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Implementation of Non-Pharmacological Therapy by Giving Melon Fruit (*Cucumis Melo L*) to Patients with Hypertension

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ABSTRACT

Objective: This case study is to implement non-pharmacological therapy by administering melon fruit to reducing blood pressure in hypertensive patients. **Method:** This study uses descriptive analysis with a case study approach. This case study is to describe, objectively describe, and explore in-depth data regarding nursing care for hypertensive patients with ineffective family management problems in the Health UPTD Work Area of the Cikoneng Health Center. When conducting research, the authors also make observations at certain times in the form of assessments, nursing diagnoses, interventions, implementation, and evaluation. Providing non-pharmacological therapy to eat melons to reduce high blood pressure and respondents' adherence to eating melons. The observation began after being given health education, which aimed to find out whether there was adherence to eating melons and whether there was a change in blood pressure or no change. This study was conducted on Mrs. C with hypertension in Colendra Hamlet, RT.13 RW.05, Sindangsari Village, Cikoneng District, Ciamis Regency, in the working area of the UPTD Cikoneng Health Center from March 31 to April 3, 2023, for 4 days of visit. **Result** Based on the results of an assessment of hypertensive family members and there were nursing diagnoses assigned to the family, namely ineffective family health management, related to the inability of the family to care for sick family members and the inability of the family to make the right decisions. Given the intervention and implementation of non-pharmacological therapy of melon fruit to reduce the patient's blood pressure. The implementation was given for 3 days, the patient's blood pressure gradually decreased from 160/100 MmHg to 150/90 MmHg, but had not yet reached normal levels. So that the action of giving melon fruit can be continued and applied in daily life independently. **Conclusion:** Giving non-pharmacological therapy giving melon fruit has proven to be useful for lowering blood pressure in hypertensive patients, the benefits of therapy will be maximized if done regularly and gradually.

Keywords: hypertension, family, melons

Introduction

A very serious non-communicable disease health problem at this time is hypertension (Uguy, Nelwan, and Sekeon 2019). Hypertension or high blood pressure is where the systolic and diastolic pressure increases beyond 140/90 mmHg or increases above normal limits (Silwanah, Yusuf, and Hatta 2020). High blood pressure is a disease that can cause the risk of complications from heart failure, kidney failure and brain damage (Kusariana and Manik 2020). According to the World Health Organization (WHO) silent killer or "silent killer" is the name for hypertension. Patients with chronic hypertension often do not feel symptoms, complications occur in vital organs without the sufferer realizing it, such as the kidneys, heart, brain and other vital organs. Signs and symptoms caused by hypertension can include headaches, dizziness and visual disturbances which are often experienced in patients with advanced hypertension when blood pressure exceeds normal limits (Swastini 2021).

International Society of Hypertension (ISH) and WHO, say that people with hypertension have reached 600 million worldwide. Every year as many as 3 million sufferers die, seven out of 10 hypertension sufferers do not get proper treatment (Efendi and Larasati 2017). More than 900 million people in the world experienced hypertension in 2000 and will continue to increase every year, it is expected to continue to increase by 29% of the population in 2025 (Hamdan and Musniati 2020). WHO data also records that 65.74% or 65 million people in developing countries also suffer from hypertension (Rina, Fitria, and Hendrawati 2021). The results of Riskesdas data show that in 2018 in the Southeast Asia region to be precise in Indonesia as many as 36% of the population suffers from hypertension and it is increasing from year to year. It was reported that in Southeast Asia and Indonesia more than 40% of the deaths of the population were caused by hypertension (Subantara et al. 2022).

In Indonesia there are 5 provinces with the highest hypertension sufferers, one of which is West Java which ranks 3rd around 13,612,359 people or 29.4% of hypertension sufferers (Supriyadi 2020). According to data from the Ciamis Regional General Hospital, the recap results for January-December 2018 recorded as many as 221 people (6.85%) had hypertension and ranked fifth 5th (Fachrul Iman 2019). The area in the Cikoneng Health Center UPTD reports that in 2022, there are 656 cases of hypertension and it is the third most common disease among the community (Firmansyah and Sherina 2022).

In general, the factors that cause hypertension include family history, gender, age, obesity, lack of exercise, lack of a healthy lifestyle and diet, often consuming excess salt, smoking and drinking alcohol (Pamungkas, Rohimah, and Zen 2020). There are two types of treatment that can be done by people with hypertension so that their blood pressure decreases, namely with drug or pharmacological therapy and herbal, natural or non-pharmacological. Pharmacological treatment can be by taking antihypertensive drugs and adherence to taking drugs (Noviati 2021). Non-pharmacological therapy in treating hypertension focuses on efforts to improve a healthy lifestyle, namely reducing body weight so that obesity does not occur, exercising regularly, reducing fat and salt intake, stopping alcohol consumption, stopping smoking and consuming foods such as vegetables and fruits that are high in potassium (Setia and Nusadewiarti 2022).

Fruits are very suitable to be used as non-pharmacological therapy for people with hypertension. Melon is a fruit that contains a lot of potassium and can be used as a non-pharmacological therapy. Melon or (*Cucumis melo L*) is a type of fruit that contains vitamins, potassium and minerals which are beneficial for the health of the body. The high content of

potassium in melons can reduce systolic and diastolic blood pressure in people with hypertension. Potassium can change the activity of the renin-angiotensin system so that it affects the central and peripheral nerves on blood pressure (Widyarani 2019). Melon also contains many vitamins, one of which is a source of vitamin B6, vitamin C, vitamin A, niacin, folic acid and minerals such as potassium, calcium, sodium, magnesium, phosphorus, zinc and iron. Consuming melons can provide as much as 49% and 54% of vitamin C and vitamin A of the daily nutritional adequacy rate (Huda, Suwarno, and Maharijaya 2018).

Based on the review above, the authors are very interested in conducting a case study on the implementation of non-pharmacological therapy in giving melon (*Cucumis Melo L*) fruit to patients with hypertension which has been studied on 31 March 2023 to 03 April 2023 in Dusun Colendra, RT. 13 RWs. 05, Sindangsari Village, Cikoneng District, Ciamis Regency in the working area of the UPTD Cikoneng Health Center, in patient Ny. C, 73 years old, who often complains of high blood pressure, so that patients feel dizzy, dizziness is felt up to the neck.

Objective

This study aims to implement non-pharmacological therapy for melon fruit in controlling blood pressure in families with hypertension in Colendra Hamlet, RT.13 RW.05, Sindangsari Village, Cikoneng District, Ciamis Regency in the working area of the Cikoneng Health Center UPTD.

Method

This study uses descriptive analysis with a case study approach. This case study is to describe, describe objectively and explore in-depth data regarding nursing care for hypertensive patients with ineffective family management problems in the Health UPTD Work Area of the Cikoneng Health Center. When conducting research the authors also make observations at certain times in the form of assessments, nursing diagnoses, interventions, implementation and evaluation. Providing non-pharmacological therapy to eat melons to reduce high blood pressure and respondents' adherence to eating melons. The observation began after being given health education which aimed to find out whether there was adherence to eating melons and whether there was a change in blood pressure or no change. This study was conducted on Mrs. C with hypertension in Colendra Hamlet, RT.13 RW.05, Sindangsari Village, Cikoneng District, Ciamis Regency in the working area of the UPTD Cikoneng Health Center from 31 March to 03 April 2023 for 4 days of visit.

Results

The results of the study on March 31 2023, the patient complained of dizziness accompanied by stiffness in the neck. The patient said he was never in control and rarely took blood pressure-lowering drugs, the patient's family said Mrs. C rarely checks his health, the patient complains that his left leg likes to feel pain and tingling if he walks too much since he had surgery on the gland under the knee a few years ago. The family said when Mrs. C is sick, more rest at home. Blood pressure: 160/100mmHg, pulse: 80x/minute, respiration 21x/minute, temperature 35.60c, the family does not understand about hypertension treatment, the family rarely uses health facilities and the inability of the family to make the right decisions.

Taking nursing diagnoses is taken according to the assessment of major and minor symptoms. Based on the results of the study on Ny. C was found to be consistent with the

theory in the IDHS where the major signs and symptoms found in the diagnosis of ineffective family health management (D.0115) were saying they did not understand the health problems they were suffering from, difficulties in carrying out the care given, family activities to deal with health problems were not appropriate, failed to take action to reduce risk factors (PPNI 2017).

Table 1. Nursing Diagnosis

Data Analysis	Etiology	Problem
<p>Subjective data: The patient complains of dizziness accompanied by stiffness in the neck. The patient said he was never in control and rarely took blood pressure-lowering drugs, the patient's family said Mrs. C rarely checks his health, the patient complains that his left leg likes to feel pain and tingling if he walks too much since he had surgery on the gland under the knee a few years ago. The family said when Mrs. C is sick, more rest at home</p> <p>Objective data: Blood pressure: 160/100mmHg, pulse: 80x/minute, respiration 21x/minute, temperature 35.60c, the family does not understand about hypertension treatment, the family rarely uses health facilities and the inability of the family to make the right decisions.</p>	The family's inability to care for sick family members and the family's inability to make the right decisions.	Ineffective family health management (D.0115)

Nursing Diagnosis	Objectives		Result Criteria		Intervention
	General	Special	Criteria	Standard	
Ineffective family health management (D.0115) related to the family's inability to care for sick family members and the family's inability to make the right decisions.	After nursing interventions, it is hoped that the family will improve	After nursing actions are taken, it is hoped that the family will be able to care for the family well and make the right decisions.	Verbal and psychomotor responses.	1. Families can properly care for family members 2. Families are able to understand the risk factors for hypertension 3. Families are able to make the right decisions in caring for sick family members.	<ol style="list-style-type: none"> Observation of vital signs Identify actions that families can take Motivation for developing attitudes and emotions that support health efforts Create optimal changes to the home environment Inform existing health facilities in the family environment Suggest using existing health facilities Give melons every day to lower

Nursing Diagnosis	Nursing Implementation				blood pressure
	31 March 2023	1 April 2023	2 April 2023	3 April 2023	
Ineffective family health management (D.0115) related to the inability of the family to care for sick family members and the inability of the family to make the right decisions.	<p>08.30</p> <p>1. Observing vital signs. Results : TD: 160/100mmHg Pulse: 80x/minute RR : 21x/minute Temperature: 35.6°C 2. Identify actions that families can take Response: The family said that Mrs. C rest more at home if you feel complaints of dizziness and stiffness in your neck. 3. Motivating the development of attitudes and emotions that support health efforts. Response: the patient says he is easily worried about his complaint 4. Creating changes to the home environment optimally. Response: the patient says the house is comfortable and there is no noise to disturb the patient. 5. Inform existing health facilities in the family environment. Response: Mrs. C said he rarely had his health checked, because he complained that his left leg often felt pain and tingling if he walked too much since he had</p>	<p>08.50</p> <p>1. Observing vital signs. Results : BP : 150/90mmHg Pulse: 88x/minute RR : 21x/minute Temperature: 36.3°C 2. Identify actions that families can take Response: The family said that Mrs. C feels that his complaints will be brought to a health facility and consumes melons. 3. Motivating the development of attitudes and emotions that support health efforts. Response: the patient feels calmer because he is comforted by his son whose house is next door to the patient. 4. Inform existing health facilities in the family environment. Response: Mrs. C said he would check his health condition regularly. 5. Suggest using existing health facilities. Response: Mrs. C said he would check his health condition regularly. 6. Giving melons every day to lower blood pressure. Response: Mrs. C said that he started eating the melons</p>	<p>10.00</p> <p>1. Observing vital signs. Results: BP : 160/90mmHg Pulse: 78x/minute RR : 20x/minute Temperature : 36.0°C 2. Identify actions that families can take Response: the family gives regular melons every day. 3. Giving melons every day to lower blood pressure. Response: Mrs. C said he felt better, had less dizziness and stiffness in his neck.</p>	<p>09.00</p> <p>1. Observing vital signs. Results: BP : 150/90mmHg Pulse: 80x/minute RR : 20x/minute Temperature: 36.3°C 2. Giving melons every day to lower blood pressure. Response: the patient said that the family always bought cut melons every day, the patient said that complaints of dizziness and stiffness in the neck had decreased, the patient said his condition had started to improve.</p>	

<p>surgery on the gland under the knee a few years ago.</p> <p>6. Suggest using existing health facilities.</p> <p>Response: Patients say they rarely have their health checked again and rarely take blood pressure-lowering drugs anymore.</p> <p>7. Giving melons every day to lower blood pressure.</p> <p>Response: Families and patients can understand and are willing to consume melons.</p>	<p>his son bought from Indomaret which had been cut into pieces, Mrs. C said complaints of dizziness and stiffness in the neck began to decrease.</p>
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Discussion

The study was conducted on Mrs. C with the problem of hypertension in Colendra Hamlet, Sindangsari Village, Cikoneng District, Working Area of the UPTD Health Center at the Cikoneng Health Center. , evaluation and documentation. The author will compare the existing theories with the results in the field. The discussion found with the stages of the nursing process data.

The initial assessment phase begins with observation and interviews, so that the author obtains data from the results of the assessment that has been carried out, which in the future the data is collected and used as the basis for determining nursing diagnoses. appeared calm and cooperative during the assessment. This makes it easier for the writer to collect subjective and objective data. Subjective data, the patient complained of dizziness accompanied by stiffness in the neck. The patient said he was never in control and rarely took blood pressure-lowering drugs, the patient's family said Mrs. C rarely goes for health checks because the patient complains that his left leg tends to feel sore and tingling if he walks too much since he had surgery on the gland under the knee a few years ago. The family said when Mrs. C sick more rest at home. As for the objective data, the patient's blood pressure is 160/100mmHg, pulse is 80x/minute, respiration is 21x/minute, temperature is 35.60c, the family does not seem to understand the treatment of hypertension, the family also rarely uses existing health facilities.

The second stage is the determination of nursing diagnoses which is carried out after collecting assessment data on Ny. C Based on the results of the study on Ny. C was found to be consistent with the theory in the Indonesian Nursing Diagnostic Standards (IDHS) where the major signs and symptoms found in the diagnosis of ineffective family health management (D.0115) were saying they did not understand the health problems they were suffering from, difficulties in carrying out the care given, family activities to addressing health problems inappropriately, failing to take action to reduce risk factors (PPNI 2017).

The third stage is nursing intervention, at this planning stage it is carried out with clients and families based on the problems obtained, capabilities, situations, conditions and existing infrastructure. Based on nursing diagnoses, namely ineffective family health management related to the inability of families to care for sick family members and the inability of families to make the right decisions. Planning in this case study is Observation of vital signs, identification of actions that can be taken by the family, motivation for developing attitudes and emotions that support health efforts, creating optimal changes to the home environment, informing existing health facilities in the family environment, recommending using health facilities that are Yes, give melons every day to lower blood pressure in hypertension. The obstacles experienced during the preparation of this plan were limited knowledge of how to treat and recognize client problems with hypertension cases. This can be resolved by reading cases taken from several reference articles and journals on hypertension, quoting Scientific Papers and Thesis through internet media, as well as through input provided by Scientific Writing supervisors.

Implementation is the fourth step in which the author carries out nursing care which is carried out according to plans made previously. Implementation also focuses on non-pharmacological therapy giving melon fruit to hypertensive patients. The implementation was carried out for 3 days with 4 visits to the client's house. In this case the author has no difficulty in providing nursing care, because of permission from the UPTD Cikoneng Health Center and the openness of patients and their families to receive nursing care services that have been arranged so that they run well.

The first day was held on March 31, 2023 when checking the patient's blood pressure vital signs Blood pressure: 160/100 mmHg, pulse: 80x/minute, respiration 21x/minute, temperature 35.6 C the patient felt anxious about his condition. On the 2nd day of the visit, which was conducted on April 1, 2023 at 08.50 WIB the author began to provide intervention by first giving 300 grams of melon, the patient was told to eat it slowly and enjoy it. The results of the examination on the 2nd day showed that the patient's blood pressure had dropped to BP: 150/90 mmHg. Day 3 of the visit on April 2 2023 at 10.00 WIB the second administration with the intervention of giving melons, the patient was calmer and less anxiety. When the blood pressure was checked, the BP result was: 160/90 mmHg. Day 4 of the 3rd April 2023 at 09.00 giving the three melon fruit interventions, the patient feels calmer, the symptoms of dizziness and stiffness in the neck are intermittent, BP: 150/90 mmHg, the patient also says he will routinely control his health at a health facility.

The evaluation stage is the fifth or final stage of the nursing process, and then assesses the effectiveness or not of a nursing action that has been given to Mrs. C who lives in Colendra hamlet, RT. 013 RW. 05, Sindangsari Village, Cikoneng District, Ciamis Regency.

After being given action according to planning, the problem of ineffective family health management related to the inability of families to care for sick family members and the inability of families to make the right decisions is partially resolved. With the results after being given non-pharmacological therapy giving melons for 3 days, the patient's blood pressure gradually decreased from 160/100 MmHg to 150/90 MmHg, but had not yet reached normal levels. So that the act of giving melons can be continued and applied in daily life independently by the patient and involve the family at home.

The author evaluated the changes given the intervention of giving melons from the first day before being given and the 2nd to the 4th day of giving melons, the results were quite significant, the patient's blood pressure which was 160/100 mmHg fell to 150/90 mmHg, patient Mrs. C also felt fresher and better, the dizziness he felt came and went and

the patient's anxiety increased. The patient said he would routinely check his health at a health facility.

The results of the intervention were supported by Anindea's 2019 research in (Eliza et al. 2021) The Effect of Giving Melon Fruit on Reducing Systolic and Diastolic Blood Pressure in Hypertension Patients Aged 41-64 Years. The results showed that consuming 200 grams of melon for 9 days had an effect on reducing both systolic and diastolic blood pressure.

Conclusion

After the authors carried out nursing care for Mrs. C with hypertension in Colendra Hamlet, Cikoneng District, Ciamis Regency in the working area of the UPTD Cikoneng Health Center on March 31 to April 3 2023 for 4 days of visit, the authors concluded that the provision of non-pharmacological therapy Melon fruit has been shown to be useful for lowering blood pressure in hypertensive patients, the benefits of therapy will be maximized if done regularly and gradually. Due to the problem of the patient's blood pressure which was 160/100 MmHg to 150/90 MmHg after giving melons for 3 days.

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