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RESEARCH

DESCRIPTION OF THE LEVEL OF KNOWLEDGE OF HYPERTENSIVE PATIENTS ABOUT HYPERTENSION AT SUKODONO COMMUNITY HEALTH CENTER, SIDOARJO REGENCY

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ABSTRACT

High blood pressure, often known as hypertension, is a common medical issue that can lead to major problems like stroke and cardiovascular diseases. Unhealthy lifestyle choices and a lack of knowledge about hypertension among those who are afflicted are typically linked to the start of the ailment. The research design used in this study was descriptive. A total of 84 respondents diagnosed with hypertension in the working area of Sukodono Public Health Center were recruited using a cross-sectional approach. The frequency distribution revealed that, among the 84 participants, knowledge of hypertension was categorized as good in 30 individuals (35.7%), moderate in 33 individuals (39.2%), and poor in 21 individuals (25.0%). Based on the findings, it can be concluded that the level of knowledge among hypertensive patients at Sukodono Public Health Center, Sidoarjo District, was predominantly at a moderate level, represented by 33 participants. The majority of these patients were between 51–60 years old, female, unemployed or housewives, and had attained a senior high school level of education. Accordingly, it is recommended that Sukodono Public Health Center strengthen its health education programs for hypertensive patients in order to enhance their understanding of the disease and to reduce the risk of more severe complications.

Keywords: *hypertension, patient knowledge*

Introduction

Hypertension is widely recognized as the “silent killer” because it often develops without manifesting obvious symptoms. Many individuals remain unaware that they are living with elevated blood pressure until the condition progresses to severe complications such as stroke, myocardial infarction, or other life-threatening health problems (Ministry of Health, 2023).

In 2023, the global number of adults aged 30 to 79 years living with hypertension was estimated to reach 1.28 billion. Alarmingly, approximately 46% of these individuals were unaware of their condition. Among those who had been diagnosed, only 42% were receiving appropriate treatment (WHO, 2023). The Indonesian Ministry of Health (2023) further emphasized that the national burden of hypertension remains very high, with an estimated 8,678,784 cases reported in 2023. At the local level, the Sidoarjo District Health Profile (2021) documented a significant prevalence of hypertension, and by September 2024, the number of individuals affected in Sidoarjo had reached 549,942.

According to data reported by Sukodono Public Health Center, it was estimated that in 2021 there were 25,499 individuals diagnosed with hypertension. This number declined to 13,251 cases in 2022 but rose again to 33,644 cases in 2023. Among community health centers in the district, Sukodono Public Health Center ranked second in terms of hypertension prevalence, following Taman Public Health Center (Sukodono Health Center Profile, 2024).

The development of hypertension is largely influenced by unhealthy lifestyle behaviors and the limited level of public awareness regarding this condition. As a result, the management of hypertension often remains suboptimal, thereby increasing the likelihood of serious complications.

Efforts to enhance knowledge regarding hypertension can be achieved through educational initiatives that address both pharmacological and non-pharmacological management strategies. Non-pharmacological approaches primarily focus on lifestyle modifications, including engaging in

regular physical activity, adopting a healthy diet with restricted salt intake, managing stress effectively, and avoiding harmful habits such as smoking and alcohol consumption.

Method

This study employed a descriptive method with a cross-sectional research design. The descriptive approach was selected to provide an overview of the existing phenomenon and to assess the extent of the problem within the study population. The research was classified as an analytical, non-paired study, in which data were collected through questionnaires distributed to hypertensive patients attending Sukodono Public Health Center. Participants diagnosed with hypertension were recruited into the study based on predetermined eligibility criteria:

a) Patients aged 30 - >80 years.
b) All hypertensive patients who were cooperative during the study process.
c) Patients diagnosed with hypertension who expressed willingness to participate and provided signed informed consent.

Results

1. The demographic characteristics of the respondents, including age, sex, occupation, educational background, and genetic history.

Table 4.1 Characteristics of Respondents in the Study on Patients' Knowledge of Hypertension at Sukodono community Health Center in 2025

No	Respondent Characteristics	Frequency	Persentage (%)
1.	Age		
	30 – 40 years	8	9,5 %
	41– 50 years	22	26,1 %
	51 – 60 years	29	34,5 %
	61 – 70 years	19	22,6 %
	71 – 80 years	5	5,9 %
	< 80 years	1	1,1 %
2.	Sex		
	Male	22	26,2 %
	Female	62	73,8 %
3.	Ossupation		
	Farmer	12	14,2 %
	Entrepreneur	16	19,2 %
	Unemployed	56	66,6 %
	Retired civil servant	0	0 %
4.	Educational Level		
	Elementary	11	13,2%
	Junior high school	25	28,9 %
	Senior high school	47	55,9 %
	Diploma	1	1,1 %
5.	Genetic		
	Yes, father or mother	32	38,2 %
	Yes, both parents	20	23,6 %
	None	32	38,2 %

Source: Primary Data March 2025

According to Table 4.1, The characteristics of respondents showed that among the 84 participants, 29 individuals (34.5%) were aged 51–60 years. With regard to sex distribution, 22 respondents (26.2%) were male, while 62 respondents (73.8%) were female. In terms of occupation, 56 respondents (66.6%) were unemployed. For educational background , 25 respondents (28.9%) had completed junior high school. Regarding genetic history, 32 respondents (38.2%) reported a family history of hypertension from either their father or mother.

2. Hypertensive Patients' Knowledge of Hypertension

Table 4.2 Frequency Distribution of Hypertensive Patients' Knowledge Levels Regarding Hypertension at Sukodono Public Health Center

No	Knowledge	Fw	(%)
1.	Good	30	35,7 %
2.	Moderate	33	39,2 %
3.	Poor	21	25 %

Source: Primary Data March 2025

According to Table 4.2, Knowledge of hypertension was categorized into three levels: good (scores 76–100), moderate (scores 56–75), and poor (scores < 56). The findings showed that 30 respondents (35.7%) demonstrated good knowledge, 33 respondents (39.2%) demonstrated moderate knowledge, and 21 respondents (25.0%) demonstrated poor knowledge.

3. Frequency Distribution of Questionnaire Results on Hypertensive Patients' Knowledge at Sukodono Public Health Center

Question Topic	Correct		Incorrect	
	N	%	N	%
Definition	80	48%	88	52%
Classifiation	43	51%	41	49%
Causes	140	83%	28	17%
Influencing factors	114	67%	54	33%
Sign and symptoms	75	89%	9	11%
Complications	132	78%	36	21%
Prevention	311	53%	277	47%

Source: Primary Data March 2025

Table 4.3 The results indicated that correct responses to the question on the definition of hypertension fell into the poor category (<56), with a score of 48%. For the classification of hypertension, knowledge

was categorized as moderate (56–75), with a score of 51%. Knowledge regarding the causes of hypertension was in the good category (76–100), reaching 83%. Knowledge of the factors influencing hypertension was in the moderate category (56–75), with a score of 67%. Knowledge of the signs and symptoms of hypertension was classified as good (76–100), with the highest score of 89%. Knowledge of hypertension complications was also in the good category, with a score of 78%. Meanwhile, knowledge of hypertension prevention remained in the poor category (<56), with a score of 53%.

Discussion

Age is a non-modifiable risk factor for hypertension, with the likelihood of elevated blood pressure increasing as individuals grow older. In the present study, 64.1% of hypertensive patients were over the age of 50. Advancing age also amplifies other risk factors, including reduced physical activity, unhealthy dietary patterns, and a higher prevalence of comorbid conditions such as diabetes and cardiovascular disease, all of which cumulatively exacerbate hypertension. These findings are consistent with the theory that aging is closely associated with the development of hypertension, attributable to arterial structural changes, declining physiological functions, and reduced physical endurance (Cahyaningrum et al., 2022)**.**

Sex is another factor that influences blood pressure. In this study, the majority of respondents (73.8%) were female. Hormonal influences, particularly after menopause, may contribute to elevated blood pressure. Furthermore, from a sociocultural perspective, women are more likely to seek health services, which may also account for the higher number of diagnosed cases. This finding aligns with the theory suggesting that reduced estrogen levels after menopause play a role in lowering high-density lipoprotein (HDL), the "good" cholesterol that protects blood vessels. Low HDL levels combined with elevated low-density lipoprotein (LDL) contribute to the development of atherosclerosis, which ultimately increases the risk of hypertension (Falah, 2019).

Based on the occupational characteristics of respondents, the findings of this study revealed that the majority were unemployed (66.6%). This condition is often associated with lower levels of physical activity and higher levels of stress. Such factors are important because physical activity plays a significant role in maintaining stable blood pressure. Physically inactive individuals tend to have higher resting heart rates, which forces the heart to pump blood more vigorously and consequently elevates peripheral blood pressure (Herawati et al., 2020).

With respect to educational background, most respondents in this study had completed senior high school (55.9%). Previous theories suggest that lower educational attainment may increase the risk of hypertension due to limited access to information and reduced comprehension, which may hinder the uptake of health messages delivered by healthcare providers. Conversely, higher education facilitates better understanding of information obtained through both healthcare workers and media, thereby promoting the adoption of healthier lifestyles (Suaib et al., 2019).

In terms of knowledge levels, hypertensive patients at Sukodono Public Health Center demonstrated good knowledge in 35.7% of cases, moderate knowledge in 39.2%, and poor knowledge in 25%. These findings are closely related to the level of education, as higher education generally provides broader access to information. Consistent with the findings of Suaib (2019), higher educational attainment is associated with greater knowledge, enabling patients to access more information from various sources—including healthcare professionals and media—which in turn influences health behaviors and compliance with hypertension management (Suaib, 2019).

Conclusion

The conclusion of this study is:

1. Patients' knowledge regarding hypertension was influenced by their demographic characteristics. The majority of respondents were within the age range of 51–60 years, predominantly female, mostly unemployed or housewives, and with a final educational background at the senior high school level.
2. The overall level of knowledge among hypertensive patients was primarily categorized as moderate. Specifically, knowledge of the definition of hypertension fell into the poor category, knowledge of hypertension classification was moderate, knowledge of its causes was good, knowledge of influencing factors was moderate, knowledge of signs and symptoms was good, knowledge of complications was good, and knowledge of prevention remained in the poor category.

Suggestion

1. For Hypertensive Patient

   This study is expected to provide additional information for hypertensive patients regarding their condition, thereby supporting the prevention of potential complications. Furthermore, the findings may serve as a reminder for patients to consistently monitor their blood pressure and actively seek information related to hypertension.
2. For Healthcare Services

This study is expected to serve as a reference and a source of scholarly insight in the field of nursing, enabling students to gain a deeper understanding of knowledge related to hypertension.

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