



Ineffective Health Management for Family Hypertension Care in Sumberjambe Community Health Center

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Abstract

Background: The family is the smallest social unit in society that plays a role in reducing the risk of disease and increasing health status. Ineffective family health management occurs when the pattern of handling problems is not satisfactory enough to restore the health condition of family members. **Purpose:** This scientific work aims to identify healthcare problems with hypertensive families and provide interventions for families. **Methods:** This study used a case study method that described the health management of three families with hypertension in the Sumberjambe-Jember Health Center work area, then interventions were given in the form of health education, anti-hypertension exercises, and herbal cucumber juice therapy for three consecutive days. **Results:** After nursing care, it was obtained that there was an increase in knowledge related to hypertension seen from the pre-post test value, there was a change in blood pressure at 10 minutes before and after the anti-hypertension exercise, and no decrease in blood pressure was found after giving cucumber extract herbal therapy. **Conclusion:** Nurses can implement health education interventions, physical activity, and additional therapy in solving ineffective family health management problems.

Keywords: Ineffective Health Management, Family, Hypertension

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1. BACKGROUND

The family is the smallest unit in society which plays a role in reducing the risk of disease and increasing the level of health. If a health problem arises in the family, it will have an impact on other family members (Fajri, 2017). The existence of dFamily support helps in expressing

feelings openly. Families can also help make decisions regarding the treatment of illnesses experienced by family members. However, not everyone gets good family support in dealing with health problems, including hypertension (Friedman et al., 2010).

A family experiences complexity in the service system, care or treatment programs, decision-making conflicts, economic difficulties, many demands and family conflicts will cause ineffective family health management. Ineffective family health management is a pattern of handling health problems in the family that is not satisfactory for restoring the health condition of family members (PPNI DPP SDKI Working Group Team, 2018). This makes families experience limitations in caring for their families which is also caused by the family's lack of knowledge. Based on WHO data it is estimated that the global prevalence of hypertension is currently 22% of the total population in the world.

The highest prevalence of hypertension is in the African continent at 27% and the lowest is in the Americas at 18%. Southeast Asia is in 3rd place with a prevalence of hypertension of 25% of the total population (Cheng et al., 2020). According to Riskesdas 2018, the prevalence rate of hypertension in the population aged > 18 years in Indonesia is 34.1%. Based on Health Profile data from Sumberjambe Community Health Center, the prevalence rate of hypertension is 50% with a history of hypertension, 24.1% of

people have grade 2 hypertension, and 12.1% have grade 1 hypertension.

Self-care management (self-care) is the ability to recognize and assess certain signs of bodily changes that must be paid attention to in a person, and to determine actions that must be taken when these symptoms appear (Kritianti, 2021). There are several types of self-care management for hypertension patients, including self-integration (maintaining diet patterns, stretching or exercising, being able to manage stress and not smoking/drinking alcohol), self-regulation (knowing the signs, symptoms and causes) improve, be able to make good decisions), interact with health workers and others, monitor blood pressure regularly, follow the rules for taking medication regularly and see a doctor (Feldman, 2015).

Successful management of hypertensive patients requires a high level of self-confidence to control their health, called self-efficacy. This self-health care includes actions taken by individuals to live a healthy lifestyle, treat disease, and prevent further disease complications. Some ways to control self-care include regularly taking anti-hypertension medication, following a healthy low-salt diet, maintaining or losing ideal body weight, doing regular physical activity,

stopping smoking, and avoiding excessive alcohol consumption (Shahin et al., 2021).

The nurse's role is influential in responding to family needs by providing appropriate nursing care and carrying out the function of her role as a health educator. Handling ineffective family health management according to SIKI 2018 is by carrying out interventions including observation, providing care, and health education related to hypertension. (PPNI DPP SDKI Working Group Team, 2018).

Therefore, researchers want to describe in more depth the nursing care of three families in the working area of the Sumberjambe Health Center, Jember with the problem of self-care for hypertensive families.

2. METHODS

This research method is a case study that took 3 assisted families with hypertension problems (Mrs. S, Mrs. T, and Mrs. I) in the Sumberjambe Community Health Center Area, Jember. Nursing care is adjusted to family indicators (1) able to recognize problems, utilize health service facilities, (2) able to make decisions about doing physical activity, (3) able to care for sick family members. Implementation was carried out for 3 days with 3 sessions for each family and blood pressure monitoring

per visit. Health education was conducted here twice, using leaflets about hypertension by measuring understanding through pre and post-test questionnaires. Anti-hypertension exercise for 30 minutes for 2 days. Evaluate blood pressure 10 minutes before and after anti-hypertension exercises. Meanwhile, the demonstration of making herbal cucumber juice was only held on the third day.

3. RESULTS AND DISCUSSION

1) Assessment

The three assisted families do not understand the health problems they are experiencing. The level of knowledge about hypertension is low, with the highest level of education of Mrs. S's family (Junior High School), as well as the families of Mrs. Mrs. S has had hypertension for more than 5 years but still does not know the healthy lifestyle of hypertension sufferers. Meanwhile, Mrs. T was experiencing high blood pressure for the first time and did not understand the cause. At the time of assessment, blood pressure was 160/90 mmHg (Mrs. S), 150/90 mmHg (Mrs. T), and 150/90 mmHg (Mrs. I), respectively.

In line with research Sriwahyu (2017) which says that decision making regarding actions and efforts to find solutions to every problem in the family

depends on the family's level of education. The researcher assumes that the level of education in the three families is classified as middle, where one of the five family tasks according to Maglaya's theory has been fulfilled to recognize problems.(IPPKI, 2017). However, family knowledge regarding the health problems they are experiencing is still inadequate.

Mrs. S's health care while at home is still not effective. Mrs. S does not intend to take hypertension medication, only takes herbal medicine from spices and rests when she has a headache. Treatment for degenerative diseases can work well if you are able to access health services and follow the right drug regimen(RI Ministry of Health, 2018).

Lack of family support in hypertension treatment. The family's busyness in meeting needs means that clients receive less attention, even though family support for clients with hypertension is very much needed to improve the client's quality of life. Low family support has an impact on the low success rate of hypertension treatment or uncontrolled hypertension(Wahyuni, 2021).

Hypertension requires lifelong treatment and patients must be compliant. Adherence to medication refers to the extent to which a person

takes medication, diet management, and lifestyle changes as recommended by a healthcare provider.(RI Ministry of Health, 2018).The results of the study of three families are still not appropriate in dealing with health problems and dealing with risk factors. All three clients have a family history of hypertension.

Fatmawati's research results(2021), shows that hypertension treatment can be done by modifying lifestyle, being disciplined about abstinence and changing diet by limiting salt intake to no more than 6 grams or $\frac{1}{4}$ - $\frac{1}{6}$ teaspoon per day, regular exercise, avoiding alcohol and cigarettes, and take medication according to doctor's instructions to control blood pressure properly. Stress management and adequate rest are also important for patients as a form of lifestyle modification.

The three families did not avoid risk factors. Starting from rarely doing physical activity and often thinking about various things that make it difficult for him to relax so that his blood pressure tends to rise. Daily work is considered exercise. Apart from that, he still consumes foods high in salt because his family really likes salty food. These results indicate the family's failure to fulfill family duties according to Maglaya's theory, especially the aspects of providing care to sick relatives and modifying the home environment.

2) Primary Nursing Diagnoses

The results of the study show problems in the stage of family development, history of illness, family function and coping, then the correct analysis of the main nursing problem is ineffective family health management. Based on the 2016 SDKI, ineffective family health management (D.0115) is an unsatisfactory pattern of handling health problems in the family to restore the family's health condition. The major symptoms reveal that they do not understand the health problem they are suffering from, they express difficulty carrying out prescribed treatment and that family activities to overcome health problems are inappropriate. Meanwhile, the minor symptom is failure to take action to reduce risk factors.

Enforcement of the problem of ineffective family health management is appropriate because 3 characteristic limitations have emerged, namely the three clients do not understand the problem of hypertension adequately, have difficulty carrying out prescribed treatment and accessing health service facilities, and failure to reduce risk factors as evidenced by not being able to diet. low salt, stress management and regular physical activity and exercise.

3) Nursing Implementation

a. Health Education

Implementation aims to change behavior that was initially unhealthy into behavior that meets expectations and can improve health independently (Bakri et al., 2020). Providing health education once within 2 days, for approximately 30 minutes per session at each client's home. Session 1 on February 1 2023 where material is presented in a leaflet on understanding, risk factors, complications of hypertension, prevention of CERDIK hypertension and handling it with PATUH (Ministry of Health, 2018). After the material, interspersed with blood pressure checks as validation of the client's condition. At the end of session 1 there is an opportunity for questions and answers as an effort to validate and measure the client's post-education knowledge. Mrs. I actively asked about preventing hypertension recurrence. Meanwhile, Mrs. S and Mrs. T quite understand the explanation of the material.

Health education session 2 on February 2 2023 by re-validating the client's knowledge regarding hypertension after being given education the day before. This activity takes place in each person's home. Researchers provided education for ± 10 minutes regarding antihypertensive

exercises, the benefits and impacts that will arise after implementing antihypertensive exercises. The responses from the three clients were very enthusiastic about doing anti-hypertension exercises because apart from wanting to be healthier they also felt happy to exercise with researchers. Researchers also provide video examples of anti-hypertension exercises for continuity of therapy and to make it easier for clients to do exercises independently.

b. Anti-Hypertension Exercises

Anti-hypertension exercises are important to control blood pressure (Sakinah et al., 2022). Anti-hypertension exercise in research Efliani et al., (2022) at UPT PSTW Khusnul Khotimah Pekanbaru which was carried out for 3 days significantly reduced blood pressure ($p < 0.05$). The implementation of anti-hypertension exercises in this study was carried out once a day for a period of 2 days, for 30 minutes. Evaluation was also carried out on vital signs, especially blood pressure, 10 minutes before and after doing anti-hypertension exercises.

The implementation of exercise session 1 will be held on February 2 2023 at each person's home. The steps are that the researcher practices anti-hypertension exercise steps while the client follows

them. Don't forget to measure blood pressure to determine the success of the implementation given. The three clients did not feel tired and looked happy after exercising even though they had not memorized the movements. Implementation of session 2 of the exercise will be held on February 3 2023. The activities carried out include evaluating anti-hypertension exercises and demonstrating anti-hypertension exercises for around 30 minutes. During the exercise, the three clients had memorized enough movements and looked enthusiastic when moving their body parts.

c. Cucumber Essence Herbal Therapy

Diet therapy is a good therapy option for hypertension sufferers. This therapy is carried out by consuming vegetables that can affect blood pressure, such as cucumbers (Sari, 2020). Besides containing substances that are beneficial for health, cucumbers are also considered to be much cheaper and more economical compared to the cost of pharmacological treatment and are easily available in the community. This is the basis for the author to provide the implementation of herbal therapy with cucumber to help control blood pressure.

The implementation of making cucumber juice will be carried out on February 3 2023 after carrying out anti-

hypertension exercises. Additional intervention was carried out by providing education and direct practice regarding cucumber herbal therapy as an effort to reduce hypertension in terms of blood pressure values before and after therapy. Activities are carried out by practicing together directly related to the processing and herbal therapy of cucumber juice. Activities start from the orientation stage, work stage and conclude with the termination stage.

Implementation starts from explaining the aims and objectives and opening a question and answer session regarding cucumber essence herbal therapy. The ingredients needed include; filter, glass, grater, spoon, and 2 cucumbers for consumption by 1 person. Next, the researchers practiced together regarding how to process cucumber juice; from washing the cucumber until it is clean, cutting off the ends of the cucumber before grating it, filtering the cucumber juice and serving it in a glass. The client consumes at least 1 glass (± 200 ml) of cucumber juice during the session. At the end of the session, blood pressure was measured again after 15 minutes of the client consuming the cucumber series. This aims to evaluate the effectiveness of cucumber essence herbal therapy.

4.4 Nursing Evaluation Analysis

a. Health Education

There was a difference in the level of family knowledge before and after health education. Families who initially did not know about the dangers of hypertension, managed the correct diet and how to prevent hypertension, but after being given health education the family was able to answer the questions given about hypertension. Objective assessment by asking the family to answer 10 questions that have been provided by the researcher and getting the results, the client can explain again the dangers of hypertension and how to regulate the correct diet. Following are the results of filling in the questions.

Table 1. Results of filling in knowledge about Hypertension

Family	Pre-test	Post test
Mrs. S	40	60
Mrs. T	50	80
Mrs. I	50	80

Research result Mardhiah (2020) Health education is very effective in increasing family knowledge about hypertension treatment in Bluek Grong-grong Village, Indrajaya District, Pidie Regency. This was possible because he had cared for his family who suffered from hypertension and the health education material was provided using the lecture method and using power point and booklet

media so that respondents could understand the message well. This is in accordance with Ali's (2000) opinion that health education is an educational activity carried out by spreading messages, instilling confidence, so that people are not only aware, know and understand, but are also willing and able to carry out recommendations that are related to health.

b. Anti-Hypertension Exercises

Providing material and teaching anti-hypertension exercises to the family shows the client's subjective response that the client has carried out these exercises every day independently in the morning or afternoon. There are 17 movements in anti-hypertension exercise, where each movement is calculated as 2x8, so the frequency required is around 30 minutes. The client said that after doing these exercises the body felt light and felt comfortable. Apart from that, objective results showed changes in blood pressure (BP) 10 minutes before and after exercise session 1 as follows:

Table 2. Session 1 Blood Pressure Measurement

BP	Mrs. S	Mrs. T	Mrs. I
before	150/90	140/90	140/90
	mmHg	mmHg	mmHg
fter	140/90	140/80	140/80
	mmHg	mmHg	mmHg

Meanwhile, according to 2 anti-hypertension exercises, the blood pressure results were obtained as follows:

Table 3. Session 2 Blood Pressure Measurement

BP	Mrs. S	Mrs. T	Mrs. I
TD	140/80	140/80	130/90
before	mmHg	mmHg	mmHg
TD	140/80	130/80	130/90
after	mmHg	mmHg	mmHg

There was a decrease in blood pressure before and after anti-hypertension exercises. These results are supported by research Sianipar and Putri, (2018) explained that hypertension exercise is effective in maintaining health, which is done through physical exercise and can reduce weight, manage stress and increase the activity of the heart and heart muscle. Research by Harmilah & Hendarsih (2019) who carried out anti-hypertension exercises via video media in 2 groups, found that the average systolic and diastolic blood pressure decreased in the intervention group and the control group did not experience a decrease in systolic and diastolic blood pressure.

c. Cucumber Essence Herbal Therapy

The client consumes at least 1 glass (+200 ml) of cucumber juice during the session. At the end of the session, blood pressure was measured again after 15 minutes of the client consuming herbal

cucumber juice. The results of blood pressure checks before and after administering cucumber juice are:

Table 4. Blood Pressure Check Before and After Giving Cucumber Juice

BP	Mrs. S	Mrs. T	Mrs. I
TD before	150/90 mmHg	140/90 mmHg	140/90 mmHg
TD after	150/90 mmHg	140/90 mmHg	140/90 mmHg

In short, the administration time is only one day so there is no decrease in blood pressure. Research by Hermawan (2018) revealed that there was an effect on reducing systolic and diastolic blood pressure in hypertension sufferers after administering cucumber juice with a p value for systolic 0.0001 ($p < 0.05$) and diastolic blood pressure 0.01 ($p < 0, 05$). This is due to the diuretic properties of cucumbers, which consist of 90% water, can remove salt from the body (Sari, 2020).

Apart from treating hypertension, the cucumber plant also treats complications resulting from high blood pressure and has very few side effects. Cucumber fruit contains flavonoids which have been proven to inhibit the oxidation reaction of bad cholesterol (LDL) which causes blood to thicken, thus preventing the deposition of fat on the walls of blood vessels as well as saponin content which can increase the absorption of diuretic compounds (sodium, chloride and water) in the distal

tubules of the kidneys, It also stimulates the kidneys to be more active, which can lower blood pressure (Sari, 2020).

4. CONCLUSION

Nursing implementation carried out over 3 sessions can increase knowledge and can change family behavior that is ineffective in hypertension health care. Apart from health education, physical exercise therapy can help hypertensive clients improve the client's quality of life.

AUTHOR CONTRIBUTIONS

Substantial contributions to conceptualization, data curation, analysis: Nurhafidin Ramadhani and Fahrudin Kurdi. Supervision Writing- review & editing: Fahrudin Kurdi. Manuscript revisions: Nurhafidin Ramadhani

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CONFLICT OF INTEREST

The authors declare no conflict of interest for this publication.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the

corresponding author upon reasonable request.

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