Haryanto J, Makhfudli M, Hadisuyatmana S. Hubungan antara self efficacy dan self care behavior pada lansia dengan hipertensi. *J Penelit Kesehat Suara Forikes (Journal Heal Res Forikes Voice)*. 2020;11(4):394.
12. Rahayu S, Hoedayana AP, Inriyana R. Hubungan pengetahuan dengan kepatuhan pencegahan komplikasi pada penderita hipertensi. *J Kesehat Masy*. 2024;8(2):4183–6.
13. Rira D, Dafir A, Kurnia L. The relationship

- between self-efficacy by behavior health hypertension on age mature young in the work area public health center Dampit. *Prof Heal J*. 2024;6(1):228–45.
14. Munir M. Efektivitas metode edukasi mobile health berdasarkan self-efficacy dan diet DASH pada penderita hipertensi. *Media Publ Promosi Kesehat Indones*. 2024;7(4):946–53.
 15. Putri ED, Nurjayanti D, Rosita A. Hubungan kepatuhan diet dengan perubahan tekanan darah pada pasien hipertensi di Puskesmas Jambon Kabupaten Ponorogo. *J Buana Nurs*. 2023;1(1):15–20.
 16. Alfian R, Susanto Y, Khadizah S. Kualitas hidup pasien hipertensi dengan penyakit penyerta di poli jantung RSUD Ratu Zalecha Martapura. *J Pharmascience*. 2017;4(2):210–218.
 17. Zhang Y, Zhao Y, Wei C, Li Y, Aslam H, Feng Q, et al. Association of common medical comorbidities with early renal damage in the Chinese tropics with essential hypertension. *BMC Nephrol*. 2021;22(1):1–10.
 18. Kim BS, Yu MY, Shin J. Effect of low sodium and high potassium diet on lowering blood pressure and cardiovascular events. *Clin Hypertens*. 2024;30(1):1–13.
 19. Syahroni, Wibisana E, Reny D. Hubungan efikasi diri dengan kepatuhan diet rendah garam pada lansia hipertensi di pesisir pantai Puskesmas Pakuhaji. *J Pubnursing Sci*. 2024;2(2):51–57.
 20. Sandra FK, Kartinah. Gambaran Efikasi Diri Pada Usia Lanjut Penderita Hipertensi Di Wilayah Kerja Puskesmas Mojolaban Sukoharjo [Internet]. 2020. Available from: <https://eprints.ums.ac.id/83914/>
 21. Pradwipta GRD, Maliya A. Hubungan Kepatuhan Diet Dengan Kualitas Hidup Pasien Hipertensi Dengan Penyakit Penyerta Di Puskesmas Baki Sukoharjo [Internet]. 2022. Available from: <https://eprints.ums.ac.id/100794/>
 22. Olpah M, Riduansyah M, Manto OAD. Hubungan Efikasi Diri Dengan Kepatuhan Diet Pada Penderita Hipertensi Grade 1. *J Persat Perawat Nas Indones*. 2022;7(3):104–12.
 23. Rajati FA, Rosyid FN. Hubungan Self-Efficacy Dengan Self-Care Management Penyandang Hipertensi. Ibnu Sina J Kedokt dan Kesehatan-Fakultas Kedokt Univ Islam Sumatera Utara. 2025;24(1):159–65.
 24. Tigana IK, Bastian F, Safirza S. Karakteristik penderita hipertensi yang dirawat inap di RSUD Meuraxa. *Media Kesehat Masy Indones*. 2023;22(5):308–13.
 25. Augusto C, Sari EA, Shalahuddin I. Hambatan Pada Pelaksanaan Self Care Hipertensi: Scoping Review. *Jurnal Kesehatan*. 2022;15(2):151–71.
 26. Listiana D, Effendi S, Saputra YE. Hubungan lama sakit dengan kepatuhan minum obat penderita hipertensi di Puskesmas Karang Dapo Kabupaten Muratara. *J Nurs Public Heal*. 2020;8(1):11–22.
 27. Baety NCN, Rahayu S. The relationship between education levels with knowledge, attitudes, and practice in hypertension patients. *Indones J Glob Heal Res*. 2024;6(S6):933–40.
 28. Son M, Heo YJ, Hyun HJ, Kwak HJ. Effects of marital status and income on hypertension: the Korean Genome and Epidemiology Study (KoGES). *J Prev Med Public Heal*. 2022;55(6):506–19.
 29. Putri MS, Supratman. Gambaran Kualitas Hidup Pada Lansia Pada Aspek Hubungan Sosial Penderita Hipertensi di Wilayah Puskesmas Pajang Surakarta. *J Ber Ilmu Keperawatan*. 2021;14(2):65–72.
 30. Leung AA, Williams JVA, Padwal RS, McAlister FA. Prevalence, patient awareness, treatment, and control of hypertension in Canadian adults with common comorbidities. *CJC Open*. 2024;6(9):1099–107.
 31. Putra RGR, Indriyawati N. Description of suffering duration, self-care behavior, and grade in hypertension patients. *J Keperawatan Glob*. 2022;7(2):146–58.