TRAINING ON HERBAL MEDICINE PROCESSING FOR DEGENERATIVE DISEASES AMONG THE ANAK DALAM TRIBE (SAD) COMMUNITY IN PELEMPANG VILLAGE

Fathnur Sani Kasmadi, M.Rifki Efendi, Indri Maharini, Yuliawati, Uce Lestari, Santi Perawati, Vina Neldi, Novia Tri Astuti

1) Faculty of Medicine and Health Sciences, Universitas Jambi, Jambi, Indonesia

Corresponding author email: fathnursanik@unja.ac.id

ABSTRACT

The Anak Dalam tribe is an indigenous tribe whose life is still primitive. This minority tribe currently inhabits the provinces of Jambi and South Sumatra. They are known by various names such as jungle people, ulu people, Anak Dalam tribe, and Kubu tribe. Their distance from the outside environment leads them to primarily utilize natural materials for their daily needs, including food and medicinal purposes. This community service activity was conducted in three stages: preparation and permit acquisition, implementation, and evaluation. The activity results demonstrated an improvement in knowledge regarding processing medicinal plants into herbal products. A total of 27 participants attended this activity, showing an improvement in knowledge from 33.33% to 88.89%.

Keywords: Herbal Medicine, SAD, Degenerative diseases, Community, Pelempang

ABSTRAK

Suku anak dalam merupakan salah satu suku asli yang kehidupannya masih primitif. Suku ini menjadi suku minoritas yang saat ini masih mendiami wilayah provinsi Jambi dan Sumatera Selatan. Mereka dikenal dengan sebutan orang rimba, orang ulu, suku anak dalam, suku kubu. Jarak mereka yang cukup jauh dari lingkungan luar membuat mereka hidup lebih memanfaatkan bahan alam sebagai sarana pemenuhan kebutuhan hidup mulai dari makanan hingga untuk medis. Kegiatan pengabdian masyarakat ini dilakukan dengan 3 tahapan yaitu izin kegiatan persiapan, pelaksanaan dan evaluasi. Hasil kegiatan didapatkan adanya perbaikan pengetahuan cara pengolahan tanaman obat menjadi bentuk produk jamu. Kegiatan ini diikuti sebanyak 27 orang partisipant dengan perbaikan pengetahuan dari 33,33% menjadi 88,89%.

Kata kunci: Jamu, SAD, Degeneratif, Masyarakat, Pelempang.

INTRODUCTION

The Anak Dalam tribe is an indigenous community known for its primitive way of life, primarily residing in Jambi and South Sumatra provinces. They are often referred to as "Orang Rimba," "Orang Ulu," or "Suku Kubu." In Jambi Province alone, their population is substantial, estimated at 200,000 individuals. Their traditional lifestyle involves hunting and gathering food and medicinal plants from their natural surroundings. Pelempang Village in Muaro Jambi Regency, Jambi Province, is one of the areas inhabited by the Anak Dalam tribe. This village is unique because 50% of its population consists of SAD members who live alongside other villagers. Unlike their ancestors, the SAD in Pelempang have settled permanently near residential areas and do not frequently relocate. Despite their integration with the villagers, they still adhere to their ancestral cultural practices, which contributes to their continued perception as primitive^{1,2}. Their relative isolation from the outside environment necessitates their reliance on natural resources for various needs, including medical care²⁻⁴. The SAD community in Pelempang, Mestong District, Muaro Jambi Regency, is distributed across three hamlets: Pengeratan (380 people), Lubuk Kayu Aro (194 people), and Skaladi (70 people). To facilitate interaction with the more educated surrounding communities, the SAD community has a leader known as a "Jenang"⁵.

The Urgency of Community Service and Degenerative Diseases in the Community. Degenerative diseases are non-communicable diseases characterized by the natural decline in cell and organ function due to aging. Unhealthy lifestyles and dietary patterns are also significant contributing factors⁶⁻⁸. These conditions can severely impact an individual's quality of life and often necessitate long-term medical care⁹. Common degenerative diseases observed in the community include stroke, hypertension, diabetes mellitus, and osteoarthritis⁷⁻⁹. Limited access to information and knowledge further exacerbates the quality of life for individuals suffering from these conditions. The global burden of non-communicable diseases, including degenerative conditions, highlights the urgency of preventive and management strategies, especially in vulnerable populations with limited healthcare access¹⁰⁻¹⁵. Diabetes and hypertension, for instance, are rapidly increasing worldwide, posing significant public health challenges^{16,17}.



Traditionally, Indonesian communities have utilized plants as traditional medicine to address various health complaints³. For the Anak Dalam tribe, the minimal side effects and easy accessibility of raw materials make herbal plants a strong alternative therapy for various ailments^{10,11,18,19}. However, their knowledge of processing these plants for long-term use is often limited, with common practices involving simply boiling or crushing them for immediate consumption. This lack of advanced processing methods means that the benefits of these traditional remedies are often short-lived, and new plants must be sought whenever needed²⁰⁻²³.

This community service aims to address the urgent need for improved knowledge and skills in processing herbal plants into more convenient and durable forms, such as instant herbal drinks. This training is crucial because it introduces scientific knowledge for processing herbal plants, which are currently only used by boiling. By learning to create instant herbal products with added sweeteners and extended shelf life, the community will not need to search for new plants each time they are needed. Furthermore, this activity will enhance their understanding of the medicinal properties of local plants, particularly in treating degenerative diseases^{24,25}. The long-term hope is that this initiative will empower the community to produce durable herbal products and deepen their knowledge of the herbal potential within their immediate environment. This aligns with the Sustainable Development Goals (SDGs) related to health and well-being, emphasizing community empowerment and access to essential health services¹⁸.

METHODS

Location and Time of Activity

This community service activity was conducted in Pelempang Village, Mestong District, Muaro Jambi Regency, Jambi Province. The activities took place from July to December 2024, involving six visits to the location.

Stages of Activity

The activity was implemented in several phase:

- 1. **Preparation Phase:** This phase focused on preparing the team and coordinating with partners regarding the needs and implementation of the activity, including obtaining permits for the community service program from the implementing team.
- Extension/Demonstration Phase: In this stage, the activity concentrated on providing the partners with
 material understanding to enhance their knowledge of degenerative diseases and the production of
 herbal products for these conditions.
- 3. **Evaluation Phase:** The evaluation phase involved equipping partners with brochures and other important information to improve the understanding of the Anak Dalam tribe community in Pelempang village.

Implementing Activities

This community service utilized a community relations approach, incorporating health education and training. The approach was educational, aiming to promote progress by directly increasing community participation in various implementation processes of the service. The implementing team comprised faculty members and students from the Faculty of Medicine and Health Sciences, Universitas Jambi. The primary partner in this activity was the Anak Dalam tribe community in Pelempang Village, represented by their leader, the Jenang.

Data Analysis

The collected data were analyzed descriptively in the form of percentages.

RESULTS AND DISCUSSION

A total of 27 participants attended this community service activity. The characteristics of the participants are detailed in **Table 1**.

Table 1. Characteristics of Community Service Activity Participants

No.		Characteristics	Frequency
1	Gender	Man	0
		Woman	27
2	Age	< 35 years	3
		36-45 years	18
		46-55 years	6
3	Last education	No school	20
		elementary school	7
		Junior High School - Senior High	0
		School	
		College	0
4	Jobs	Farmer	27
		Other Jobs	0

As shown in **Table 1**, all participants in the training were women. This is attributed to the fact that men in the area primarily work as farmers and spend a significant amount of time in the forest. The community of Pelempang Village prefers using medicinal plants due to the considerable distance to healthcare facilities, making traditional remedies the best alternative for their health complaints. Their limited knowledge in processing medicinal plants for longer durability means their current usage is very simple, involving taking plants when needed and consuming them by crushing or boiling. The introduction of instant herbal product manufacturing was a novel concept for them.

The activity involved 27 members of the Anak Dalam tribe residing in Pelempang Village, Muaro Jambi Regency, which is part of the Mestong district. This region is unique because 50% of its population consists of SAD members who coexist with villagers. The SAD in Pelempang have permanently settled near residential areas and do not migrate like their ancestors. Despite their interaction with villagers, they maintain strong adherence to their ancestral culture, thus still being considered primitive². Their remote location from the outside environment compels them to rely on natural resources for their daily needs, including food and medicine^{10,11}.

The activity commenced with an opening ceremony, including welcoming remarks from the head of the implementing team and the Jenang of the Anak Dalam tribe, followed by a joint prayer. This was succeeded by a session explaining degenerative diseases and the simple processing of herbal products into ready-to-serve instant herbal preparations, such as powders and teas from medicinal plants. The implementation phase included pre- and post-training evaluations to measure the success of knowledge transfer regarding herbal product preparation.



Figure 1. Activity Documentation

The evaluation results demonstrated an improvement in the understanding of the SAD community regarding medicinal plants and their processing into instant herbal products. This community service activity is highly beneficial for improving the economic income of partners and enhancing their ability to diversify turmeric-based herbal products. According to Adi *et al.*, community service can improve the situation and conditions for partners if they are willing to initiate social activities¹². It is emphasized that community empowerment can only occur when the community (partners) actively participate and engage directly in service activities. This aligns with Fauziah and Novandi, who stated that community empowerment is a way for the community (partners) to develop their potential and abilities, thereby resolving problems within the community (partners)¹³. The active participation and significant improvement in knowledge from 33.33% to 88.89% highlight the effectiveness of direct engagement and practical training in fostering empowerment and skill development within the SAD community.

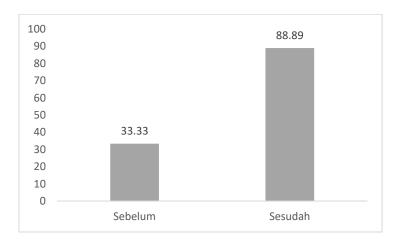


Figure 2. Graph of the level of understanding before and after training

The success of this program can be compared to similar initiatives. For instance, studies on health education programs for indigenous communities often show improved health outcomes and increased adoption of beneficial practices when the programs are culturally sensitive and involve active community participation^{20,21}. The observed shift from traditional, rudimentary processing to an understanding of instant herbal preparations demonstrates a positive impact on the community's capacity for self-sufficiency and improved health management, particularly concerning degenerative diseases. Furthermore, the economic potential of diversifying herbal products, as seen with turmeric, can contribute to sustainable livelihoods, echoing findings in other community empowerment initiatives focused on local resource utilization^{23,25}.

CONCLUSION

Community service activities are an integral part of the "Tridharma" (three pillars of higher education) carried out by lecturers to directly contribute to addressing societal problems. The training on processing medicinal plants into herbal products represents a significant effort to enhance the knowledge of the Anak Dalam tribe community in Pelempang village, offering potential economic value.

ACKNOWLEDGEMENTS

The Community Service Team expresses its gratitude to the Faculty of Medicine and Health Sciences, Universitas Jambi, for supporting this activity through the Community Service Grant from the PNBP funds of the Faculty of Medicine and Health Sciences, Universitas Jambi with contract number 731/UN21.11/PM.01.01/SPK/2024.

REFERENCES

- 1. Asra R, Naswir M, Kalsum U, Lestari AP. Peningkatan Kualitas Pendidikan untuk Anak Suku Anak Dalam di Dusun Selapik, Kabupaten Muaro Jambi. Jurnal Karya Abdi Masyarakat. 2018;2(1):1–8.
- 2. Asra R, Naswir M, Kalsum U, Lestari AP. Peningkatan Kualitas Pendidikan untuk Anak Suku Anak Dalam di Dusun Selapik, Kabupaten Muaro Jambi. Jurnal Karya Abdi Masyarakat. 2018;2(1):1–8.
- 3. Hariana A. Tumbuhan obat dan khasiatnya. Jakarta: Penebar Swadaya; 2007.
- 4. Dalimartha S. Resep Tumbuhan Obat Untuk Asam Urat. Jakarta: Swadaya; 2008.
- Lestari F, Susanti I. Tumbuhan obat berpotensi imunomodulator di suku anak dalam bendar bengkulu. JPBIO (Jurnal Pendidikan Biologi). 2020;5(1).
- 6. Anggrawan Janur Putra, Delvindo Arisco Y, Mardian R. Minat Melakukan Aktivitas Olahraga Masyarakat Suku Anak Dalam (SAD) Binaan Komunitas Sobat Eksplorasi Anak Dalam (SEAD). Jurnal Penjakora. 2023;10(1).
- 7. Sutrisna. Penyakit Degeneratif. Surakarta: Universitas Muhammadiyah Surakarta; 2013.
- Septi Fandinata S, Ernawati I. Management terapi pada penyakit degeneratif. Mengenal, mencegah, dan mengatasi penyakit degeneratif (diabetes melitus dan hipertensi). 2020.
- 9. Fridalni N, Guslinda, Minropa A, Febriyanti, Syofia Sapardi V. Pengenalan Dini Penyakit Degeneratif. Jurnal Abdimas Saintika. 2019;1(1).
- 10. Lestari F, Susanti I. Tumbuhan obat berpotensi imunomodulator di suku anak dalam bendar bengkulu. JPBIO (Jurnal Pendidikan Biologi). 2020;5(1).
- 11. Siregar MRA, Perawati S, Andriani L. Etnofarmakognosi Pada Suku Anak Dalam Di Desa Hajran Kecamatan Bathin Xxiv Kabupaten Batanghari. Journal of Healthcare Technology and Medicine. 2020;6(1).
- 12. Adi LT. Pemberdayaan Komunitas Herbal Medicine Class di Tangerang Selatan dalam Meningkatkan Kesehatan Keluarga. Perilaku dan Promosi Kesehatan: Indonesian Journal of Health Promotion and Behavior. 2023;5(1).
- 13. Fauzian F, Novandi D. AKSI PENCEGAHAN KASUS STUNTING DI KOTA SAMARINDA MELALUI PROGRAM PEMBANGUNAN DAN PEMBERDAYAAN MASYARAKAT (PRO-BEBAYA). Jurnal Riset Inossa. 2022;3(2).

- World Health Organization. Global action plan for the prevention and control of noncommunicable diseases 2013-2020. Geneva: WHO; 2013.1
- 15. American Heart Association. Heart Disease and Stroke Statistics—2024 Update: A Report From the American Heart Association. Circulation. 2024;149(8):e363-e634.
- 16. International Diabetes Federation. IDF Diabetes Atlas. 10th ed. Brussels, Belgium: International Diabetes Federation; 2021.
- 17. GBD 2019 Osteoarthritis Collaborators. Global, regional, and national burden of osteoarthritis, 1990–2019: a systematic analysis for the Global Burden of Disease Study 2019. Lancet Rheumatol. 2022;4(4):e272-e287.
- 18. United Nations. The Sustainable Development Goals Report 2023. New York: United Nations; 2023.
- 19. Etkin NL. Local and global dimensions of ethnopharmacology. Pharmacol Ther. 2006;111(1):21-7.
- 20. Schiebinger L, Klinge I, Sanchez D. Sex and Gender Analysis in Health Research. Lancet. 2021;397(10283):1419-
- 21. WHO Traditional Medicine Strategy 2014-2023. Geneva: World Health Organization; 2013.
- 22. Singh A, Singh A, Singh A. Traditional Medicinal Plants: A Review. J Plant Sci. 2016;11(1):1-10.
- 23. Soni V, Singh N. Herbal drug technology. J Phytopharmacol. 2016;5(6):264-9.
- 24. Ekor M. The growing importance of medicinal plants in combating infectious diseases. J Clin Diagn Res. 2013;7(12):2851-8.
- 25. Newman DJ, Cragg GM. Natural Products as Sources of New Drugs over the Last 40 Years and Future. J Nat Prod. 2012;75(3):311-35.