

## Case Study of The Application Warm Water Foot Soak Therapy in The Elderly With Hypertension The Hamlet of Gubuk Pande, Apitaik Village, Pringgabaya Sub-District

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### ABSTRACT

**Background & Objective:** Hypertension often occurs in the elderly and is a condition in which a person experiences an increase in blood pressure above normal which can result in morbidity and mortality. One of the nonpharmacological treatments for hypertension is foot soak using hanagt water. Warm water is able to provide a relaxing effect that causes a sense of relaxation to cause sopartifik (want to sleep) which can lower blood pressure. **Method:** This study aims to analyze the use of foot soaks using warm water against insomnia in the elderly to lower blood pressure in hypertensive patients in Gubuk Pande Hamlet, Apitaik Village, Pringgabaya District. The subject of this case study was a patient with hypertension. **Result:** The results of the treatment showed that after 5 days of intervention, blood pressure dropped from 160/100 mmHg to 150/90 mmHg. **Conclusion:** The conclusion from the results of this study is that foot soak therapy using warm water can reduce blood pressure in hypertensive patients. It is hoped that medical personnel can improve the quality of service in providing nursing care to patients, especially in Hypertensive Patients with foot soak interventions using warm water.

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### Introduction

Health is one of the most important human needs, because every human being has the right to have health. In fact, not everyone can have an optimal degree of health due to various problems, including poor environment, low socio-economic conditions, unhealthy lifestyles ranging from food, habits, and the surrounding environment (Misbach, 2013). A healthy lifestyle is a hierarchical physiological need, the most basic human need to be able to maintain life, including keeping the body fit and healthy

and free from all kinds of diseases. One of the diseases that often arise due to an unhealthy lifestyle is hypertension (Sufa, et al 2017).

Hypertension often occurs in the elderly and is a condition in which a person experiences an increase in blood pressure above normal which can result in morbidity and mortality. Hypertension means that the blood pressure in the blood vessels is very high, which is a blood carrier from the heart that pumps blood to all tissues and organs (Aryantiningsih & Silaen, 2018).

Every 20 mmHg increase in systolic blood pressure or 10 mmHg increase in diastolic blood pressure increases the risk of death from ischemic heart disease and stroke. Controlling blood pressure can reduce the risk of death, cardiovascular disease and stroke.

Based on data from the World Health Organization (WHO), the prevalence of high blood pressure in 2014 in adults aged 18 years and above was around 22%. This disease also causes 40% of deaths from heart disease and 51% of deaths from stroke. Apart from globally, hypertension is also one of the most common non-communicable diseases suffered by Indonesians (57.6%), in (Jumriani et al, 2019).

Nationally, the 2018 Riskesdas results show that the prevalence of the population with high blood pressure is 34.11%. The prevalence of high blood pressure in women (36.85%) was higher than that of men (31.34%). The prevalence in urban areas was slightly higher (34.43%) compared to rural areas (33.72%). Prevalence increases with age (Ministry of Health, 2018).

The increasing prevalence of hypertension from year to year is due to the increasing population, lack of physical activity and unhealthy lifestyles. The unhealthy lifestyle includes an unhealthy diet, such as high sugar, fat and salt, and lack of fiber foods. In addition, the use of tobacco and alcohol.

Unhealthy lifestyles in patients with hypertension in patients with hypertension planning and nursing care actions that can be taken include monitoring the patient's vital signs, limiting body activity, getting enough rest, and a healthy lifestyle such as a diet low in salt, sugar and fat, and stopping consuming cigarettes, alcohol and reducing stress. The role of nurses as (educators) or educators, this role improves health through providing knowledge related to nursing and medical actions, and can reduce the risk of death, cardiovascular disease and stroke.

Based on the preliminary results conducted by researchers starting on May 8, 2023 in Kongkok Hamlet, Meninting Village, West Lombok Regency, elderly people with hypertension were 27 people, and became the highest order after gout and asthma.

The incidence of elderly sleep disorders is quite high. Based on data found that in Indonesia at the age of 65 years there are 50% of the elderly experiencing sleep disorders. The prevalence of insomnia in Indonesia in the elderly is still relatively high, which is around 67%. This figure is obtained from the population aged over 65 years. According to gender, it was found that insomnia was experienced by women, namely 78.1% at the age of 60-74 years (Mustain, 2019).

The high level of sleep problems that occur in the elderly requires appropriate treatment to improve the fulfillment of sleep needs. Increasing the fulfillment of sleep needs can be done by teaching ways that can stimulate and motivate sleep. Handling of the elderly with sleep disorders can be done pharmacologically and non-pharmacologically. Pharmacological treatments such as hypnotic sedative drugs have side effects such as impaired coordination of thinking (cognitive), impaired mental

function, amnesia, and are dependent. While non-pharmacological therapies include treatments that are safe, effective, and without side effects such as complementary therapies which include natural medicine therapies. Complementary therapy can be done by means of warm water foot soak therapy, progressive relaxation therapy, aromatherapy, reflexology and hydrotherapy (Saputra, 2017).

### **Objective**

The purpose of this study was to apply Warm Water Foot Soak Therapy to the Elderly with Hypertension in Gubuk Pande Hamlet, Apitaik Village, Pringabaya District.

### **Method**

This study aims to analyze the use of foot soaks using warm water against insomnia in the elderly to lower blood pressure in hypertensive patients in Gubuk Pande Hamlet, Apitaik Village, Pringabaya District. The subject of this case study was a patient with hypertension.

### **Results and Discussion**

Assessment is the basic idea of the nursing process which aims to collect information or data about the patient, in order to identify, recognize problems, health and nursing needs of patients, both physical, mental, social and environmental (Dermawan, 2014).

Nursing diagnosis is a statement that describes the human response (state of health or changes in actual/potential interaction patterns) of individuals or groups of nurses legally identify and nurses can provide definite interventions to maintain health status or to reduce, eliminate or prevent changes (RohmadanWalid, 2012).

#### **1. Sleep pattern disorders**

This nursing diagnosis was raised by the author because based on the results of the assessment, the subjective data obtained by Mrs. S said she had trouble sleeping, and complained that she could not sleep well and had difficulty starting sleep or waking up frequently at night, objectively the client looked sluggish, and the client seemed restless, the eyes looked sunken and reddened.

Based on this data, the author raises the nursing problem of sleep pattern disorders stating that the characteristic limitations for raising data nursing problems such as if there is one sign or data such as complaining of fatigue and feeling weak. Warm water can provide a sedating effect that can stimulate sleep, as a result soaking the feet in warm water with a temperature of 31-37°C will have a sopartific effect (the effect of going to sleep) and can overcome sleep disorders (Putra, Adawiyah, and Untisari 2017).

Warm water therapy has an impact on the physiology of the body, especially the blood vessels so that blood circulation is smooth. Water has a positive impact on the heart muscle and lungs. Warm water can also make us feel relaxed, relieve pain and tension in the muscles and increase blood flow. Therefore, soaking your feet in warm water can make it easier to sleep (Agustina2019).

In nursing care for hypertension, one of the diagnoses that arise is Sleep Pattern Disorder. The case taken by the author here is "Application of Warm Water Foot Soak Therapy on Mrs. S. with Hypertension Using EBN Comparison in Gubuk Pande Hamlet, Apitaik Village, Pringabaya District." The author will discuss the implementation of nursing care so that it can be seen whether the application of care in the existing case is in accordance with EBN or not. In this case, the

implementation of nursing care focuses only on one nursing problem, namely Sleep Pattern Disorders and focuses on one of the nursing actions, namely the provision of Warm Water Foot Soaks at least 3 times in patients with increased blood pressure that is more than normal.

Based on the implementation in the field and theory, there is a gap because the implementation can be carried out in accordance with the intervention.

Implementation of the second diagnosis, namely activity intolerance, namely Identification of activity and sleep patterns, Environmental modifications (eg lighting, noise, temperature, mattresses, and beds), Establish a routine sleep schedule, Explain the importance of getting enough sleep during illness.

Implementation of day I obtained on Mrs. S on August 1, 2024 is Identifying patterns of activity and sleep with the results Can not sleep in the morning, sleep at night 23.00 wita - 04.00 wita and often wake up at night, Identifying factors that disturb sleep with the results of hypertension (Blood pressure: 160/90 mmHg), Modifying the environment (Ex. Lighting, noise, temperature, mattress, and bedding) with the results Lighting is set, noise is reduced, temperature, mattress and bedding are adjusted to the comfort of the client, Explain the importance of getting enough sleep during illness with the results The client understands and understands the importance of getting enough sleep to speed up the healing process.

Implementation of day II obtained on Mrs. S on August 2, 2024 is to identify activity and sleep patterns with the results of napping at 13.00 WIB - 13.30 WIB, sleeping at night at 22.00 WIB-04.30 WIB, identifying sleep disturbing factors with the results of hypertension (blood pressure: 160/90mmHg), modifying the environment (eg lighting, noise, temperature, mattress, and bedding) with the results Lighting is set, noise is reduced, temperature, mattress and bedding are adjusted to client comfort is maintained.

Implementation of day III obtained in Mrs. S on June 3, 2023 is Identifying activity and sleep patterns with the results of napping at 13.00 WIB - 15.00 WIB, sleeping at night at 21.00 WIB-06.00 WIB, Identifying sleep disturbing factors with the results of hypertension (blood pressure: 120/90mmHg), modifying the environment (eg lighting, noise, temperature, mattress, and bedding) with the results of environmental modifications adjusted to the client's mood.

Based on the implementation in the field and theory, there is a gap because the implementation can be carried out in accordance with the intervention.

## 2. Nursing Evaluation

Nursing evaluation is a continuous activity carried out to determine whether the nursing plan is effective and how the nursing plan continues, revises the plan or stops the nursing plan (Manurung, 2011). Objectives and criteria for the results of nursing care on diagnosed problems:

At the diagnosis of sleep pattern disorders associated with hypertension is resolved, where from the subjective data Mrs.S said she could sleep and did not wake up again at night, the client's objective data improved the problem could be resolved after the EBN comparison was given non-pharmacological therapy Warm Water Foot Soak.

## Conclusion

Based on the results of Case Study with Narrative review and discussion that has been done, it can be concluded that the provision of nursing interventions Warm water foot soak in hypertensive patients with sleep pattern disorders.

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