RUMPHIUS PATTIMURA BIOLOGICAL JOURNAL

2020, 2 (2): 60-65 E-ISSN: 2684-804X



TRADITIONAL MEDICINE PLANTS OF WAAI VILLAGE COMMUNITIES, MALUKU PROVINCE

Prichilia Daro¹, Adriana Hiariej^{1*}, Maria Nindatu¹

¹Department of Biology, Universitas Pattimura. Jl. Ir. M. Putuhena, Ambon 97233, Indonesia

*Corresponding Author: hiariejdn@yahoo.com

Received: 19 April 2020 Accepted: 12 August 2020 Published: 25 September 2020

ABSTRACT

This study aims to determine the types of plants used by the village community as traditional medicine and to find out how to use these types of medicinal plants. The research was conducted in Waai Village, Central Maluku District, Salahutu District. This research was conducted using survey methods and interviews with the community using a list of questions. The sampling technique was purposive sampling, the sample was determined as much as 15% of the total village population in Waai which consisted of 1500 heads of families and as many as 225 respondents were designated as heads of families. The results showed that there were 71 species of medicinal plants from 45 families. The most used plant parts are leaves, whole plants, fruit, roots, stems, rhizomes and tubers. Medicinal plants are generally used by the village community to cure ailments, aches and pains and to increase milk production. The utilization process is simple, by boiling, smoking, squeezing, rubbing and grating.

Keywords: medicinal plants, utilization, treatment

To cite this article:

Daro, P., Hiariej, A., Nindatu, M. 2020. Traditional medicine plants of waai village communities, Maluku province. *Rumphius Pattimura Biological Journal*. 2 (2): 60-65. DOI https://doi.org/10.30598/rumphiusv2i2p060-065

INTRODUCTION

Biodiversity is defined as the diversity of plant and animal species in an area on earth. The existence of these species is an integral part of the ecosystem which participates in preserving the environment. In addition, biodiversity is important for humanity as a source of food and traditional medicinal plants. The World Health Organization (WHO) estimates that around 80% of the world's population requires and uses medicines derived from plants. No less than 49,000 plant species have been identified as medicinal plants. About 25% of the world's pharmaceutical products come from tropical plants. All of these medicinal plant species, both in the forest and in the surrounding environment, are used by the community to traditionally treat a disease or health disorder (Supriadi, 2004). Drug is a substance used for diagnosis, treatment, cure or prevention of disease (Ong Lim, 2008). Traditional medicine is medicine that uses ingredients from certain plants found in the surrounding environment which do not contain harmful risks, are easily done or made by anyone anywhere and anytime they are needed (Thomas, 1992).

In the last decade, with the goal of health development, namely the creation of quality human beings and Indonesian society who are advanced and independent, physically and mentally prosperous, the movement to improve health has become a joint determination and effort. In this effort the tendency to explore ancestral culture, namely returning to nature (back to nature) through the use of medicinal plants, needs to be increased (Mahendra, 2005). It turns out that traditional medicines are not only consumed by domestic people but also for foreign consumers. In competition with the progress of modern science and technology which is increasingly rapid and sophisticated, it turns out that it is not able to shift or simply put aside the role of traditional medicinal plants but instead coexist and complement each other (Thomas, 1992). There is support from various parties, both government and private who are competing to conduct various research on medicinal plants that are able to ward off and treat various diseases. Medicinal plants can treat minor illnesses such as coughs to serious illnesses such as cancer (Syukur, 2003).

Exploration results carried out by various parties provide information that several types of medicinal plants have been obtained from Indonesian forests and some have been cultivated. These types of medicinal plants include: Mahkota Dewa (Phaleria macrocarpa Sceff. Boerl), Ginger (Zingiber offcinale Roxb), Noni (Morinda citrifolia L), Cat's Whiskers (Orthosipo naristatus) (Syukur, 2003). The people of Waai Village, Salahutu District, Central Maluku Regency, in their daily lives still use plants that are considered efficacious as traditional medicines to prevent and cure illnesses. The plants used by the community as medicine come from the Waai village environment, both taken from the forest and from the environment around the residents' yards. Until now, Waai village does not have pharmacy facilities. Based on the background stated, the authors are interested in conducting research on the Utilization of Traditional Medicinal Plants by the People of Waai Village, Maluku Province.

METHOD

The method used in this research is a survey method and interviews with the community, where all questions have been made in writing in the form of a list of questions. In the questions there are four closed questions and six open questions. The sampling technique was purposive sampling, the respondents were determined as 15% of the total population of Waai Village, which consisted of eight hamlets totaling 1500 families with 6000 people, so the respondents were determined as many as 225 families. Primary data were obtained by researchers through direct surveys in the field, direct interviews with local people and the use of questionnaires/lists of questions submitted in writing to respondents. Research also obtains information from other sources of literature as secondary data.

Time and Location of Research

The research was conducted from January to March 2011 in Waai Village, Salahutu District, Maluku Regency.

Tools and materials

Procedures

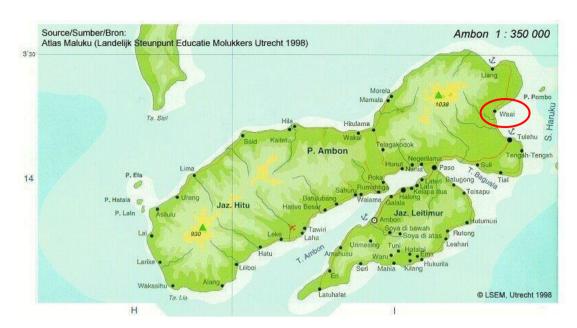
The tools used in this study were: stationery, digital cameras, questionnaires and identification books. The materials used in this study were manila cardboard, newsprint, label paper and medicinal plant specimens.

Preliminary observations at the research location with the aim of getting an overview of the existence of communities using medicinal plants, and the number of heads of households. Conduct interviews with the community, in order to obtain information about medicinal plants. The community or respondents will be given a list of questions that have been provided. All medicinal plants in the location are given a description that distinguishes one type of medicinal plant from another. In conducting a description of these medicinal plants, it begins with giving scientific and local names, as well as their morphology. These medicinal plants are grouped according to their medicinal function. The medicinal plants are identified by referring to the identification book. To obtain utilization data, interviews were carried out according to a list of questions or questionnaires that were carried out.

Data Analysis

The data analysis technique used is descriptive qualitative analysis presenting data clearly by using tables to show the opinion or experience of each member of the community regarding the use of plant parts, types, and how to process them in the utilization of these medicinal plants.

DISCUSSION RESULT Place of this research



Atlas Maluku (LSEM Utrecht, 1998)

Waai Village is located in the Salahutu District, included in the Central Maluku District, Province Maluku. The area is 15 km² which consists of eight hamlets namely Efrata, Talitakumi, Mahalalel, Fajar, Batu Naga, Ujung Batu, Wainuru and Gois hamlets. The population is 6,000 people consisting of 2,860 men and 3,140 women with 1,500 household heads. The people of Waai village have different levels of education, from elementary school to tertiary level. In their daily lives, the people of Waai village generally work as farmers, fishermen, motorcycle taxi drivers, entrepreneurs, drivers, construction workers and as civil servants.

2. Types of Medicinal Plants Used by the Community

Based on the research results and analysis of respondents' answers to the questions in the questionnaire about the types of plants used as traditional medicine, it shows that people have used more than one type of medicinal plant. The results of the study found 71 types of plants used as traditional medicine. As many as 71 types of plants, 9 of which are most used by the Waai village community, which can be seen in Table 1. In Table 1, it can be seen that the type of medicinal plant that is widely used by the community is papaya (Carica papaya), 50 people (22.22%), turmeric (Curcuma domestic Val.) 43 people (19.11%), katuk (Sauropus androgynus) 40 people (17.77%), bitter melon (Momordica charantia) 35 people (15.55%), distance (Jatropha curcas) 33 people (14.66%), avocado (Persea americana) 20 people (8.88%), guava (Psidium guajava) 15 people (6, 66%), cloves (Sysgium aromaticum) 13 people (5.77%) and mayana (Coleus scutellariodes) 11 people (4.88%). Of the 71 types of traditional medicinal plants used, the community generally took them from their yards, namely 219 people (97.33%) and 9 people (4%) took them from the forest.

Table 1. Types of Medicinal Plants that are widely used by the Community

No.	Name Indonesia	Name Local	Name Ilmiah	Frecuensi (f)	Persentace (%)
1.	Pepaya (p)	Papaya	Carica papaya	50	22,22
2.	Turmeric (h)	Kuning	Curcuma domestik Val.	43	19,11
3.	Katuk (p)	Katok	Sauropus androgynus	40	17,77
4.	Pare (h)	Papare	Momordica charantia	35	15,55
5.	Jarak (p)	Jarak	Jatropha curcas	33	14,66
6.	Alpukat (p)	Alvukat	Persea americana	20	8,88
7.	Jambu Biji (p)	Giawas	Psidium guajava	15	6,66
8.	Cengkeh (h)	Cengkeh	Sysgium aromaticum	13	5,77
9.	Mayana (p)	Mayana	Coleus scutellriodes	11	4,88

2. Utilization of Medicinal Plants

The results of the questionnaire analysis and interviews revealed that all respondents, namely 225 people (100%), in each hamlet or sector had used plants as traditional medicine, and the use was different, namely 218 people since childhood (96.88%) while 10 people (4, The other 44%), when they become adults, only use plants as traditional medicine. In the use of medicinal plants, the most respondents obtained information from their parents, namely 217 people (96.44%), but there were also respondents who obtained information from other people, namely as many as 11 people (4.88%).

Based on the results of research on types of medicinal plants, they are widely used for various kinds of complaints, such as diseases, body aches and to facilitate the production of breast milk. The results of the study found that the five most common complaints using traditional medicinal plants were malaria, fever reducer, cough, diarrhea and high blood pressure (Table 2).

Table 2. Use of Medicinal Plants

No.	Name Indonesia	Name Local	Frecuensi (f)	Persentace (%)	Used	
1.	Pepaya	Pepaya	50	22,22	Malaria	
	Pare	Papare	20	8,88		
	Alang-alang	Kusu-kusu	6	2,66		
2.	Katuk	Katok	40	17,77	Memperlancar ASI	
3.	Jarak	Jarak	39 6	17,33 2,66	Penurun Panas	
	Kapas	Kapok				
	Jeruk Nipis	Jeruk Nipis	37	16,66	Batuk	
	Jahe	Halia	6	2,66		
4.	Kakurang	Kakurang	6	2,66		
4.	Serai	Sare	6	2,66		
	Tapak Kuda	Tapak Kuda	6	2,66		
	Mengkudu	Mengkudu	6	2,66		
5.	Jambu Biji	Giawas	30	13,33		
	Sukun	Sukun	6	2,66	Diare	
	Atong	Atong Atong		2,66		
6.	Alvukat	Alvukat	27	12		
	Mentimum	Papinyu	6	2,66	Darah Tinggi	
	Sambung Nyawa	Sambung Nyawa	6	2,66		
	Sambiloto	Sambiloto	6	2,66		

The existence of plants as traditional medicine has been known since thousands of years ago which was passed down from generation to generation (Dharma, 1985). This can also be seen in the statements of respondents who use plants as traditional medicines which have been passed down from generation to generation. Basically the people of Waai village plant medicinal plants because they already know their properties. This is supported by Siswanto (1997), which states that traditional medicinal plants are types of plants that are known or believed by the public to have medicinal properties. Traditional medicinal plants have a dual function, namely they can cure various kinds of diseases ranging from mild to serious illnesses. In this regard, it is also necessary to explain that forests according to the community are plantation areas or hamlets belonging to the community and this is where the community is active in pursuing their work as farmers. Plants planted by the community in these hamlets or plantation areas are generally long-lived plants or production plants that have other functions where parts of these plants such as roots, bark, stems, leaves, fruit or seeds can be used or used as medicine. traditional medicine, while the types of medicinal plants in the residential yards of the population are generally planted or cultivated by the community, some in the form of herbs, vegetables, ornamental flowers, hedges, some in the form of grass plants that grow wild around so as to take advantage of the community can directly take and use it as needed.

Based on research results in utilizing medicinal plants, there are types of medicinal plants that are only used to prevent before there is further treatment at the health center or hospital, but there are also those that treat or cure a disease. Supported by Mangoting (2008), which states that to ward off or treat a disease, it is not absolutely necessary to consume medicinal plants regularly but also to carry out further examinations at the health center or hospital to ascertain the condition of the sufferer.

Based on the results of the analysis of the questions, it is known that it is very closely related to the inheritance of knowledge about the use of medicinal plants from the previous generation or the older generation to the younger generation, in which all respondents answered that they had used plants as traditional medicines both since childhood and when they were adults they used plants as traditional medicines. This is also supported by research Konstantine (2022) which states that differences in age level affect people's knowledge of types of medicinal plants, so that the presentation of the use of plants as medicine is also different. In utilizing or how to use medicinal plants, there are those that are smoked and rubbed, boiled and drunk, squeezed and drunk, rubbed and rubbed, boiled and bathed and then grated and drunk. This is also supported by Muhlisah (2007) which states that the use of medicinal plants is done by boiling, brewing and crushing. In addition, from the analysis of respondents' statements for one type of disease, there is a combination of several types of plants that are put together and then used for treatment, but there is also one type of plant that is used to treat more than one type of disease. Medicinal plants are different from chemical drugs that specifically treat one type of disease because plants have various properties. Examples found in this study are avocado plants which treat high blood pressure and back pain, starfruit which can treat cholesterol, acne and rheumatism.

Utilization of plants that have the potential as traditional medicines generally differs between tribes or regions from one another both in terms of the species or types used as well as the method of concocting these medicinal plants. This difference is due to the socio-cultural background of each region. In connection with this, in the process of taking medicinal plants in Waai village, it was found that there were certain types of medicinal plants which, according to the community, in the process of using or using them had to follow certain rules which were taboos for people who were sick. This assumption occurs in the people of Waai village, for example: Red coconut fruit which is an ingredient for treating people with broken bones. The process of taking from the tree, the coconut should not be dropped to the ground. This is related to the people's belief that if red coconuts fall to the ground, the healing process will not work, but people who still maintain or follow rules that are believed to be able to heal, namely not dropping red coconuts on the ground, the healing process will be successful. This is also supported by Supriadi (2004), which states that people's knowledge about medicinal plants is based on natural cues. Based on the results of the study (Sari, 2007), there are groups of traditional medicinal plants that can cure diseases, namely: antiseptics consisting of beluntas plants and siri plants, antiparasitic guava plants and for hypertension, cancer and liver consisting of papaya plants and Sari using avocado plants, crown of gods and yellow bamboo.

Based on the results of research in the village of Waai there are other plants that can be grouped into traditional medicines, namely antiseptics consisting of areca nut, belimbing wuluh, srikaya, moringa, cloves, salawaku, beluntas, corn, tamarind, banyan and golden trumpet. Antiparasitic plants consist of papaya, bitter gourd, reeds, mayana, turmeric, ciplukan and celery. Hypertension consists of the plants avocado, cucumber, Continuing Life and Sambiloto, cancer consists of the crown of the gods, catangkat while the liver consists of plants such as spinach, yellow bamboo, salam, celery.

Based on research results, there are other plants that can cure other than the types of diseases above, including increasing milk production, diabetes, fever reduction, boils, broken bones, dandruff, rheumatism, kidney cough, epilepsy, cholesterol, burns, digestion, ulcers, psychotherapy and other ailments. Consists of guava plants, lime lemon, hibiscus tree, atong, breadfruit, kakurang, tamarind, mayana leaves, turmeric, riversunga, nutmeg, maniram, cat's whiskers, noni, galangal, kelor, itchy leaves, cotton, red coconut, continued life, golden trumpet, cassava, blue flowers, itchy leaves, greetings, blade grass, ginger, sarees, basil, lotus, papaceda, kakurang, aloe vera, durian, tamarind, chilies, areca nut, bowls, laka, ciplukan, distance, cat whiskers, maniram, katuk, spinach, yellow bamboo, langsa and baugenville flowers.

CONCLUSION

the total number of plants used as traditional medicine in the village of Waai as a whole is 71 types of medicinal plants consisting of 45 families. A total of 71 types of traditional medicinal plants used by the community generally took from the yard of the house, namely 219 people (97.33%) and 9 people (4%) took from the forest. In processing plants as traditional medicine, as many as 112 people (49.77%) by boiling and drinking, 100 people (4.44%) by smoking and pasting, 40 people (17.77%) by pressing and drinking. 35 people (15.55%) by rubbing and smearing, 25 people (11.11%) by boiling and bathing and 10 other people (4.44%) by grating and drinking.

REFERENCES

Supriadi, I. Darwawati. "Indonesian Medicinal Plants". Torch Popular Library. Jakarta. 2004.

Ong Lim. "Effective Medicinal Plants and Herbs". Asia Pustaka Raya Achievement, Jakarta. 2008.

Thomas, A. N. S. "Traditional Medicinal Plants 2", Kanisius, Jogjakarta. 1992.

Mahendra, B. "Effective Medicinal Plants", Self-Help Spreader, Jakarta. 2005.

Syukur, C. and Hernani. 2003. "Commercial Cultivation of Medicinal Plants". Self-Help Spreader, Jakarta.

Nasution, S. "Research Methods". Publisher PT. Literary Earth. Jakarta. 2002.

Subagyo, P. J. "Research Methods in Theory and Practice". Publisher PT. Rineka Cipta Jakarta. 2004.

Dharma, P. A. "Indonesian Traditional Medicinal Plants". PN Balai Pustaka. Jakarta 1985.

Muhlisah, F. "Family Medicinal Plants (TOGA)". Jakarata Self-Help Spreader. 2007.

Agung, S. "Thesis Research Methods". Literary Earth. Jakarta 2002.

Siswanto. "Handling of Commercial Medicinal Plant Harvests". Trubus Agriwadja Jakarta. 1997.

Mangoting, D. Irwan, I. Abdulah, S. "Medicinal Plants". Jakarta Self-Help Spreader. 2008.

Constantine. "Study of Traditional Medicinal Plants in Hatu Village". Thesis. Faculty of Mathematics and Natural Sciences, Pattimura University, Ambon. 2002.

Sari L.O. R. K. "Utilization of traditional medicines with consideration of their benefits and safety". Pharmaceutical Sciences Magazine. 2007.