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Health Promotion Cucumber Juice on Reduction of High Blood Pressure in Hypertensive Patients Pregnant Women and Maternity Mothers at Aek Haruya Village

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Abstract

Hypertension in pregnancy is a major cause of maternal morbidity and mortality. One of the non-pharmacological treatments that can be given to people with high blood pressure is dietary treatment. This can be done by eating vegetables that can affect blood pressure, such as cucumber (Cucumis Sativus L.). Cucumber has hypotensive (lowers blood pressure) properties. The contents of cucumbers can help lower blood pressure because cucumbers contain potassium, magnesium and phosphorus, which are effective in the treatment of hypertension. The aim of this activity is to inform pregnant women and mothers-to-be about one of the non-pharmacological ways of reducing hypertension that can occur during pregnancy, namely by drinking cucumber juice. The methods used were lectures and question and answer sessions. This programme was conducted in August 2024 with 20 pregnant women in Aek Haruaya village as respondents. The results of the community service were an average pre-test score of 50 points and an average post-test score of 70 points, there was an increase in the knowledge of pregnant women about giving cucumber juice to reduce hypertension with an average increase of 20 points. It is hoped that education will increase pregnant women's knowledge of non-pharmacological efforts to reduce hypertension, which can occur during pregnancy.

Keywords: Health Promotion Cucumber, Reduction High Blood Pressure

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INTRODUCTION

Hypertension in pregnancy (HTN), whether chronic hypertension, gestational hypertension, pre-eclampsia or eclampsia, is a common maternal and perinatal complication. It is the leading cause of maternal and perinatal morbidity and mortality worldwide. The main basis for identifying the incidence of hypertension in pregnancy is based on blood pressure measurements where the systolic blood pressure is ^{3}140 mmHg and/or the diastolic blood pressure is ^{3}90 mmHg after ^{3}20 weeks of pregnancy.

The incidence of HD is increasing every year. Worldwide, the incidence of HDK will reach 18.08 million cases in 2019. This figure is calculated to be an increase of 10.92% from 1990 to 2019. Many factors cause the occurrence of HDK such as first pregnancy or primigravida; first pregnancy with second husband or primipaternity; hyperplasentosis such as hydatidiform mole, multiple pregnancy, diabetes mellitus, hydrops fetalis, large for gestational age; extreme maternal age during pregnancy (^{3}35 years); Family history of

pre-eclampsia/eclampsia; history of kidney disease and hypertension; obesity (body mass index (BMI) >35); maternal nutritional status before pregnancy; high sodium and calcium intake during pregnancy and low education of pregnant women, i.e. i.e. less than a junior high school education. These causative factors should be understood by all women and pregnant women in order to prevent the occurrence of HHD. However, the understanding of HDK and its causative factors is not well understood. Even in Indonesia, there is very little information about hypertension in pregnant women.

Therefore, there is a need to provide information on hypertension and its causes to at-risk groups such as pregnant women. This is because the incidence of hypertension, such as pre-eclampsia, in pregnant women occurs in about 10% of pregnancies worldwide and 2-3% lead to complications in pregnancy, including gestational hypertension, which causes 10-15% of maternal deaths, especially in developing countries. Gestational hypertension is harmful to both the mother and the foetus and carries a risk of further cardiovascular disease later in life. Women with a history of pre-eclampsia or hypertension have a 7-8 fold increase in morbidity and mortality from coronary heart disease. Gestational hypertension is estimated to affect 1.8-4.4% and 0.2-9.2% of all pregnant women worldwide (Subki et al, 2018). High blood pressure in pregnancy requires special treatment because it can affect blood flow to the placenta, which can affect the supply of oxygen and nutrients to the baby. This slows down the baby's growth and increases the risk at birth (Syafira., 2021)

Pharmacological therapy involves taking antihypertensive drugs, which have been shown to lower blood pressure, while non-pharmacological therapy, also known as lifestyle modification, includes quitting smoking, losing weight, avoiding alcohol, changing diet, and psychology, including reducing stress, exercise and rest (Alwiningsih, 2016)

One of the non-pharmacological treatments that can be given to pregnant women with hypertension in pregnancy is nutritional management, which involves dietary management of hypertension. For example, by limiting salt intake, maintaining potassium, calcium and magnesium intake and limiting calorie intake if weight is gained. DASH (Dietary Approaches to Stop Hypertension) recommends that people with high blood pressure eat plenty of fruit and vegetables, increase fibre intake and drink plenty of water. Dietary treatment is a good alternative for people with high blood pressure. This treatment can be done by eating vegetables that can affect blood pressure, such as cucumber (Cucumis Sativus. L).

Giving cucumber juice (Cucumis Sativus. L). is very influential in lowering blood pressure on people with high blood pressure / hypertension, so health workers, especially midwives can be active in providing counselling on the use of cucumber to reduce high blood pressure in mothers during pregnancy. (Ruwayda., 2016)

Cucumber is a vegetable that is readily available and inexpensive. Among the general public, cucumbers are commonly consumed just to complement dishes, this can be used as a solution to treat hypertension non-pharmacologically. Cucumbers can help lower blood pressure because they contain potassium, magnesium and phosphorus, which are effective in treating hypertension. Cucumber is a diuretic because of its high water content, which helps to lower blood pressure (Basri et al., 2018).

Cucumber fruit has hypotensive properties (lowers blood pressure) because the water and potassium content in cucumber draws sodium into the intracellular and works by opening blood vessels (vasodilation), which can lower pressure. Potassium is the most important intracellular electrolyte, in fact 98% of the body's potassium is in the cells, 2% is for neuromuscular function. Potassium affects both skeletal and cardiac muscle activity. (Nuraeni, 2019)

The implementation of community service is carried out as an application of holistic care, which is the hallmark of the DIII Midwifery programme, and a form of

institutional concern for the community, especially pregnant women, about non-pharmacological efforts to reduce high blood pressure that can occur in pregnancy.

Therefore, community service in the form of "Health Promotion on Giving Cucumber Juice to Reduce Hypertension in Pregnant Women and Maternity Mothers" is one of the community service efforts for pregnant women in the form of holistic midwifery care that can support the excellence of the DIII Midwifery Study Programme of STIKes Paluta Husada.

METHOD

In this community service activity, health counselling is the method used to implement the activities. Health counselling is used to change behaviour from individual to community level in health aspects. In this community service activity, the targeted behaviour change in a group of pregnant women in Aek Haruaya village is related to controlling hypertension in pregnancy. This effort is in line with the operational objectives of health counselling, one of which is to increase understanding so that efforts can be made to take preventive or rehabilitative actions to avoid and prevent the severity of a disease.

This community service activity was carried out in several stages. The first stage is the preparation stage where the service team and students meet every pregnant woman in Aek Haruaya village to be involved in the activity. The second stage is the implementation stage. In this stage, the service team together with the students carried out community service activities with the core activity of health counselling on hypertension in pregnancy and its causative factors. This health counselling activity was conducted according to the set schedule on Monday 2 August 2024 at the Aek Haruaya Village Hall with 20 participants who were pregnant women. This service activity was also attended by the chairperson of STIKes Paluta Husada, the village chief and local village officials. The final stage is the evaluation stage, where the service team together with the students conduct an evaluation by asking the participants open-ended questions about the material presented by the previous speaker.

Figure 1.1 Photo of Activities with Community Service Participants

RESULT AND DISCUSSION

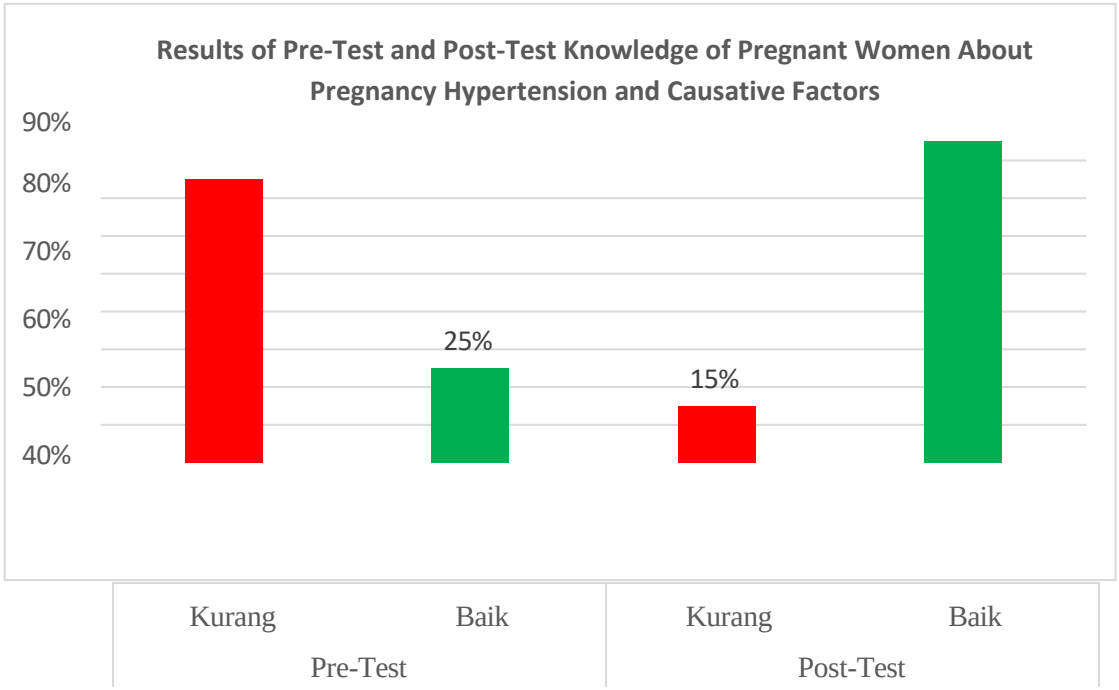
This community service activity was attended by 20 people who were pregnant women in Aek Haruaya Village. The description of the characteristics of the target group of this activity can be seen in Table 1.1. Although the number of extension participants was limited, the active participation of the audience who participated in the extension was quite good. This is clearly seen from the enthusiasm of the participants to actively participate in listening to the counselling. After the activity was held a question and

answer session about the material provided, the majority of participants were able to respond properly and correctly.

Tabel 1.1 Frequency Distribution of Characteristics of Community Service Participants of Pregnant Women in Aek Haruay Village

Age Characteristics of Respondees	Freq	Percentage
<24 years	4	20%
≥24 years	16	80%
Total	**20**	**100 %**

Table 1.2 Changes in Knowledge Level Before and After Health Counselling for Pregnant Women



Although the results of hypertension screening show that all pregnant women have normal blood pressure, there is still a need for prevention. This is because hypertension in pregnancy can occur during pregnancy or 12 weeks after delivery. This is especially true for pregnant women who have a history of hypertension before pregnancy or who have an unhealthy lifestyle. It is therefore important to provide information about hypertension in pregnancy and how to control it.

CONCLUSION

With the implementation of community service activities in the form of counselling on factors related to the incidence of hypertension due to pregnancy, carried out by lecturers of the D-III Midwifery Study Programme of STIKes Paluta Husada, results were achieved in accordance with the Tridarma standards of higher education. In accordance with the results achieved, it is stated that the community service activities in the form of counselling on factors related to the incidence of hypertension due to pregnancy carried out by lecturers of the D-III Midwifery Study Programme of STIKes Paluta Husada have been carried out with good results.

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