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Nursing Care for Mr. M with a Diagnosis of Hypertension Using Innovative Finger Grip Relaxation Therapy at Ruwa Jurai Bhayangkara Hospital

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ABSTRACT

Background & Objective: According to the WHO, hypertension remains a major problem, affecting 22% of the world's population. In Indonesia, an estimated 63,309,620 people suffer from hypertension, with a mortality rate of 427,218 deaths. The most common signs and symptoms experienced by people with hypertension when their blood pressure rises include headaches and pain in the back of the neck or nape. The purpose of this study was to provide nursing care to patients with hypertension using Finger Grip Relaxation Therapy as an intervention to reduce pain. **Method:** This study used a nursing care approach that focused on nursing actions for individuals with hypertension who complained of pain at the Ruwa Jurai Bhayangkara Hospital. Data collection used physical examination tools, KMB assessment forms, numerical scales, and the Finger Grip Relaxation Therapy SOP. **Result:** Based on the results of the intervention over 3 days, the pain scale decreased from 4 to 1. **Conclusion:** This therapy was proven effective in reducing pain.

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Introduction

Hypertension is a disease caused by blood pressure that continues to rise above normal levels. In hypertension, systolic blood pressure rises above 140 mmHg and diastolic blood pressure rises above 90 mmHg (Gilang Nur Fadhilah, 2022). According to Hadiatma (2023), hypertension is also known as the Silent Killer Disease, where hypertension causes different symptoms in each individual and the symptoms are similar to other diseases or may often be asymptomatic but will be detected when complications arise.

According to the WHO (World Health Organization), hypertension remains a major problem, with a prevalence of 22% worldwide. Meanwhile, in Southeast Asia,

the incidence of hypertension reaches 36% (Gilang Nur Fadhilah, 2022). In Indonesia, it is estimated that there are 63,309,620 people suffering from hypertension, with a death toll of 427,218 (Rahmi et al., 2024). Data from the Lampung Provincial Health Office in 2020 in the Bandar Lampung area, with a total of 30 community health centers, shows that there are 67,660 people suffering from hypertension (Artini et al., 2022).

Hypertension can be caused by several factors, both modifiable and non-modifiable. Non-modifiable factors include age, family history, and gender, with men having a higher risk of hypertension than women before menopause. However, after menopause, the prevalence of hypertension in women increases along with hormonal changes. Meanwhile, modifiable factors include unhealthy lifestyles such as smoking, poor diet (lack of fruit and vegetable intake, excessive salt consumption, high-fat diet), obesity, lack of physical activity, alcohol consumption, and stress. Hypertension can cause damage to the arteries due to increased blood flow (Sinaga et al., 2022). Prolonged high blood pressure can trigger various serious complications, such as heart failure, stroke, vision problems, and kidney failure. If not treated properly, hypertension can lead to death (Arisdiani et al., 2023).

Hypertension often does not show clear and distinctive symptoms, making it difficult to detect without medical examination. Possible symptoms may vary, such as headaches, nausea, vertigo, fatigue, blurred vision, palpitations, and neck pain (Khofifah Khofifah et al., 2023). According to Puspitasari et al (2024), the most common signs and symptoms experienced by people with hypertension when blood pressure rises include headaches and pain in the back of the neck or nape. Headaches caused by hypertension are categorized as intracranial headaches, which are often suspected to be caused by abnormal blood vessels. Headaches can be caused by prolonged emotions or tension, which trigger vasospasm reflexes in the blood vessels in the head, including the brain, causing ischemia in the brain, which results in headaches (Pramestirini et al., 2023).

Pain management can be done through pharmacological and non-pharmacological therapies. Pharmacological therapy involves the administration of analgesics, such as ibuprofen, which belongs to the nonsteroidal anti-inflammatory drug (NSAID) class. NSAIDs are effective in relieving chronic pain and inflammation in conditions such as rheumatoid arthritis (RA) and osteoarthritis (OA). Ibuprofen is distributed as an over-the-counter (OTC) drug in lower doses to relieve short-term pain, mild pain from headaches, toothaches, and so on. Ibuprofen is taken every 4 to 6 hours. It usually takes about 30 minutes for the body to start feeling the effects of ibuprofen. Ibuprofen levels in the blood are estimated to peak 1 to 2 hours after consumption, and pain may return 4 to 7 hours after taking the pain reliever. The recommended dose for use as an analgesic or antipyretic is 200mg every 4-6 hours as needed, with a maximum dose of 1200mg per day (Alifah et al., 2024).

Finger grip relaxation therapy is an effective method for reducing pain intensity. This technique is simple and can be performed by anyone, involving the fingers and the body's energy flow (Pramestirini et al., 2023). This therapy can be performed one hour before administering pain medication or when the medication wears off. At this point, the effects of the medication have begun to wear off, so the client will feel pain but the pain reliever has not yet been administered. Therefore, the author will provide finger grip relaxation therapy.

Finger grip techniques have dual benefits, not only reducing pain but also reducing anxiety, providing comfort, calming the mind, and controlling emotions. By freeing the mind and body from tension and stress, this technique can increase the body's tolerance to pain. By warming the meridian points on the fingers, the finger grip technique can trigger a relaxation response that modulates pain intensity in the brain (Hakim et al., 2023).

The results of the study by Puspitasari et al. (2024) entitled "Nursing Care for Patients with Acute Hypertensive Pain Using Finger Grip Relaxation Intervention" show that finger grip relaxation therapy is effective in reducing pain in hypertensive patients, with a decrease in the pain scale from 4 to 0.

Based on the above description, the author is interested in focusing on nursing actions related to the effectiveness of finger grip relaxation therapy as an intervention in reducing pain in hypertensive patients at Ruwa Jurai Bhayangkara Hospital.

Objective

This study aims to provide nursing care to patients with hypertension using Finger Grip Relaxation Therapy as an intervention for pain at Ruwa Jurai Bhayangkara Hospital.

Method

This study used a nursing care approach that focused on nursing actions for individuals with hypertension who complained of pain at Ruwa Jurai Bhayangkara Hospital. Data collection used physical examination tools, KMB assessment forms, numerical scales, and finger grip relaxation therapy SOPs.

Results

TABLE 1. Respondent Characteristics

Assessment data	Subject
Name	: Mr. M
Age	: 56 years old
Gender	: Male
Education	: Junior high school graduate
Occupation	: Farmer
Blood pressure	: 185/95

Based on the table above, it can be explained that the client's characteristics are 56 years old, male, junior high school education, employed as a farmer, and TD 185/95 mmHg.

TABLE 2. Pain scale results after administering Finger Grip Relaxation Therapy

Pain Scale	Day 1	Day 2	Day 3
Before	4	3	2
After	3	2	1

The data presented shows a decrease in pain scale in patients after finger grip relaxation intervention, from a scale of 4 to a scale of 3 on the first day and from a scale of 3 to a scale of 2 on the second day. On the third day, the pain scale before the intervention was 2 and then decreased to 1 after the finger grip relaxation intervention.

Discussion

Based on the results of the study, a 56-year-old client was found to be susceptible to hypertension. In line with the research by Magfira Maulia et al. (2021), age is a

significant risk factor for hypertension, with the risk increasing with age, especially after the age of 40. Above the age of 40, arterial elasticity begins to decrease, increasing the risk of high blood pressure by 2.956 times, making individuals more susceptible to hypertension.

In line with the research by Adila & Mustika (2023), it states that in people over the age of 45, the arterial walls tend to thicken and harden due to collagen buildup, causing blood vessels to become narrower and stiffer. Blood vessels that narrow due to aging affect blood circulation, triggering an increase in blood pressure. This finding is consistent with Nuraeni's (2019) theory, which states that aging can cause changes in the arteries, making them wider and stiffer, thereby reducing the capacity and recoil of blood accommodated through the blood vessels.

The next assessment is male clients. According to (Aini & Khasanah, 2022), gender can affect the incidence of hypertension due to its relationship with hormones. Men have a 2.3 times higher risk of experiencing an increase in systolic blood pressure than women. However, the risk of hypertension in women increases after menopause, possibly due to changes in estrogen levels, which play a role in protecting blood vessels. Differences in lifestyle and hormone levels between men and women also affect the risk of hypertension (Nafi' & Putriningtyas, 2023).

Based on the application of finger grip relaxation therapy conducted by the author for three days from November 12–14, 2024, significant results were obtained in the pain of hypertensive patients.

On the first day, the researcher measured the patient's blood pressure, which was 185/95 mmHg. The researcher then measured the patient's pain level and proceeded to teach finger grip relaxation therapy according to the procedure. According to (Rebokh, 2024), the finger grip relaxation technique, performed from the thumb to the little finger and alternating hands for 3–5 minutes, can reduce pain levels. Gentle touch on the fingers helps respondents feel relaxed, breathe more easily, and balance their body energy. After the intervention, the pain scale was measured again to see the changes after applying finger grip relaxation, with the result that the patient's pain scale before the intervention was 4 and after the intervention decreased to a pain scale of 3.

On the second day, the researcher repeated the same procedure as the previous day and measured the patient's blood pressure, which was 165/90 mmHg, followed by a pain scale measurement. The patient then underwent finger grip relaxation therapy, which they could do themselves. After the therapy, the pain scale was measured again, with a pain scale of 3 before the intervention and a pain scale of 2 after the intervention. The client also appeared to be grimacing less and was less restless.

On the third day, the researcher performed the same procedure as on the first and second days, measuring the patient's blood pressure, which was 135/85 mmHg, followed by measuring the pain scale. The patient then performed finger grip relaxation therapy, which they could now do themselves. After the therapy was completed, the pain scale was measured again, with the result before the intervention being a pain scale of 2 and after the intervention, it decreased to a pain scale of 1. The client also appeared more comfortable compared to the previous day.

Finger grip relaxation techniques can provide comfort and reduce depression and excessive anxiety, allowing patients to control pain and improve bodily functions (Hasaini, 2019). This is because the fingers have meridians that are connected to

various organs and emotions. When stimulated, these meridians send signals to the brain, which are then processed and transmitted to the relevant nerves, helping to reduce pain and clear blockages in the energy pathways (Larasati & Hidayati, 2022).

This is consistent with research conducted by Puspitasari et al. (2024) in a study titled Nursing Care for Hypertensive Patients: Acute Pain with Finger Grip Relaxation Intervention. Patients who underwent finger grip relaxation for 3 days experienced a decrease in pain scale from 4 (moderate pain) to 0 (no pain).

Conclusion

After undergoing finger grip relaxation therapy for 3 days, Mr. M reported a decrease in pain to a level of 1 (mild pain) and felt more comfortable. In addition, Mr. M was also able to apply the finger grip relaxation technique independently.

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