

Training on the Utilization of Traditional Medicines in the Community of Selayar District (Collaboration with Ksatria Airlangga Floating Hospital)

¹Neny Purwitasari, ¹Wiwied Ekasari, ¹Tutik Sri Wahyuni, ²Agus Harianto, ³Baso Dahri, ¹Aty Widyawaruyanti*

¹Department of Pharmaceutical Sciences, Faculty of Pharmacy, University of Airlangga, Indonesia

²Hospital of Ksatria Terapung, Faculty of Medicine, University of Airlangga, Indonesia

³Health Office of Selayar Regency, Indonesia

*Corresponding author

Email: aty-w@ff.unair.ac.id

Volume

5

Issue

2

Edition

November

Page

400-407

Year

2024

Article History

Submission: 11-11-2022

Review: 16-11-2022

Accepted: 13-08-2024

Keyword

Medicinal Plants;
Selayar Regency;
Training;

How to cite

Widyawaruyanti, A., Purwitasari, N., Ekasari, W., Wahyuni, T. S., Harianto, A., Dahri, B. (2024).

Training On the Utilization of Traditional Medicines in the Community of Selayar District (Collaboration with Ksatria Airlangga Floating Hospital). *Jurnal Pengabdian Masyarakat*, 5(2),

400-407

<https://doi.org/10.32815/jpm.v5i1.1406>

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Abstract

Purpose: This research aims to address the limited knowledge of traditional medicine among communities in Selayar Regency, South Sulawesi. It highlights the significance of improving understanding and usage of traditional medicine to enhance health outcomes in areas with limited healthcare facilities.

Method: The study utilized a hybrid approach, involving seminars and training for 50 PKK (Family Welfare Movement) cadres. Pre and post-tests were administered to assess knowledge changes regarding medicinal plants and traditional medicine preparation.

Practical Applications: The findings indicate that enhancing the knowledge of PKK cadres can empower them to share this information in their communities, leading to increased use of traditional remedies and improved health outcomes.

Conclusion: The study found a notable increase in knowledge, with correct answers rising from 64.54% in the pre-test to 75.67% in the post-test. These results demonstrate the effectiveness of the training and its potential to address health challenges in Selayar Regency through the utilization of traditional medicine.



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Introduction

The Ksatria Airlangga Floating Hospital is a floating hospital owned by alumni of Airlangga University, with a mission to provide healthcare services and community service in remote areas of the Indonesian archipelago, including Bonerate Island in Southeast Sulawesi. This floating hospital is designed in the form of a pinisi ship, allowing it to navigate both deep and shallow waters. RSTKA has facilities such as an operating room, recovery room, and patient care rooms. The team working at RSTKA consists of anesthesiologists, surgeons, orthopedic surgeons, obstetricians, pediatricians, internists, general practitioners, nurses, midwives, pharmacists, administrative staff, and ship crew members (Airlangga et al., 2018).

Bonerate Island is home to a village located in the Pasimarannu sub-district, Selayar Islands Regency, South Sulawesi Province, Indonesia. The livelihoods of the local community include fishing and trading marine products, as well as working as government officials, civil servant teachers, medical personnel, police officers, and soldiers assigned to the Selayar archipelago. Their main agricultural products are cassava, cloves, and sago, which grow naturally without fertilizers. Farmers in Bonerate do not cultivate other types of vegetables due to the arid land. To meet their needs, they bring vegetables from other islands. They also consume seafood such as seaweed, sea cucumbers, and other marine products (Prijan, 2014; Rizal, Dewi, and Hayati, 2014).

On one of the islands, Jinato Island, lies the Bonerate National Park (in the Selayar Islands). The flora diversity includes various types of coral (*Pocillopora eydouxi*, *Montipora danae*, *Acropora palifera*, *Porites cylindrica*, *Pavona clavus*, *Fungia concinna*), coconut trees (*Cocos nucifera*), sea pandan (*Pandanus* sp.), sea casuarina (*Casuarina equisetifolia*), and ketapang (*Terminalia catappa*). This indicates fertile soil conditions, making it possible to develop medicinal plants beneficial for the local community (Asri, M. 2019; Panuluh et al., 2019).

Figure 1. Map of the Selayar Islands



The lack of medical facilities has made it difficult for the community to access healthcare services. Many medicinal plants in the Selayar Islands are not utilized effectively by the community. Provide outreach and training on the utilization of local plants for home remedies to address mild ailments such as respiratory and digestive disorders. The activity consists of outreach and training on the use and preparation of traditional medicines from easily obtainable plants in the Selayar Islands for home remedies to address mild symptoms of respiratory and digestive diseases.

The objective and benefit of this activity is to enhance the knowledge of health cadres in Bonerate, who have limited access to healthcare, enabling them to utilize local plants for treating mild illnesses. Evaluation of the activity will be conducted through pre-tests and post-tests assessing the community's knowledge before and after the outreach

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and training sessions.

Method

The community service methods are as follows:

1. Socialization and Program Coordination
Conduct socialization and program coordination at the Ksatria Airlangga Floating Hospital along with the Head of the Selayar Regency Health Office regarding the needs of the community and how to meet those needs concerning traditional medicine.
2. Preparation for Training
Preparation includes developing training materials and organizing the team that will conduct the seminar and training online. This involves inviting community leaders, teachers, and health workers from the surrounding Selayar Islands, specifically Bonerate Island and Alor Island. The training modules are created based on the most common health complaints experienced by the community and the easily obtainable medicinal plants in the Selayar Islands.
3. Implementation of Outreach and Training
4. Before the training begins, a pre-test is conducted to assess the initial understanding of the target audience regarding traditional medicine. The topics are presented through PowerPoint slides, and training modules are provided to the target audience. Additionally, training on how to prepare traditional medicines is also conducted.

Result

A total of 50 participants, including TOGA cadres from Selayar Regency, health workers, and community leaders, attended the event at the Baruga Bonerate Building in Selayar, where they will disseminate the information and knowledge acquired to the surrounding communities in the Selayar Islands and Bonerate. The presenters delivered their material via the ZOOM meeting platform. The event began with an opening by the Dean of the Faculty of Pharmacy at Airlangga University, Prof. Junaidi Khotib, M.Kes., Ph.D., followed by remarks from the Director of the Ksatria Airlangga Floating Hospital, Dr. Agus Harianto, SpB. The first presentation was delivered by Dr. Husaini, M.Kes, the Head of the Selayar Regency Health Office, on the topic of Traditional Medicine Health Services in Selayar Regency. This was followed by a workshop on preparing traditional herbal medicines through infusion, decoction, and grinding.

Figure 2. Q&A session with participants from the Baruga Bonerate Building, Selayar Regency

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To measure the effectiveness of the material presented, participants completed pre and post-tests before and after the event. The results of the pre and post-tests are presented in Table 1.

Table 1. Results of the pre and post-tests for the Webinar activity (N=50)

| <i>Pertanyaan</i> | <i>Menjawab benar pada Pretest (%)</i> | <i>Menjawab benar pada Post test (%)</i> |
|--|---|---|
| <i>Metode pembuatan jamu dengan cara tumbuk serkai adalah</i> | 65 | 65 |
| <i>Alat yang digunakan dalam pembuatan sediaan tradisional sebaiknya dipilih alat yang berbahan:</i> | 90 | 98 |
| <i>Bahan utama apa yang digunakan dalam pembuatan beras kencur</i> | 76 | 78 |
| <i>Metode pembuatan sediaan herba yang dilakukan dengan cara perebusan adalah</i> | 28 | 64 |
| <i>Alat apa yang diperlukan dalam pembuatan infus daun sirih</i> | 92 | 78 |
| <i>Bagian tanaman kencur yang digunakan untuk membuat sediaan beras kencur adalah</i> | 66 | 92 |
| <i>Pada pembuatan sediaan dekokta waktu yang digunakan untuk merebus adalah</i> | 44 | 64 |
| <i>Manfaat Wedang Secang untuk kesehatan adalah:</i> | 86 | 88 |

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| | | |
|---|--------------|--------------|
| <i>Bahan tanaman obat yang dibuat rebusan secara infusa adalah yang bersifat:</i> | 34 | 54 |
| Average Percentage (%) | 64,54 | 75,67 |

The results above indicate an increase in the knowledge of the Bonerate community before and after the activity, with correct answers rising from 64.54% in the pre-test to 75.67% in the post-test. A significant result was seen in the question regarding the preparation of traditional medicine using the boiling method, where 64% answered correctly (regarding decoction and infusion), compared to only 28% of participants answering correctly before the training.

The success of the activity was also evaluated through a questionnaire filled out by participants after the event. The aspects evaluated include:

Figure 3. Evaluation Diagram on Timeliness in the Implementation of Community Service

■ sangat baik ■ baik ■ sedang ■ kurang

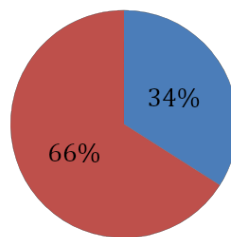


Figure 4. Evaluation Diagram on the Relevance of the Community Service Topic to Community Needs

■ sangat baik ■ baik ■ sedang ■ kurang

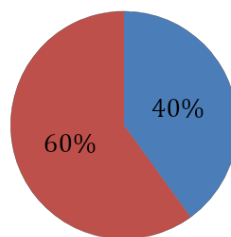


Figure 5. Evaluation Diagram on the Competence of Speakers/Resource Persons/Facilitators in Community Service Activities

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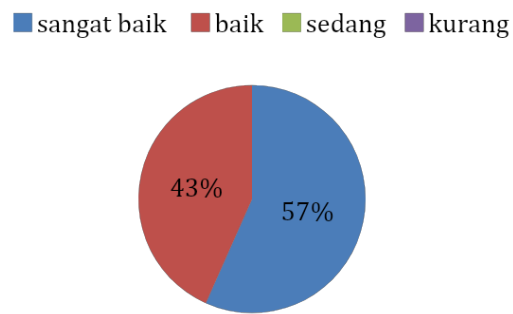
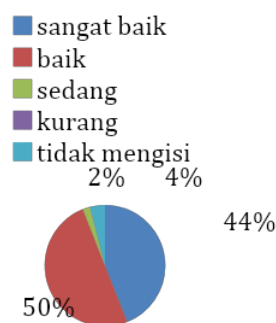


Figure 6. Evaluation on the Impact/Benefits After the Implementation of Community Service



Discussion

In Indonesia, the use of traditional medicine is still trusted by some circles to treat various ailments. Traditional medicine refers to remedies made from ingredients sourced from plants, animal products, minerals, and extracts that are mixed and prepared for consumption, which are believed to have healing properties passed down through generations. Traditional medicine is also referred to as herbal medicine, as the ingredients used come from natural sources. Research conducted by the World Health Organization (WHO) in several countries across Asia, Africa, and the Americas shows that herbal medicine is used as a second alternative treatment. In Africa, herbal medicine is used for primary healthcare by almost 80% of the population. Indonesia itself has more than 400 ethnic groups and sub-ethnic groups spread throughout the country. The use of traditional medicine in regions such as Java, Sunda, Manado, Kalimantan, and various other areas is a heritage passed down through generations and further developed through scientific testing.

According to Indonesia's National Agency of Drug and Food Control (BPOM), traditional medicine is categorized into several groups: jamu, standardized herbal medicine, and phytopharmaceuticals. Jamu is one of the three groups that is widely recognized by the public and used by the community to address health issues. The main distinction among these three types of medicine lies in their testing. Traditional medicine that passes preclinical tests is known as standardized herbal medicine, while those based on clinical tests are called phytopharmaceuticals. Additionally, traditional medicine that is approached through "heritage" and empirical methods is known as jamu. Indonesian traditional medicine consists of mixtures of plants that have been empirically proven to maintain health, prevent, and treat diseases. The use of traditional medicine remains popular among the Indonesian population because it is considered effective and relatively inexpensive (Kemenkes, 2007; Ismail, 2015; Pratiwi, Saputri, Nuwarda, 2018; Marwati, 2018; BPOM, 2019).

The results of the pre-test and post-test show an increase in the knowledge of the Bonerate community before and after the activity, with correct answers rising from 64.54% in the pre-test to 75.67% in the post-test. A significant finding was in the question regarding the

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preparation of traditional medicine using the boiling method, where 64% answered correctly (referring to decoction and infusion), compared to only 28% of participants answering correctly beforehand.

Evaluation of the timeliness of the community service implementation showed that 66% rated it as good. The evaluation of the relevance of the community service topic to community needs indicated that 60% rated it as good, while the evaluation of the speakers/resource persons/facilitators' competence in community service activities showed that 57% rated it as very good. Evaluation of the impact/benefits after the implementation of community service indicated that 50% rated it as good.

The prevalence of the use and consumption of jamu in Indonesian society is influenced by several factors, including an individual's level of knowledge. Limited knowledge regarding the use of jamu and the prevalence of inaccurate information received by the community have created new issues that cause fluctuations in the consumption of jamu as traditional medicine. The culture of consuming jamu is influenced by several factors, both direct and indirect. Direct factors affecting the level of jamu consumption include knowledge and attitudes of the community, while indirect factors consist of internal and external societal influences.

According to research in South Sumatra involving 268 respondents, it was found that most village residents have good knowledge about traditional medicine, with 142 individuals (53%) showing this level of understanding. Similarly, a study conducted in Central Lampung concluded that the prevalence of traditional medicine use was 53.9%, and there was a relationship between knowledge and the selection of traditional medicine. Most respondents in this study were women. The mothers' knowledge of the benefits and methods of processing medicinal plants is crucial for the use of jamu as medicine. Another study found that the level of knowledge about traditional medicine in the community is quite high, with 66.1% of respondents having good knowledge and a small percentage (6.8%) having limited knowledge (Liana, 2017; Octavia, 2019; Kusuma et al., 2020).

Conclusion

This activity was enthusiastically participated in by the attendees, which significantly enhanced the knowledge of TOGA cadres in Selayar Regency, health workers, and community leaders regarding the utilization and preparation of traditional medicine. As a result, they can disseminate the knowledge about traditional medicine for health acquired during this activity to the surrounding community, as well as improve the skills of TOGA cadres in compounding and formulating medicine.

Acknowledgements

We express our gratitude to the Ksatria Airlangga Floating Hospital, the Selayar Regency Health Office, and the Faculty of Pharmacy at Universitas Airlangga. This activity was funded by a Community Service grant financed by the Annual Budget Plan (RKAT) of the Faculty of Pharmacy at Universitas Airlangga for the 2020 fiscal year.

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