

Self-Care Management Among Hypertensive Elderly: A Descriptive Study of Knowledge, Attitudes, and Practice

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Hypertension in the elderly is a serious health issue that can lead to fatal complications if not managed through proper self-care. This descriptive quantitative study aims to describe the knowledge, attitudes, and practices of elderly hypertensive patients at UPT Puskesmas Medan Johor. Data were collected using questionnaires from 64 respondents selected via accidental sampling. Inclusion criteria included elderly aged ≥ 60 years with blood pressure $\geq 140/90$ mmHg. The majority of respondents were female (58%) and in the 60–74 age group (78%). The results showed that the respondents' knowledge level was in the good category (61%), attitudes in the good category (50%), and practices in the good category (70%). However, barriers were still identified in the male elderly group, who sought health check-ups less frequently than females. The high percentage of good behavior is influenced by the respondents' education level, which is mostly secondary (high school). Adequate knowledge forms positive perceptions (attitudes), which in turn triggers routine self-care practices. In conclusion, the elderly at UPT Puskesmas Medan Johor exhibit high self-awareness, but specific interventions are needed to increase male elderly participation in hypertension management.

Keywords: Hypertension, Elderly, Knowledge, Attitude, Practice, Self-Care Management.

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1. Introduction

Hypertension is a significant public health issue that requires serious attention and management. This condition can decrease the quality of life and potentially be life-threatening if not detected and treated early. Hypertension is defined as an increase in blood pressure characterized by systolic pressure ≥ 120 mmHg and diastolic pressure above 80 mmHg at rest [1]. This elevation in blood pressure causes the heart to work harder to pump blood throughout the body via the aorta, which in the long term can cause vascular damage and inhibit blood circulation. Such conditions carry the risk of various serious complications and even death [2].

Hypertension belongs to the group of cardiovascular diseases most commonly found across all age groups, with the highest incidence occurring in the adult population. According to the report from The Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure 7 (JNC 7), the majority of hypertensive patients worldwide are individuals aged 60 and above [3]. Chronic high blood pressure can lead to serious disorders such as coronary heart disease, chronic kidney disease, and stroke due to impaired blood supply to the brain. If not recognized early and managed adequately, the risk of these complications increases. Currently, the number of hypertensive patients with uncontrolled blood pressure continues to rise significantly [2].

According to the World Health Organization (WHO) [4], approximately 1.28 billion people aged 30–79 worldwide suffer from hypertension, with the majority residing in low- and middle-income countries. Of this number, only about 54% are diagnosed, 42% receive treatment, and only 21% successfully control

their blood pressure. Globally, the prevalence of hypertension reaches 33%, with two-thirds of cases originating from developing countries.

Data from the Ministry of Health of the Republic of Indonesia [8] indicates that the prevalence of hypertension in Indonesia has reached 36%, while the Basic Health Research reported a figure of 34.1%. In North Sumatra Province, the prevalence ranks fourth highest nationally, with the number of cases in Medan City reaching 7,174 individuals. The North Sumatra Provincial Health Office mentions that hypertension remains a major public health concern, with an increasing trend of cases annually. Factors influencing the occurrence of hypertension include genetic aspects, race, geographical conditions, as well as social and cultural factors related to lifestyle.

The elderly stage of life is characterized by a decline in physical capabilities, increased vulnerability to diseases, changes in physiological functions, and a decreased ability to adapt to the environment. The elderly are divided into two categories: potential elderly who are still capable of working, and non-potential elderly who are no longer productive and require assistance in daily activities [5]. Based on Ministry of Health projections, the number of elderly in Indonesia is estimated to reach 42 million people or approximately 13.2% by 2030, increasing to 48.2 million or 13.82% by 2035 [6].

Data from the Ministry of Health [8] shows that the prevalence of hypertension among the elderly in Indonesia reaches 45.9% in the 55–64 age group, increasing to 57.6% in the 65–74 age group, and reaching 63.8% in those over 75 years old. Approximately 30–40% of elderly people with hypertension also experience additional metabolic disorders such as dyslipidemia, insulin resistance, and increased blood glucose levels, which elevate the risk of cardiovascular disease.

In the work area of UPT Puskesmas Medan Johor, most elderly people with hypertension do not routinely check their blood pressure and tend to seek medical attention only when symptoms arise. Furthermore, many do not take their medication regularly due to concerns about long-term side effects. Based on 2023 data, there were 324 elderly hypertension patients recorded at UPT Puskesmas Medan Johor. This situation indicates that existing interventions have not been fully effective, necessitating further identification of the factors causing sub-optimal hypertension control in the area.

Self-care management in hypertensive patients is an individual's effort to self-regulate and maintain healthy behaviors to control blood pressure. These activities include medication adherence, independent blood pressure monitoring, healthy dietary management, and regular physical activity to prevent complications [7]. The knowledge, attitudes, and practices of the elderly regarding self-care management significantly determine the success of blood pressure control and complication prevention. However, initial observations at UPT Puskesmas Medan Johor showed that most elderly people have not optimally implemented self-care behaviors.

The implementation of good self-care management is a crucial component in hypertension management. Failure to perform independent self-care is closely related to an increased rate of complications. Non-communicable diseases, including hypertension, remain the leading cause of morbidity and mortality in Indonesia, with a prevalence of stroke at 8.24%, heart disease at 13.73%, and diabetes mellitus at 3.15% [8].

Effective self-control in hypertensive patients can help lower blood pressure by increasing health awareness. The higher the level of knowledge and motivation of the patient in implementing self-care management, the greater the likelihood that blood pressure can be controlled [9].

2. Literature Review And Problem Statement

Good knowledge enables the elderly to recognize risk factors, complications, and necessary actions to control blood pressure [13]. According to the *Health Belief Model* (HBM), changes in an individual's attitude toward managing a disease are influenced by their perception of the benefits and barriers of taking specific actions [14]. Self-care management encourages behavioral changes in the elderly to adopt healthy habits, such as maintaining a proper diet, exercising regularly, and taking medication as prescribed. This improvement in practice aligns with *Social Learning Theory*, which posits that individuals can modify their behavior through observation, experience, and support from their social environment [15]. *Self-care management* encompasses all patient efforts to manage themselves in maintaining effective behaviors while facing hypertension [16]. It includes five dimensions: self-integration, self-regulation, interaction with health professionals and others, blood pressure monitoring, and adherence to recommended guidelines [17].

Despite the established nature of these theories, a research gap remains regarding the consistency of self-care management implementation among elderly groups with specific demographic characteristics. Previous studies have noted that educational attainment, particularly at the secondary level, significantly influences self-care management abilities, where lower education can negatively impact health behaviors. Furthermore, inconsistencies in gender participation exist; men tend to undergo health screenings less routinely than women due to work-related constraints and a more indifferent attitude toward health. The lack of identification of these sociocultural barriers has resulted in the sub-optimal effectiveness of current interventions.

3. Method

The type of research used in this study is descriptive research with a quantitative approach. Descriptive research aims to describe or explain a phenomenon objectively based on conditions occurring in the field. A quantitative approach is utilized because the data collected are processed in numerical form and analyzed statistically to obtain measurable descriptions. The data collection technique in this research employs a questionnaire instrument designed to assess the behavior of elderly hypertension patients, covering aspects of knowledge, attitudes, and practices related to self-care management. A questionnaire is a data collection tool that provides a set of written questions or statements to respondents to be answered independently according to their experienced conditions. The data collected were analyzed using descriptive statistical techniques. After the data cleaning process, an univariate analysis was conducted to determine the frequency distribution and percentage of each variable (knowledge, attitudes, and practices). The results were then categorized into three levels—high, moderate, and low—based on the total score achieved by each respondent.

The population in this study consists of all elderly hypertension patients who meet the inclusion criteria: hypertension patients with blood pressure $\geq 140/90$ mmHg and aged ≥ 60 years. The exclusion criteria include patients with blood pressure ≥ 200 mmHg, respondents experiencing severe headaches, those with a history of chronic diseases such as stroke, chronic kidney failure, or heart disease, and patients who have recently undergone hospitalization for more than one week. Sample selection was conducted using the accidental sampling method, which is a sampling technique based on anyone encountered by chance by the researcher who meets the research criteria. Based on this method, a total of 64 respondents were obtained as the research sample. The variables examined in this study include the knowledge, attitudes, and practices of elderly hypertension patients regarding self-care management within the working area of UPT Puskesmas Medan Johor. Based on this background, this study aims to describe the knowledge,

attitudes, and practice of elderly hypertensive patients regarding self-care management at UPT Puskesmas Medan Johor to determine the extent of their independence in managing the condition.

4. Results And Discussion

Respondent Demographic Characteristics

Table 1. Frequency Distribution of Respondent Characteristics (n=64)

Characteristics	Frequency (<i>f</i>)	Percentage (%)
Gender		
Male	27	42
Female	37	58
Age		
60-74	50	78
75-90	14	22
Occupation		
Unemployed	45	70
Private Sector Employee	6	9
Housewife	12	18
Farmer	1	3
Pendidikan		
Elementary School	14	22
Junior High School Senior High School	13	20
Diploma	21	33
Bachelor's Degree	4	7
	12	18
Total	64	100

As shown in Table 1, 37 respondents (58%) were female, while 27 (42%) were male. Regarding age groups, 50 individuals (78%) were between 60–74 years old, and 14 individuals (22%) were between 75–90 years old. The majority of respondents were unemployed, totaling 45 people (70%), followed by housewives (18%), private sector employees (9%), and farmers/laborers (3%). In terms of educational background, the largest group consisted of senior high school graduates with 21 people (33%), followed by elementary school graduates (22%), junior high school graduates (20%), bachelor's degree holders (18%), and diploma holders (7%).

Descriptive Profile of Knowledge, Attitudes, and Practice Self-Care Management

Table 2. Frequency Distribution of Hypertensive Behavior Among the Elderly at UPT Puskesmas Medan Johor (n = 64)

Hypertensive Patient Behavior	Knowledge,		Attitudes		Practice	
	F	%	F	%	F	%
Hight	39	61	32	50	45	70
Moderate	23	36	27	42	17	26
Low	2	3	5	6	3	4

Based on Table 2, the frequency distribution of hypertensive behaviors among respondents indicates that the majority of participants possess a good level of knowledge, totaling 39 individuals (61%). Similarly, for the attitude variable, the majority fall into the good category with 32 individuals (50%). Regarding the practice variable, most respondents also demonstrate good behavior, represented by 45 individuals (70%).

The results of this study indicate that the majority of respondents were female, which demonstrates that most hypertensive patients who routinely visit the UPT Puskesmas Medan Johor for check-ups are women. This is consistent with research by [10], which states that female respondents utilize health services more frequently than males. This is attributed to time factors, where women spend more time at home as housewives, while men are more likely to work outside the home. Furthermore, women tend to have higher levels of health-related concern compared to men, who often exhibit a more indifferent attitude. The age distribution was predominantly in the 60–74 year group, indicating that the young-old elderly routinely monitor their health at UPT Puskesmas Medan Johor. The researcher assumes that specific levels of understanding and belief systems influence how individuals think, implement health management, and adhere to healthcare treatments.

Regarding the occupational distribution, the majority of respondents were unemployed, proving that occupation significantly influences and correlates with adherence to hypertension treatment. The study found that most respondents were high school graduates; this is because individuals with higher education levels tend to possess better *self-care management* abilities. Lower education can negatively impact health behavior, whereas individuals with higher education demonstrate better health-maintenance behaviors [11]. Higher-educated individuals are more capable of identifying conditions that lead to ill health, making them better prepared to engage in preventive health measures. Knowledge is derived from experience, which subsequently influences an individual's attitudes and actions; when knowledge is high, individuals are more likely to act in accordance with that knowledge [12].

Good knowledge enables the elderly to recognize risk factors, complications, and necessary actions to control blood pressure [13]. According to the *Health Belief Model* (HBM), changes in an individual's attitude toward managing a disease are influenced by their perception of the benefits and barriers of taking specific actions [14].

Self-care management encourages behavioral changes in the elderly to adopt healthy habits, such as maintaining a proper diet, exercising regularly, and taking medication as prescribed. This improvement in practice aligns with *Social Learning Theory*, which posits that individuals can modify their behavior through observation, experience, and support from their social environment [15]. *Self-care management* encompasses all patient efforts to manage themselves in maintaining effective behaviors while facing hypertension [16]. It includes five dimensions: self-integration, self-regulation, interaction with health professionals and others, blood pressure monitoring, and adherence to recommended guidelines [17].

Activities that can be performed include health maintenance, symptom prevention, utilization of health facilities, and interaction with healthcare providers to improve health status, all of which are components of *self-care management* [18]. Additionally, other components include medication consumption, low-sodium and low-fat diets, exercise, limiting alcohol consumption, smoking cessation, weight loss, regular blood pressure monitoring, routine healthcare visits, and stress reduction [19].

Self-care management is a key component in managing the behavior of hypertension patients; individuals capable of managing their condition independently tend to have better health outcomes and a lower risk of complications. To improve *self-care management* and prevent complications, knowledge is required to foster an attitude of awareness. This awareness allows individuals to recognize the impulse to take action, leading to new behaviors consistent with their consciousness, knowledge, attitude, and response to stimuli [20].

5. Conclusion

The results of the variable analysis indicate that the majority of respondents possess a good level of knowledge (61%), suggesting that the elderly in this region understand the risk factors and the importance of blood pressure control. This is consistent with the respondents' attitudes, where most also fall into the good category (50%), reflecting a positive perception of the benefits of self-care. Furthermore, the practice aspect of self-care management shows a high figure, with 70% of respondents demonstrating good self-care behaviors, such as medication adherence and dietary regulation. Overall, the elderly at UPT Puskesmas Medan Johor exhibit high awareness in maintaining independent health behaviors to prevent hypertension complications. It is recommended that future studies employ analytical research methods, such as cohort or experimental designs, to evaluate the efficacy of targeted self-care management interventions in achieving significant blood pressure reduction.

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