

## **ETHNOPHARMACEUTICAL STUDY THE MEDICINAL PLANT USE IN FAMILIES OF HYPERTENSION SUFFERS**

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### **Abstract**

**Background:** Indonesian people have long known about the function of plants as traditional medicine in an effort to overcome health problems. Hypertension is a disease that occurs quite often in society, so various efforts are made by the community to overcome this disease. One way is by using medicinal plants. **Objectives:** The aim of this research is to find out the types of plants used by the community to treat hypertension, the parts of the plants used, how they are processed and how to use them. **Method:** This type of research is descriptive using a purposive sampling method. The number of samples obtained in this research was 26 families as respondents. **Result :** The results of the research show that there are 3 medicinal plants used for hypertension, namely Soursop Leaves (*Annona muricata* L), Gerseng Leaves (*Muntingia calabura*) and Jatropha Leaves (*Ricinus communis*). The part of the plant used is the leaves which are processed by boiling. How to use 1 x a day to 2 x a day. **Conclusion:** The conclusion of this research is that there are still many people who use traditional hypertension medicinal plants even though many chemical medicines have been produced.

**Keywords:** Family; Herbal Medicine; Hypertension.

## **BACKGROUND**

Indonesian people have long known the function of plants as traditional medicines in an effort to overcome health problems. Medicinal plants are plants that have medicinal properties and are used as a treatment for healing and preventing disease. Traditional medicine is an ingredient or concoction of ingredients which are plant ingredients, animal ingredients, mineral ingredients, extract preparations or mixtures of these ingredients which have been used for generations for treatment, and can be applied in accordance with the norms applicable in society.

Hypertension is a non-communicable disease (NCD) that is suffered by quite a lot of Indonesian people. Hypertension receives special attention by the Indonesian government, because it is a chronic disease that causes the largest number of deaths and requires quite high costs for treatment. Various efforts have been made by the Indonesian government to overcome the incidence of hypertension, starting from programs that are prevention, early detection, care and treatment.

Plants that have medicinal properties have been used since ancient times by various communities in Indonesia with different levels of knowledge regarding traditional medicine, one of which is the community in Libureng District, Kab. Bone. People in the Libureng sub-district still believe in and use several types of plants which are believed to be medicinal plants.

Based on the background above, researchers are interested in conducting research on ethnopharmaceutical studies of the use of medicinal plants used by families for family members who suffer from hypertension. The aim of this research is to find out the types of plants used by Indonesian people, especially Libureng District, Bone Regency, to treat hypertension

## **METHODS**

This type of research is descriptive using purposive sampling. The number of samples obtained was 26 respondents. The location of the research was in Libureng Village, Bone Regency. This research was conducted in June 2024 with a total sample of 26 families as respondents. The instruments in this research were a questionnaire sheet and an observation sheet including the identity of the respondent, the type of medicinal plant used for hypertension, the part of the plant used and the rules for use

## **RESULTS AND DISCUSSION**

### **RESULTS**

Based on the results of research conducted on the types of medicinal plants used in Libureng District, Bone Regency, the following results were obtained from 26 respondents:

**Table 1** Frequency Distribution Based on Age of Respondents in Pattirongge Hamlet, Libureng Village, Bone Regency in 2024

Age	Number	Percentage
21-30 years old	2	8%
31-40 years old	3	12%
41-50 years old	4	15%
51-60 years old	5	19%
61-70 years old	10	38%
71- 80 years old	2	8%
Total	26	100%

Table 1 shows the frequency distribution based on the age of respondents, namely 21-30 years old 8%, 31-40 years old 12%, 41-50 years old 15%, 51-60 years old 19%, 61-70 years old 38%, and 71 – 80 years old 8%.

**Table 2** Types of Medicinal Plants used by families suffering from hypertension in Pattirongge Hamlet, Libureng Village, Bone Regency in 2024

Plant Type	Amount Used	Percentage
Soursop leaves ( <i>Annona muricata L</i> )	22	85%
Gerseng leaves ( <i>Muntingia Calabura</i> )	2	8%
Jatropha leaves ( <i>Ricinus communis</i> )	2	8%
<b>TOTAL</b>	<b>26</b>	<b>100%</b>

Based on table 2, it shows that 3 types of plants were used as hypertension medicine from 16 respondents, 12 or 85% used soursop leaves (*Annona muricata L*), 2 or 8% Gerseng leaves (*Muntingia Calabura*), and 2 or 8% Jatropha leaves (*Ricinus Communist*).

**Table 3** Part of Medicinal Plants Used by Families Suffering from Hypertension in Pattirongge Hamlet, Libureng Village, Bone Regency in 2024

Plant Parts	Amount Used	Percentage
Leaf	26	100%
Root	0	0%
Trunk	0	0%
TOTAL	26	100%

Based on table 3, it shows that the part of the medicinal plant used by families suffering from hypertension is 100% leaves

**Table 4** How to Use Medicinal Plants for Families Suffering from Hypertension in Pattirongge Hamlet, Libureng Village, Bone Regency in 2024

How To Use	Amount Used	Percentage
1 time a day	18	69%
2 times a day	8	31%
3 times a day	0	0%
TOTAL	26	100%

Based on table 4, it shows that the method of use of medicinal plants used by families for hypertension is once a day, 18 or 69%, and twice a day, 31%.

The frequency distribution based on the age of respondents, 61-70 years old was the most distributed on the age of respondents. It confirmed that someone who was getting older was more likely to hypertension suffered. This is in line with research conducted by Abou (2024) stated hypertension is very common in older persons because aging is associated with arterial stiffness, elevated systolic, and pulse pressure; sodium restriction and weight loss could have negative effects in the very old, for the 60- to 80-year-old individuals, we should propose similar to the middle-aged adults' blood pressure targets by focusing mainly on systolic blood pressure less than 140 mm Hg or even for the most robust systolic blood pressure less than 130 mmHg.

The study showed that the most types of plants were used as hypertension medicine from 16 respondents were soursop leaves (*Annona muricata* L). This is in line with research conducted by Mardiono, et al (2024) declared hypertension was a condition where a person experiences an abnormal increase in blood pressure in systole and diastole. And then, there are many ways to lower blood pressure, one of which is with soursop leaf decoction water. In addition, the results indicated that soursop leaf cooking water can reduce blood pressure in people with hypertension because of the content of antioxidants, potassium ions, which can lower blood pressure in soursop leaves.

The study also showed that the part of the medicinal plant used by families suffering from hypertension is leaves. This is in line with research conducted by Aboua, et al (2024) revealed as used to cure arterial hypertension, the most represented families were leaves (60%) were the most used life form and plant par, respectively.

Moreover, this study showed that the most method of use of medicinal plants used by families for hypertension is once a day. This is in line with research conducted by Budi, et al (2024) claimed consuming locally processed beverages can contribute to managing non-pharmacological hypertension and lowering blood pressure. These beverages include decoctions made one of them soursop leaves regularly day by day.

## CONCLUSION

1. The frequency distribution based on the age of respondents, 61-70 years old was the most distributed on the age of respondents.
2. Based on the types of plants were used as hypertension medicine, the study showed that the most types of plants were soursop leaves (*Annona muricata* L).
3. Based on the part of the medicinal plant used by families suffering from hypertension, the study showed that the part of the medicinal plant used leaves.
4. Based on the method of use of medicinal plants used by families suffering from hypertension, this study showed that the most method of used once a day.

*The 2<sup>nd</sup> Nani Hasanuddin International Health Conference (NHIHC)*  
*“Navigation The Future of Health Care Addressing Challenges and Embracing Innovation in Nursing, Midwifery, Nutrition and Pharmaceutical Profession”*  
The STIKES Nani Hasanuddin, Makassar, August 10-11, 2024

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