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Counseling of the Use of Herbal Medicines for Health Care to the Community

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ABSTRACT

Herbal medicine is growing quite rapidly, especially in every area that has traditional medicine using natural ingredients that are believed to treat disease. In addition, the use of herbal medicines is believed to have fewer side effects compared to conventional medicine. WHO also recommends the use of traditional and herbal medicines in efforts to maintain health, as well as prevent and treat diseases ranging from mild to chronic diseases. Based on the various problems faced, the purpose of implementing community service is to increase public knowledge and understanding of medicinal plants, independent health screening, and self-medication, and the role of supplements (vitamins and herbs) in health care and disease prevention efforts.

1. Introduction

Changes in lifestyle that occur in today's society cause various health problems. Lack of physical activity and the consumption of foods that contain high salt levels and low nutrients make the metabolism of the human body decrease in function and cause changes in body cells. This is the background for the emergence of various degenerative diseases in the elderly as well as young and productive people. Based on research conducted in 2002 and 2012, people with type 1 diabetes at the age of fewer than 20 years experienced an increase of 1.4% per year, and a similar trend occurred throughout the world.¹ Research conducted in China and India also showed an increase of 14.1% in patients with hypertension

from 1991-2007 at the age of 18-29 years and about 28.5% in the age range of 30-39 years.² According to the World Health Organization (WHO), in 2014, as many as 8.5% of people with type 2 diabetes were patients aged 18 years.³ In addition, obesity, cardiovascular diseases, and acute respiratory infections have also become the greatest threat to public health today.

To prevent the occurrence of these degenerative diseases, people's lifestyles must change into balanced lifestyles. Nutrition and energy needs must be met properly so that the decline in body functions can be avoided. In addition to prevention efforts, treatment efforts also need to be considered to reduce the risk posed by the disease. Treatment that can be carried

out by the community can be done using generic drugs and drugs from doctor's prescriptions as well as herbal remedies from herbal plants. Currently, traditional medicine using natural ingredients is growing quite rapidly in Indonesian society. This is because treatment using herbal medicines is believed to have few side effects and is easier to reach when compared to using conventional medicines. The use of herbal medicines has been recommended by WHO as an effort to maintain health, as well as to prevent and treat various mild to chronic diseases.⁴ The use of herbal medicines or traditional medicines is also recommended by the Indonesian Ministry of Health in Circular Number HK.02.02/IV.2243/2020 concerning the use of traditional medicines for health maintenance, disease prevention, and health care.

The use of traditional medicines is widely used by people in Indonesia. Indonesia is one of the countries with a high diversity of herbal plants, so the use of plants as herbal medicines has been widely practiced and has become a recipe for generations. Some traditional medicinal plants that are easily found in the yards of Indonesian people are turmeric (*Curcuma domestica*), Curcuma (*Curcuma xanthorrhiza Roxb.*), aromatic ginger (*Kaempferia galanga L.*), ginger (*Zingiber officinale*), galangal (*Alpinia galanga*), bay leaf, noni, cat's whiskers (*Orthosiphon aristatus*), the crown of the gods, jasmine (*Jasminum officinale*), papaya (*Carica papaya L.*) asoka (*Saraca indica*), tapak dara, cocor bebek, guava (*Psidium guajava L.*), bitter melon, lime (*Citrus aurantifolia*), star fruit (*Averrhoa carambola*), reeds, aloe vera (*Aloe vera L.*), sweet potato and beluntas can be selected as family medicinal plants to prevent and treat various types of diseases.⁵

Although the use of traditional medicines is relatively simple and easy to do, however, many people still do not understand the correct use of medicinal plants, do not know the efficacy of each medicinal plant consumed, and the difficulty of obtaining medicinal plants that suit their needs. The use of medicinal plants must be done properly to avoid negative impacts. Although it does not cause harmful side effects, if consumed in excess, this medicinal

plant can cause various damage to the function of the body's organs, especially the kidneys. Therefore, to overcome these problems, it is necessary to conduct outreach activities related to the use of herbal medicines in the wider community. By increasing public knowledge and understanding of medicinal plants, independent health screening, and self-medication, as well as the role of supplements (vitamins and herbal medicines) in health maintenance, prevention, and treatment of disease, it is hoped that the level of public health can increase and avoid various threats of diseases that exist today.

2. Methods

This community service activity starts from the preparation of proposals, preparation, implementation, and preparation of the final report. It takes 6 months, with the peak of the activity being carried out in October 2021 using the Zoom Meeting application online media. The target of the activity includes the people of Palembang city to increase their knowledge and understanding of medicinal plants, independent health screening and self-medication, and the role of supplements (vitamins and herbs) in health care and disease prevention efforts.

The implementation of the community service team this time consisted of 6 lecturers, including one chairperson and five members, also supported by 6 students. All of the lecturers involved are lecturers from the pharmacology section at the Faculty of Medicine, Universitas Sriwijaya. The solution to solving the problems offered is comprehensive health education, including pharmacology aspects to the community, that can be used as a solution to the problems above. Evaluation of activities will be carried out by direct observation of participants, discussions, questions and answers, and questionnaires.

3. Results and Discussion

Traditional medicine in Indonesia

Medicinal plants that are spread in various regions in Indonesia are widely used as traditional medicines to overcome various problems of minor ailments and

even chronic diseases. This plant is processed by various methods mixed with natural ingredients to produce the right drug formulation and does not give side effects to the user. In general, traditional medicines in Indonesia are divided into three types and are distinguished by different logos (Figure 1), which include the following:

Herbs

Herbs are a type of traditional medicine made from natural ingredients with a simple dosage form in the form of slices, leaves, dried roots, or simplicia efficacious empirically. Herbal remedies usually do not require laboratory testing.

Standardized herbal medicine (OHT)

This medicine is derived from natural ingredients

whose raw materials are standardized, safe, and have been scientifically tested for their efficacy through preclinical tests to determine the effectiveness, safety, and dangers caused. OHT has a significant difference from herbal medicine. In OHT, all manufacturing processes are standardized and use advanced technology, while herbal medicine is only made more simply.

Phytopharmaca

Phytopharmaca is a type of traditional medicine derived from natural ingredients whose raw materials and finished products are standardized, safe, and have been scientifically tested for their efficacy through clinical trials. This type of traditional medicine can be equated with chemical drugs because it has been clinically tested on humans.



Figure 1. Logo of traditional medicine in Indonesia.

Types and efficacy of medicinal plants in Indonesia

Based on Law Number 13 of 2010 concerning Horticulture, medicinal plants are classified into horticultural plant groups, namely plants that produce fruit, vegetables, vegetable medicinal ingredients, floriculture, mushrooms, moss, and aquatic plants that function as vegetables. Medicinal plants are types of plants that have certain properties for treatment.⁶ In the Decree of the Minister of Agriculture No. 511/Kpts/PD/310/9/2006, there are 66 types of medicinal plants in Indonesia that can be used for traditional medicine and as healing media. Most types of medicinal plants in Indonesia have been cultivated by the community and have become family medicinal plants (TOGA). However, some types of

plants are still scattered and growing wild in various regions in Indonesia. TOGA is a means that can be done by the community to maximize the function of medicinal plants in public health, starting from preventive and promotive to accurate steps.⁷ In addition, TOGA also functions to cultivate medicinal plants that are already rare and also as a greening step in residential areas.

The habits of the Indonesian people in using medicinal plants to treat various diseases have not all been clinically tested. However, it is considered effective in reducing the symptoms caused by the disease and as a means to increase the body's immunity. Therefore, it is very important to know the properties provided by each medicinal plant in

overcoming the disease. This aims to avoid the use of medicinal plants that are not suitable and avoid various negative impacts. The public must know what are the basic functions of each medicinal plant,

especially TOGA, and how to use it so that the benefits obtained are more optimal. Here are some types of medicinal plants in Indonesia and their functions in overcoming health complaints (Table 1).

Table 1. Types of medicinal plants and their benefits.⁸

Names of Plants	Parts Used	Processing	Benefits
Turmeric (<i>Curcuma longa</i>)	Rhizome	pounded, dissolved in hot water	Promotes menstruation, reduces hypertension, and digestive disorders
Aromatic ginger (<i>Kaempferia galangal</i>)	wood	pounded, dissolved in hot water	as the cough, diarrhea, and fever
Curcuma (<i>Curcuma zanthorrhiza</i>)	Rhizome	pounded, dissolved in hot water	Prevention of liver disease and appetite enhancer
Tamarind (<i>Tamarindus indica</i>)	Fruit	dissolved in hot water	Bitter taste antidote, lose weight, smooth digestion and stomach
Papaya (<i>Carica papaya</i>)	Leaves	pounded, dissolved in hot water	Increase appetite and improve digestion
Mangosteen (<i>Garcinia mangostana</i>)	Peel of fruit	pounded, dissolved in hot water	Lowers cholesterol levels
Soursop (<i>Annona muricata</i>)	Leaves	pounded, dissolved in hot water	Lower cholesterol and uric acid levels
Moringa (<i>Moringa oleifera</i>)	leaves	pounded, dissolved in hot water	As an antioxidant
Brotowali (<i>Tinospora cordifolia</i>)	leaves	pounded, dissolved in hot water	Itchy and clean blood remedies
Cinnamon (<i>Cinnamomum verum</i>)	Wood	pounded, dissolved in hot water	Regulates blood sugar, cholesterol, and clotting blood levels
Coconut (<i>Cocos nucifera</i>)	Water and fruit	Directly drunk and eaten	As an antidote
Betel (<i>Piper betle</i>)	Leaves	boiled and filtered	As cough medicine, thrush, acne, and vaginal discharge
Ginger (<i>Zingiber officinale</i>)	Rhizome	pounded, dissolved in hot water, filtered	As body warmer
Red ginger (<i>Zingiber officinale var rubrum rhizome</i>)	Rhizome	Pounded, given water and sugar, boiled, and then filtered	Treating influenza, asthma, colds and improving blood circulation
Rosella (<i>Hibiscus sabdariffa</i>)	Flowers	Drying, pounding, dissolving in hot water, and filtered	Preventing cancer and lowering blood pressure

Utilization of traditional medicine for health maintenance, disease prevention, and health care

In the Ministry of Health Circular Letter According to the Decree of the Republic of Indonesia Number HK.02.02/IV.2243/2020, various types of medicinal plants can be used as traditional medicines that can be used for health maintenance, disease prevention, and health care. Utilization of medicinal plants must pay attention to general instructions for use following the Decree of the Minister of Health Number HK.01.07/Menkes/655/2017 concerning Indonesian

Herbal Pharmacopoeia Edition II. The usage instructions that need to be considered are as follows; Utilization of medicinal plants in the form of fresh preparations must select the type of plant, the composition of the material, and the right dose. In the processing of medicinal plants, it is also necessary to pay attention to the cleanliness of the equipment used and the correct and good processing methods. Consumption of these traditional medicines must also be consumed in one day to avoid material damage. The use of traditional medicines in the form of finished

preparations must pay attention to the distribution permit from the Food and Drug Supervisory Agency (BPOM) and the information contained in the packaging. The physical form and condition of the packaging must be ensured that it is still in good condition. Traditional medicine or medicinal plants should not be used in emergency and potentially life-threatening situations. Consultation with a doctor is highly recommended if the complaint has not been resolved or other complaints occur.

To optimize the function of medicinal plants, the utilization of these medicinal plants can refer to the Indonesian Traditional Medicine Formulary (FROTI). While the use of chemical or conventional drugs together with traditional medicinal ingredients must obtain prior approval from a doctor.

Medicinal plants have various properties and wide benefits for the health of the body. The utilization of medicinal plants, in general, can be used to help increase endurance, but some herbs can also be used to cure various types of diseases. Here are some types of diseases that are usually cured by using medicinal plants.⁹

Diabetes mellitus

Medicinal plants that can be used to treat diabetes include sweet star fruit mixed with water and honey.

Diarrhea

Some medicinal plants can be used to treat diarrhea, such as tongue-in-law, which is boiled in hot water, and star fruit leaves which are chewed raw. Jasmine by mashing and drinking, and boiled *calincing*.

Hypertension

In the treatment of hypertension, medicinal plants that can be used are *suji leaves*, starfruit leaves, *calincing*, star fruit leaves, *mindil* leaves, crown of the gods, and *sambiloto*.

Gout arthritis

Medicinal plants such as decoction of soursop leaves, sunflower seeds, celery seeds and leaves, *rane* leaves, cinnamon, cat's whiskers, mangosteen peel, bay leaves and *tempuyang* leaves are some examples of plants that can be used to reduce the symptoms caused by gout.

Flu and cough

Traditionally, flu can be treated by drinking boiled tongue-in-law, star fruit brewed with hot water, ground jasmine, and boiled *calincing*. As for coughs, symptoms can be reduced by drinking *cengkakak* decoction, red ginger, and noni juice, chewed betel and betel half-boiled.

Besides being used to cure diseases, some medicinal herbs from traditional plants can also be used to increase immunity. Table 2 is some examples of medicinal plant ingredients that can be used to increase immunity based on the Circular Letter of the Ministry of Health of the Republic of Indonesia Number HK.02.02/IV.2243/2020.

Herbal medicine counseling activities for the community

Herbal medicine counseling activities for the community need to be carried out to provide public understanding and knowledge of the benefits of medicinal plants and how to use and use them. It aims to optimize the function of medicinal plants for health maintenance, disease prevention, and health care in the community. In addition, the existence of outreach activities also serves as a means and an effort to increase public awareness in maintaining the health of themselves and their families by utilizing natural materials that are around the home environment. In this herbal medicine counseling activity, the public can find out how the classification of herbal medicines in Indonesia, the types of medicinal plants and their benefits for body health, as well as how to use medicinal plants for health maintenance, disease prevention, and health care in the community.

Table 2. Medicinal plant ingredients to increase immunity.¹⁰⁻¹²

	Potion 1	Potion 2	Potion 3
Ingredients	- Red ginger (2 thumb segments) - Lime (1 piece) - Cinnamon (3 fingers) - Brown sugar (sufficiently) - Water (3 cups)	-Turmeric (1 thumb segment) -Galangal (1 thumb segment) - Lime (1 piece) - Water (3 cups) - Brown sugar (sufficiently)	- <i>Gotu Kola</i> (1 pinch) - Red Ginger (1 thumb segment) - <i>Temulawak</i> (1 slice) - Palm sugar (sufficiently) - Water (1.5 cups)
Preparation Method	Wash all ingredients, and wash and crush red ginger. Boil the water until it releases much steam, reduce the heat, and boil all the prepared ingredients together with brown sugar for 15 minutes. Strain cold.	Wash all ingredients, turmeric and galangal crushed. Bring water to a boil, reduce heat and add all ingredients. Wait a few moments and strain in the cold.	<i>Gotu kola</i> washed clean. Bring water to a boil, reduce heat, and add all ingredients. Wait until the remaining 2 cups of water cool and filtered. Then add the lime juice.
How to use	Herb is taken 1 time a day as much as 1 cup.	Herb is taken 2 times a day, as much as 1 cup.	Drink 2 times a day as much as 1 cup.

4. Conclusion

Counseling on herbal medicines to the community is one of the efforts needed to increase the understanding and knowledge of the Indonesian people on the benefits and efficacy of herbal medicines for body health. As an initial understanding, the public must know the types of herbal medicines that exist in Indonesia, the types of medicinal plants and their properties, and how to use and use them. Some of these points need to become general knowledge to optimize the function of medicinal plants for the health of the body and the community. Medicinal plants in Indonesia are one of the facilities that can be used by the community for health maintenance and treatment of various types of diseases. By paying attention to the efficacy of each medicinal plant, the proper way of using it, and the appropriate dose of consumption, the health of the public body can be improved, and the risk of degenerative diseases can be reduced.

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