

Ethnobotany of Traditional Medicinal Plants by the Dayak Kanayatn Ahe Ethnic in Sumiak Hamlet, Landak Regency, West Kalimantan

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Abstract: Indigenous people use wild plants in the forest to meet their daily needs, one of which is medicinal plants, but currently, the use of traditional medicines is decreasing due to the influence of the times. One of the communities that still uses plants as traditional medicine is the Dayak Kanayatn Ahe community. This tribe is one of the dominant tribes in the West Kalimantan region, but most of the medicinal plants used are not widely known, so it is necessary to carry out ethnobotanical research that focuses on studying the relationship between plants and human culture so that the plants used can be identified scientifically. This research approach is qualitative with descriptive methods. Data was obtained through observation, interviews, and documentation. The research results showed that there were 42 types of plants belonging to 31 families that could cure 46 types of diseases or symptoms. The types of herbaceous plants that are most widely used are found in the yard. The parts of the plant used as traditional medicine by the Dayak Kanayatn Ahe tribe are leaves, stems, roots, rhizomes, fruit, seeds, tubers, fruits, bark, and midribs. The decoction is one of the methods commonly used in processing medicinal plants.

Keywords: Dayak Kanayatn Ahe; Ethnobotany; Medicinal plants.

Introduction

Medicinal plants are types of plants that are used as medicine, usually these plants are deliberately planted or grow wild. Medicinal plants are plants in which one or more or even all of their organs have chemical compounds that are used in therapeutic medicine or as precursors for making medicine (Sofowora et al. 2013). Medicinal plants can be found all over the world, but those plants are most abundant in tropical countries (Corlett, 2016). Indonesia is one of the countries which have a large tropical forest. The tropical forests in Indonesia are estimated at 143 million ha where 80% of them are the area for medicinal plants to grow (Elfahmi et al. 2014). Not only rich in biodiversity, but Indonesia is also rich in ethnic and cultural diversity which support the diversity of local and traditional wisdom about the use of plants to cure and treat various types of diseases. Traditional medicine grows and developed by

indigenous peoples and inherited from generation to generation (Susanti & Zuhud 2019; Bago, 2020; Mbuni et al. 2020).

Ethnobotany is the science that studies the relationship between plants and human, which plants are capable of providing benefits to humans such as food, clothing, shelter, religions ceremonies, ornament, and health care (Pandey & Tripathi, 2017). Ethnobotany relates to traditional knowledge and understanding of society in relation to the existing context of local beliefs and culture. Ethnobotany is used by the community to document the traditional knowledge that exists in the community to find out scientifically the knowledge they have to support life, through re-reading the results of research prepared practically by researchers (Hamzah et al., 2023). Indigenous peoples and ethnic groups use thousands of wild plants, and even some of them are not yet known and scientifically named, and hope that in the future, the scientific community will discover a number

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of conventional medicines from plants and natural products for the prevention and treatment of various human and animal diseases (Siraj, 2022).

The Dayak ethnic group is a large community group in West Kalimantan, based on their number, distribution, and role (Supiandi et al. 2019; Supiandi et al. 2021). The population of Dayak ethnic are 30-40 % of the total population of the West Kalimantan community and they have 151 sub-ethnic and 100 sub-sub ethnic (Alloy et al. 2008). The Dayak ethnicity is spread in almost all regions including districts, coastal, and inland areas. The highest number of the Dayak Kanayatn ethnic population was in Landak, Sanggau, and Bengkayang districts (Darmadi 2016). In general, the Dayak sub-tribes are grouped based on the similarity of place of residence and language. Sometimes it is quite difficult to distinguish one from the other, but the differences that if observed closely can be seen in the costumes, ritual ceremonies, language, and even customary laws (Sada et al. 2019). However, more or less similarities can be seen from the customs, arts, and culture (Murhaini and Achmadi 2021). The Dayak Kanyan tribe is divided into several sub-tribes which are grouped based on cultural (language) similarities, such as the Dayak Kanayatn Ahe, Bekatik, Behe, Selakau, Lara, and others (Sada et al. 2019).

The local wisdom of the Dayak ethnicity is reflected in the living and traditions of the Dayak Kanayatn ethnic community, which is a sub-sub-ethnic group of the Dayak Kanayatn in utilizing plants as medicinal ingredients to cure various types of diseases. The information about utilizing plants as medicine are inherited and limited in the Dayak community, information passed on by word of mouth (Tamalene et al. 2016), therefore it is feared that local wisdom. Besides that, the youngest generation is not interested to keeping the information about traditional plants as herbal medicine, forest conversion also decreases the number of plants used as medicinal plants (Haeruddin et al. 2017). This is influenced by the development of technology and information which makes everything faster and easier, so that in general, the younger generation chooses to consume medicines obtained directly from doctors because they feel it is more practical. So, the ethnobotany study of plant utilization as herbal medicine is important to the sustainability of plant preservation, and information could be used as early information for other medical plant research.

The development of ethnobotanical studies is increasingly attracting world attention. This study is important to carry out, because ethnobotanical study is one way to maintaining the local wisdom. Ethnobotanical studies have been done about the needs of food (Susandarini et al. 2021), the health field (Xiong

et al. 2020), clothing (Ramadhanti et al. 2019; Ling et al. 2022), shelter (Fakhrurrozi et al. 2020), and knowledge of traditional medicinal plants (Supiandi et al. 2021), to preserve the world's nature (Susanti and Zuhud 2019; Suwardi et al. 2020).

The Dayak Kanayatn Ahe ethnic group in Sumiak Hamlet still uses plants to treat and cure various types of common diseases, while maintaining traditional medicinal traditions as one of the local wisdom. However, the information about the plant identity is not clear. Considering that the ethnobotany of medicinal plants in Sumiak Hamlet, especially in the Dayak Kanayatn Ahe ethnic community, has never been carried out. So, the aim of this study was to document the types of plants used and how to use them, so it could protect the plant that is almost extinct.

Method

Study area

The research was conducted from on July 2022 in Sumiak Hamlet, Sidas Village, Landak Regency, West Kalimantan Province, Indonesia (Figure 1). The coordinates of the research location is 0°20'34.4" N 109°46'28.2"E. Data obtained from Sidas Village archives in 2020 that Sumiak hamlet consists of 183 households (heads of families) with a total of 650 people consisting of 338 men and 312 women. The majority of the people are indigenous Dayak Kanayant Ahe people and generally work as farmers.

Data collection

This research approach is qualitative with descriptive methods. Data collection methods were based on informant, observation, and documentation. Informants were determined based on information obtained from interviews with community leaders. The main informants are village heads, hamlet heads, and customary heads. Key informants are medicine man, and recommendation informants are people who know the types and methods of processing medicinal plants. The key informants and recommended informants were selected using snowball sampling, this information is obtained from person to person (Bernard 2002).

The steps of this research include: surveys and interviews were conducted with the people of Sumiak Hamlet to find out the medicinal plants, their processing, and use as traditional medicine according to a list of questions (questionnaire); observation, this activity was carried out by direct observation in the field, then it is recorded and data is collected from each plant which includes the local name, place of growth, parts used, method of use, benefits (Martin, 1995; Cunningham, 2001). Documentation, the plant with

pictures/photos of medicinal plants in the field. Making a herbarium; and identification of plants based on herbariums, specimen the identification Biology laboratory of Faculty of Mathematics and Natural Sciences, Universitas Tanjungpura.

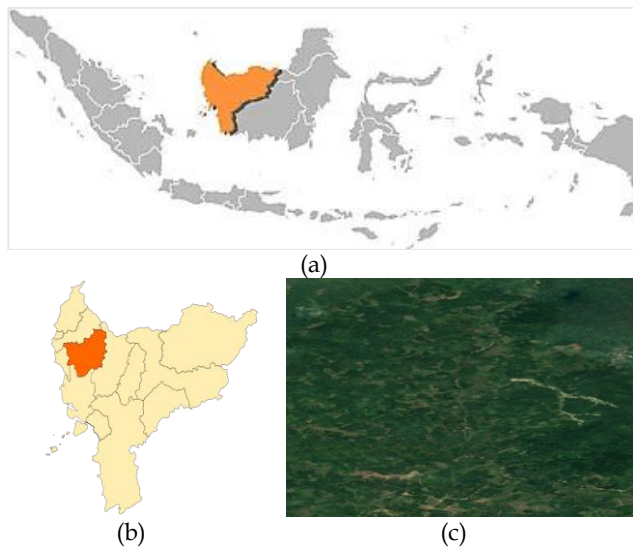


Figure 1. Research location: A. West Kalimantan Island, B. andak District, C. Sumiak Hamlet, Sidas Village, Sengah Temila Sub-district, Indonesia (Skala C = 2000 ft : 1000 m).

Data analysis

Medicinal plant data were analyzed qualitatively descriptive, data analysis stages based on Miles & Huberman (2007) which consist of: data collection, data reduction, data presentation, and drawing conclusions.

Results and Discussion

Types of plant used as Traditional Medicinal Plants

The results of interviews with informants from the Dayak Kanayatn Ahe community in Sumiak Hamlet found that there were 42 types of medicinal plants (Tabel 1). The Dayak Kanayatn Ahe community in Sumiak Hamlet received information about how to use plants as a traditional medicine from their ancestors which were inherited from generation to generation. The dominant medicinal plant species from 31 family groups used by the Dayak Kanayatn Ahe community in Sumiak Hamlet is the Zingiberaceae family (Figure 2), and there is about 14%.

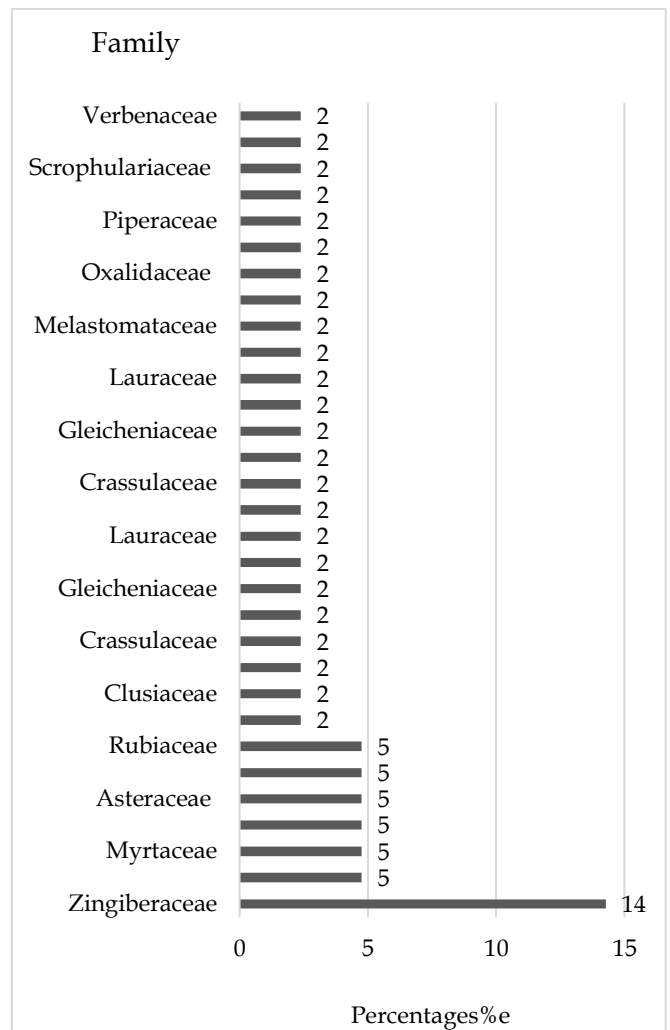


Figure 2. Diagram of grouping medicinal plant species based on family

The Dayak Kanayatn community uses several parts of plants as medicine, including the leaf, rhizome, root, fruit, stem, tuber, all parts of the plant, seed, bark, and midrib (Figure 3a). The leaf is the most widely used part of the plant (46%). Meanwhile, the habitus of medicinal plants found in Sumiak Hamlet dominates from the five habitus found in herbs (48%), followed by trees (26%), shrubs (14%), and palms (5%), as can see in Figure 3b. The people in Sumiak hamlet have varied ways of processing plants as medicine; some are decoction drank, gargled, soaked, compressed, or sprinkled; some are eaten or drunk without being processed, grated, and then drunk the water; some mash and then just rub it on the skin, some are burned over low heat and then rubbed on the skin, pounded and pasted on the affected area, baked and dripped, brewed and then drunk, and cooked and then eaten (Figure 4). The most popular way to process medicinal plants is to Decoction and drink the extract (49%), and the following popular way is to pound them and stick them on the sore area (10%); the

least popular way is to brew and drink, pound them with massages, and without processing they eat them directly (4%).

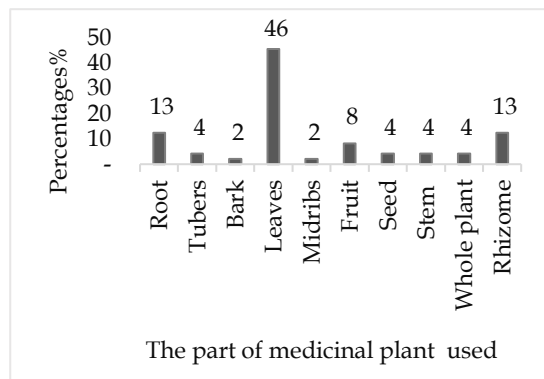
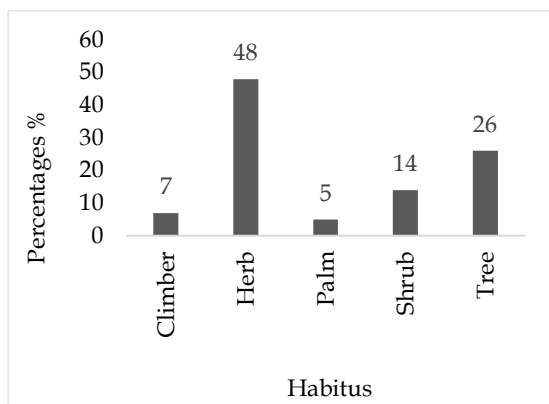


Figure 3. Diagram of grouping medicinal plant species based on the part of the medicinal plant used



(b)

Figure 4. Diagram of grouping medicinal plant species-based habitus

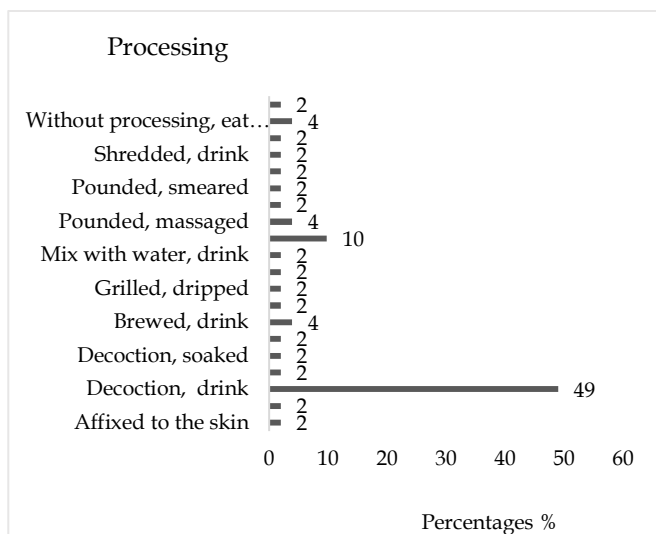


Figure 5. Medicinal plant processing

Discussion

Based on the results of ethnobotany studies, the Dayak Kanayatn Ahe people in Sumiak Hamlet use 42 species of plants as traditional medicines, which group into 31 families; this number is not much different from the number of medicinal plants found in the Dayak community in Jangka, which amounts to 43 species (Supiandi et al., 2021). However, this number is far greater than medicinal plants found in the Village Dayak Community in Sintang, which only amounts to 25 species (Supiandi et al., 2019). The family found was the Zingiberaceae family contained six species. The Zingiberaceae family is also widely used by other community groups, such as the Lampung tribe because this plant has been believed to be hereditary medicine (Yudiyanto et al., 2022).

In addition, Zingiberaceae is mainly used by Dayak Jangkang Tribe, Sanggau District, because used for medicine and seasoning (Supiandi et al., 2021). Zingiberacea is widely used as a medicine because it contains antioxidants, anti-inflammatory (Chumroenphat et al., 2019; Ivanović, Makoter & Razboršek, 2021), anti-virus, anticancer, antimicrobial, and anti-fungal chemical compounds (Danciu et al., 2015; Wang et al., 2018; Kalhoro et al., 2022). The Zingiberaceae family widely use because it grows in many yards and is used as a mixture of ingredients in dishes, apart from containing chemical compounds that are good for health.

Five kinds of plant habitus were used as medicine by the people of Sumiak Hamlet, Landak Regency, including herbs, shrubs, trees, climbers, and palms. Herbs are the most common habits of plants used as traditional medicine containing 20 species, and other habits are trees, shrubs, climbers, and palms. Previous studies also reported that the most common habitus of medicinal plants were herbs in southwestern Nigeria, followed by trees, climbers, and shrubs (Mukaila et al., 2023). Herbal medicinal plants in Pakistan are abundant in number, followed by shrubs and trees, because herbs have various chemical compounds and are easily accessible (Ahmad et al., 2015). Herbs found were more herbal medicinal plants because this type of plant is easy to cultivate without requiring large areas of land, and the amount is abundant.

Table 1. Lists of species of medicinal plants used by the Dayak Kanayatn Ahe

Local name	Scientific name	Family	Plant part	Procedure	Used
Maringkuyit	<i>Fibraurea tinctoria</i> Lour.	Menispermaceae	Root	Brewed, drink	Gastric pains, stomach ache, high blood pressure, hepatitis
Bawang dayak/la'ma	<i>Eleutherine palmifolia</i> L.	Iridaceae	Tubers	Decoction, drink	High blood pressure, a cough
Bawang merah	<i>Allium cepa</i> L.	Liliaceae	Tubers	Pounded, massaged	Have a cold
Barinang	<i>Averrhoa bilimbi</i> L.	Oxalidaceae	Leaves	Decoction, drink	Cholesterol, high blood pressure
Lingkodok	<i>Melastoma malabathricum</i> Bl.	Melastomaceae	Leaves, root	Decoction, drink	Stomachache, cholesterol, high blood pressure
Lalatup	<i>Physalis angulata</i> L.	Solanaceae	Leaves, root	Decoction, drink, gargle	Fever, ulcer, toothache
Cocor bebek	<i>Kalanchoe pinnata</i> L.	Crasulaceae	Leaves	Affixed to the skin, Decoction, drink	Fever, headache, blain, toothache
Angkaras	<i>Aquilaria malaccensis</i> Lamk Gaharu	Thymeleaceae	Leaves	Decoction, drink	High blood pressure
Lahia	<i>Zingiber officinale</i> Roxb	Zingiberaceae	Rhizome	Decoction, drink	Have a cold, sprain, body ache
Jamu batu	<i>Psidium guajava</i> L.	Myrtaceae	Leaves, fruit	Pounded, stick Decoction, drink	Stomachache
Kalapa	<i>Cocos nucifera</i> L.	Arecaceae	Fruit	Without processing, drink	Smallpox
Cakur Punti	<i>Kaempferia galanga</i> L. <i>Chromolaena odorata</i> L. King & H.E. Robins.	Zingiberaceae Asteraceae	Rhizome Leaves	Pounded, stick Pounded, smear	Sprain, body ache Fever, back pain, urinary pain, unclear
Kumis kucing	<i>Orthosiphon stamineus</i> Benth.	Lamiaceae	Whole plant	Decoction, drink	Kidneystone, back pain
Unyit	<i>Curcuma longa</i> Linn	Zingiberaceae	Rhizome	Decoction, shredded, drink	Vaginal discharge, anemia, body ache
Unyit putih	<i>Curcuma zedoaria</i> (Christm.) Roscoe	Zingiberaceae	Rhizome	Decoction, drink	Digestive problem, a cough, cancer
Laban	<i>Vitex pubescens</i> Vahl.	Verbenaceae	Leaves	Decoction, drink	Unclear, a cough, diarrhea
Sarikant	<i>Lansium domesticum</i> Corr.	Meliaceae	Bark	Decoction, drink	Smallfox, fever
Langkong	<i>Alpinia galangal</i> L. Wild.	Zingiberaceae	Rhizome	Rub on the skin	Tinea versicolor, pimple
Jilah buaya	<i>Aloe vera</i> L.	Asphodelaceae	Midribs	Without processing, eat directly	A cough, burns, gastric pain
Siku	<i>Garcinia mangostana</i> L.	Clusiaceae	Fruit	Brewed, drink	Menstrual pain, diabetes, high blood pressure
Lingkudu	<i>Morinda citrifolia</i> L.	Rubiaceae	Leaves, fruit	Decoction, drink	Body ache, stomachache, fever
Paku mamuraja	<i>Blechnum orientale</i> L.	Blechnaceae	Stem	Pounded, stick	Blain
Taboyo	<i>Gleichenia linearis</i> (Burm.f.) Underw.	Gleicheniaceae	Stem	Pounded, stick on the sore area	Fracture
Sahan	<i>Asplenium nidus</i> L.	Aspleniaceae	Leaves	Pounded, stick	Fracture
Panan wangi	<i>Pandanus amaryllifolius</i> Roxb.	Pandanaceae	Root	Decoction, drink	Typhus, high blood pressure
Pecah beling	<i>Strobilanthes crispus</i> Bl.	Acanthaceae	Leaves, root	Pounded, affixed on the bitten part, Decoction, drink	Bitten by snake, bladder calculi, kidneystone
Bati	<i>Carica pepaya</i> L.	Caricaceae	Leaves, root	Decoction, drink	Malaria, wormy

Local name	Scientific name	Family	Plant part	Procedure	Used
Pinang	<i>Areca catechu</i> L.	Aracaceae	Fruit, leaves	Decoction, drink, grilled dripped	Body ache, kidney stone, baby's umbilical cord, wound,
Ube	<i>Syzygium polyanthum</i> (Wight.) Walp.	Myrtaceae	Leaves	Decoction, drink	Diarrhea, high blood pressure
Tibaang	<i>Psychotria viridiflora</i> Reinw. ex. Blum	Rubiaceae	Leaves	Pounded, stick on the sore area, eat directly	Wound, fracture, stomachache, vomiting blood, dysentery
Rumput panyapu	<i>Scoparia dulcis</i> L.	Scrophulariaceae	Whole plant	Decoction, drink	Diabetes, high blood pressure, cholesterol, fever
Patah kamudi	<i>Sonchus Oleraceus</i> L.	Compositae	Leaves	Pounded, smeared, Decoction, drink, compressed,	Burns, bruises, kidney stone
Payabung nyawa	<i>Gynura procumbens</i> (Lour.) Merr.	Asteraceae	Leaves	Decoction, drink	High blood pressure
Salasih	<i>Ocimum basilicum</i> L.	Lamiaceae	Seed	Mix with water, drink	Sprue
Sansank	<i>Pycnarrhena cauliflora</i> (Miers.) Diels.	Menispermaceae	Leaves	Mashed, stick on the sore area	Fever, headache
Manggala	<i>Manihot utilissima</i> Pohl.	Euphorbiaceae	Leaves	Cooked, eaten	Anemia
Karake	<i>Piper betle</i> L.	Piperaceae	Leaves	Decoction, drink, watered, soaked	A cough, vaginal discharge, body odor, sore eye
Nangka belanda	<i>Annona muricata</i> L.	Annonaceae	Leaves	Decoction, drink	High blood pressure
Antamu	<i>Curcuma xanthorrhiza</i> Roxb	Zingiberaceae	Rhizome	Decoction, drink	Cancer, lack of appetite
Tepo tonsan	<i>Eryngium foetidum</i> L.	Apiaceae	Leaves	Decoction, drink	High blood pressure
Taras	<i>Eusideroxylon zwageri</i> Teijsm. et Binnend.	Lauraceae	Seed	Decoction, drink	Heart, Swollen foot

Leaves are part of the plant commonly used in traditional medicine, including in previous studies (Nguyen et al., 2019; Fabie-Agapin, 2020; Hamzah et al., 2022). Leaves are the part that is easier to take than other plant organs; besides that, leaves are abundantly available (Elfrida et al., 2021). In addition, selecting leaf organs from other organs as medicinal ingredients extends the plant life span because the leaves will grow, can be reused, and can be used for continuous use, so the plant will not be damaged. Moreover, leaves can show signs of secondary metabolites due to toxic, repellent, or anti-nutritional effects on herbivores (Qamariah et al., 2020). The leaves are where photosynthesis occurs, so all the nutrients produced with medicinal properties are abundant in the leaves.

Medicinal plants process the Sumiak community by boiling them in water and consuming them by drinking (49%). The Dayak Ahe community believes the Decoction of medicinal plants cures diseases faster because the extracts obtained are more concentrated, especially when consumed with drinking, which can be absorbed directly by the body. Other studies also reported that processing by Decoction was the most commonly used method to prepare herbal medicine

(Hosseini et al., 2021; Nuneza et al., 2021; Mukaila et al., 2023). In addition, drinking is a way to enter the drug directly and quickly into the body, providing a faster reaction. How to drink is a better and more effective way of treating external and internal diseases. The popular way is to pound them and stick them on the sore area (10%); this method is practiced faster and is usually used to treat external diseases such as bruises, wounds from sharp objects, and other diseases. The last popular method is brewing and drinking, mashing with massage, without processing or cleaning it, and then eating directly (4%). In this case, the process of using the same applied by Dayak Desa in Sintang District, where the process of pounding and basting to treat external ailments and boiling and drinking to treat internal ailments (Supiandi et al., 2019).

Medicinal plants found in Sumiak Hamlet can treat 46 types of diseases commonly suffered by the community (Table 1). The most common disease that several types of medicinal plants can treat is high blood pressure (hypertension) amounting to 11 species of medicinal plants used, such as *Annona muricata* L./nangka balanda, and *Aquilaria malaccensis* Lamk Gaharu/Angkaras, *Averrhoa bilimbi* L./Barinang,

Eleutherine palmifolia (L.) Merr./Bawang Dayak, *Fibraurea tinctoria* Lour./Maringkunyit, *Garcinia mangostana* L./Sukun, *Gynura procumbens* (Lour) Merr./Panyambung nyawa, *Melastoma malabathricum* BI /Lingkodok, *Pandanus amaryllifolius* Roxb./Pandan wangi, *Scoparia dulcis* L./Sapu manis, *Syzygium polyanthum* (Wight.) Walp./Ube (salam), *Kalanchoe pinnata* L./Cocor bebek.

High blood pressure is a disease worldwide as a significant factor causing other diseases such as ischemic heart disease, cerebrovascular accident, and other vascular and kidney diseases. This disease causes many deaths worldwide and continues to increase (Mirahmadizadeh et al., 2022). This disease reports that since 1990, hypertension has doubled every year, especially in developing countries with low-income populations (Zhou et al., 2021). High blood pressure causes 40% of deaths from heart disease and 51% of deaths from stroke. High blood pressure is global and one of the most common non-communicable diseases; Indonesian people suffer (46,4%); only about 9% receive adequate treatment (Eff et al., 2020). High blood pressure can prevent with proper control and treatment, so it requires a large amount of money; therefore, people prefer to use medicinal ingredients from plants other than without the side effects of using these drugs to react more quickly in dealing with high blood pressure.

Maringkunyit (*Fibraurea tinctoria* Lour.) is the most effective and fast way to reduce the high blood pressure of the eleven types of plant, one of the typical medicinal plants in the Dayak Kanayatn Ahe ethnic community in Sumiak Hamlet. Maringkunyit is a woody plant, climbing, can grow up to 40 m, with a stem diameter of about 5 cm. This plant is widely used by indigenous people in Asia because it contains chemical compounds rich in antioxidants, anti-inflammatories, and antimicrobials (Galappathie et al., 2014; Purwaningsih et al., 2023). Maringkunyit plant is easy to get and used as a medicine, with a long shelf life. Maringkunyit is easy to use; brew it after the roots are dry. Plants use medicine to treat stomach aches, high blood pressure, and ulcers. This plant has a bitter taste mixed with a little chelate.

Medicinal plants with the same species benefit differently in areas or communities, such as *Eleutherine palmifolia* (L.) Merr. (Bawang Dayak/la'ma) Kayu Tanam community uses it as a breast cancer remedy (Efremila et al., 2015), while Hamlet Sumiak is a cough medicine that lowers high blood pressure. Diseases such as cancer and high blood pressure can be cured by consuming Dayak onions because Dayak onions contain anticancer chemical compounds (Ekawati & Saputri, 2021) and active compounds contained in medicinal plants such as alkaloids, flavonoids, saponins, terpenes, phenolics, catechins, and others are beneficial as an

antihypertensive (Eff et al., 2020; Shabira et al., 2022; Silva et al., 2022). In addition, *Zingiber officinale* Roxb (Lahia) is a medicine for treating swelling from injury and postpartum recovery. *Piper betle* L. (karake) is used for blurred eyes in the Dayak Jangkang community (Supiandi et al., 2021), but in the Dayak Ngaju tribe is used to cure meroyan (Rohmat, Nisyawati & Rahayu, 2019). The Dayak Kanayatn Ahe community in Sumiak Hamlet used it to treat cough, vaginal discharge, body odor, and sore eyes. The difference in the use of plants as medicine is because the knowledge of the people in each ethnicity and region is different, caused by inheritance from their ancestors and different beliefs.

All of the types of plants used as medicine, there are types of plants that are difficult to find in Sumiak Hamlet, Landak Regency at this time, such as the Taras plant (*Eusideroxylon zwageri* Teijsm. et Binnend.). Taras are rare and found in habitats where the forest or vegetation has; they can grow in secondary forests or lowlands up to 625 m asl (Yudaputra et al., 2020). This plant treats heart disease and swollen feet (for internal medicine). The scarcity of this plant causes the handling of this disease to be not optimal because of the facilities, health workers, and insufficient funds. Based on information obtained from informants, in ancient times, the ancestors, whose majority beliefs were animism, used it as a place of worship for spirits. However, over time, many people began to use it for building materials for houses, furniture, ships, and others, so the Taras plant's existence was increasingly threatened (Abdurachman et al., 2022). Taras is a plant with a million uses; apart from being a medicinal plant, the community also uses Taras as a building timber which has resistance to any conditions and a very long strength, so it is also known as ironwood, which has high economic value, so it takes in large quantities without replanting. Only now, there has been a precise and firm handling of Taras plant protection. It hopes that the government and the community will jointly protect and preserve this useful Taras plant.

Conclusion

The medicinal plants found in the Dayak ethnic community of Kanayatn Ahe, Sumiak Hamlet, Landak Regency, amount to 42 species belonging to 31 families (14%) which are mostly found was herb habitus (48%). The parts of the plant that are commonly used are leaf organs (46%). As for the properties that are widely used to treat symptoms/disease of hypertension (high blood pressure), the processing method that is commonly carried out is decoction and then drink (49%), while those that are little used are midrib, bark, fruit peel, and tubers.

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Authors Contribution

Reni Patiola: writing-original draft preparation, result, discussion, methodology, conclusion; Syamswisna and Hayatul Fajri analysis, proofreading, review, and editing.

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Conflicts of Interest

The authors declare that there are no conflicts of interest regarding the publication of this article.

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