

Identification of Medicinal Plants and Their Utilization by Community in Kendal Village, Kendal Sub-district

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Abstract

Traditional medicine is a cultural heritage from ancestors deeply rooted in the nation's heritage; therefore, its use is still based on spoken and written experience from generation to generation. Even though most people have turned to modern medicine, some still use these medicinal plants as ingredients for medicine, food, and other processed consumption. This study aims to identify the types of medicinal plants found in Kendal village and how to use them, obtain them, and then transform them into effective medications. This study employs qualitative descriptive methodologies. Observation and interviews are employed to collect data. Based on the results of community interviews, it was determined that many Kendal village residents continue to use plants to treat various diseases. The plant parts utilized are rhizomes, leaves, and stems. This medicinal plant has various uses, ranging from direct consumption to boiling.

Keywords: medicinal plants; traditional medicine; utilization.

INTRODUCTION

The Indonesian archipelago is renowned for its rich biodiversity and diverse agricultural output, which includes medicinal plants. This, supported by fertile soil conditions and a favorable climate, makes Indonesia a potential producer of natural medicinal products (Simbala et al., 2016). Traditional medicine is a cultural inheritance from ancestors deeply rooted in the nation's heritage; therefore, its use is still based on experiences passed down orally and in writing from generation to generation (Takarasel, 2010; Mabel et al., 2016).

Ethnographically, Indonesian society consists of numerous tribes with distinct cultures. This cultural diversity is distinct from one another, particularly concerning the utilization of medicinal plants. This diversity is evident in the types of plants used, the treatment methods, and the diseases that can be cured.

According to World Health Organization (WHO) data, eighty percent of the world's population uses more than 20,000 species of medicinal plants (WHO, 2005). Until 2001, the Plant Conservation Laboratory, Faculty of Forestry, IPB, had documented from various research reports and published materials that no less than 2039 species of medicinal plants originated in Indonesian forests (Zuhud 2009; Mulyani, et al., 2020).

The community's use of medicinal plants ranges from flavoring ingredients to raw materials for the

pharmaceutical and cosmetics industries. In the community health care system, however, the Indonesian people have recognized and utilized medicinal plants to prevent health problems. Some types of medicinal plants found in Indonesia have been patented and mass-produced in other nations to generate substantial profits for the country (Abdullah, 2010; Rizal et al., 2019).

The knowledge of medicinal plants and their use has been passed down from generation to generation until the benefits of these natural medicines have been demonstrated, even though they are not widely acknowledged. Several communities, including the community in Kendal village, have utilized these medicinal plants, illustrating this point. Although the majority of people have switched to modern medicine, there are still those who use these medicinal plants as ingredients for medicines, as well as for food and other processed consumption. This study aims to identify the types of medicinal plants found in Kendal village, as well as how to utilize them, obtain them, and transform them into effective drugs.

METHODS

This study employed qualitative descriptive methodologies. This quantitative study collected data and analyzed the results to obtain conclusive information.

The data was collected through observation and interviews. Observation involves making direct observations in the field alongside respondents to determine the types of plants commonly used for medicinal purposes. Several individuals who knew how to use plants as traditional medicine were interviewed. The interview questions include the plant's local name, the part used, the benefits, and the method of application.

The method of data analysis consists of describing the data collected through observations and interviews with ten Kendal village residents based on two criteria: the use of medicinal plants and the planting of medicinal plants around the residence. The existing data is then presented as a table with local names, scientific names, parts of plants utilized, benefits, and instructions on how to use them.

RESULTS AND DISCUSSION

Medicinal Plant Species

Based on research conducted in Kendal village, Kendal subdistrict, eight medicinal plant species were discovered to be utilized. These medicinal plant species are typically found in the gardens of simple-minded residents. This is because, based on hereditary knowledge from ancestors, intelligent people, or books on medicinal plants, making people aware of the benefits of these plants and cultivating them by simply planting them in their yards, where the maintenance method does not require special maintenance and includes plants that are easy to overgrow, is feasible (Mabel, 2016). The results indicated that residents of Kendal village continue to use medicinal plants to treat various diseases in various ways (Table 1).

Table 1. Types of medicinal plants utilized by community in Kendal village, Kendal sub-district.





No.	Local Name	Scientific Name	Plant Part	Type of Disease	How to Use	Picture
1.	Kunyit	<i>Curcuma longa</i>	Rhizome	Stomach pain and immunity	Turmeric rhizome as much as 2 fingers are pounded and then squeezed until water comes out, then the water is drunk	
2.	Daun sirih	<i>Piper betle</i>	Leaves	Period pain, cholesterol	Betel leaves are boiled with water until it boils then the water is drunk	
3.	Temulawak	<i>Curcuma zanthorriza</i>	Rhizome	Increased appetite, indigestion	Curcuma is pounded and then squeezed until water comes out, then the water is drunk	
4.	Jahe merah	<i>Zingiber officinale</i>	Rhizome	Diabetes, uric acid	Ginger is pounded and then squeezed until water comes out, then the water is drunk	

Table 1. Cont.

No.	Local Name	Scientific Name	Plant Part	Type of Disease	How to Use	Picture
5.	Daun salam	<i>Syzygium polyanthum</i>	Leaves	Uric acid, cholesterol, diabetes	Bay leaves are boiled with water until it boils then the water is drunk	
6.	Daun kelor	<i>Moringa oleifera</i>	Leaves	Eye disease	Moringa leaves as much as 1 handful are boiled with water until boiling then the water is drunk	
7.	Lengkuas	<i>Alpinia galanga</i>	Rhizome	Diabetes	Bring 2 thumb-sized galangal rhizomes to a boil with 2 cups of water.	
8.	Serai	<i>Cymbopogon citratus</i>	Stem	Cholesterol, immunity, uric acid	Lemongrass is soaked in hot water and the water is drunk.	
9.	Lidah buaya	<i>Aloe vera</i>	Leaves (gel)	Skin disease	The outer skin of aloe vera is peeled and then washed and the gel is taken from the aloe vera and then applied to the wound.	
0.	Kencur	<i>Kaempferia galanga</i>	Rhizome	Pain and inflammation	Boil 2 thumb-sized galanga rhizomes with 2 cups of water until boiling and then drink the water.	

The utilized plant parts include rhizomes, leaves and stems. The plant parts that are most frequently used as medicinal plants are rhizomes (up to 5 species), followed by leaves (up to 4 species), and the stem (up to 1 species). The most widely utilized plant part is the

rhizome, as several rhizome plants have anti-microbial, anti-inflammatory, and antibiotic properties that increase endurance (Edy & Ajo, 2020; Setiono, et al., 2022).

Planting rhizome plants is simple and practical because they can be grown in pots and polybags on a

narrow land. The growing conditions for rhizome plants must account for climate, soil, altitude, sunlight requirements, and air temperature (Tarigan, 2020; Setiono, et al., 2022).

Another reason rhizome (herbaceous) plants are common in residential gardens is that their maintenance requirements are relatively low, whereas shrubs and trees undergo a lengthy growth process. In addition, shrubs are regarded as hedge plants because their medicinal applications are poorly understood, so they are rarely used in treatment (Lestari, et al., 2021).

Type of Disease

Based on interviews with ten Kendal village residents, it was determined that many villagers continue to use plants to treat various diseases. The community learns how to use medicinal plants based on inherited knowledge from ancestors, intelligent people, and neighbors who know how to use them. The use of medicinal plants is also highly varied, ranging from direct consumption to boiling and drinking boiled water.

In general, there are two types of treatment administered by the community: treatment for internal diseases and treatment of external illnesses. External treatment includes skin diseases, toothaches, eye conditions, and wounds. In contrast, internal diseases are treated by ingesting or drinking a portion of a medicinal plant (Hidayat, et al. 2010; Mulyani, et al. 2020).

CONCLUSION

Based on the research conducted, it can be concluded that the use of medicinal plants by the Kendal village community has been passed down through the generations. In general, these medicinal plants are

cultivated in backyards. Turmeric, galanga, curcuma, betel leaves, bay leaves, aloe vera, lemongrass, moringa leaves, and red ginger are the plant species found. The use of these medicinal plants is also quite diverse, ranging from direct consumption to the decoction and maceration of the plant parts.

Competing Interests: The authors declared that they have no competing interests.

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