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THE ROLE OF SELF-EFFICACY IN PROMOTING SELF-CARE BEHAVIOR AND BLOOD PRESSURE CONTROL AMONG HYPERTENSIVE PATIENTS: A CROSS-SECTIONAL STUDY IN RURAL INDONESIA

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ABSTRACT

Background: Self-efficacy is crucial in promoting self-care behaviors and effective hypertension management. This study examined the relationship between self-efficacy, self-care behavior, and blood pressure control among hypertensive patients in rural Indonesia. **Methods:** A descriptive quantitative cross-sectional study was conducted in Panggung Village, Gondanglegi District, Malang Regency, East Java. A total of 100 respondents were selected through purposive sampling based on inclusion criteria: hypertension diagnosis >1 year, systolic BP ≥ 150 mmHg and/or diastolic BP ≥ 90 mmHg, and age 45–80 years. Data were collected using the Orem Self-Care Questionnaire and General Self-Efficacy Scale (GSES), then analyzed with chi-square bivariate analysis. **Results:** The majority of respondents were male (57%) and had only elementary education (58%). Nearly half (47%) did not regularly take antihypertensive medication, and 37% had stage II hypertension. Low self-efficacy was found in 56% of respondents, while 42% showed non-independent self-care behavior. A significant strong positive correlation existed between self-efficacy and self-care ($p = 0.000$). Those with high self-efficacy were more likely to engage in independent self-care, including regular blood pressure checks, medication adherence, and dietary control. **Conclusions:** This study confirms a strong link between self-efficacy and self-care in hypertensive patients. Low self-efficacy and limited health literacy are key barriers to effective self-care and blood pressure control in rural areas. Enhancing self-efficacy through structured education and community programs like Prolanis is vital to improve outcomes and reduce complications. These findings underscore the need to integrate psychological empowerment into nursing interventions for chronic disease management in resource-limited settings.

Keywords: *Self-efficacy, self-care, hypertension, blood pressure, chronic disease management*



Introduction

Hypertension has become a major health problem around the world, especially in countries with lower incomes where non-communicable diseases are becoming more common. In Southeast Asia, Indonesia has a large number of hypertension cases, with East Java reporting a rate of 26.2%, which is one of the highest in the area (Imtinani & Qurniyawati, 2024). According to Nawi et al. (2021), hypertension that is not controlled causes about 40% of heart-related deaths worldwide, showing how much it contributes to deaths that could be prevented. By 2025, it is predicted that almost 1.5 billion people globally will have high blood pressure, leading to about 9.4 million deaths each year (Perhi, 2019). In Malang Regency alone, the number of hypertension cases reported was 445,921, emphasizing the urgent need for helpful actions tailored to local situations.

Handling long-term conditions like hypertension is self-efficacy, which comes from Bandura's idea about learning from others. Self-efficacy means how much a person believes in their ability to do what is needed to achieve specific goals (Schwarzer & Hamilton, 2020). This mental idea is very important in shaping health behaviors, affecting how people think, feel, motivate themselves, and act when facing difficulties. Studies have found that patients who are very confident in themselves are more likely to take care of their health, stick to their treatments, and keep trying with self-care even when things are hard, which leads to better health results (Okatiranti et al., 2017). On the other hand, not feeling confident often leads to avoiding things, using bad ways to cope, and not being involved in managing

their illness, which causes blood pressure to be uncontrolled and increases the risk of problems (Rasyidana, 2022).

Self-care, which means the actions people intentionally take to improve health, avoid illness, and manage disease, is very important for controlling hypertension in the long run (Eriyani et al., 2022). Good self-care habits include checking blood pressure regularly, taking medicine as prescribed, changing what you eat, being physically active, and reducing stress (Sihotang, 2021). However, many patients find it hard to keep up with these habits because of different challenges like not knowing much about health, having money problems, cultural beliefs, and not having enough support from others (Manurung et al., 2024). These problems are even bigger in rural areas, where it is harder to get healthcare and health information. Because of this, understanding what affects self-care behavior is important for creating specific actions that meet the unique needs of these groups.

This study is about the connection between self-efficacy and self-care habits in hypertension patients in Panggung Village, Malang Regency, East Java. Hypertension is becoming more common and causing more problems. It is important to find things that can be changed to help patients manage themselves better, which will improve their health and actions. Specifically, this study wants to see if feeling more confident leads to being more independent in self-care habits. The results of this study can help create nursing actions that are sensitive to the local culture, aimed at increasing self-efficacy and promoting lasting self-care habits in rural Indonesian groups. Helping patients feel more confident in handling their condition may be a key way to lessen the



growing problem of hypertension in places with limited resources.

Methods

This study used a cross-sectional design to examine the relationship between self-efficacy and self-care behaviour in hypertensive patients in Panggung Village, Gondanglegi District, Malang Regency, East Java. The population consisted of individuals diagnosed with hypertension, most of whom were registered in the Prolanis (Chronic Disease Management Programme), a government initiative for chronic disease management in Indonesia. Purposive sampling techniques were used to select 100 respondents who met the following inclusion criteria: having a hypertension diagnosis for more than one year, systolic blood pressure above 150 mmHg and/or diastolic blood pressure above 90 mmHg, and an age range of 45 to 80 years. The sample size was determined based on feasibility and practical considerations, including access to the target population and resource limitations. However, formal power analysis was not conducted due to the exploration nature of the study.

Data collection was conducted using two standard instruments: the Orem Self-Care Questionnaire and the General Self-Efficacy Scale (GSES) developed by Schwarzer. The Orem Self-Care Questionnaire assesses an individual's independence in performing self-care activities related to diet management, medication adherence, physical activity, and symptom monitoring. The GSES is a widely used psychometric scale for measuring general self-efficacy in various contexts. Both instruments have been validated in previous studies involving the Indonesian population. Specifically, the

GSES has demonstrated good internal consistency, with Cronbach's alpha value of 0.86 in previous research (Schwarzer & Hamilton, 2020). Similarly, the Orem Self-Care Questionnaire has shown adequate reliability and validity in assessing self-care behaviour in patients with chronic conditions.

Data were analysed using bivariate analysis with the chi-square test to determine the relationship between self-efficacy and self-care behaviour. Statistical significance was set at $p < 0.05$. Ethical approval for this study was obtained from the Health Research Ethics Committee of Kepanjen University with reference number 652/S.Ket/KEPK/UK/I/2025. Written consent was obtained from all participants prior to data collection to ensure voluntary participation, confidentiality, and compliance with ethical standards.

Results

This study examined the relationship between self-efficacy, self-care behaviors, and hypertension patients in Panggung Village, Malang Regency.

Table 1. *Characteristics Respondent*

No	Characteristics	n	%
1	Gender		
	Male	57	57
	Female	43	43
2.	Education		
	Elementary school	58	58
	Junior high school	24	24
	Senior high school	13	13
	Bachelor's degree	5	5
3.	Age		
	>45-60	58	58
	61-70	34	34
	71-80	8	8
4.	Smoking history		
	Never	19	19
	< 5 years	12	12
	≥ 5 years	69	69
5.	Hypertension History		
	< 5 years	28	28
	≥ 5 years	72	72



6.	Hypertension Classification		
	Pre-hypertension	20	20
	Stage I hypertension	43	43
	Stage II hypertension	37	37
7.	Hypertension Medication Use		
	Yes	53	53
	No	47	47

Table 1 shows that 57 (57%) respondents were male, with the majority having completed elementary school (58%) and the oldest age group being 71-80 years old (8 people, or 8%). The majority of respondents are active smokers for the past 5 years, totaling 72 people (72%), with 37 people (37%) classified as having stage 2 hypertension. Regarding hypertension medication adherence, 53 (53%) people regularly take hypertension medication.

Table 2. *Self-efficacy of hypertensive patients*

Classification	n	%
Low	56	56
Medium	30	30
High	14	14
Total	100	100

The respondents' self-efficacy levels based on Table 2 show that 14 respondents (14%) had low self-efficacy and 56 respondents (56%) had high self-efficacy.

Tabel 3. *Self-care for patients with hypertension*

Classification	n	%
Not independent	42	42
Partially independent	26	6
Fully independent	32	32
Total	100	100

Table 3 shows that most respondents are not self-sufficient in terms of self-care, with 42 people (42%)



Tabel 4. *Self-efficacy terhadap perawatan diri pada pasien hipertensi*

Self-efficacy	Self-care						Total		p-Value
	Not independent		Partially		Fully independent		N	%	
	N	%	N	%	N	%			
Low	38	38	2	2	4	4	44	44	0.000
Moderate	4	4	15	15	7	7	26	26	
High	1	1	8	8	21	21	30	30	
Total	43	43	25	25	32	32	100	100	

Table 4 shows that there is a strong positive relationship between self-efficacy and patient self-care. The higher the self-efficacy, the more independent the patient is in performing self-care, while patients with low self-efficacy will have poor self-care. With a significant value of $p = 0.000$ (<0.005).

Discussion

The results of this study show that among hypertensive patients self-efficacy, self-care behaviors, and hypertension are strongly and significantly correlated. Of those surveyed, 42% were categorized as dependent on self-care, and 56% had low levels of self-efficacy. These findings are consistent with Bandura's theory, which holds that a person's capacity to adopt long-term health behaviors is influenced by their level of self-confidence (Schwarzer & Hamilton, 2020). Independent self-care behaviors, such as taking their medications as prescribed (53% compliant), controlling their diet, and routinely checking their blood pressure, were more common among respondents who had high self-efficacy. On the other hand, people who have low self-efficacy are more likely to have trouble controlling their blood pressure,

especially if they have stage II hypertension (37%).

These findings also support the idea that self-efficacy and self-care levels are influenced by social and demographic factors. 58% of respondents had only finished primary school, which may have contributed to their low health literacy, which is a significant obstacle to their ability to manage chronic illnesses on their own (Fitria & Moerdhanti, 2022). Furthermore, the majority of respondents (69%) smoked for more than five years, which can worsen the complications of hypertension and lower motivation to lead a healthy lifestyle. This phenomenon is consistent with the findings of Manurung et al. (2024), who discovered that patients who have low self-efficacy have a harder time staying consistent in their disease management and preventive behaviors.

The fact that only half (53%) of respondents regularly took anti-hypertensive medication, despite 72% having lived with a hypertension diagnosis for more than five years, further highlights the significance of primary healthcare support. This suggests a discrepancy between the application of long-term management in everyday life and theoretical comprehension of its



significance. To boost patients' self-esteem and assist them in incorporating self-care into their daily routines, consistent and contextualized educational initiatives are crucial. Through consistent peer support and mentoring, the Prolanis program, a government initiative for managing chronic diseases, presents a strategic opportunity to reinforce such interventions.

The study sample may not be entirely representative of urban populations or other regions in Indonesia because it was restricted to a population in a single rural East Javan area. Respondents' self-reports were used for data collection, which could introduce response bias or memory. Nonetheless, the instruments' validation offered sufficient reliability to back up the study's conclusions.

Conclusion

Among hypertension patients in rural East Java, Indonesia, this study shows a statistically significant and strong positive correlation between self-efficacy and self-care behavior. More self-efficacy is linked to more independence in carrying out basic self-care tasks like blood pressure monitoring, diet control, and medication adherence, according to a highly significant relationship ($p < 0.000$) found by the chi-square analysis. These results indicate that in settings with limited resources, self efficacy boosting interventions like motivational counseling, structured patient education, and community-based initiatives like Prolanis are crucial for promoting better self-care behaviors and blood pressure management.

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