



Nursing Care Analysis Of The Effect Of Dry Cupping Therapy To Reduce Blood Pressure In Hypertension Patients

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ABSTRACT

Hypertension is one of the most common non-communicable diseases suffered by society. Hypertension is known as the silent killer and the leading cause of death in the world because this disease can cause death without causing any symptoms. Hypertension or high blood pressure, where hypertension has several varied symptoms, such as headaches/pain in the nape of the neck, dizziness, the many impacts of hypertension make it require appropriate treatment. Non-pharmacological therapy that can be used to reduce hypertension includes one of the alternative options for treating hypertension. What is currently recommended is cupping therapy. Cupping is considered faster for reducing high blood pressure, especially dry cupping. Dry cupping is a non-pharmacological therapy that is effective in lowering blood pressure in hypertension sufferers. The effect of cupping on blood pressure is to calm the sympathetic nervous system. This flexibility of the sympathetic nervous system stimulates the secretion of enzymes that work like the renin-angiotensin system so that blood pressure decreases. Objective: To explain complementary nursing care for the main problem of high blood pressure in hypertensive patients with the innovative intervention of dry cupping therapy. Results: The results of this study provided dry cupping therapy to reduce blood pressure in hypertensive sufferers using a descriptive research design in the form of a case study that identified a nursing care problem in hypertensive patients. From the nursing action of giving cupping therapy once at the specified time, it was found that the patient's blood pressure decreased significantly. It is recommended that hypertensive patients do dry cupping once a week as an alternative option to lower blood pressure. Cupping is considered faster in reducing high blood pressure and reducing pain in hypertensive sufferers due to high blood pressure

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INTRODUCTION

Hypertension is one of the most common non-communicable diseases suffered by people. Hypertension is known as the silent killer and the leading cause of death in the world because this disease can cause death without causing any symptoms Maizes (2020) . In general, hypertension is diseases that attack the cardiovascular system or the heart and blood vessel system in humans . (Wirastini et al., 2023) Hypertension or high blood pressure, where hypertension has various symptoms such as headaches/pain in the nape of the neck, dizziness (vertigo), heart palpitations, fatigue, blurred vision, ringing in the ears, and nosebleeds. Hypertension is a non-communicable disease that is the main cause of the global disease burden. This type of disease is the cause of at least 70% of deaths in the world. According to WHO data, currently the global prevalence of hypertension is 22% of the world's total population. The African region has a hypertension prevalence of 27%. Southeast Asia is in the 3rd (third) highest position with a prevalence of 25% of the total population. (Candrawatai &

Sukraandini, 2021) . Nationally, based on the results of Riskesdas (2018), the prevalence of hypertension based on measurement results in the population aged 18 years is 34.1%, the highest hypertension data is in South Kalimantan (44.1%), 2 while the lowest is in Papua at (22.2%) . Hypertension occurs in the age group 31-44 years (31.6%), age 45-54 years (45.3%), age 55-64 years (55.2%) (RI Ministry of Health 2019). From the prevalence of hypertension of 34.1%, it is known that 8.8% were diagnosed with hypertension and 13.3% of people diagnosed with hypertension did not take medication and 32.3% did not regularly take medication. This shows that the majority of hypertension sufferers do not know that they are hypertensive so they do not receive treatment. (Candrawatai & Sukraandini, 2021).

Based on the Health Profile of the Bali Provincial Health Service (2021), the number of hypertension cases in Bali Province in 2021 reached approximately 555,184 cases. The percentage of hypertension sufferers aged > 15 years is higher in female sufferers (51%) compared to male sufferers (49%). (Riskesdas Bali, 2018) . In society, hypertension is a very common disease because there are no specific symptoms that appear , but the symptom that often appears is sudden headache. Chronic hypertension and is classified as severe hypertension, will usually cause very visible complaints, namely: headaches, fatigue, nausea, vomiting, shortness of breath, shortness of breath, restlessness, blurred and dim vision, emotionality, ringing in the ears, difficulty sleeping, the neck feels heavy, pain in the back of the head and in the chest, weak muscles, swelling of the feet and ankles, excessive sweating, strong, fast or irregular heartbeat, impotence, bleeding in the urine, even nosebleeds. (Hendrawati, 2021).

The many impacts of hypertension make it require appropriate treatment. The treatment of hypertension is divided into two types, namely non-pharmacological and pharmacological. Pharmacological methods with drugs can have a negative impact on the human body if used for too long, so this therapy can be used only if necessary, while non-pharmacological therapy is highly recommended because it is believed to be safer and has positive effects if consumed or applied. One of the alternative options for treating hypertension that is currently recommended is cupping therapy. Cupping is considered faster in reducing high blood pressure. (Lutfiana & Margiyati, 2021) . Cupping therapy is a treatment method that has been passed down from generation to generation and developed based on scientific developments that use the method of suction or vacuuming the skin. Cupping therapy is known to have several benefits, such as reducing neck pain, low back pain and headaches, blood pressure, where pain is an unpleasant feeling and emotional experience caused by tissue damage in the body. (Helisa et al., 2022) . Dry cupping is a non-invasive procedure, using cupping on meridian points and functions to improve blood vessel microcirculation. Dry cupping is also a complementary treatment that functions to widen narrowed blood vessels . (Candrawatai & Sukraandini, 2021).

From the results of research conducted by Hendrawati, 2021) , there is an effect of cupping therapy on blood pressure. Dry cupping therapy allows a client to feel relaxation, headache and neck pain are reduced or even disappear. This is caused by the presence of chemical mediators such as histamine which can have a strong vasodilator effect on blood vessels and can increase capillary permeability and can help the process of improving blood vessel microcirculation. Another mediator is serotonin which also has a role as a vasodilator and vasoconstrictor, and functions to regulate mood, appetite, sleep and muscle contractions. Likewise, bradykinin is produced in blood plasma or interstitial fluid from the enzymatic breakdown of serum globulin in response to wet cupping therapy, which functions as a vasodilator. Based on the description above, the researcher is interested in conducting a case

study with the aim of explaining complementary nursing care with the main problem of high blood pressure in hypertensive patients with an innovative dry cupping therapy intervention entitled "Nursing Care Analysis of the Effect of Dry Cupping Therapy to Lower Blood Pressure in Hypertension Patients".

METHOD

This research identifies nursing care problems for hypertensive patients using a case study approach which is a descriptive research style. The patients in this study were hypertensive patients who had headaches due to high blood pressure at the Latu Usadha nurse clinic, Badung Regency, Bali . The patients involved in this case study were two hypertensive patients , namely Mr. S as patient 1 and Mr. W as patient 2. The chief complaint assessment was used to examine the subject and objective data of both patients , Mr. S on the 07th June 2023 at 16.00 WITA and Mr. W on June 12 2023 at 19.00 WITA. Assessments were carried out on different days.

RESULTS

The results of the study showed subjective data in patient 1 (Mr. S), namely the patient complained of headaches due to high blood pressure , the patient said the pain was very severe, pain in the head , pain in the head , pain felt when walking , pain like being pressed and stabbed, pain scale 6 out of 0-10, pain comes and goes within ± 10 minutes, pain gets worse when moving and walking . Objective data: The patient appeared to be grimacing, Blood Pressure: 160/80 mmHg, Pulse: 80 x/minute, Temperature: 36.2°C, RR: 20 x/minute .Next, after being given nursing intervention for approximately 5-10 minutes, carry out a nursing evaluation. Nursing evaluation on patient 1 (Mr. improved, BP: 130/80 mmHg, Respiration: 20 x/minute, Pulse: 88 x/minute, Temperature: 36.2 0 C. Meanwhile, the nursing evaluation on patient 2 (Mr. W) found that the client reported pain in the head and the dizziness began to decrease, the client said that after being given dry cupping therapy, the dizziness and headache had reduced, the pain scale was 3, the patient's blood pressure had improved, BP: 130/90 mmHg, Respiration: 20 x/minute, Pulse: 86 x/minute and temperature: 36.1 0 C. So from this data it can be seen that dry cupping therapy is effectively used to treat high blood pressure in patients suffering from hypertension.

This is in accordance with research conducted by Candrawatai & Sukraandini, (2021) Regarding the Effect of Dry Cupping Therapy on Blood Pressure in Primary Hypertension Patients. The results obtained from this study were that systolic blood had a p value of 0.000 and diastolic blood pressure had a p value of 0.000. 0.001 means there is an influence on systolic and diastolic blood pressure before and after dry cupping therapy. Dry cupping therapy can be used as an alternative therapy for patients with primary hypertension. Another research also by Wirastini et al., (2023) regarding "The Effect of Cupping Therapy on Blood Pressure in Hypertension Sufferers" the results obtained after cupping for 5 to 10 minutes, systolic and diastolic blood pressure decreased significantly in the intervention group by 0.000 ($q0.05$) so it was concluded that there was a difference in the average blood pressure at the three measurement time intervals in the intervention group. Furthermore, research by Hendrawati, (2021) about "Nursing Care for Mrs. D. With Cardiovascular System Disorders: Hypertension With Wet Cupping Therapy (Cupping Therapy)" the research results obtained from 3 days of nursing action with 1 cupping therapy given at the specified time showed that the patient's blood pressure decreased significantly (130/90 mmHg) . From the research results, it can be concluded that cupping therapy can be an alternative treatment for patients to reduce high blood pressure.

DISCUSSION

Hypertension is a disease that cannot be cured, because hypertension is a chronic disease with the characteristic that blood pressure tends to fluctuate over a long time and is difficult to control, because there are many risk factors that influence hypertension, including age, gender, family history, genetics, smoking habits, salt consumption, saturated fat consumption, used cooking oil, alcoholic beverage consumption habits, obesity, lack of physical activity, and stress. Many risk factors that are not well controlled can result in heart failure, stroke, heart infarction, kidney failure, stroke and eye damage. (RI Ministry of Health, 2020) . According to WHO (World Health Organization), blood pressure of 130/85 mmHg is still the normal limit. On the other hand, adults over the age of 18 are considered to have hypertension if their blood pressure is higher than 140/90 mmHg (Suparyanto and Rosad, 2020) .The many impacts of hypertension make it require appropriate treatment. Some patients who experience symptoms of hypertension will experience accompanying symptoms, in particular: headache, anxiety, weakness, shortness of breath, vomiting, nausea, epistaxis, and decreased consciousness. (Vladimir, 2021) . The treatment of hypertension is divided into two types, namely non-pharmacological and pharmacological. Pharmacological methods with drugs can have a negative impact on the human body if used for too long, so this therapy can be used only if necessary, while non-pharmacological therapy is highly recommended because it is believed to be safer and has positive effects if consumed or applied. 11 Non-pharmacological therapy that can be used to reduce hypertension include lifestyle modification, reducing stress, and reducing obesity, progressive muscle relaxation therapy, music therapy. Data shows that the current treatment for hypertension is not effective, because it only reduces hypertension by 8%, the disease often recurs, and requires a long process. One of the alternative options for treating hypertension that is currently recommended is cupping therapy. Cupping is considered faster in reducing high blood pressure.

Cupping is a classic treatment method that has been used to treat various disorders such as insomnia, hemophilia, hypertension, gout, rheumatoid arthritis, sciatica, back pain, migraine, vertigo, anxiety and other common diseases both physical and mental (Ridho, 2015). Research conducted by Syahputra (2019) stated that from the physiological aspect, participants suffering from hypertension revealed that after undergoing cupping therapy, they found an improvement in the quality of life through the physiological aspect, namely that cupping can reduce pain, lower blood pressure, and improve sleep quality. (Hendrawati, 2021)Based on the analysis of nursing problems obtained from both patients, Mr. S which was carried out on June 7 2024 at 09.00 WIT and Mr. W on June 11 2024 at 10.00 WITA, the intervention given is identifying pain or other physical complaints, monitoring heart frequency and blood pressure before starting mobilization, monitoring general condition, providing complementary or non-pharmacological therapy in the form of dry cupping therapy at the point where it occurs. weakness or stiffness.

Next, after being given nursing intervention for approximately 5-10 minutes, carry out a nursing evaluation. Nursing evaluation on patient 1 (Mr. improved, BP: 130/80 mmHg, Respiration: 20 x/minute, Pulse: 88 x/minute, Temperature: 36.2 0 C. Meanwhile, the nursing evaluation on patient 2 (Mr. The dizziness began to decrease, the client said that after being given cupping therapy, the dizziness and headache had reduced, the pain scale was 4, the patient's blood pressure had improved, BP: 130/90 mmHg, Respiration: 20 x/minute, Pulse: 86 x/minute and Temperature : 36.1 0 C. So from this data it can be seen that dry cupping therapy is effective for treating high blood pressure in patients suffering from hypertension.

This is in accordance with research conducted by Candrawatai & Sukraandini, (2021) Regarding the Effect of Dry Cupping Therapy on Blood Pressure in Primary Hypertension

Patients. The results obtained from this study were that systolic blood had a p value of 0.000 and diastolic blood pressure had a p value of 0.001. 0.001 means there is an influence on systolic and diastolic blood pressure before and after dry cupping therapy. Dry cupping therapy can be used as an alternative therapy for patients with primary hypertension. Another research also by Wirastini et al., (2023) regarding "The Effect of Cupping Therapy on Blood Pressure in Hypertension Sufferers" the results obtained after cupping for 5 to 10 minutes, systolic and diastolic blood pressure decreased significantly in the intervention group by 0.000 ($p < 0.05$) so it was concluded that there was a difference in the average blood pressure at the three measurement time intervals in the intervention group.

Furthermore, research by Hendrawati, (2021) about "Nursing Care for Mrs. D. With Cardiovascular System Disorders: Hypertension With Wet Cupping Therapy (Cupping Therapy)" the research results obtained from 3 days of nursing action with 1 cupping therapy given at the specified time showed that the patient's blood pressure decreased significantly (130/90 mmHg) . From the research results, it can be concluded that cupping therapy can be an alternative treatment for patients to reduce high blood pressure.

CONCLUSION

Based on the nursing care that has been applied to patients with pain nursing problems due to high blood pressure, it can be concluded that dry cupping therapy is very effective given to hypertensive patients to reduce nursing problems with headaches due to high blood pressure . The application of this therapy can be done easily by nurses, midwives and doctors who have the same case, namely headaches due to high blood pressure . Applying dry cupping therapy will make the patient more comfortable so that the patient's blood pressure decreases . If this therapy is applied at home, it will be very appropriate and suitable because it can help reduce blood pressure in hypertension.

REFERENCES

- Alfatimah, U. (2021). Educational and Physical Exercise Interventions in Families with Hypertensive Adults .
- Astuti, AP (2022). Hypertension. In IM Ratih (Ed.), Teaching Materials (Print II). Lakeisha Publishers.
- Candrawatai, SAK, & Sukraandini, NK (2021). Effect of Dry Cupping Therapy on Blood Pressure in Primary Hypertension Patients. *Bali Medika Journal* , 8 (1), 90–98.
- Elis Agustina, RN & ESA (2021). The Relationship between Family Support and Elderly Activeness in Participating in Posyandu Activities for the Elderly (Study. *Borneo Scholar Journal* , 3 (2), 778–783.
- Helisa, GP, Dewi, WN, & Safitri. (2022). Benefits of Cupping Therapy for Reducing Pain in Patients: Literature Review. *Medika Utama* , 04 (01), 3171–3177.
- Hendrawati, NLPO (2021). Nursing Care for Mrs.D. With Cardiovascular System Disorders: Hypertension With Wet Cupping Therapy (Cupping Therapy) .
- Ifa Kamilia, N. (2019). Preliminary Report on Patients With Stroke .
- Charisma. (2021). Description of the Behavior of Diabetes Mellitus Patients in the Elderly in Baler Bale Agung Village, Negara District, Jembrana Regency. *Gastronomía Ecuatoriana y Turismo Local* . , 1 (69), 5–24.

- Indonesian Ministry of Health. (2021). National Guidelines for Medical Services for the Management of Hyperthesia in Children . 1–55.
- Khasanah, LDAK (2020). Activity Disorders With Activity Intolerance in the Elderly. *Angewandte Chemie International Edition*, 6(11), 951–952. , Thamer 2009 , 2013–2015.
- Kurnia, A. (2021). Hypertension Self Management. In T. Lestari (Ed.), *Self Management of Hypertension (Edition I*, p. 64). CV. Jakad Media Publishing.
- Lestari, P., Lasmadasari, N., Indrayani, & Kurniawan, Y. (2022). Nursing care provides dry cupping therapy to reduce headaches in hypertensive patients. *Journal of Health Sciences* , 1 , 37–40.
- Lutfiana, DA, & Margiyati. (2021). Application of Dry Cupping Therapy in Lowering Blood Pressure in Elderly People with Hypertension in the Area Supported by the Rowosari Health Center, Semarang . 6 (2).
- Maizes, V. (2020). Hypertension. *Medicina Integrativa* , 269–277. <https://doi.org/10.1016/b978-84-458-1911-1.50026-9>
- Nurarif, & Kusuma. (2020). The influence of hypertension on living behavior in the elderly. *Jogja Health Polytechnic* , 2011 , 8–25.
- Nuridah, & Yodang. (2021). Effect of Cupping Therapy on Blood Pressure in Hypertension Sufferers: Quasy Experimental Study. *Journal of Health* , 6 (1), 53–60.
- Riskesdas Bali. (2018). 2018 Bali Riskesdas Provincial Report .
- Sarafino. (2019). Preliminary Report on Patients With Stroke . 2006 , 1–23.
- Sastradi, A. (2022). The Effect of Prolanis Exercise on Reducing Blood Pressure in Hypertension Patients in the Buleleng Community Health Center Work Area 3. *Journal of Nursing and Health* .
- Sultan, AAA (2022). Factors associated with efforts to prevent hypertension in adolescents at SMAN 6 Bone . 1/68.
- Suparyanto and Rosad. (2020). Hypertension (Silent of Killer). *Suparyanto and Rosad* , 5 (3), 248–253.
- Vladimir, V. F. (2021). Basic Concepts of Hypertension. *Gastronomía Ecuatoriana y Turismo Local* . , 1 (69), 5–24.
- Wirastini, NWJ, Puspawati, NLPD, & Lestari, NKY (2023). The Effect of Dry Cupping on Reducing Blood Pressure in Hypertension Sufferers. *Nursing Media: Makassarredika Health Polytechnic Nursing* , 14 (02), 28–35.
- Wulandari, S. (2022). Ergonomic Gymnastics. *PPNI Health Development STIKes* , 7–51.
- Yuniandani, N. (2021). Hypertension Management. Denpasar Health Polytechnic , 2015.