

IMPLEMENTATION OF COMMUNITY NURSING CARE FOR HYPERTENSION AT THE KEDAI DURIAN PUBLIC HEALTH CENTER, MEDAN JOHOR DISTRICT NORTH SUMATERA PROVINCE IN 2025

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ABSTRACT

Background: Hypertension is a global health burden, defined as blood pressure 140/90 mmHg by WHO. Global prevalence reaches 22%, with North Sumatra showing a high prevalence of 29.19%, yet medical diagnosis remains low. At Kedai Durian Health Center, 416 cases were recorded by April 2025. **Objective:** This study aims to provide comprehensive nursing care to elderly individuals with hypertension in the Kedai Durian Health Center service area, Medan Johor. **Methods:** A descriptive case study approach was utilized, following the nursing process: assessment, diagnosis, intervention planning, implementation, and evaluation. **Results:** The intervention led to an increase in the elderly's knowledge regarding hypertension management, although the clinical problem was not fully resolved during the study period. **Conclusion:** Strengthening primary health care through the nursing process is essential for hypertension control in the elderly, specifically in improving health literacy.

Keywords: *Hypertension; Elderly; Nursing Care; Case Study; Health Literacy.*

Introduction

Hypertension is defined as systolic blood pressure greater than 140 mmHg and diastolic blood pressure greater than 90 mmHg on two measurements taken at least 5 minutes apart in a state of rest/calm (Sembiring, A, 2023). This study focuses on the relationship between public knowledge of hypertension and public health outcomes (WHO 2021, 2021). Globally, hypertension is common in various parts of the world, especially in developing countries. Hypertension often attacks the adult age group, especially people with a diet high in salt and fat, and a lack of physical activity. Overall, the prevalence of anemia is 39% in developing

countries and 22% worldwide. Hypertension is divided into two types: primary hypertension, which has no identifiable cause, and secondary hypertension, which is caused by underlying medical conditions such as kidney disease, hormonal disorders, or obstructive (Rafi'i, Hanif and Bin Daud, 2025) . Risk factors for developing hypertension include obesity, smoking, high salt intake, lack of physical activity, stress, and genetics. The importance of assessing the patient's blood pressure regularly to identify risk factors for hypertension (Situmorang and Siregar, 2018). Hypertension is characterized by symptoms such as headaches, dizziness,

blurred vision, fatigue, and shortness of breath (Tege & Mandias, 2025).

According to World Health Organization data, hypertension affects 22% of the world's population, with 39% of these cases occurring in Southeast Asia. In almost all countries, hypertension is a common health problem among adults. It is estimated that approximately 50-60% of adults fall into the category of the population whose health could improve significantly if their blood pressure were controlled. The number of hypertension cases is expected to continue to increase and is projected to reach 1.6 billion sufferers by 2025 (ASEAN Statistics, 2021).

Data on hypertension in Indonesia, according to the 2024 Health Office (Dinkes), shows that approximately 8% of the Indonesian population aged 15 years and over has high blood pressure, or hypertension, as diagnosed by a doctor. DKI Jakarta has the highest proportion of hypertensive residents, reaching 12.6%. The prevalence of hypertension in North Sumatra is 29.19%, but only 5.52% are diagnosed by health workers based on medication history. The prevalence of hypertension in Medan is 25.21%, and only 4.97% are diagnosed by health workers based on medication history. Based on data from the Durian Shop Health Center (Puskesmas Kedai Durian), the number of people with hypertension in 2024 was 1,081, while data from January to April 2025 indicated 416 cases (Kementrian Kesehatan, 2023).

Etiology: Hypertension is classified into two types: primary (essential) or idiopathic hypertension and secondary hypertension due to underlying diseases that cause high blood pressure, such as renovascular disease, kidney failure, aldosteronism, and others. Essential hypertension accounts for approximately 95% of all hypertension

cases, and the cause is unknown. However, several risk factors are suspected to contribute to this type of high blood pressure. Risk factors for essential hypertension are divided into two groups: modifiable and non-modifiable (Situmorang and Siregar, 2018).

Pathophysiology, Sodium and Fluid Balance Disorders, Natriuretic Defects, Renal Pressure: The kidneys should be able to excrete sodium and water to lower blood pressure. However, in hypertension, this mechanism is disrupted, leading to sodium and water retention, thereby increasing fluid volume and blood pressure (Collins, S., 2021). **Vascular Disorders: Narrowing of Blood Vessels (Vasoconstriction):** Blood vessels narrow, increasing peripheral resistance (the opposition to blood flow) and blood pressure. **Increased Vascular Inability to Adjust:** Blood vessels that lose their elasticity cannot adjust properly to changes in blood pressure, thus causing an increase in blood pressure (Sinaga, SN, 2022). **Vascular Remodeling:** In chronic hypertension, blood vessels undergo structural changes (remodeling), which can increase vascular resistance and cause target organ damage (Nurrahmawati *et al.*, 2017).

Research Method

This study employs a descriptive case study to explore the problem of nursing care for patients with hypertension at the Durian Kedai Community Health Center, using a nursing process approach that includes assessment, diagnosis, intervention, implementation, and evaluation. Observations were conducted on May 26-June 7, 2025. In 2024, there were 1081 people with hypertension; in January-April 2025, the number was 416. Of the 416, 27 elderly people attended the elderly

Posyandu, with 18 of them at risk of developing hypertension, as determined by direct examination through the elderly Posyandu. Primary data was collected through interviews and direct anamnesis. The data included patient identity, daily routines, physical activity, and health checks, including blood pressure, blood sugar, height, and weight. Meanwhile, secondary information was obtained from the medical records of the Kedai Durian Community Health Center. This document records patient visits for health checks. Case study methodology: A descriptive method was employed, involving the preparation of a case study report that identified a problem and its solution. The study was conducted in June 2025 at the Kedai Durian Community Health Center. An initial survey was conducted by analyzing monthly reports from the integrated health post (Posyandu) and the Community Health Center. The data revealed that 1,081 people with hypertension were diagnosed in 2024, while the data for 2025, from January to April 2025, showed 416 people.

A questionnaire was administered to patients to collect subjective data on the care issues they faced. Observation was the second step in data collection. Nurses observe the patient's behavior and health Development. Physical examinations are conducted concurrently with interviews (Manurung, H R, 2022). The purpose of physical examinations is to assess the patient's health status, identify health problems, and collect baseline data to inform the design of a nursing plan.

Result

Influential in providing care to patients in the healing process of their illnesses. In the nursing care theory presented in the 2017

SDKI book, the nursing diagnoses include ineffective health management, readiness to improve health management, knowledge deficit, community awareness deficit, and non-compliance. After conducting a survey and assessment in the field, the nursing diagnoses that emerged were Knowledge deficit due to lack of public awareness, Community awareness deficit due to barriers to access to health services, Non-compliance due to lack of public awareness to carry out routine health checks, and Ineffective health management due to lack of social support. Observation, Identifying readiness, receiving information, it was found that residents were ready to receive information about Hypertension, Providing materials or media for Health Education, namely Sap, leaflets and posters and checking BP of residents who were counseled, Scheduling Education for Tuesday, June 3, 2025 at 08:00 WIB with a 45-minute counseling time as agreed, Providing an opportunity to ask questions where patients are enthusiastic about asking about Hypertension, Educating the risk factors of Hypertension that affect health, namely it can cause stroke, heart, etc., Teaching healthy living behaviors, namely eating nutritious and healthy foods, then teaching diligent exercise and reducing high salt consumption. Observation: Identifying the causes of health problems (in this case, hypertension); maintaining communication between individuals and the community regarding the attraction to seeking treatment in health services; and building community commitment to improving health. Observation, Identifying compliance with health programs, Making a commitment to undergo a good treatment program, Discussing things that support and hinder treatment, Involving families to support treatment, and Informing about the benefits of regularly undergoing a treatment

program. Observation, listening to the problems and feelings of the family, where the family said there was rarely time to accompany the family to do Hypertension exercises, facilitating the expression of feelings between the patient and the family, namely, where we act as intermediaries to convey feelings to members of the family. Evaluation, S: Residents said they had understood the Hypertension material delivered by the counselor, O: Patients seemed to realize about Hypertension and could answer questions, A: Hypertension disease problems related to knowledge, and Hypertension problems were resolved, P: Health education related to Hypertension was continued by Cadres and other health workers.

Discussion

Assessment is the initial stage of the nursing process and involves systematically collecting data from multiple sources to evaluate and determine the patient's health status (Mangusada, 2025). After conducting the assessment, it was found that at the Durian Kedai Community Health Center from January to April 2025, 416 people were at risk of hypertension. The elderly Posyandu (Integrated Health Post) with 27 participants found that 18 of them had hypertension. Four nursing diagnoses were identified: Knowledge Deficit due to limited community awareness; Community Awareness Deficit due to barriers to accessing health services; Non-compliance due to limited community awareness of the importance of conducting routine health checks; and Ineffective Health Management due to limited social support. Following the diagnosis, interventions were implemented in accordance with the 2017 SDKI book. With interventions, namely, Identify readiness to receive information,

Provide health education materials or media, Schedule health education according to agreement, Provide opportunities to ask questions, Educate on risk factors that affect health, Teach healthy living behavior, Identify the causes of health problems, Maintain communication between individuals and the community regarding the appeal of undergoing treatment in health services, Build community commitment to improve health Identify compliance with health programs, Make a commitment to undergo a treatment program properly, Discuss things that support and hinder treatment, Involve the family to support treatment, Inform the benefits of regularly undergoing a treatment program, Encourage the family to accompany the patient in the treatment program Identify compliance with health programs, Make a commitment to undergo a treatment program properly, Discuss things that support and hinder treatment, Involve the family to support treatment, Inform the benefits of regularly undergoing a treatment program, Encourage the family to accompany the patient in the treatment program Listen to the family's problems and feelings, Facilitate the expression of emotions between the patient and the family.

Implementation is carried out based on predetermined interventions, namely Observation, Identifying readiness, receiving information obtained residents are ready to receive information about Hypertension, Providing materials or media of Health Education, namely Sap, leaflets and posters and BP examinations of residents who are counseled, Scheduling Education on Tuesday, June 3, 2025 at 08:00 WIB with a counseling time of 45 minutes as agreed, Providing opportunities to ask questions where patients are enthusiastic about asking about

Hypertension, Educating risk factors for Hypertension that affect health, namely it can cause stroke, heart, etc., Teaching healthy living behaviors, namely eating nutritious and wholesome foods, then teaching diligent exercise and reducing high salt consumption. Observation: Identifying the causes of health problems; determining where the health problem occurred (e.x: Hypertension); maintaining communication between individuals and the community regarding the attraction to seeking treatment in health services; and building community commitment to improving health (Muthmainnah *et al.*, 2022).

Observation, Identifying compliance with health programs, Making a commitment to undergo a good treatment program, Discussing things that support and hinder treatment, Involving families to support treatment, and Informing about the benefits of regularly undergoing treatment programs. Observation, listening to family problems and feelings, where families say there is rarely time to accompany families to do Hypertension exercises, facilitating the expression of feelings between patients and families, namely, where we act as intermediaries to convey feelings to members of the family. Here is the evaluation taken by the author after conducting an assessment, diagnosis, intervention, implementation, and evaluation with the results: S: Residents said they understood the Hypertension material delivered by the counselor, O: Patients appear understand about hypertension and can answer questions, A: Hypertension disease problems related to knowledge, and hypertension problems are resolved, P: Health education related to hypertension is continued by cadres and other health workers.

Conclusion

The nursing care provided to hypertensive patients with four nursing diagnoses has been effective and has increased their knowledge of hypertension. After conducting field practice (PBL) at the Kedai Durian Community Health Center from May 26 to June 7, 2025, we observed the highest number of hypertension cases at the Center, with 1,081 patients across several sub-districts in Titi Kuning, Kedai Durian, and Kelurahan Suka Maju. We have also developed a POA and implemented it through counseling sessions for visitors to the Kedai Durian Community Health Center on hypertension and its prevention. Following evaluation and a re-survey, including question-and-answer sessions, visitors to the Kedai Durian Community Health Center can understand how to prevent hypertension.

Based on the research findings, it is recommended that health workers improve the quality of their services and enhance their performance in delivering public education, particularly on hypertension. Effective health education and counseling are crucial as preventive and promotive efforts in the management of hypertension and other diseases. The Kedai Durian Community Health Center is expected to be more active in implementing health programs, particularly those for older adults, and in raising public awareness of the importance of a healthy lifestyle. Active participation in public health activities will increase the community's knowledge, skills, and experience in managing hypertension. Health workers are also expected to develop communication and counseling skills to build stronger relationships with the community and to facilitate healthy behavior change. Participating in public health activities

significantly enhances knowledge and skills in health services and develops the ability to provide counseling. Participating and playing a significant role in public health activities enhances skills and experience.

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