

Implementation of Family Emotional Support on the Level of Compliance With a Low Salt Diet in Elderly Hypertension

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Background: Hypertension, or high blood pressure, is a common non-communicable disease and a leading cause of illness and death worldwide. One way to manage hypertension is through diet, one of which is adopting a low-salt diet. Consuming too much salt can cause high blood pressure. Emotional support from family is crucial in helping the elderly. This support can take the form of attention, affection, empathy, motivation, and moral encouragement provided by family members. **Objective:** To describe nursing care with the Implementation of Family Emotional Support with the Level of Low Salt Diet Compliance in Hypertensive Elderly at Health Center, Semarang City. **Method:** Descriptive case study was used as the following type of research, with elderly subjects Mrs. K 71 years old female and Mrs. S 75 years old female. Data were collected by conducting interviews, physical examinations and observations, as well as data collection based on documentation studies. **Results:** Based on the analyzed study on the provision of interventions with a diagnosis of acute pain related to physiological injury agents of hypertension, knowledge deficit related to lack of exposure to information and sleep pattern disorders related to pain and anxiety, there was a significant decrease in high blood pressure in Mrs. K; Pretest: 174/95 mmHg and Posttest 152/82 mmHg, in Mrs. S; Pretest: 184/92 mmHg and Posttest 160/78 mmHg which was carried out for 15 minutes in one meeting. **Conclusion:** can overcome high blood pressure levels in Mrs. K and Mrs. S with hypertension.

Keywords: Family Emotional Support; Low-Salt Diet Adherence; Hypertension; Elderly; Family Nursing Care.

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1. Introduction

Hypertension, or high blood pressure, is a common non-communicable disease and a leading cause of illness and death worldwide. According to a report by the World Health Organization [1], approximately 1.28 billion adults aged 30 to 79 have hypertension, and nearly two-thirds of them live in low- and middle-income countries. Hypertension is often referred to as a silent killer because it usually has no obvious symptoms, but it can lead to serious complications such as stroke, heart failure, chronic kidney failure, and coronary heart disease if left untreated. In Indonesia, hypertension is a common health problem. According to the 2018 Basic Health Research [2], the number of people aged 18 and over with hypertension reached 34.11%. This figure is higher than the 2013 figure of 25.8%. This indicates that hypertension is a significant challenge in healthcare services, especially among the elderly. The elderly are more susceptible to hypertension due to aging conditions, such as decreased blood vessel flexibility, decreased kidney function, and hormonal changes that affect blood pressure [3].

One important way to manage hypertension is through lifestyle and dietary changes, including adopting a low-salt diet. Consuming too much salt can increase blood pressure because it causes the body to retain more fluid and sodium. The World Health Organization (WHO) recommends that people consume no more than 5 grams of salt per day, which is equivalent to one teaspoon. However, surveys show that most people in Indonesia still consume twice the recommended salt limit [4]. This is due to the habit of adding salt and

flavorings to food, as well as frequent consumption of processed and ready-to-eat foods. Adherence to a low-salt diet is crucial for controlling blood pressure in people with hypertension, especially the elderly. However, many seniors struggle to follow these recommendations. These difficulties include a lack of understanding of the benefits of a low-salt diet, long-standing eating habits, and minimal family assistance and support [5].

Emotional support from family members is crucial in helping seniors adhere to their disease management [6]. This support can take the form of attention, affection, empathy, motivation, and moral encouragement provided by family members. When seniors feel valued, cared for, and loved, they are more motivated to follow medical recommendations, including maintaining a low-salt diet. Conversely, seniors who lack emotional support often feel lonely, helpless, and lose their enthusiasm for maintaining their health. Family support encompasses the attitudes, actions, and acceptance a family provides to its members [7]. This support can help individuals resolve problems, boost self-confidence, increase motivation to face challenges, and contribute to a happier life. In efforts to prevent and manage hypertension, families need to be involved in educational programs to meet the patient's needs and assist them in adopting a low-salt diet. This is because the family is the closest unit to the patient [8]. A low-salt diet is one way to manage recurrent hypertension without causing serious side effects. This method is more natural and aims to lower high blood pressure to normal [9]. Food consumption affects blood pressure stability. Nutrient content, such as fat and sodium, is closely linked to the development of hypertension [10]. By following a regular diet, blood pressure can return to normal. This can be achieved by reducing fatty foods, avoiding high-salt foods, consuming fiber-rich foods, and engaging in physical activity. The primary goal of a low-salt diet is to lower blood pressure and maintain a normal level [11]. Compliance with the diet will be effective if a person understands its benefits and is supported by sufficient understanding. Knowledge and understanding determine behaviors and positive changes to maintain health [12]. If knowledge and understanding are lacking, awareness of the importance of a low-salt diet can decrease, impacting how it is implemented, potentially leading to complications. Dietary compliance for people with hypertension can be achieved if patients adhere to the diet regularly and consistently [13].

Research conducted by Sari in 2021 showed a strong correlation between family support and the level of adherence to a low-salt diet in the elderly. Elderly people with better family support tend to be more compliant with a low-salt diet than those with less support. This finding aligns with a 2020 study by [14], which found that emotional support significantly influences elderly behavior regarding diet and hypertension treatment. As a healthcare center in Semarang City, the same challenges are faced. According to the 2024 Community Health Center (Puskesmas) annual report, the number of elderly people with hypertension reached 425. Initial observations in September 2025 showed that almost all elderly people who regularly undergo check-ups at the Puskesmas still do not adhere to the low-salt diet recommendations. Many still consume foods that are too salty or processed with high salt content, and they do not understand the negative impact of this non-compliance on blood pressure. Family support is a crucial factor in helping elderly people follow medical recommendations. Families, as the closest environment for elderly people, play a significant role not only in providing physical care but also in providing emotional support that can boost their morale and mental well-being. Therefore, this study is important to determine the extent to which family emotional support is applied to the level of compliance with a low-salt diet in elderly people with hypertension in the Community Health Center work area.

2. Literature Review and Problem Statement

Hypertension among the elderly is a major public health concern due to its high prevalence and strong association with cardiovascular morbidity and mortality [7]. Non-pharmacological management, particularly

adherence to a low-salt diet, has been consistently identified as an effective strategy to control blood pressure in hypertensive patients [1]. However, previous studies indicate that dietary adherence among elderly populations remains suboptimal, largely due to long-standing eating habits, limited health literacy, and psychosocial factors (Irawati, 2020; Sari, 2021). Family support, especially emotional support, plays a crucial role in shaping health behaviors in older adults. According to Friedman (2021), emotional support, manifested through empathy, encouragement, and reassurance can enhance motivation and self-efficacy in managing chronic illnesses. Empirical studies have shown a positive association between family emotional support and adherence to dietary recommendations among elderly patients with hypertension [14]; [8]. Nevertheless, some studies report that although family support is present, it does not always translate into sustained behavioral change, suggesting inconsistencies in how emotional support is operationalized and integrated into nursing care [15]

Despite the growing body of literature, several research gaps remain. Most existing studies focus on the statistical relationship between family support and dietary adherence without exploring how emotional support is practically applied within family-based nursing care, particularly through case-based interventions. Additionally, prior research often treats family support as a single construct, overlooking specific dimensions such as emotional support that may have a more direct behavioral impact on elderly patients. There is also limited evidence derived from descriptive case studies that illustrate the nursing process in applying family emotional support to improve low-salt diet adherence among hypertensive elderly individuals. Based on these gaps, the research problem of this study is formulated as follows: *How is family emotional support implemented in nursing care to improve adherence to a low-salt diet among elderly patients with hypertension?* This problem formulation provides a clear academic rationale for conducting the study and supports the need for nursing-based evidence that bridges theory and practical family interventions.

3. Method

This study employed a descriptive case study design to obtain an in-depth understanding of nursing care implementation for elderly patients with hypertension, particularly focusing on family emotional support and adherence to a low-salt diet. The study subjects were elderly individuals aged ≥ 60 years with a diagnosis of hypertension, selected purposively based on inclusion and exclusion criteria and who provided informed consent. The research was conducted at a Public Health Center in Central Java from December 2025 to January 2026. The study focused on identifying forms of family emotional support, assessing the level of low-salt diet adherence, and analyzing the application of emotional support within family-based nursing care. Data were collected through interviews, observation, physical examinations using the inspection, palpation, percussion, and auscultation (IPPA) method, and documentation review. The instruments included family nursing assessment forms, standard operating procedures for blood pressure measurement, and observation sheets. Data were analyzed using a qualitative descriptive approach with narrative presentation, encompassing nursing diagnosis formulation, intervention planning, implementation, and evaluation. All research procedures adhered to nursing research ethical principles.

4. Results And Discussion

Results

This study involved two elderly patients with hypertension who received family-based nursing care, focusing on adherence to a low-salt diet and accompanying nursing problems.

Table 1. Characteristics of Elderly Clients with Hypertension

Characteristics	Case I (Mrs. K)	Case II (Mrs. S)
Age	71 years	75 years
Education	Junior high school	Elementary school
Occupation	Employed	Unemployed
History of Hypertension	±3 years, non-hereditary	Hereditary
Blood Pressure	174/95 mmHg	184/92 mmHg
Family Support	Present, not optimal	Present, affected by conflict
Main Problems	Knowledge deficit, pain	Disturbed sleep pattern

Both clients were elderly individuals with moderate to high hypertension. Differences in educational background and family conditions influenced the types of nursing problems identified. Case I was primarily associated with limited knowledge and dietary adherence, whereas Case II exhibited psychophysiological problems related to sleep disturbances.

Table 2. Main Nursing Diagnoses

Case	Nursing Diagnoses
Case I	Knowledge deficit (D.0111), Acute pain (D.0077)
Case II	Disturbed sleep pattern (D.0055)

The nursing diagnoses in Case I were directly related to insufficient understanding of a low-salt diet and the physiological response to hypertension. In contrast, Case II reflected the impact of psychosocial factors and family stress contributing to sleep disturbances.

Table 3. Nursing Interventions Implemented

Case	Main Interventions
Case I	Low-salt diet education, pain management
Case II	Sleep support, non-pharmacological stress management

Interventions were tailored to the primary nursing problems of each case. Health education in Case I aimed to improve adherence to a low-salt diet, while Case II focused on enhancing sleep quality and reducing stress levels.

Table 4. Nursing Care Outcomes

Case	Evaluation Results
Case I	Problems partially to fully resolved
Case II	Problems not yet resolved

The evaluation showed that nursing interventions in Case I resulted in positive responses, including improved understanding and reduced pain. Conversely, the nursing problem in Case II was not fully resolved, indicating the need for continued intervention and stronger family involvement.

Discussion

Based on the assessment findings of Mrs. K and Mrs. S, subjective data revealed that both clients experienced sleep disturbances characterized by restlessness and frequent nighttime awakenings. Mrs. K reported headaches with a pain scale of 6 accompanied by anxiety due to persistently elevated blood pressure and infrequent visits to health facilities, while Mrs. S experienced increased blood pressure accompanied by dizziness and headaches that affected her sleep quality. Objective findings showed blood pressure readings of 174/95 mmHg for Mrs. K and 184/92 mmHg for Mrs. S, with both clients appearing fatigued and exhibiting dark circles around the eyes. These findings reflect common clinical manifestations of uncontrolled hypertension that negatively impact comfort and quality of life in elderly patients.

Based on the assessment and referring to the Indonesian Nursing Diagnosis Standards (SDKI), the nursing diagnoses identified included acute pain related to physiological injury agents due to elevated blood pressure, knowledge deficit regarding low-salt diet management in Mrs. K, and disturbed sleep pattern in Mrs. S. These diagnoses were supported by both subjective complaints and objective data, such as headaches, sleep disturbances, high blood pressure values, and limited understanding of hypertension self-management at home. Within the context of family nursing care, the diagnoses addressed not only individual health problems but also the family's role as a primary support system in managing chronic conditions.

Nursing interventions were developed based on the Indonesian Nursing Outcomes Standards (SLKI) and the Indonesian Nursing Interventions Standards (SIKI), with a focus on addressing each client's priority problems. Care planning emphasized family empowerment through health education, motivational support, and guidance in implementing a low-salt diet. Family members were actively involved in the planning process to enhance adherence and continuity of care. The planned interventions were consistent with family nursing care theories, and no discrepancies were found between theoretical frameworks and the practical implementation in both cases.

The implementation of family nursing care was carried out during a single home visit, during which all planned interventions were delivered as agreed with the families. Nursing actions included education on limiting salt intake to less than 5 grams per day, appropriate food selection and preparation, blood pressure monitoring, lifestyle modification, motivational reinforcement, and emotional support. No significant barriers were encountered, as both clients and their families were cooperative throughout the process. Most elderly clients demonstrated moderate to high adherence to a low-salt diet; however, challenges such as boredom and social influences remained factors that could affect long-term adherence.

Nursing evaluation was conducted using the SOAP approach to assess client responses to the implemented interventions. The evaluation results indicated clinical improvement in both cases, evidenced by reduced pain intensity, decreased blood pressure, and improved sleep quality. Mrs. K experienced a reduction in blood pressure to 152/82 mmHg and reported more restful sleep, while Mrs. S showed a decrease in blood pressure to 160/78 mmHg with improved sleep duration and comfort. Although the nursing care schedule experienced minor delays due to the clients' personal commitments, these limitations did not hinder the overall effectiveness of family nursing care delivery.

5. Conclusion

Based on the discussion above, it can be concluded that the families of Mrs. K and Mrs. S experienced major difficulties in managing headaches and high blood pressure due to limited utilization of health facilities, irregular treatment adherence, and insufficient knowledge regarding a low-salt diet, which contributed to sleep disturbances. The nursing diagnoses identified included acute pain, knowledge deficit, and disturbed sleep pattern, all of which were addressed through systematically planned and appropriately implemented nursing interventions. The evaluation results indicated that the nursing interventions successfully resolved the identified problems and achieved the expected outcomes, making further intervention unnecessary. Therefore, families are encouraged to play a more active role in supporting treatment adherence and low-salt dietary practices, public health centers should continue to develop innovative services for elderly patients with hypertension, nurses are expected to enhance the quality of nursing care, and future researchers may use this study as a reference for further investigations into nursing care for elderly patients with hypertension.

6. References

- [1] WHO, "Guideline on Sodium Intake for Adults and Children," *World Health Organization*, 2021.
- [2] Kemenkes RI, "Laporan Nasional Riskesdas 2018," Kemenkes RI.
- [3] Tim Pokja SLKI DPP PPNI, *Standar Luaran Keperawatan Indonesia Defnisi dan Kriteria Hasil*. Tim Pokja SLKI DPP PPNI, 2018.
- [4] Tim Pokja Tim Pokja SDKI DPP PPNI, *Standar Diagnosa Keperawatan Indonesia Defnisi dan Indikator Diagnosa Edisi 1*. Jakarta: Dewan Pengurus Pusat PPNI, 2018.
- [5] L. Pratiwi, "Socioeconomic factors related to family support in elderly hypertension patients," *Jurnal Kesehatan Masyarakat*, 2022.
- [6] S. , & A. L. Syarli, "Faktor Penyebab Hipertensi Pada Lansia: Literatur Review," *Ahmar Metastasis Health Journal*, vol. 1, no. 3, pp. 112–115, 2021.
- [7] N. Sari, "Dukungan keluarga dan kepatuhan diet rendah garam pada penderita hipertensi," *Jurnal Ilmu Kesehatan*, vol. 10, no. 1, pp. 45–52, 2021.
- [8] H. R. P. D. Wahyudi WT, "Dukungan keluarga, kepatuhan dan pemahaman pasien terhadap diet rendah garam pada pasien dengan hipertensi," *Holistik J Kesehatam*, vol. 14, no. 1, pp. 110–170, 2020.
- [9] Kemenkes RI, *Profil Kesehatan Indonesia 2022*. Kemenkes RI, 2022.
- [10] S. , K. M. D. , & K. R. R. Palimbong, "Keefektifan Diet Rendah Garam I Pada Makanan Biasa Dan Lunak Terhadap Lama Kesembuhan Pasien Hipertensi," *Jurnal Keperawatan Muhammadiyah*, vol. 3, no. 1, pp. 74–89, 2018.
- [11] Mishbahatul E, "The Factors That Affect the Adherence of Hypertension Elderly," *Repository UNAIR* , 2020.
- [12] S. Rahayu, "Jurnal Kesehatan Masyarakat," *Hubungan dukungan emosional keluarga dengan perilaku kesehatan lansia*, vol. 14, no. 2, pp. 122–130, 2022.
- [13] Irawati, "Hubungan Dukungan Keluarga terhadap Kepatuhan DietRendah Garam pada Penderita Hipertensi di Puskesmas Ulaweng," *J Ilm Kesehat Diagnosis*, vol. 15, no. 1, pp. 36–40, 2020.
- [14] D. Rahmawati, "Pengaruh dukungan keluarga terhadap kepatuhan diet pada lansia hipertensi," *Jurnal Keperawatan Indonesia*, vol. 12, no. 3, pp. 155–162, 2020.
- [15] W. Puspitasari, "Community support and emotional well-being in hypertensive elderly," *Jurnal Keperawatan Medikal Bedah*, 2021.