

Family nursing care with readiness to improve maternal health management in Mrs. L family

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Abstract

Hypertension is a non-communicable disease that often goes unnoticed and can cause serious complications if not treated optimally. Family-based nursing approach is an effective strategy in improving the health management of patients with hypertension. This case study aims to evaluate the effectiveness of stress management education interventions and hypertension exercises in improving family health management readiness in Mrs. L, a 49-year-old woman, with a history of hypertension who lives in Gentingan Hamlet, Godean District, Sleman Regency. This study used a descriptive case study design with an implementation time of three days (May 12-14, 2025). The interventions provided include education on psychological stress management and demonstration of hypertension gymnastics as a non-pharmacological therapy. Data were collected through interviews, direct observation, and verbal evaluation of patients. Evaluation results showed an increase in patients' understanding of stress, ability to apply deep breathing techniques when anxious, and active participation in hypertension exercises with family members. Family Health Management SLKI indicators (L.12105) showed significant improvement in knowledge, ability to recognize risks, and management of health conditions. The conclusion of this study is that the combination of family-based educative and physical interventions proved effective in improving health management readiness in hypertensive patients, and can be widely applied in community nursing practice.

Keywords: hypertension; non-pharmacological intervention; stress management

1. Introduction

According to the World Health Organization (WHO, 2023), hypertension occurs when the pressure in a person's blood vessels is too high (140/90mmHg or higher). This condition is common but can be a serious problem if left untreated. People with high blood pressure may not feel any symptoms. The only way to find out is with a blood pressure check. Hypertension is often called The Silent Disease or a hidden disease, this is because sometimes people do not realize they have this disease, because it usually lacks symptoms or the symptoms are not too severe for the body, so sometimes it is necessary to check blood pressure. Hypertensive disease is always related to systolic and diastolic blood pressure (Syaidah Marhabatsar & Sijid, 2021).

In fact, hypertension does not always have obvious symptoms, and sometimes the symptoms are only mild. High blood pressure is often associated with symptoms of hypertension. Some symptoms of hypertension include headaches that are sometimes accompanied by nausea and vomiting due to increased intracranial blood pressure, vertigo, fatigue, blurred vision, ringing in the ears, nose bleeds, rapid heartbeat, stress, stroke, and nocturia due to frequent urination due to increased renal blood flow and glomerular filtration. These symptoms may vary from person to person. Therefore, a health check is needed to determine whether the body is suffering from hypertension (Rindarwati et al., 2023). The incidence of hypertension in Indonesia reaches 36%. From the Indonesian Basic Health Research, the prevalence of hypertension was 34.1% (Ministry of Health, 2023).

Hypertension is one of the degenerative diseases that cause the highest mortality rate in Indonesia. According to the Basic Health Research conducted by the Indonesian Ministry of Health in 2018, there was an increase in the number of people with hypertension in Indonesia from a prevalence rate of 25.8% in 2013 to 34.1%, and was the cause of 23.7% of the total 1.7 million deaths in Indonesia in 2016 (Hariawan & Tatisina, 2020). Based on the data from Riskesdas 2018, the prevalence of the population in Central Java Province with hypertension was 37.57 percent. The prevalence of hypertension in women (40.17%) is higher than that of men (34.83 percent). The prevalence in urban areas is slightly higher (38.11%) compared to rural areas (37.01%). The prevalence of hypertension in Yogyakarta is 32.86% which is lower than the national rate (34.11%). The prevalence rate puts Yogyakarta in 12th place as a province with hypertension (Basic Health Research (Riskesdas, 2018).

Management of hypertension can be done with non-pharmacological efforts, namely with lifestyle modification or with therapies such as hypertension exercises and also pharmacology which is done with drugs. Based on the data above, primary and secondary prevention strategies are needed aimed at reducing the incidence of morbidity, mortality, as well as suppressing the incidence of hypertension. So it is necessary to make lifestyle modifications that are widely promoted by the government, health organizations, and a number of elements of society whose function is to improve health status and quality of life for people with hypertension. Efforts to control non-communicable diseases (NCDs), especially hypertension, are carried out on all people aged 18 years and over.

Based on the results of a comprehensive assessment in Gentingan hamlet RW 6 Godean District in February 2025, 56 residents suffered from hypertension. Interviews conducted with patients and complaints of headaches, dizziness, and sometimes palpitations. Based on the above background, the author is interested in knowing more about nursing care for patients with hypertension in Gentingan Hamlet, Godean District, Sleman Regency.

2. Method

This research uses a descriptive case study approach that focuses on improving maternal health management with hypertension. The study was conducted on Mrs. L, a 42-year-old mother who lives in Gentingan Hamlet, Godean District, Sleman Regency. Mrs. L was known to have a history of hypertension and was the subject of a comprehensive assessment-based nursing intervention. The study implementation time began on May 12 to May 14, 2025. Nursing care was provided for three days which included the process of assessment, determination of nursing diagnosis, preparation of interventions, implementation, and evaluation of care outcomes.

Data collection was carried out primarily through direct observation of the patient, which included assessment of general condition, level of consciousness, vital signs, and physical examination. Physical examination was performed using inspection, palpation, percussion, and auscultation techniques. Data was also obtained through therapeutic communication with the patient to explore complaints, health perceptions, and understanding of the disease.

Implementation of nursing care was carried out based on the Indonesian Nursing Diagnosis Standards (SDKI), Indonesian Nursing Outcome Standards (SLKI), and Indonesian Nursing Intervention Standards (SIKI) in accordance with the condition of hypertensive patients. All interventions and results were recorded systematically every day.

The instruments used in this study included nursing care formats, physical observation guidelines, and interview notes for subjective and objective data documentation. Data were analyzed descriptively with the stages of data reduction, presentation in the form of thematic narratives, and drawing conclusions based on clinical findings and patient responses during the care process.

3. Results and Discussion

3.1. Results

The subject in this study was Mrs. L, a 49-year-old woman who lives in Gentingan Hamlet, RT 01 RW 05, Sidoagung Sub-district, Godean District, Sleman Regency, Yogyakarta. She is the head of the family as well as the main breadwinner with a job as a trader. Based on the results of interviews and observations, it is known that Mrs. L has a history of hypertension that is genetically inherited and has been going on for less than a year. She does not take antihypertensive drugs regularly, but only uses drugs when blood pressure rises or by boiling herbal concoctions.

The results of the initial assessment showed that Mrs. L's family had an open communication structure and a good family support system. However, there are several stressors in family life, including economic pressure due to the need for children's education costs and children's habits that demand excessive internet quota purchases. These stressors contributed to Mrs. L's psychosomatic complaints, such as feeling depressed and tired, which worsened her hypertension condition.

The physical examination conducted on the third visit showed the patient's general condition was good, with *compos mentis* consciousness, blood pressure 124/86 mmHg, breathing frequency 21 times per minute, pulse 93 times per minute, and body temperature 36°C. No major abnormalities were found, but there was a slight decrease in muscle strength in the right and left extremities, and the skin condition looked dry.

Based on the results of a comprehensive assessment and family nursing assessment, a nursing diagnosis of "Readiness to Improve Health Management (D.0112)" was established with a focus on stress management and healthy living behaviors in the family. Mrs. L showed interest in increasing her knowledge about stress and hypertension, but did not have an adequate understanding of managing these conditions in a sustainable manner.

Nursing interventions were carried out in two main forms, namely education on stress management and demonstration of hypertension exercises. Education was delivered using poster media for 40 minutes and included material on the definition of stress, factors that cause stress, and management strategies such as deep breathing techniques, meditation, and five-finger hypnosis. The education session was conducted in a relaxed and participatory atmosphere at Mrs. L's home. The family showed enthusiasm and increased understanding of the material provided.

Furthermore, at the next meeting, a demonstration of hypertension exercises was conducted. This exercise was conducted for 30 minutes and consisted of warm-up, core, and cool-down stages. Mrs. L followed each stage well and was able to practice the movements independently. She also expressed willingness to make the activity a daily routine with other family members.

Evaluation of the intervention was conducted using observational and verbal approaches. The evaluation results showed that Mrs. L was able to repeat information about stress and the benefits of hypertension exercises. She also stated that she had tried to apply deep breath relaxation techniques when experiencing emotional distress. An increase in health management readiness can be seen from changes in attitude, understanding, and active participation of the family in the intervention.

3.2. Discussion

Assessment is the initial and crucial stage in the family nursing process, because it determines the direction of the diagnosis and interventions to be carried out. Based on the results of field visits and in-depth interviews, it was found that Mrs. L was a 49-year-old housewife who was also the head of the family after the death of her husband. She has a history of hypertension with a recorded blood pressure of 124/86 mmHg. Although not yet categorized as severe hypertension, this condition was exacerbated by significant psychosocial stress, such as economic burden and childcare issues. In the structural assessment of the family, it was found that Mrs. L's family had open communication patterns and adequate support systems, but limited utilization of formal health services. This factor contributed to low adherence in medication and blood pressure control.

According to Friedman (2020), family nursing assessment should include five family health tasks: recognizing health problems, making decisions, caring for sick family members, modifying the environment, and using health care facilities. Of these five tasks, Mrs. L's family has only partially carried out optimally, especially in the aspects of problem recognition and decision making, but not yet in the aspect of utilizing health facilities. This theory is reinforced by the results of Putri & Wahyuni's research (2022) which shows that families with good assessment skills tend to have better clinical outcomes in their family members suffering from chronic diseases. This study also emphasizes the importance of structural and communication aspects in the success of assessment. In addition, Nursalam et al. (2021) in the journal *Journal of Nursing and Public Health* emphasized that a comprehensive family assessment must pay attention to the social, psychological and cultural dimensions, because these three aspects greatly affect the perception of illness and adherence to interventions. According to Anwar et al. (2023) in the journal *Indonesian Journal of Community Health Nursing* found that assessment based on a family systems approach that includes communication, social support, and family role functions provides better results in chronic disease management, such as hypertension and diabetes.

Based on the assessment data, a nursing diagnosis of Readiness to Improve Health Management (D.0112) was determined. This diagnosis was set because Mrs. L showed motivation to improve her health condition, even though she did not have sufficient knowledge and skills. This diagnosis is preventive and promotive, referring to individuals or families who are in a stable condition but need increased capacity to manage their health optimally (Dewi, 2022). In this context, Mrs. L's hypertension is not only seen as a medical condition, but also as a reflection of the dynamics of stress, lifestyle, and access to health services that have not been maximized.

Nursing interventions were designed based on the Indonesian Nursing Intervention Standards (SIKI), with a focus on Health Education (I.12383) and a family empowerment approach. The main

objective of this intervention was to increase family knowledge, awareness, and skills in managing stress and blood pressure independently. The educational materials provided include the definition of stress, the causes of stress, the impact on the body (especially on the cardiovascular system), and stress management techniques such as deep breathing, muscle relaxation, and five-finger hypnosis. Research by Syamsuddin et al. (2023) showed that patients with mild hypertension who have readiness to change, despite not having high self-management competence, have a greater chance of success when given appropriate education. This diagnosis is relevant to use when nurses find an internal drive from patients to improve health independently. Indrawati & Marfiah (2022) also emphasized that the proper application of this diagnosis can improve the outcome of family-based interventions because it facilitates healthy behavior change from within the client, not just medical instructions from outside. Rachmawati & Astuti (2021) emphasized the importance of considering psychosocial factors when setting promotive diagnoses like this, especially in clients who are single heads of households like Mrs. L. In this context, internal motivation must be supported by empowerment and strengthening of adaptive capacity.

In addition to psychological education, physical intervention was provided in the form of demonstration of hypertension exercises, which were developed from WHO recommendations (2023) regarding non-pharmacological management of chronic diseases. Hypertensive gymnastics is an inexpensive intervention, easy to perform, and proven to improve circulation and lower blood pressure gradually (Rosanti & Tahir, 2024). The movements in hypertension exercises help widen peripheral blood vessels (vasodilation), reduce vascular resistance, and improve arterial wall elasticity, which will physiologically lower systolic and diastolic blood pressure. In addition, this activity increases cardiac output and overall blood circulation, while strengthening the heart muscle so that cardiorespiratory function becomes more optimal. From a psychological perspective, it also plays a role in reducing stress as it stimulates the release of endorphins that can reduce emotional tension. The combination of movements and breathing techniques in hypertension exercises also improve breathing patterns, increase lung capacity, and support relaxation and better sleep quality. Regular exercise has been shown to increase motivation and engagement of patients and family members in self-care of chronic conditions. In Mrs. L's case, this intervention not only had an impact on physiological aspects, but also strengthened family participation in supporting the continuation of home care. Gymnastics is performed for 30-40 minutes in three stages - warm-up, core movements, and cool-down - with mild to moderate intensity, making it a safe and feasible intervention to implement at the community level as part of family health promotion. (Nur et al., 2025)

Implementation of the intervention was conducted over several structured visits. Each session began with validation of the time contract and establishment of an atmosphere that supported therapeutic communication. During the stress management education session, Mrs. L showed enthusiasm and active engagement. She began to realize that the stress she had been experiencing affected her blood pressure and quality of life. In the hypertension exercise demonstration session, Mrs. L could follow the movements well and was able to repeat them independently.

The family-based approach applied in the implementation of interventions in Mrs. L's case is based on the principle of Family-Centered Care (FCC), which is a paradigm in nursing that places the family as an active partner in the care process. FCC does not only see the patient as a separate individual, but as part of a complex social system, where health decisions and behaviors are strongly influenced by the dynamics and roles in the family. In this approach, the nurse collaborates with the family, respects the family's values and culture, and provides space for family members to be involved in planning, implementing, and evaluating nursing actions.

In this case study, the active involvement of the family, especially Mrs. L's children, was an important component in the success of the intervention. The children not only acted as passive listeners, but also participated in the hypertension exercises and assisted Mrs. L in carrying out stress management techniques. This process created a positive emotional climate, strengthened communication between family members, and created a sense of collective responsibility in maintaining the health of family members. According to Efliani et al., (2022) strong family involvement in the nursing process is proven to increase the success of interventions because the family becomes a source of continuous emotional, physical and social support. This support strengthens compliance with the interventions provided, reduces resistance to behavior change, and improves the overall quality of life of patients.

Family-Centered Care allows nurses to recognize specific factors that can only be revealed through intimate interactions in the family context, such as spiritual values, habits, and patient expectations for healing, this approach also creates a sense of value in patients, increases autonomy, and strengthens trust between nurses and families. This is in accordance with the concept of community nursing which emphasizes empowerment, collaboration, and active participation of the community in maintaining health. Rahmadhani et al, (2023), in the context of Mrs. L, this approach succeeded in building a strong therapeutic relationship, making the family a strategic partner, and strengthening the effectiveness of educational interventions and hypertension exercises. Evaluation was conducted through observation, interviews, and verbal feedback. The results showed that Mrs. L improved in her understanding of stress, application of deep breathing techniques, and involvement in hypertension exercises with her family. Susilawati et al. (2022) reported that family-based educational and physical interventions improved patients' knowledge, attitudes, and practices in managing hypertension. This shows that education is not just a transfer of information, but a process of behavior change. Rizqi & Mardiyah (2021) emphasized the importance of SLKI indicators as a standardized evaluation tool, especially in cases with a promotive orientation such as this. In their study, patients who met the three main SLKI indicators (knowledge, risk recognition, self-efficacy) had more stable health outcomes. Setyaningsih et al. (2025) in a longitudinal study showed that increased family adaptive capacity was a strong predictor of blood pressure stability in hypertensive patients.

Evaluation is conducted through a data triangulation approach in the form of direct observation, interviews, and verbal feedback from patients. This approach is important to obtain a comprehensive picture of changes in patient behavior and perceptions after the intervention. The evaluation results showed that Mrs. L experienced a significant improvement in terms of understanding the concept of stress, its causes, and its impact on health, especially on her hypertension condition. In addition to increased knowledge, Mrs. L has also started to apply one of the stress management techniques, namely deep breathing, when facing emotional pressure. She said that the technique made her feel more relaxed and able to control her emotions better. In addition, her involvement in hypertension exercises increased, and she even began to involve her family members in these activities, which indicates the internalization of healthy behaviors in the family system.

Evaluation of the success of this nursing care refers to the Indonesian Nursing Outcome Standards (SLKI), specifically the Family Health Management indicator (L.12105). This SLKI includes several parameters, including: increased family knowledge of health conditions, the ability to recognize risk factors, and the ability to manage conditions independently. These three indicators appear to have significantly improved in Mrs. L, as seen from her ability to re-explain the information provided, initiative in applying relaxation techniques, and consistency in following physical exercise in the form of hypertension exercises.

These behavioral changes indicate that the intervention is not only educative, but also transformative, where the patient demonstrates the willingness and ability to change her lifestyle. This reflects the effectiveness of a family-based nursing approach that provides space for patients to become active subjects in their own care. Setyaningsih et al., (2025) the success of family nursing is not only measured by a decrease in physical symptoms, but also by an increase in adaptive capacity and family independence in dealing with long-term health problems.

4. Conclusion

This case study shows that a family-based nursing approach with Family-Centered Care principles is effective in improving health management readiness in families with members suffering from hypertension. Through the stages of assessment, diagnosis, intervention, implementation, and evaluation, it was found that the combination of stress management education and hypertension exercises had a positive impact on improving patients' understanding, behavior, and attitudes in managing blood pressure and dealing with psychological stressors.

The educational intervention successfully increased Mrs. L's awareness of the relationship between stress and hypertension, while the hypertensive exercises were shown to support relaxation and cardiovascular health in a non-pharmacological manner. The active involvement of the family, especially the patient's children, was also a critical success factor as it strengthened emotional support and adherence to the intervention.

Evaluation based on the Family Health Management SLKI indicator (L.12105) showed a significant improvement in the patient's knowledge, risk recognition ability, and self-care skills.

These findings confirm that family empowerment and a holistic approach are essential strategies in the care of hypertensive patients in the community.

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