Empowerment of Women Farmers Groups (KWT) in Efforts to Utilize Medicinal Plants (Biofarmaka) in Randusongo, Turi

Aji Winanta¹*, Rifki Febriansah¹, Annisa Krisridwany¹, Ira Angreani¹ and Muhammad Zufar Ghazani Manggala²

¹Department of Pharmaceutical Biology, Faculty of Medicine and Health Sciences, Universitas Muhammadiyah Yogyakarta, 55183, Indonesia
²Department of Agrotechnology, Faculty of Agriculture, Universitas Muhammadiyah Yogyakarta, 55183, Indonesia

Abstract. Drugs are substances that can be used to cure disease. Synthetic drugs in the process of work usually cause unwanted side effects. Therefore, people usually switch to medicinal plants. Medicinal plants are alternatives to plants that are cultivated in the yard of the house and are used as a source of family medicine. The farmer women's group in Randusongo, Donokerto, Turi has already used their yard but has not yet been directed towards cultivating medicinal plants specifically. This is becoming the initial plan to empower farmer women's groups in the cultivation of medicinal plants. The purpose of this service is to increase the empowerment of women farmers in utilizing agricultural land through the cultivation of medicinal plants. The program implementation method was preceded by environmental observation, then the program implementation uses lecture/discussion methods, training, demonstrations, and cultivation assistance. Evaluation was carried out at the beginning and end of the activity through the Pre-Test and Post-test. The results of the service activities show that the service partners begin to understand the use of several family medicinal plants. Based on data from 13 KWT administrators, it is shown that there was an increase in the average pre-test and post-test scores from 46.2 to 85.4. Service partners have also begun to use medicinal plants such as emprit ginger, white turmeric, and black kencur. In the future, these three plants will become the main priority to be developed in the area.

Keywords: KWT, Biofarmaka, medical plants

1 Introduction

Padukuhan Randusongo is located in the southernmost area of the village of Donokerto, Turi. Padukuhan Randusongo is one of the 16 hamlets in Donokerto. The location is at the foot of Mount Merapi. Randusongo hamlet consists of 4 RT and 2 RW. The total population is 623 people. Most of the livelihoods of the population in Padukuhan Randusongo are still in the agricultural sector. This shows that the agricultural sector plays an important role in the community's economy. The wealth of natural resources in Randusongo is very supportive in terms of economic and socio-cultural development. There are various routine activities for residents in Randusongo hamlet, such as posyandu, posbindu, routine recitation, health checks, and social gatherings.

* Corresponding author: ajiwinanta@umy.ac.id
Communities in Randusongo generally have quite large yards, so the use and management of the environment can be optimized by planting medicinal plants. In general, people use their yards by planting coconut trees and fruits, such as bananas, mangoes, rambutans, etc., the yields of which can only be obtained once a year during the harvest season. In the harvest season, the price of these fruits is low. In addition, the existence of these plants is allowed to grow without proper maintenance, so the results are also not optimal. This potential, if empowered, will provide economic benefits, which is helping to increase family income. The use of plants as medicine has always been in demand by the village community, this is indicated by the many traditional healing places and the many traditional medicinal products circulating among the community, which are commonly called herbs. Indonesian people have long used plants as medicine or for health maintenance which have been passed down over generations. People believe that medicinal plants are very effective in curing diseases. Medicinal plants are also believed to have relatively small side effects (Sasmito, 2017).

Herbs in everyday life are commonly known as spices. Herbs can play a role in first aid for health problems and are proven to be effective in curing various kinds of diseases, even diseases that are almost incurable, although there is still a chance that they can be cured using herbal ingredients. This is because treatment with herbs is easier for the body to accept so recovery can be faster. The purpose of this service is to increase the understanding and skills of farmer women's groups (KWT) in cultivating medicinal plants through counselling activities and increase knowledge on how to cultivate and maintain medicinal plants and structuring the use of yards for cultivating medicinal plants.

2 Methodology

The community service activities were held in February 2023 at the Padukuhan Randusongo pavilion. The target audience for this activity was a group of women farmers (KWT). The implementation of this service activity used 4 methods, namely:

2.1 Observation Method

Observation is an activity of direct observation of the object of research. Riyanto (2010) argues that "Observation is part of a data collection method that uses observation of parts of the research object." Meanwhile, according to Hadi in Sugiyono (2012), "Observation is a part of a complex process, a process composed of various biological and psychological processes. Observation is used by researchers as a way to collect data through direct observation in the field. Observations were carried out by surveying KWT mothers and identifying those who had and had not used the yard as TOGA.

2.2 Extension Methods

Before training and practicing medicinal cultivation, efforts to increase KWT members' understanding of the types, cultivation, and uses of medicinal plants were carried out in the form of counselling. This counselling was preceded by a pre-test to determine the level of understanding of the target audience. KWT members were given the types of plants commonly used for medicinal plants and the health benefits they give. In addition, the participants were explained how to process it.

2.3 Medicinal Plant Planting Training

After the community and KWT have understood the cultivation and use of medicinal plants through counselling, the practice of planting medicinal plants on the media that has been prepared was carried out.

2.4 Assistance and Evaluation

Assistance and evaluation were carried out on the results of counselling activities, planting practices, and family medicinal plant maintenance so that the activity objectives were achieved and there were improvements if problems were found. Evaluation was also
carried out by assessing the level of community understanding of the activities that had been carried out.

3 Result and Discussion

The implementation of the community service entitled "Empowering Women Farmer Groups (KWT) in Efforts to Utilize Medicinal Plants (Biofarmaka) in Randusongo Hamlet" was carried out on February 3, 2023. The community service activity was preceded by observing the need for the implementation of medicinal plant cultivation. From the results of observations, it is also known that in Randusongo hamlet it has been formed but there has been no activity.

A. Approval of the formation of KWT "Wirasari" in Randusongo

To encourage the activities at the KWT Wirasari in Randusongo hamlet, an activity was held in which the Department of Agriculture, Food and Fisheries UPT Region 5 submitted an endorsement certificate for the KWT Wirasari.

![Fig. 1. Submission of the Wirasari KWT certificate to the KWT chairman.](image)

The hope is that after KWT Wirasari has been officially recognized by the agriculture, food, and fisheries service, it will make it easier to submit activities and grants from the government. In addition, it also makes KWT Wirasari management and members more active in carrying out activities.

B. Education and Practice of Planting Medicinal Plants

The provision of education and practice of planting medicinal plants was provided by representatives from the Department of Agriculture, Food and Fisheries UPT Region 5. The results of the observation were that the plants to be developed were *emprit* ginger, white turmeric, and black *kencur*. 
Fig. 2. Medicinal plant cultivation education

KWT administrators were given education on how to choose good media and when is the right time to plant. In addition, education was also given about harvesting time. After that, the KWT management practiced planting one by one.

C. Counselling on the Utilization of Medicinal Plants (Biofarmaka)

The final stage of this service activity was education related to the use of medicinal plants (Biofarmaka). Previously, a pretest was carried out to find out the level of understanding of the KWT management about the use of several medicinal plants in Indonesia.

![Pre-test vs Post-test Results](image)

**Fig. 3.** Results of evaluating the knowledge of the use of medicinal plants against 13 KWT administrators

The results of the service activities show that the service partners began to understand the use of several family medicinal plants. Based on data from 13 KWT administrators, it is shown that there was an increase in the average pre-test and post-test scores from 46.2 to 85.4.

4 Conclusion

Based on the results of the activity, it can be concluded that the community service activities carried out are said to be successful even though they are not optimal. Therefore, in general, the outputs produced are (a) increased knowledge and understanding of the members of the Randusongo Banjarnegara hamlet women's group about the importance of
using biopharmaceutical plants for health, (b) increased activity in KWT Wirasari in utilizing their yard for cultivating medicinal plants

References