

Study Of The Use Of Plants For Treatment In The Community

Ali Rakhman Hakim¹, Mustaqimah²
{alirakhmanhakim@unism.ac.id¹, mustaqimah@unism.ac.id²}

Pharmacy Departement of Sari Mulia University, Banjarmasin, Indonesia^{1,2}

Abstract This study aims to identified parts of plants that are widely used and how they are used by the community to treat diseases. This research is a qualitative research. The research data is obtained by interviewing the community directly. The results of this study are leaves are the most widely used plant parts and how to use them is by boiling. The use of leaves parts from plants for treatment indirectly the community has maintained the preservation of these plants in the community.

Keyword: community, plants, treatment

1 Introduction

Science and technology in medicine and pharmacy are developing very rapidly. This allows the healing process of a disease to take place quickly and safely. Modern urban society has benefited greatly from this development. Communities in the villages also benefit from the advancement of science. However, the people in the village still maintain local wisdom in their area. People in the village still use plants around them to treat a disease and this is included in the field of ethnopharmacology. Ethnopharmacological discoveries and natural medicines remain the foundation of drug discovery at this time. Many modern medicines originate from traditional medicine and ethnopharmacology [1]. Tropical primary forests are often regarded as the most important habitat for traditional communities to collect medicinal plants [2].

2 Research Methods

The research method used was qualitative by interview. The respondents interviewed were people from Banjarmasin, Gambut, Danau Salak, and Banjarbaru. The number of respondents has been determined by researchers by considering the purpose and time available [3] [4]. The information to be obtained during the interview focuses on the name of the plant, the part of the plant used, and the properties of the plant.

3 Result

Table 1. Plant names, Parts used, and benefit

No	Plants	Parts Used	Benefit
1	cocor bebek (<i>Bryophyllum pinnatum</i>)	Leaf	Antipyretics, Antiseptics, Thrush, Ulcers
2	Kembang Sepatu (<i>Hibiscus rosa sinensis</i>)	Leaf	Antipyretics
3	Binahong (<i>Bassela rubra linn</i>)	Leaf	Anti-Inflammatory, Antihypertensive, Antidiabetic Mellitus
4	Tapak Dara (<i>Catharanthus roseus (L) don</i>)	Leaf	Anti Cancer
5	Kencur (<i>Kaempferia galanga L</i>)	Rhizome	Catch A Cold, Cough
6	Suruhan (<i>Paperomia pellucida L</i>)	Leaf	Uric Acid
7	Kumis kucing (<i>Orthosiphon aristatus</i>)	Leaf	Diuretic
8	Beluntas (<i>Pluchea indica</i>)	Leaf	Antihypertensive
9	Meniran (<i>Phyllanthus urinaria</i>)	Leaf	Diuretic
10	Sirsak (<i>Annona muricata</i>)	Leaf	Antihypertensive
11	Ciplukan (<i>Physalis peruviana</i>)	Leaf	Pain In Kidney Stones
12	Jambu biji (<i>Psidium guajava</i>)	Leaf	Antidiarrheal
13	Jahe (<i>Zingiber officinale</i>)	Rhizome	Anti-Inflammatory, Karminativa
14	Mangkogan (<i>Nothopanax scutellarium</i>)	Leaf	Anti-Inflammatory, Antibiotic
15	Belimbing wuluh (<i>Averrhoa bilimbi</i>)	Leaf	Antibiotics, Antifungals
16	Sirih (<i>piper betle</i>)	Leaf	Antipyretic, Antiseptic, Antiinflammatory, Colds, Antihistamines
17	Serai wangi (<i>Cymbopogon nardus</i>)	Leaf	Antiinflammatory
18	Lidah buaya (<i>Aloe barbadensis milleer</i>)	Aloe Vera Meat Slime	To Nourish Hair
19	temulawak (<i>Curcuma xantorrhiza</i>)	Rhizome	Blood Circulation, Appetite Enhancer
20	Sambiloto (<i>Andrographis paniculata</i>)	Leaf	Antihypertensive, Antidiabetic Mellitus

21	Keji Beling (<i>Sericocalyx crispus L</i>)	Leaf	Antiinflammatory
22	Dewandru (<i>Eugenia uniflora</i>)	Leaf	Antihypertensive, Antidiabetic Mellitus, Antihyperlipidemia
23	Papaya (<i>Carica papaya</i>)	Sap And Flowers	Antiseptic
24	Gelinggang (<i>Cassia alata</i>)	Leaf	Antihistamine
25	mengkudu (<i>Morinda citrifolia</i>)	Fruit And Root	Antihypertensive
26	Bawang Putih (<i>Allium Sativum</i>)	Bulbs	Antihypertensive
27	Ketumbar (<i>Coriandri sativum</i>)	Fruit	Colds
28	Singkong (<i>Manihot utilissima</i>)	Leaf	Overcome Anemia
29	bidara (<i>Ziziphus mauritiana</i>)	Leaf	Antiseptic
30	Rumput teki (<i>Cyperus rotundus</i>)	Leaf	Anti Cancer
31	lengkuas (<i>Alpiniagalanga</i>)	Leaf	Antipyretic, Anti- Inflammatory, Uric acid
32	Kelakai (<i>Stenochlaena palustris</i>)	Leaf	Antihypertensive
33	kunyit (<i>Curcuma longa</i>)	Rizhome	Antihistamine
34	Daun ungu (<i>Graptophyllum pictum</i>)	Leaf	Anti hemorrhoids
35	Bunga tasbih (<i>Canna coccinea</i>)	Leaf	Antipyretic
36	Seledri (<i>Apium graveolens</i>)	Leaf	Antihypertensive
37	Katuk (<i>Sauropus androgynous</i>)	Leaf	Facilitate breast milk
38	Pandan (<i>Pandanus amaryllifolius</i>)	Leaf	Antidiabetes Mellitus
39	Jeruk nipis (<i>Citrus Aurantiifolia</i>)	Fruit	Antioxidant
40	Pisang layap (<i>Musa acuminata</i>)	Leaf	Treatment for pioderma
41	kemangi (<i>Ocimum sanctum</i>)	Leaf	Antihypertensive
42	Cabai (<i>Capsicum annaum</i>)	Leaf	Treatmen for abses
43	Betadin (<i>Jatropha multifida Linn</i>)	Leaf	Antiseptic
44	Selasih (<i>Ocimum basilicum</i>)	Seed	Anti-Inflammatory
45	Insulin (<i>Smallanthus sonchifolius</i>)	Leaf	Antidiabetes Mellitus

46	Kolang kaling (<i>Aenga Pinata</i>)	Fruit	Uric acid, Antihyperlipidemia
47	Nanas (<i>Ananas Comosus</i>)	Fruit	Antihyperlipidemia
48	Manggis (<i>Gracinia mangoastana</i>)	Rind	Antibiotik
49	Ilalang (<i>Imperata cylinrica</i>)	Root	Kidney stones, Diuretik
50	Kitolod (<i>Hippobroma longiflora</i>)	Flower	Treatment cataracts
51	pegagan (<i>Centella asiatica</i>)	Leaf	Antioxidant and Antibiotik
52	Lagundi (<i>Vitex trifolia</i>)	Leaf	Anti-Inflammatory and Antioxidant

Table 2. Plants part

No	Plants part	Jumlah
1.	Leaf	36
2.	Others	16

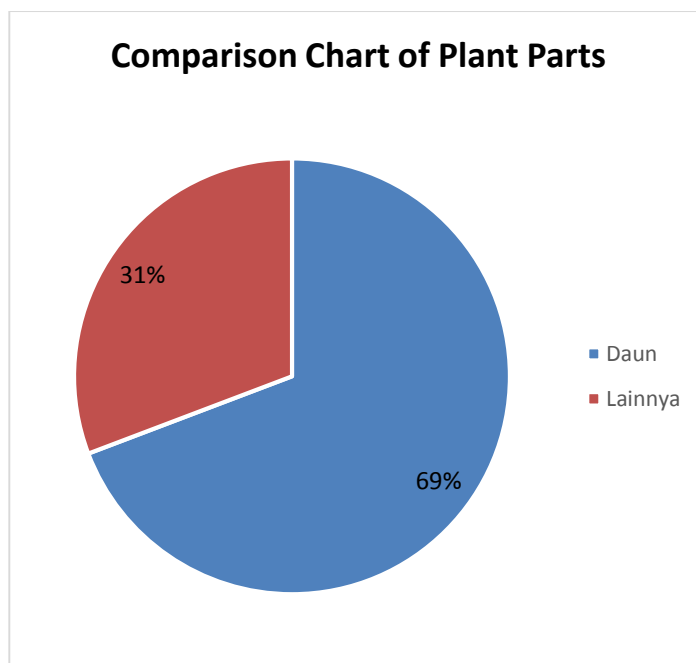


Fig 1. Comparison Chart of Plant Parts

4 Discussion

This study aims to determine the community's habits in using plants as medicine. The people in South Kalimantan have a strong tradition of using plants to cure diseases. This tradition originates from the ancestors and nature of South Kalimantan, which is mostly forest and habitat of various plants. Respondents involved were 52 people and found 52 different plants with different benefits. There is 52 plants used, the leaves are the most widely used parts of the plant with different benefits. A total of 36 types of plants. The traditional use of leaves as a therapy might be due to the fact that leaves are part of plants that are easily picked and traditionally efficacious.

The results showed there were 52 plants that were often used as medicine by the people in Banjarmasin, Gambut, Danau Salak, and Banjarbaru. The results showed a variety of different types of plants but have the same potential to overcome certain health problems. Based on the results of the identification of all plants phytochemical identification tests have been carried out so that it can know the content of secondary metabolites that have the potential as drugs. The identification results show that not all types of plants have been tested preclinically related to their therapeutic activities so that not all plants can be scientifically proven for their medicinal uses. This shows that further research needs to be done in relation to the pre-clinical test of plant effectiveness.

Based on the identification of the most widely used plant parts are leaves. The results of this study are in accordance with previous studies conducted by Zuhud 2009 which showed the leaves are the most widely used plant parts. The results of this study are also in line with the research of Lestari Dewi in Tolai village in 2017 which shows that the most widely used plant parts are leaves. This shows in almost every area of the plant part that is most widely used is the leaves. The results of identification and study of journals show the leaves are the most widely used part of the plant because the leaves are easy to obtain and the processing is easier than other parts of the plant. The results of this study are in line with the 2012 Farhatul study.

Based on the research results it can be concluded that there are 52 types of plants that are used as medicine and the most widely used part is the leaves. The leaves develop from young to mature leaves. The difference in leaf age can affect the content of secondary metabolites of leaves. Young leaves are more often attacked by herbivores. Interactions between plants and environmental factors cause changes in metabolism, regulation of biochemical and physiological processes in plants. Plant defenses against pathogenic microorganisms depend on the innate immune system that is activated as a result of infection. The mechanisms that trigger the innate immune system by first basal immunity are activated as a result of the perception of patterns of microbial-related molecules through pattern recognition receptors located on the cell surface and effector-triggered immunity. Second, biosynthesis induced from bioactive secondary metabolites, specifically phytoalexins, is one of the mechanisms of plant defense against fungal infections [5] [6].

Another factor is because in general the leaves contain flavonoid compounds that function as regulators of photosynthesis, antimicrobial, antiviral, anti-insecticide, and protection against infection in wound tissue.

References

- [1] Patwardhan, B., Ethnopharmacology and drug discovery. *Journal of ethnopharmacology*, 100(1-2), 50-52. (2005).
- [2] Stepp, J. R., & Moerman, D. E., The importance of weeds in ethnopharmacology. *Journal of ethnopharmacology*, 75(1), 19-23. (2001).
- [3] Baker, S. E., Edwards, R., & Doidge, M., How many qualitative interviews is enough?: Expert voices and early career reflections on sampling and cases in qualitative research. (2012).
- [4] Brinkmann, S. *Qualitative interviewing*. Oxford university press. (2013).
- [5] Anna Wojakowska, Dorota Muth, Dorota Narożna, Cezary Mądrzak, Maciej Stobiecki, Piotr Kachlicki., Changes of phenolic secondary metabolite profiles in the reaction of narrow leaf lupin (*Lupinus angustifolius*) plants to infections with *Colletotrichum lupini* fungus or treatment with its toxin. *Metabolomics*. Volume 9, issue 3, 575-589. (2013).
- [6] Tania Brenes-Arguedas, Matthew W. Horton, Phyllis D. Coley, John Lokvam, Rachel A. Waddell, Beatrice E. Meizoso-O'Meara, Thomas A. Kursar, Contrasting mechanisms of secondary metabolite accumulation during leaf development in two tropical tree species with different leaf expansion strategies. *Oecologia*. Volume 149, issue 1, 91-100. (2006).
- [7] Farhatul. 2012. Potensi Tumbuhan Obat di Area kampus II UIN Alaudin Samata Gowa. Makasar
- [8] Zuhud, E. A. M., Hidayat., Potensi Hutan Tropika Indonesia sebagai penyangga bahan obat alam untuk kesehatan bangsa. Jakarta, 2009.