



THE PERCEPTION OF THE SUMBA TRIBE COMMUNITY IN THE USE OF HERBAL INGREDIENTS IN CONTROLLING BLOOD PRESSURE

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ABSTRACT

Introduction: The Sumbanese people, the use of herbal ingredients in controlling blood pressure is influenced by people's perceptions. The purpose of this study was to find out how the perceptions of the Sumba people in the use of herbal ingredients in controlling blood pressure.

Method : The research approach used in this study was a qualitative descriptive approach with data collection techniques including in-depth interviews with research subjects who met inclusion using the lineal snowball sampling method.

Result : The results of research on the Sumbanese community found that herbal ingredients were used in the Sumba community because they were considered to reduce blood pressure and it had become a hereditary tradition in the Sumbanese community to use herbal ingredients to control blood pressure.

Conclusion : The type of herbal plant that is often used by the community is soursop leaves with the processing technique of boiling. For future researchers, it is hoped that they can prove scientifically that this herbal plant can be used as a treatment to control blood pressure.

Keywords : *Blood pressure, herbal ingredients, public perception*

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INTRODUCTION

Hypertension is the main cause of death worldwide, which is around 7.5 million with a percentage of around 12.8%. The World Health Organization (WHO) estimates that currently the global prevalence of hypertension is 22% of the total world population. Of these sufferers, only less than a fifth make efforts to control their blood pressure (WHO, 2019). The highest prevalence of hypertension is 27% in the Africa and Southeast Asia region, which is in 3rd position with a prevalence of 25% of the total population (WHO, 2019). The 2018 Riskesdas results show the prevalence rate of hypertension in Indonesia based on national measurements of 34.11%, East Nusa Tenggara Province with a prevalence of 27.72% (Riskesdas, 2018).

In the Regulation of the Minister of Health of the Republic of Indonesia herbal medicine or better

known as traditional medicine (Permenkes RI number 246/MenKes/Per/V/1990, is any ingredient or ingredient in the form of plant material, animal material, mineral material, or a mixture of these materials, which have traditionally been used for treatment based on experience. The advantages of herbal medicines in the process of using them go directly to the source of the disease because herbal medicines are reconstructive, namely repairing organs and rebuilding damaged organs, tissues or cells. There are almost no side effects from using herbal medicines, even if there is a reaction it is a process of adaptation or adjustment because the body has received high levels of food.

The role of nurses in efforts to maintain health and maintain physical fitness (promotive), prevent disease (preventive), treatment efforts (curative) and to restore health (rehabilitative) (Astuti, 2016). Communities must be introduced to

herbal ingredients made from native Indonesian nature where these ingredients are around the community, such as: Sambiloto, guava, Dutch teak, temulawak, red ginger, turmeric, noni and salam. The purpose of carrying out hypertension counseling activities is to provide an understanding of the important role of Indonesian herbal plant ingredients and as an effort by nurses to introduce herbal ingredients to the community (Setiyadi, 2009).

The use of herbal ingredients in Sumba is intended as a treatment for hypertension which is believed by the people of Sumba to lower blood pressure quickly and has no side effects, ingredients that are believed to reduce blood pressure are ingredients of avocado leaves, bay leaves, and breadfruit leaves. This herb is usually consumed 2 times a week regularly for 3 months and if during this time there is no change, usually people with hypertension will try other herbal ingredients which they think are capable of reducing hypertension.

METHOD

The research approach used in this study is a qualitative descriptive approach with data collection methods including in-depth interviews with research subjects who meet the inclusion criteria.

RESULTS

Public perception in the use of herbal ingredients

From the research results, it was found that the public's perception of herbal ingredients said that herbal ingredients were very good for use as a treatment for high blood pressure because they were the fastest way to control blood pressure, their efficacy had been proven for generations in the Sumba tribe, the ingredients were natural and easy to obtain. Other participants also thought that herbal concoctions were an alternative treatment for controlling blood pressure.

Opinion of the Sumba people about the benefits of herbal ingredients

It was found that the efficacy of herbal ingredients was very effective in controlling blood pressure experienced by people with high blood pressure.

Things that influence decision-making to consume herbal ingredients and how it affects people in decision-making

It was found that what influenced the people of the Sumba tribe in making decisions about using herbal ingredients was because the ingredients were natural and it had become a tradition to use herbal ingredients. Some other people think herbal ingredients are used because public health services are far from where they live.

Abstinence encountered in the use of herbal ingredients

Based on the results of the study, it was found that in using this herbal concoction, all participants stated that they were prohibited from consuming medical drugs. Other restrictions for each type of herb are different.

Types of herbal plants used in controlling blood pressure

It was found that some people used soursop leaves to control their blood pressure and some others used jackfruit leaves, locust dung leaves (ciplukan leaves), kelor leaves, lemongrass leaves, celery root, bay leaves, and garlic.

How to concoct these herbal plants into concoctions that are ready for consumption

Based on the results of research conducted by researchers, it was found that the whole community processes/concocts this herbal plant by boiling it.

Dosage in consuming herbal ingredients

It was found that this herbal remedy was consumed 3X a week, and could be consumed in the morning, afternoon, evening and night. As for the people of East Sumba who start consuming this herbal concoction if they feel tense at buckling.

The positive and negative impacts of using herbal ingredients in controlling blood pressure

It was found that the positive and negative impacts on the use of herbal ingredients:

1. Positive impact

Herbal concoctions can be used as an alternative first treatment before going to the hospital.

2. Negative impact

If herbal ingredients are consumed in excess, they can trigger other diseases. As for some people say herbal concoctions do not have a negative impact.

DISCUSSION

Public opinion regarding the use of herbal concoctions to control blood pressure

The results of research on the Sumbanese community regarding the use of herbal ingredients to control blood pressure, found that respondents 1,2,5 said herbal ingredients were used by the Sumbanese Temu village because they were considered to be able to lower blood pressure in a short time, while respondents 3,4 said they had It is a legacy from our ancestors to use herbal ingredients to control blood pressure.

According to Arum Reyana Safitri (2018) the treatment of hypertension using herbal ingredients has been scientifically proven to reduce blood pressure through diuretic, anti-andrenergic effects (reducing production, secretion, effectiveness of adrenaline hormones) and vasodilators (Arum, 2018).

Benefits of Herbal Concoctions

Based on the results of research on the Sumbanese people, it was found that all participants regarding points regarding the opinions of the Sumbanese people about the benefits of herbal ingredients argued that because of the potent properties of herbal ingredients, the Sumbanese people chose to use herbal ingredients. Because the benefits of herbal ingredients are very diverse, such as: proven properties to lower blood pressure, more comfortable to use because the ingredients are natural, the ingredients are widely available around the house and garden so they are easy to find and process for consumption, and there are almost no side effects from using herbal ingredients. This.

Factors Influencing Decision Making To Use Herbal Concoctions in the Sumba Community of Temu Village

Based on the results of research conducted by researchers, respondents 2 and 3 said the reason for taking the decision was because the ingredients were natural and it had become a tradition for the Sumbanese people to use herbal ingredients, while respondents 1, 4 and 5 said the reason for making the decision was because the location of the village was far from health services. , using herbal ingredients does not require costs, and often shares stories with other hypertension sufferers. This is in accordance with research conducted by Ismiyana in 2013: The reasons for using traditional medicines are because they are made from natural ingredients, sources of information obtained based on ancestral traditions, locations far from health services (Ismiyana, 2013).

Abstentions Faced In The Use Of Herbal Concoctions To Control Blood Pressure

Based on the results of the research conducted, it was found that all respondents said that in using herbal ingredients to control blood pressure, patients were no longer allowed to take medical drugs obtained from doctors or purchased at pharmacies. Whereas other restrictions on the use of herbal ingredients for food that should not be consumed are each type of herbal plant that is used differently, such as: soursop leaves are prohibited from smoking and drinking liquor, kelor leaves are prohibited, namely not being allowed to consume papaya leaves and sweet potatoes . Abstinance in the use of this herbal concoction has not been scientifically proven whether it is true that the abstinance not to be consumed will affect the level of healing efficiency from the use of herbal concoctions which will decrease, but these taboos such as smoking and drinking are included in lifestyle modifications to reduce hypertension for sufferers hypertension (Putri, 2019).

Types of Plants Used and Techniques for Concocting Herbal Concoctions

There are various types of plants used by the people of the Sumba tribe in controlling blood

pressure, namely ciplukan leaves, moringa leaves, bay leaves, soursop leaves, lemongrass leaves, celery root, garlic. But the type of plant most often used by people is soursop leaves.

Soursop leaves (*Annona muricata* Linn)

Soursop leaves contain monotetrahydrofuran acetogenin compounds (active compounds that have poison-killing activity), such as anomuricin A and B, gigante rosin A, murikatosin A and B, goniotalamine and antioxidants that can prevent free radicals, dilate, relax blood vessels and lower blood pressure. Risty et al., 2019).

The people of the Sumba tribe process soursop leaf herbal ingredients by boiling them. For the processing process, namely, first 7 fresh soursop leaves are taken and washed and then put in a pan used for cooking herbal concoctions and filled with 3 cups of water, allowed to boil until 1 cup of water remains, then cooled and filled in a glass to drink .

Bay leaves (*syzygium polyanthum*)

The chemical compounds in bay leaves that are thought to play a role in reducing blood pressure are flavonoids, essential oils, potassium and alkaloids that are diuretic. Flavonoid compounds in bay leaves can improve blood circulation throughout the body and prevent blockages in blood vessels (atherosclerosis). Flavonoids can also reduce Systemic Vascular Resistance (SVR), cause vasodilation and affect the action of ACE inhibitors which can inhibit the conversion of angiotensin I to angiotensin II. Vasodilatory effects and ACE inhibitors can reduce blood pressure (Junaedi, 2013).

Processing of herbal ingredients in the Sumba people is by boiling. For the following processing, first take 7-14 bay leaves, wash them clean and then boil them with 3 cups of water in a pan used to process herbal ingredients, allow them to boil until 1 cup of water remains, after which the pan is lowered to let it cool down. Drink while still warm.

Ciplukan leaves (*Physalis peruviana* L.)

Goldenberry or ciplukan is a fruit that contains several nutrients such as vitamins A, B and C as well as essential minerals such as magnesium, calcium, potassium, sodium, phosphorus, iron and zinc. Phytochemicals in ciplukan include physalins, flavonoid glycosides (3-O-neohesperidoside), withanolides, phytosterols, and long-chain fatty acids (Sathyadevi et al. 2014). Flavonoids will affect the performance of Angiotensin Converting Enzym (ACE) by preventing it from converting angiotensin I to angiotensin II. Vasodilation will occur if angiotensin II is not formed due to inhibition of ACE performance by antioxidants, so that peripheral resistance and blood pressure will decrease (Widiasari 2018).

Based on the results of research conducted by Fiki Husna (2019) on mice, it was found that ciplukan juice had a significant effect on reducing rat systolic blood pressure. Giving ciplukan juice 1.8 ml/200 g BW effectively reduced the systolic blood pressure of rats with a percentage decrease of 42.21% during the 7 days of treatment.

Processing of ciplukan leaves is by boiling. The processing process is as follows, first 7 leaves and roots are taken each, then washed and boiled in 3 cups of water and allowed to boil until 1 cup of water remains, cooled and the herbal concoction is ready to be consumed.

Garlic (*Allium sativum*)

Based on the results of research conducted by Abdi Iswahyudi (2020) it can be concluded that there is a significant difference in systolic and diastolic blood pressure before and after being given garlic in hypertensive patients where the blood pressure of hypertensive patients experiences a significant difference in systolic blood pressure of 16 mmHg and diastolic of 13 mmHg from previous blood pressure, the results of this study prove that garlic can reduce blood pressure (Abdi, 2020).

Processing of garlic as an herbal concoction does not need to be boiled like soursop leaves or bay leaves. The process of processing garlic in the people of the Sumba tribe is very simple and easy. The processing process so that it is ready for use is as follows, take 1 thinly sliced garlic clove, then put it in a kettle of herbal ingredients and fill it with hot water as much as 1 cup of hot water and then let it soak until the water in the kettle feels a little cold (warm) then the herbal concoction ready to consume.

Moringa leaves (*moringa olifera*)

Traditionally or non-pharmacological treatment of hypertension using Moringa leaf extract (*Moringa aleifera lam*) Moringa trees can grow well in hot to tropical climates such as in Indonesia. This plant has traditionally been used as an antibacterial, anti-cholesterol, laxative, anti-inflammatory, anti-tumor, anti-pyretic, anti-epileptic, anti-ulcer, anti-pasmodic, treating rheumatism (Krisnaldi, 2015). Moringa leaves contain potassium and potassium, both of which are very good for the health of one's blood pressure (Etri, 2018).

Processing of Moringa leaves into herbal ingredients in the people of East Sumba, namely cooking them into vegetables without salt. For the processing process, namely, take and pick the Moringa leaves to taste and then cook it like cooking ordinary vegetables, namely by cooking it clear and not adding salt.

Dosage of Use of Herbal Concoctions

Based on the results of research conducted by researchers, it was found that the consumption of herbal ingredients by respondents 1,2,5 said 3 times in 1 week and in 1 time consumption it could be consumed in the morning, afternoon, evening and night. While respondents 3.4 said 2 times a day, and as for respondents who said they would only consume it when they felt tension in the buckling. In 1 time consumption of herbal ingredients, 1 glass of water is enough, which is equivalent to 300 ml / glass. As for herbal plants such as cipilan leaves that can be consumed or used for bathing by people with high blood pressure, those used as a substitute for water when bathing are cooked in a large pan according to

the water requirements for bathing and can be bathed 3 times a day.

Positive And Negative Impacts Of Using Herbs

Based on the results of research conducted by researchers, the results show that the positive and negative impacts of using herbal ingredients are as follows: The positive impact is that herbal ingredients can be used as an alternative first treatment before going to hospital, while the negative impact is that if herbal ingredients are consumed in excess, they can affect other disease triggers. As for some people say herbal concoctions do not have a negative impact.

The results of this study prove that the people of East Sumba make herbal concoctions the first alternative treatment before patients seek treatment at public health services or doctors. The reason behind the decision making by the people of Sumba is because the distance between health services and doctors is far from the village where the local community lives, so it takes a long journey and a lot of time to immediately seek treatment at community services and doctors. With the existence of herbal ingredients that are known and have been developed in the community to be used as alternative treatments in controlling blood pressure, it has a positive impact on society where people can use herbal ingredients before going to the hospital or doctor for treatment.

CONCLUSION

The results of the research on the perceptions of the Sumbanese people in the use of herbal ingredients in controlling blood pressure in the Sumba community of Temu Village, concluded that:

- 1) It was found that all participants used herbal ingredients to control the high blood pressure they experienced.
- 2) Herbal ingredients are used by the Sumba community because they are considered to be able to lower blood pressure, and the reason behind the decision to use herbal ingredients is because the benefits of herbal ingredients are considered to have potent properties so that they are the choice of the Sumbanese people to use herbs to control blood pressure.
- 3) The decision of the Sumbanese people to use herbal ingredients was because the ingredients in making herbal ingredients were natural and it has become a hereditary tradition in the Sumba community to use herbal ingredients to control blood pressure. The decision was made because it was caused by health services that were far from the local community, so they chose to use herbal ingredients first before going to the hospital for treatment.

- 4) The types of herbal plants used by the Sumbanese people in processing potions to control blood pressure, are as follows: soursop leaves (*Annona Muricata* Linn), jackfruit leaves (*Atrocarpus Heterophyllus* Lam), ciplukan leaves (*Physalis peruviana* L.), moringa (*Moringa Olifera*), lemon grass (*Cymbopogon Citratus*), bay leaves (*syzygium polyanthum*), and garlic (*Allium Sativum*). But the type of herbal plant that is often used by the community is soursop leaves (*Annona Muricata* Linn). For the processing of this herbal concoction is done by boiling, and consumed 3 times in 1 week.

It is recommended for health care workers to be able to make herbal concoctions as an alternative treatment in controlling high blood pressure. For future researchers, it is hoped that this research can be used as a reference source for future researchers in conducting research, especially for researchers who want to research herbal ingredients in controlling blood pressure. The weakness of researchers is that researchers have not been able to scientifically prove in detail that these types of herbal plants are indeed able to control blood pressure. For future researchers, it is hoped that they can prove scientifically that this herbal plant can be used as a treatment to control blood pressure. It is hoped that the community will be able to find information about the treatment of high blood pressure using herbal ingredients that are around us.

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