# Family Nursing Care for Pregnant Women with Hypertension in The Working Area of The Lapai Public Health Center, Padang City

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#### **ABSTRACT**

Pregnant women are at risk of experiencing health problems with increasing age, one of which is the risk of hypertension where systolic blood pressure is above 140 mmHg and diastolic blood pressure is above 90 mmHg or more. The aim of this research is to describe family nursing care for pregnant women with hypertension. Descriptive research method with a case study approach. The research was conducted at the Lapai Health Center, Padang City. The research population consisted of 4 people. Sampling used the Simple Random Sampling technique. The data collection instrument is a family nursing care assessment format. Data were analyzed by comparing research results based on theory and previous research. The results of the research showed that the client complained that she felt a headache, weak, and her body got tired easily. Data was collected using interviews, observations, physical examinations and documentation studies of swelling. In her first pregnancy, she also felt the same complaint. The client's family said the client often consumed salty foods and rarely consumed vegetables. The problems found were ineffective peripheral perfusion, risk of injury to the fetus, and anxiety. Nursing implementation carried out health education for pregnant women with hypertension, foot soaking technique therapy with warm water and lemongrass, carrying out deep breathing and guided imagination techniques, modifying a comfortable and safe environment for pregnant women with hypertension, and introduction of the nearest health facility services. Nursing evaluation found that some problems were resolved. It was concluded that the client had understood the education about hypertension in pregnancy, the anxiety felt had been resolved, the client was able to do the foot soaking technique with warm water and lemongrass. It is recommended that it can help in developing community health center programs in providing nursing care.

## Keywords: Family Nursing Care, Hypertension, Pregnant Women

### INTRODUCTION

Pregnancy is a physiological and natural process, where every woman who has healthy reproductive organs, and has experienced puberty or has even experienced menstruation and has had sexual relations with a healthy man, there is a high probability that the woman will experience pregnancy(Kemenkes RI, 2022). Meanwhile, according to previous study pregnancy is a condition where a woman has a fetus that is growing in her body, generally in the womb(Elisabeth Siwi Walyani, 2015). Pregnancy is a normal maternal condition, but pregnant women also require special attention to the health of the mother herself and her fetus or baby. There are several diseases that pregnant women should be wary of, namely hypertension, vaginal bleeding, severe headaches that persist and don't go away, sudden visual changes (blurred vision), abdominal pain, swelling of the face and hands, anemia and diabetes mellitus(Elisabeth Siwi Walyani, 2015).

Hypertension is a common disease that is defined simply as an increase in blood pressure(Kemenkes RI, 2015). This disease can cause high rates of morbidity and death in both

mothers and fetuses/babies born. Hypertension, especially that which occurs in pregnancy, is a problem in itself, because apart from the fairly high incidence rate, the problems and complications that arise are quite significant and result in high morbidity and mortality rates. Some sources state that hypertension in pregnancy occurs in around 10% of pregnancies. Where this affects both maternal and perinatal outcomes(Lalenoh, 2018). According to data from the World Health Organization (WHO), pregnancy hypertension is a condition where the blood pressure in the blood vessels increases chronically, where the blood pressure is persistent in the arteries, where the systolic blood pressure is >140 mmHg and the diastolic blood pressure is >90 mmHg which usually occurs in pregnant women. gestational age of 20 weeks and above or in the third trimester of pregnancy, often occurs at 37 weeks of pregnancy or can occur immediately after delivery so it can affect 10% -15% of pregnancies in mothers(Alatas, 2019).

WHO reported that in 2020 there were around 287,000 maternal deaths due to hypertension in pregnancy, of which around 85% occurred in developing countries(World Health Organization (WHO), 2023). Indonesia is ranked 14<sup>th</sup> out of 18 countries in ASEAN(Arikah et al., 2020). In Indonesia, hypertension in pregnancy is the second highest cause of maternal death after bleeding. In this case, severe preeclampsia is the biggest cause in the group of hypertension in pregnancy which causes complications and even causes maternal death. The proportion of hypertension in pregnancy in Indonesia is increasing, almost 30% of maternal deaths in Indonesia are caused by hypertension in pregnancy, which is one of the leading causes of maternal death in Indonesia after bleeding(Sari et al., 2018). Based on the data, it was found that the number of deaths of pregnant women with hypertension was 1,077 cases in Indonesia in 2021. In West Sumatra, there were 193 cases of maternal deaths in 2021. Meanwhile in the city of Padang there were 2 cases of maternal deaths. with hypertension in 2021(Kemenkes RI, 2022). The main factors causing maternal death are bleeding (59%), hypertension during pregnancy or preeclampsia (29%), infection (8%), metabolic disorders (3%), heart disease (9%). The district/city that contributes to the highest maternal mortality rate is Padang City(Kemenkes RI, 2022).

Comparing each community health center in Padang City, Lapai Community Health Center is ranked first in terms of the incidence of hypertension in pregnancy compared to other community health centers. Based on an initial survey conducted by researchers on health workers in December 2022 at the Lapai Community Health Center, Padang City, there were 8 pregnant women with hypertension in 2022. Based on the above phenomenon, the author is interested in researching cases of hypertension in pregnancy with the title "Family Nursing Care for Pregnant Women with Hypertension in the Working Area of the Lapai Health Center, Padang City in 2023".

### **METHODS**

The type of research carried out is descriptive in the form of a case study. A case study is a research design that includes an intensive study of one research unit, for example, one client, family, group, community, institution, although the number of subjects is relatively small, the number of variables studied is very broad(Nursalam, 2020). This research uses a case study on Family Nursing Care for Pregnant Women with Hypertension in the Working Area of the Lapai Health Center, Padang City.

The instrument used is a family nursing care assessment format (assessment, nursing diagnosis, nursing intervention, nursing implementation and evaluation). Data was obtained through interviews with clients with hypertension in pregnancy. Data obtained through interviews and anamnesis include general data, family history and development stages, family structure, family function, family stressors and coping and family hopes.

The population of this study were all patients with pregnant women with hypertension in the working area of the Lapai Health Center, Padang City. When the research was conducted in April 2023, 4 pregnant women were found who experienced hypertension during pregnancy. The sampling technique for this research uses purposive sampling, namely a sampling technique by selecting samples from the existing population according to the research objectives or problems that represent the characteristics of the population. The research sample consisted of 1 person based on the inclusion criteria. Of the 2 people in the population who met the inclusion criteria, the researcher carried out a random sampling technique by randomizing, so that 1 sample was obtained, namely Mrs. L. This research was carried out for 14 days.

#### RESULTS AND DISCUSSIONS

Hypertension in pregnancy can be experienced by all levels of pregnant women so that knowledge about the management of hypertension in pregnancy must be truly understood by all medical personnel both at the center and in whose blood pressure reaches 140/90 mmHg or more during pregnancy. Blood pressure measurements were carried out twice after the patient had rested for several minutes using Korotkoff's V phase to determine diastolic pressure(Arantika Medya Pratiwi & Fatimah, 2019).

Nurse are able to understand the application of family nursing care, carry out assessments, formulate and enforce nursing diagnoses, formulate nursing interventions, carry out nursing actions, carry out evaluations on Mrs. L's family. The complexity of this disease can be found at the following stages of the nursing process: In hypertension in pregnancy experienced by Mrs. L in Mr. A's family. Health problems arise, namely

- 1. Ineffective peripheral tissue perfusion related to increased blood pressure, Risk of injury to the fetus related to uterine dysfunction, Anxiety related to lack of exposure to information.
- 2. The first priority nursing diagnosis is ineffective peripheral tissue perfusion related to increased blood pressure. This is because the scoring for this diagnosis is 3.7.
- 3. In carrying out family nursing duties, Mr. use health facilities/services in the community.

After implementing Nursing Care for Pregnant Women with Hypertension in the Working Area of the Lapai Health Center, Padang City, which was carried out from 13 April 2023 to 20 April 2023 and continued again from 24 April 2013 to 2 May 202, in this discussion, will explain whether there are matches or gaps in patients between theory and cases. The discussion stages are in accordance with the stages of family nursing starting from assessment, formulating a diagnosis, formulating an action plan, implementing actions and evaluating nursing.

The assessment stage is the main basis for providing nursing care in accordance with reality. The correctness of data is very important in formulating a nursing diagnosis and providing nursing services according to individual responses(Nursalam, 2020). When the assessment was obtained, Mrs. L complained that her head hurt, her body felt weak, Mrs. L also said that she got tired easily and said that her left leg was swollen. Mrs. breathing 21 x/minute, pulse 98 x/minute, temperature 36.8° Celsius, anemic conjunctiva, looks pale and there is edema on his left leg. This research is the same with previous study which said that during the study Mrs. D (G2, P1, A0, H1), gestational age 32-33 weeks, several complaints were found, namely dizziness, headache, stomach pain and body weakness. This same research according to other study that explains several clinical manifestations of hypertension in pregnancy as follows: Mild hypertension with symptoms of pregnancy with diastolic blood pressure greater than 100 mmHg, increased liver enzymes, severe headaches, visual disturbances (Wagiyo & Putrono, 2016). Chronic hypertension with symptoms of hypertension before pregnancy or before 20 weeks, blood pressure exceeding 140/90 mmHg, proteinuria, normal serum uric acid levels, edema and persisting until the 42nd day of the postpartum period. Based on theory and research regarding the assessment of pregnant women with hypertension and based on the case studied by Mrs. L, it can be concluded that several complaints found during the assessment are in accordance with the theory and research results of other people. These include headaches, body weakness, edema, and blood pressure exceeding 140/90 mmHg.

In formulating the diagnosis obtained by data analysis, the main problem is ineffective peripheral tissue perfusion related to increased blood pressure. This data is supported by subjective data and objective data. Subjective data Mrs. L complained that she has a headache, her body felt weak, Mrs. L also said that she got tired easily and said that her left leg was swollen. Objective family data shows that Mrs. L often consumes salty foods, rarely consumes vegetables and fruit, during the assessment Mrs. L looked tired, her blood pressure was 168/89 mmHg, her left leg

appeared edematous. Based on the research and theory above, the author assumes that the diagnosis of peripheral perfusion is in accordance with the theory and the results of the case studies carried out. Peripheral perfusion is ineffective with major and minor signs and symptoms, namely cold palpable acral, pale skin color, edema. So a diagnosis of ineffective peripheral perfusion can be made(Ekasari & Natalia, 2019).

The interventions carried out are in accordance with the duties of family nursing, namely recognizing the problem of hypertension in pregnant women, making decisions to overcome the problem of hypertension in pregnant women, the family being able to care for sick family members, modifying the environment, and utilizing health service facilities. Of these five family tasks, all can be done by the family. Based on the results of other people's research and the theory obtained, it is the same as introducing the family about the problems faced, namely hypertension in pregnancy or providing health care, in the results of the current research the author makes an intervention regarding maintaining diet and fulfilling nutrition for pregnant women with hypertension.

Implementation of family nursing is a process of activating an intervention plan that utilizes various sources within the family and makes the family independent in the health sector. Families are educated to be able to assess their potential and develop it through implementation that enables families to recognize their health problems, make decisions regarding the health problems they face, care for and develop family members according to their health conditions, modify a healthy environment for family members, and utilize nearest health service facilities(Friedman et al., 2010).

The implementation of the main diagnosis is ineffective peripheral tissue perfusion related to increased blood pressure. The first implementation is to provide health education regarding the disease process of hypertension in pregnant women so that families are able to recognize the health problem of hypertension. Health education includes understanding hypertension in pregnant women, the impact, and signs and symptoms of hypertension in pregnant women, and encouraging families to report serious signs and symptoms that occur in Mrs. L such as severe headaches, visual disturbances, convulsions, and bleeding to health workers. Previous research states that health education can improve respondents' knowledge and attitudes about pre-eclampsia(Winancy, 2019).

The second implementation is discussing with the family about the complications of hypertension in pregnancy, if not treated it will result in disorders such as placental abruption, namely where the placenta separates from the inner uterine wall before the birth process. This detachment of the placenta can cause the supply of nutrients and oxygen to the baby to be compromised. decreased or obstructed), risk of injury to the fetus (premature birth, premature rupture of membranes), risk of injury to the mother (bleeding during labor). After discussion, the

author asks the family to make a decision regarding the impact of hypertension on pregnant women, explains the consequences and complications of hypertension in pregnancy, recommends maintaining mother L's diet, such as reducing excess salt consumption, avoiding eating foods high in fat., routinely eat fruit and vegetables that are high in fiber and iron, regularly eat foods that are high in protein, use existing health facilities by routinely checking Mrs. L's pregnancy at the nearest health facility at Mrs. L's house, and it is hoped that clients and families can make appropriate treatment decisions appropriate to reduce the impact caused by hypertension in pregnant women.

The third implementation is how to care for family members with hypertension by monitoring blood pressure, soaking the feet in warm water with lemongrass. The action of soaking the feet in warm water and lemongrass is given once a day for a duration of 15-20 minutes, the water temperature is 37°C-39°C, the amount of soaking water is 2 liters of water with the addition of 3 stalks of slightly crushed lemongrass. With the aim of improving blood circulation in the mother's feet, reducing edema, relaxing the leg muscles, ask the family to give Mrs. L's feet a light massage with massage oil to help relieve muscle fatigue, and recommend using comfortable footwear, recommend taking control medication. regular blood pressure, teaching a diet program to improve circulation (low salt diet), informing you of emergency signs and symptoms that must be reported (such as severe headaches, visual disturbances, bleeding, and seizures). teaches families to soak their feet in warm water and lemongrass which has very good benefits for hypertension sufferers because it can improve blood circulation in the feet, can increase circulation, reduce edema, and can increase muscle relaxation (15).

Fourth Intervention. Modifying the family environment to ensure family health, modifying a healthy environment for family members <sup>(16)</sup>. Modifying a safe and comfortable environment for pregnant women with hypertension by ensuring good circulation and lighting in the house and family, keeping the mother away from stuffy and dusty rooms, encouraging families to routinely open and clean windows from dust.

Fifth intervention. Utilizing health care facilities around the family. Utilizing health facilities and choosing the desired health facility to overcome the health problems of family members, namely hypertension in pregnancy (husnaniyah, dedeh, riyanto, 2022). Health services provided to pregnant women, namely regular antenatal care visits, will be able to detect hypertension in pregnant women early, routine and services include at least 4 visits in each trimester (at least 1 time in trimester I, 1 time in trimester II, and 2 times in trimester III of pregnancy (17). The danger signs of pregnant women with hypertension are usually dizziness, blurred / dark vision, swelling of the hands feet and face, heartburn, nausea and vomiting, therefore (18). Suggesting the family to routinely bring the mother to the nearest health service to routinely

check the pregnancy and the mother's condition and suggesting the family to always remind the mother to take blood pressure control drugs.

Evaluations are carried out every time implementation is carried out. When the first diagnostic evaluation is obtained, the family understands the problem of hypertension in pregnant women. Mrs. L said that she had rested a lot and limited activities and the family also said that she always reminded Mrs. low salt and regularly consume vegetables and fruit. It can be seen from Mrs. L that she can explain the meaning of hypertension in pregnant women. L's family and mother were very enthusiastic in holding discussions and carrying out circulation care and controlling her pregnancy every month at the health service.

#### **CONCLUSION**

In the results of the study, the family complained that their family members were experiencing hypertension during pregnancy. However, there are also family habits in daily life that influence the occurrence of hypertension in pregnant women. The results of the physical examination showed that the skin looked pale, looked weak, and the blood pressure was 165/105 mmHg. The main diagnosis that appears based on problem priority is ineffective peripheral perfusion related to increased blood pressure. At this stage, the intervention carried out is adjusted to the intervention contained in the theory. The implementation stage of Mrs. L's nursing care is based on plans that have been prepared by the author together with the client and family. In evaluating the nursing process for Mrs. L. The results of the evaluation carried out for 14 days showed that all problems could be resolved. For health service institutions to create a model of professional nursing services that can be used as a model in the learning process of nursing students to ensure the quality of care provided to clients and it is hoped that the results of this case study can also be used as additional information in developing community health center programs for pregnant women with hypertension.

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