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EXPLORATION OF PLANTS WITH THE POTENTIAL OF ANTIHYPERTENSION IN *SUKU ANAK DALAM* (SAD) SUNGAI KIJANG VILLAGE, SUB-DISTRICT OF RAWAS ULU AS A BOOKLET DEVELOPMENT IN THE COMMUNITY

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Abstract

This study aims to determine the types of antihypertensive plants, parts of plants used as medicine, and how medicinal plants are processed by Suku Anak Dalam/ the Anak Dalam tribe in Rawas Ulu sub-district, Sungai Kijang village, and to find out the results of the development of an exploration booklet on antihypertensive plants in the Anak Dalam tribe . Kijang River, Rawas Ulu District. The results of the study found 12 plant species from 10 families. The part of the plant that is most widely used as medicine by the community is the leaf (58.85%), while the other plant parts used are the fruit (30.77%), stem (7.69), rhizomes (7.69%). The most widely used method of processing medicinal plants by the Anak Dalam Tribe community in Sungai Kijang Village, Rawas Ulu District, namely boiling (57.14%), grating (28.57%) and eating directly (14.29%). The results of the development of an exploration booklet for potentially antihypertensive plants in Suku Anak Dalam, Sungai Kijang Village, Rawas Ulu District, were carried out by three validators, namely a material expert validator of 85%, a media expert validator of 83%, a language expert validator of 85% and a community readability questionnaire involving a small group of 10 people The community indicated that the booklet that had been developed was appropriate and did not need revision.

Keywords: *Exploration, Plants, Antihypertension, Booklet*

Introduction

Medicinal plants are substances or components of natural ingredients derived from animals, minerals, plants, or a combination of these substances which have traditionally been used for treatment based on experience. Plants that are used to make relatively safe natural medicines are known as medicinal plants According to Nursiyah (2013:21). This plant has properties that are beneficial to human health. The compounds contained in these plants are alkoloid compounds, flavonoids and other compounds that can prevent and treat various diseases. The content of one of them contained in these plants can overcome hypertension.

According to Riskendes (2013: 193), hypertension is a non-communicable disease with a prevalence of 185,857 cases diagnosed in health care facilities. Because its symptoms are

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often painless, hypertension is known as the "silent killer." Often, patients do not know that they have high blood pressure and only find out when complications occur. Whereas hypertension affects a large proportion of people, it is a very dangerous situation that has the potential to cause members of the public to die suddenly. After stroke and Tuberculosis (TBC) , hypertension is the third leading cause of death in Indonesia, accounting for 6.7% of all deaths among people of all ages. The Anak Dalam Tribe / Suku Anak Dalam (SAD) in Sungai Kijang Village Rawas Ulu District in addressing the need for traditional medicine by planting family medicinal plants (TOGA) in almost every yard of the house , this shows that the people of SAD they still believe in medicinal plants (Darsini 2013:160).

Based on the results of observations and interviews on 28-29 September 2022 in Sungai Kijang Village, there are still many medicinal plants used to treat and treat hypertension, one of which is as follows : basil leaves (*Ocium basilicum*) , celery (*Apium graveolens*) , Garlic (*Alium sativum*) , Cinnamon (*Cinnamomum verum*) , Ginger (*Zingiber officenale*) , and Cardamom (*Elettaria cardamomum*) However, the results of interviews with the Suku Anak Dalam (SAD) in Sungai Kijang Village revealed that bay leaves (Syzygium polyyanthum), avocado (*Persea americana*), and Mahkota Dewa (*Phaleria macrocarpa*) are the most common hypertension medications for the Suku Anak Dalam (SAD) community.) Sungai Kijang Village, Rawas Ulu District.

Material dan method

Place and time of research

This research was conducted in Sungai Kijang Village, which has an area of 1,129 people with an area of 5,565.11 Ha and is still mostly inhabited by approximately 210 people of the Anak Dalam tribe (SAD) . Researchers used a method called "purposive sampling ." Sugiyono emphasized (2016: 85) Purposive sampling is a method for selecting data sources that meet the criteria and have a certain rating. This research was conducted by considering .

Research methods

This research method uses a qualitative descriptive survey method. Data is collected by drawing conclusions from the results of research in qualitative descriptive research. There are 2 types of research used in this study, namely: descriptive research and booklet development. This activity was carried out using a qualitative descriptive approach with observation and interview methods conducted by seeking information from the public using a porposive sampling method.

According to Sugiyono (2016: 65), purposive sampling is a sampling technique with certain considerations. Informants were determined based on their knowledge of medicinal plants or those who were considered experts in medicinal plants, such as traditional leaders, community leaders, herbal medicine sellers, shamans, massage therapists, masseurs, as well as people who knew and used medicinal plants as traditional medicine in the research location. To find out the types of medicinal plants, a direct survey was carried out to the habitat for sampling and then identified. Data regarding the parts used as medicine, the method of

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processing and the uses of each medicinal plant are also recorded, then the results of the data are developed in the form of a booklet.

Data source

a. Primary data

Information obtained from field research on hypertensive plants used by the Suku Anak Dalam (SAD) Sungai Kijang Village, Rawas Ulu District, as well as information obtained from direct interviews with community members regarding the types of plants and parts used in their use. The data collected by the researcher is from the first source. The primary data source in this study is observation.

b. Secondary data

Maps of research locations, sub-district profiles, and library data are some of the secondary data collected from sub-districts (Hariana, A. 2013 : 58) regarding types of medicinal plants, parts used, and processing methods. Secondary data sources, data directly collected by researchers as a support from the first source. The data is in the form of documents.

Result and Discussion

Results

From the results of research conducted in the Anak Dalam Tribe (SAD), Sungai Kijang Village, Rawas Ulu District, there are 12 types of antihypertensive plants, namely bay leaves *(Syzygium polyanthum)* , avocado *(Persea americanan)* , cat's whiskers *(Orthosiphon aristatus)* , noni *(Morinda citrifolia). L)* , Turmeric *(Curcuma domestica)* , Red Betel *(Piper ornatum)* , Guava *(Psidium guajava)* , Papaya *(Carica papaya)* , Crown of the Gods *(Phaleria macrocarpa)* , Celery *(Apium graveolens,* Siamese pumpkin *(Sechium edule)* and Cucumber *(Cucumis sativus)* and 10 families namely *Lauraceae, Caricaeae, Rubiaceae, Thymelaceae, Zingiberaceae, Lamiaceae, Piperaceae, Apiaceae, Myrtaceae* and *Cucurbitaceae.*

Table 1. Types of Antihypertensive Plants In the Anak Dalam Tribe (SAD), Sungai Kijang Village, Rawas Ulu District

No	Plants' name	Family	Part that is used	Processing Method
1	Bay leaf *(Syzygium polyanthum)*	Myrtaceae	Leaf	Boiled
2	Avocado *(Persea american)*	Lauraceae	Leaf	Boiled
3	Cat whiskers *(Orthosiphon aristatus)*	Lamiaceae	Leaf	Boiled
4	Noni *(Morinda citrifolia L)*	Rubiaceae	Fruit	Scar

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5	Turmeric *(Curcuma domestica)*	Zingiberaceae	rhizome	Scar
6	Red Betel *(Piper ornate)*	Piperaceae	Leaf	Boiled
7	Guava *(Psidium guajava)*	Myrtaceae	Leaf	Boiled
8	Celery *(Apium graveolens L)*	Apiaceae	Leaf/ Stem	Boiled/ con direct assumption
9	Papaya *(Carica papaya)*	Caricaceae	Leaf	Boiled
10	God's Crown *(Phaleria macrocarpa)*	Thymelaeaceae	Fruit	Boiled
11	Chayote *(Sechium edule)*	Cucurbitaceae	Fruit	Scar
12	Cucumber *(Cucumis sativus)*	Cucurbitaceae	Fruit	Scar/ Eat Live

Discussion

The results of the study of antihypertensive plants found in the Anak Dalam (SAD) Tribe in Sungai Kijang Village, Rawas Ulu District amounted to 12 species and 10 families. The types of antihypertensive plants that are most widely used by the public to reduce blood pressure are bay leaves *(Syzygium polyanthum)* , avocado *(Persea americanan)* , Cat's Whiskers *(Orthosiphon aristatus)* , Noni *(Morinda citrifolia L)* , Turmeric *(Curcuma domestica)* , Red Betel (Red Betel *). Piper ornatum)* , Guava *(Psidium guajava)* , Papaya *(Carica papaya)* , Mahkota Dewa *(Phaleria macrocarpa)* , because these plants are widely grown in the yard and are used as medicine by the community and contain compounds that are believed to reduce blood pressure/hypertension, this is in accordance with the statement (Kartika, 2015: 40) that these plants contain compounds such as tannins, alkaloids, essential oils which are useful as medicine (Kartika, 2015: 40).

While the plants that are least used by the community to lower blood pressure are Celery *(Apium graveolens,* Siamese pumpkin *(Sechium edule)* and Cucumber *(Cucumis sativus)* because no one has planted these plants in the yard of the house, according to local knowledge these plants are only used as vegetables or fresh vegetables, but many people do not know that the compounds contained in these plants can overcome blood pressure/hypertension. Several plants that are efficacious as antihypertensive drugs based on references have also been found in Suku Anak Dalam (SAD) in Sungai Kijang Village, Rawas Ulu District, but not yet used by the community. Community knowledge is only obtained from their ancestors so that the use of antihypertensive medicinal plants is limited to those that were often used in previous generations. The community uses many types of antihypertensive plants which are known based on traditional knowledge passed down from generation to generation. Then there are also

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plants that are used as hypertension drugs but the results of the study did not find documentation.

Based on the results of interviews with the Suku Anak Dalam (SAD) in Sungai Kijang Village, Rawas Ulu District, the parts of plants used as medicine by the community include leaves, fruit, stems and rhizomes. The part of the plant that is most widely used is the leaf with a percentage of 53.85%, because the substance contained in the leaves is more, and the leaves are more numerous, and it is easier to process with its softer texture than other plant parts. Leaves are also available continuously and are more often used by the community to treat hereditary (Dewi, et al, 2017: 14). This is supported by Sagala (2014: 14) leaves are one of the main parts of a plant which functions as a place for photosynthesis to take place which can produce complex compounds called secondary metabolism, so they are widely used in the health sector. These compounds such as tannins, alkaloids, essential oils which are useful as drugs are stored in the tissues of the leaves (Kartika, 2015:40). while the fewest were rhizomes and stems with a percentage of 7.69%. because the rhizomes and stems have little fiber and processing methods require quite a long time.

The method of processing plants as antihypertensive drugs carried out by the people of the Anak Dalam tribe (SAD) in Sungai Kijang Village, Rawas Ulu District is a simple method, does not require a difficult method, and does not require a long time. Processing of plants as medicine was done by boiling (57.14%), grating (28.57%), and eating directly (14.29%).

The most widely used method of processing plants is by boiling. Based on the results of interviews with the community, boiling is the easiest processing method to do than other processing methods. Processing plants by boiling can reduce the bland and bitter taste compared to being eaten directly, and by boiling it is more sterile because it can kill pathogenic germs or bacteria (Novianti, 2017). The boiling process can remove substances contained in plants and has a very fast reaction when taken (Gunadi, 2017). Whereas by cutting, rubbing, juicing, roasting, or other ways, the healing process can result in a longer time. Medicinal plants are commonly used daily such as spices, herbs and vegetables such as cumin leaves, katu and others (Noor & Zen, 2015). The least used processing method is by eating it directly. According to the community, this method is the least used because the boiled and grated plants are not recommended for direct consumption.

Conclussion

Based on the results of the research conducted, it can be concluded as follows:

a. The types of antihypertensive plants found in the Anak Dalam tribe (SAD) in Sungai Kijang Village, Rawas Ulu District consist of 12 species with 10 families

b. Plant organs used as antihypertensive drugs by the Anak Dalam (SAD) community in Sungai Kijang Village, Rawas Ulu District consist of 4 organs, namely stems, leaves, fruit, and rhizomes.

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c. The method of processing plants used as antihypertensive drugs by the people of the Anak Dalam tribe (SAD) in Sungai Kijang Village, Rawas Ulu District, namely boiled, grated, and eaten directly.

d. The results of the exploration of potentially antihypertensive plants were implemented in the form of a media *booklet* as a source of information, carried out by three validators and community readability tests through trials on 10 people. The percentage of *booklet* validation obtained was validation by material experts 78%, media experts 83%, linguists 85% and the public 91% which means valid and slightly revised from qualitative data, and *the booklet* made was declared fit to be used as a source of information.

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