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The Effect of Giving Warm Compress on Neck Pain in Hypertension Elderly at Simundol Puskesmas Regency Northern Padang Lawas Year 2022

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R T I C L E I N F O

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ABSTRACT

Health is one of the most important human needs, because humans have the right to have health. In fact, not everyone can have optimal health due to environmental, socio-economic, lifestyle, habits and the surrounding environment. Hypertension is a disease that is often found in health services. Signs and symptoms that accompany hypertension such as heart palpitations, difficulty breathing after working hard, fatigue, irritability, neck tension, likes to sleep and so on. The neck feels tense or neck pain is caused by increased pressure on the walls of the blood vessels in the neck area where the blood vessels carry blood to the area to the brain so that when there is an increase in vascular pressure to the brain it results in pain in the nape area. This study aims to identify the effect of giving warm compresses to neck pain in elderly hypertensives at the Simundol Health Center, Kab. North Padang Lawas in 2022. This research is a research using quantitative methods with the type of one group pretest posttest. The number of respondents in this study were 26 respondents. The sampling technique in this study was to use purposive sampling. The results of the study were that before applying warm compresses, 16 respondents experienced severe pain and 10 respondents experienced moderate pain, whereas after warm compresses, 14 respondents experienced mild pain and 12 respondents experienced moderate pain. The conclusion in this study is that there is a significant effect of giving warm compresses to neck pain in elderly hypertensives at the Simundol Health Center, Kab. North Padang Lawas in 2022. The suggestion in this study is that the Simundol Health Center in Kab. North Padang Lawas can improve socialization of the treatment of neck pain in elderly hypertensives by giving warm compresses.

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INTRODUCTION

Health is one of the most important human needs, because humans have the right to have health. In fact, not everyone can have optimal health due to environmental, socio-economic, lifestyle, habits and the surrounding environment(Avelina & Dery, 2021). Hypertension is a disease that is often found in health services. The percentage of hypertension continues to increase with age.

According to 2018 World Health Organization (WHO) data, around 1.3 billion people in the world suffer from hypertension. This means that 1 in 3 people in the world suffer from hypertension. Hypertension is often referred to as the silent killer because it is a deadly disease without any symptoms as a warning to its victims. World Health statistics report that hypertension is a high-risk condition that causes around 51% of deaths from stroke and 45% of coronary heart disease (WHO, 2018).

Hypertension is a frightening disease for most of the world's population, including Indonesia. Based on the results of the 2018 Household Health Survey (SKRT), in Indonesia around 1 out of 3 Indonesians suffers from hypertension. Hypertension is a disease that is included in the top ten inpatient and outpatient diseases. Hypertension has resulted in an increase in the burden of health costs in Indonesia (Ministry of Health, 2018).

Hypertension is an abnormal increase in blood pressure in the arteries continuously for more than a period. Hypertension is an increase in systolic blood pressure of more than 140 mmHg and diastolic blood pressure of more than 90 mmHg on two measurements five minutes apart in a fairly calm/rested state. Hypertension is influenced by multiple risk factors, both endogenous ones such as age, sex and genetics/heredity as well as exogenous ones such as obesity, consumption of salt, cigarettes and coffee.(Nurhidayat, 2015).

Signs and symptoms that accompany hypertension such as heart palpitations, difficulty breathing after working hard, fatigue, irritability, neck tension, likes to sleep and so on. Neck feels tight or soreThe nape of the neck is caused by an increase in pressure on the walls of the blood vessels in the neck area where the blood vessels carry blood to the area to the brain so that when there is an increase in vascular pressure to the brain it results in pressure on the nerve fibers of the neck muscles so that the patient feels pain or discomfort in the nape area . Pain felt by people with hypertension will interfere with their daily activities. One of the therapies used to relieve pain is one of them with warm compresses(Fadillah, 2019).

Warm compresses are one of the pain management methods by providing heat energy through conduction, where the heat can cause vasodilation (widening of blood vessels), increase muscle relaxation thereby increasing circulation and increasing oxygen intake and all nutrients to the tissues.(Setyawan, 2014). Headaches suffered by hypertensive patients are caused by decreased blood supply to the brain and increased spasm of blood vessels. Warm compresses are done to relax the muscles in the blood vessels and dilate the blood vessels so that it can increase the intake of oxygen and nutrients to the brain tissue.

Based on research conducted by previous researchers(Nugroho & Ayubbana, 2022), stated that there was a decrease in the pain scale from a scale of 7 (severe pain) to a scale of 0 (no pain) in hypertensive patients after applying warm compresses. other researchers(Fathinah & Dermawan, 2021)said that giving warm compresses to elderly people with hypertension obtained results as many as 5 respondents whose pain problems had been resolved and 1 respondent whose pain problems had not been resolved.

In addition, research by(Rohimah & Kurniasih, 2015)said that hypertensive patients who experienced nape pain experienced a decrease to mild nape pain after giving warm compresses. There were 20 hypertensive patients who were willing to be studied. Where before giving warm compresses there were 12 respondents experiencing moderate neck pain and 8 respondents experiencing mild neck pain. Then after the patients received warm compresses during the study, the results obtained were that 17 people experienced a decrease to mild neck pain and the remaining 3 people still experienced moderate neck pain. This informs that there are differences

in the results of the pain scale by applying warm compresses to neck pain for people with hypertension.

Based on the results of preliminary studies that have been conducted by researchers atSimundol Health Center, Kab. North Padang Lawas found the number of hypertension sufferers amounted to 48 people. Men totaled 16 people while women totaled 32 people. From the results of interviews with several hypertensive patients, they said that they often experience neck pain. They used balms or rubbed with oil to relieve neck pain. Based on the facts that have been described, the researchers are interested in conducting research with the title "The Effect of Giving Warm Compresses to Neck Pain in Elderly Hypertension at the Simundol Health Center, Kab. Northern Lawas.

RESEARCH METHODS

Types of research

This research refers to a quantitative approach. Quantitative research is research that uses data in the form of numbers, so that conditions or population trends can be predicted in the future. Quantitative research allows generalization of results, calculated by statistical analysis(Sinulingga, 2018).

Research design

The research method used in this study is an experimental research method withtype one group pretest-posttest (single group pretest-posttest). One group pretest-posttest is a research activity that gives an initial test (pretest) before being given treatment and after being given treatment then gives a final test (posttest).(Sugiyono, 2017). The research conducted by researchers was to determine the effect of giving warm compresses to neck pain in elderly hypertensives at the Simundol Health Center, Kab. North Plains.

Research sites

This research was conducted at the Simundol Health Center, Kab. North Plains. The reason for choosing the location was due to the high number of elderly people with hypertension at the Simundol Health Center, Kab. North Padang Lawas, a location that is easy to reach by researchers and has never been conducted research on Giving Warm Compresses Against Neck Pain in Elderly Hypertension at that location.

Research time

This research was conducted from June to July 2022 research. The research schedule to be carried out by researchers is as follows:

Population and Sample

The population is a generalization area consisting of subjects or objects that have certain qualities and characteristics determined by the researcher to be studied and then drawn conclusions.(Sugiyono, 2017). The population in this study were all elderly people with hypertension who came for treatment at the Simundol Health Center, Kab. Padang Lawas Utara during the study, from June to July 2022, with a total of 26 people consisting of 11 men and 15 women.

The sample is an element of the population that will be used as the object of a study(Arikonto, 2010). The sampling technique in this study was to use purposive sampling, namely sampling based on certain criteria(Sinulingga, 2018). To determine the sample used, several criteria are needed to meet these requirements, these criteria are in the form of inclusion criteria in which the general characteristics of research subjects from an affordable target population will be examined, while those who do not meet the inclusion criteria for various reasons are included in the exclusion criteria. that must be removed or removed. The sample criteria in this study are:

1. Inclusion criteria

a. Hypertensive patients who are willing to be respondents.
b. Seniors aged over 60 years.
c. Hypertensive patients with measurements ≥ 140/90 mmHg.
d. Hypertension patients who have never or are not currently in reflexology therapy
e. Hypertensive patients who do not receive pharmacological therapy.

2. Exclusion criteria
   a. Hypertensive patients who were absent three times in a row during the study.
   b. Patients with chronic pain (heart disease, DM, kidney disease, etc.).
   c. Have visual impairment.
   d. Have hearing loss.

According to(Arikonto, 2010), if the population is less than 100 people, then the total sample can be taken as a whole. Based on this study, because those who met the inclusion and exclusion criteria were no more than 100 people, the researchers took 100% of the total sample that met the sample criteria, namely as many as 26 people.

RESULTS AND DISCUSSION

Characteristics of Respondents

Based on the results of research at the Simundol Community Health Center, North Padang Lawas Regency, it was known that the data on the characteristics of respondents based on the researcher's criteria were 26 people. The results of characteristic data are presented in table form below:

Table 1. Frequency Distribution of Respondent Demographic Data

Demographic Data	Frequency	Percentage (%)
Gender		
Man	11	42,3
Woman	15	57,7
Total	26	100
Age		
60-74 years	21	80.7
75-90 years	4	15,4
Over 90 years	1	3,9
Total	26	100
Education		
Not completed in primary school	2	7,7
SD	2	7,7
JUNIOR HIGH SCHOOL	5	19,2
SENIOR HIGH SCHOOL	14	53,8
Undergraduate/Higher Education	3	11.5
Total	26	100
Work		
Not working/Retired	4	15,4
Farmer	14	53,8
Self-employed	4	15,4
Private employees	1	3,8
PNS/TNI/Polri	3	11.5
Total	26	100

Based on Table above, it was found that the respondents in this study totaled 26 people, of which the majority were women as many as 15 people (57.7%). The majority age is 60-74 years, namely 21 people (80.7%). The last education of the majority of respondents graduated from high school, namely 14 people (53.8%). The majority of respondents work as farmers, namely as many as 14 people (53.8%).

Frequency Distribution of Neck Pain in the Elderly at the Simundol Health Center in North Padang Lawas District Before Giving Warm Compresses (Pretest)

The frequency distribution of neck pain in the elderly at the Simundol Health Center in North Padang Lawas Regency before giving warm compresses (Pretest) can be seen in the following table:

Table 2. Frequency Distribution Before Giving Warm Compresses (Pretest)

Pain Scale	Frequency	Percentage
Light	-	0%
Currently	10	40%
Heavy	16	60%
Total	26	100%

Based on Table 2, it shows that the results of the total score of each statement in the questionnaire, the percentage of neck pain in the elderly at the Simundol Health Center, North Padang Lawas Regency, before giving warm compresses was 60% (16 people) experiencing severe pain and 40% (as many as 10 people) experienced moderate pain.

Frequency Distribution of Neck Pain in the Elderly at the Simundol Health Center, North Padang Lawas Regency After Giving Warm Compresses (Posttest)

The frequency distribution of neck pain in the elderly at the Simundol Health Center in North Padang Lawas Regency after giving warm compresses (Posttest) can be seen in the following table:

Table 3. Frequency Distribution After Giving Warm Compresses (Posttest)

Pain Scale	Frequency	Percentage
Light	14	54%
Currently	12	46%
Heavy	-	-
Total	26	100%

Based on Table 3 it shows that the results of the total score of each statement in the questionnaire, the percentage of neck pain in the elderly at the Simundol Health Center in Padang Lawas Utara Regency after giving warm compresses was 54% (14 people) experiencing moderate pain and 46% (14 people) 12 people) experienced mild pain.

Bivariate Analysis

Bivariate analysis is an analysis carried out to analyze the relationship between two variables that can be independent of each other, influence each other, one variable affects another variable. Bivariate analysis in this study was to analyze the effect of giving warm compresses to neck pain in elderly hypertensives at the Simundol Health Center, North Padang Lawas Regency in 2022.

Table 4. Effect of Kowarm compresses for nape pain in elderly hypertension

Treatment	***Means***	***Confidence Intervals (95%)***		***t***	***p.s***
		Lower	***Upper***		
Pre	23,15	22.53	23.77	10.501	0.000
Post	12.04	11.33	12.75		

Table 4 above shows the results of bivariate analysis using the Wilcoxon Signed Rank test, where the posttest average value is 12.04 lower than the pretest average value of 23.15 and a p-value is 0.0001 or $p<0.05$. This means that there is an effect of giving warm compresses to neck pain in hypertensive elderly at the Simundol Health Center, North Padang Lawas Regency in 2022.

Discussion

Elderly Hypertension Before Giving Warm Compresses at the Simundol Health Center in North Padang Lawas Regency in 2022.

Based on the results of the study in Table 4.2, it shows that neck pain in elderly hypertensive before giving warm compresses is on a scale of severe pain of 60% (as many as 16 people) and moderate pain of 40% (as many as 10 people) before giving warm compresses.

Neck pain caused by vascular damage due to hypertension is evident in all peripheral vessels. Structural changes in the small arteries and arterioles lead to occlusion of the vessels. When the blood vessels narrow, the arterial flow will be disrupted.

In addition, neck pain experienced by the elderly is influenced by several factors including age, gender, occupation, culture, attention, anxiety, previous experience, family support, and fatigue. This is in line with previous research(Siddatul, 2017)which states that several things that affect the incidence of neck pain are age, genetic factors, psychological, environmental, occupational, food, and glands or hormones.

Neck pain in the elderly is mostly caused by the age factor, because at an elderly age the condition and ability of the body functions to decrease, this causes the elderly to be prone to pain. Besides that, the cause of the elderly often experiencing pain due to work activities or excessive activities, this is because there are some elderly people who are still working, because excessive activity easily causes pain. Another cause is food that is not taken care of which can cause pain, such as the elderly who like salty food, duck meat, nuts and others.

Most of the elderly still do not know how to handle pain properly and correctly, but most of the elderly manage their pain by massaging the part that feels painful, and some elderly people take anti-pain medication.

Elderly Hypertension After Giving Warm Compresses at the Simundol Health Center, North Padang Lawas Regency in 2022.

Based on the results of the study in Table 4.3, it shows that neck pain in hypertensive elderly after giving warm compresses is on a mild pain scale of 54% (or as many as 14 people) and experiencing moderate pain is 46% (as many as 12 people).

Warm compresses are one of the non-pharmacological measures to relieve pain or reduce pain. Giving warm compresses to certain areas can dilate blood vessels and oxygen supply to be smooth and relieve tension so that pain can be reduced.

Warm compresses can relieve or reduce tension so that the pain experienced by the elderly can be reduced. From the results of the study showed that there was a decrease in the pain scale in the elderly after giving warm compresses. This is proven that there is an effect of warm compresses in reducing the pain scale of the elderly and the response of the elderly says that they feel relaxed when given warm compresses.

This is reinforced by the results of previous studies(Rohimah & Kurniasih, 2015)which states that there are differences in the posttest and pretest pain scales in giving warm compresses to elderly hypertension. In addition to other research(Arum, 2022)also proves that giving warm compresses successively to hypertensive patients can reduce the pain scale from the initial scale of 5 to a scale of 2.

The Effect of Giving Warm Compresses on Neck Pain in Elderly Hypertension at the Simundol Health Center, Kab. North Padang Lawas Year 2022.

Based on the results of the study in Table 4.4 with the Wilcoxon test showing that there is a significant effect of giving warm compresses to neck pain in elderly hypertensives at the Simundol Health Center in North Padang Lawas Regency, this is shown from the posttest average value of 12.04 which is smaller than the average value -pretest average of 23.15 and obtained a p-value of 0.0001 or $p < 0.05$.

From the results of the research that has been done, it was found that there was a decrease in the pain scale in the neck of elderly hypertensive patients after giving warm compresses. This

is in line with research (Avelina & Dery, 2021), which states that there is an effect of giving warm compresses to neck pain in elderly people who suffer from hypertension.

Neck pain can be controlled if the patient knows the things that influence the emergence of the feeling of pain such as age, lifestyle and eating patterns and the right way to handle pain. Warm compresses are one way of managing pain by providing heat energy through conduction, where the heat generated can cause vasodilation (widening of blood vessels), increase muscle relaxation thereby improving circulation and increasing the supply of oxygen and nutrients to the tissues.

The same thing was also conveyed by other researchers(Sitepu, Simarmata, & Sipayung, 2022)who suggested that non-pharmacological treatment using warm compresses can be used as an alternative therapy to reduce neck pain that occurs in hypertensive patients.

CONCLUSIONS

After conducting research on: The Effect of Giving Warm Compresses on Neck Pain in Elderly Hypertension at the Simundol Health Center, Kab. Padang Lawas Utara Year 2022, the following conclusions are drawn: There is a significant effect of giving warm compresses to neck pain in elderly hypertensives at the Simundol Health Center, Kab. Padang Lawas Utara Year 2022. Neck pain in elderly hypertensive before giving warm compresses is mostly severe pain while nape pain in elderly hypertensives after giving warm compresses is mostly mild pain.

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