

The Use of Herbal Medicine and Medicinal Plants as Immunity Enhancers for Migrant Workers in Malaysia by Utilizing Herbal Plants Around the House as Body Immune Enhancers

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Abstrak: Pekerja migran Indonesia di Malaysia menghadapi berbagai tantangan, termasuk keterbatasan akses ke layanan kesehatan dan kerentanan terhadap penyakit karena kondisi kerja yang menuntut dan lingkungan yang tidak dikenal. Pengabdian ini bertujuan untuk menambah pengetahuan dan keterampilan mengenai penggunaan tanaman obat tradisional untuk meningkatkan kekebalan tubuh. metode yang digunakan dengan memberikan materi pelatihan tentang mengidentifikasi, mengolah, dan mengonsumsi tanaman obat yang tersedia dengan aman. Evaluasi kegiatan pengabdian ini menunjukkan peningkatan pengetahuan peserta tentang pengobatan tradisional, manfaatnya, dan praktik penggunaan yang aman. Tujuan jangka panjangnya adalah untuk mendorong praktik berkelanjutan dalam memanfaatkan sumber daya herbal lokal untuk perawatan diri di kalangan PMI di Malaysia, yang berkontribusi terhadap kesehatan, produktivitas, dan kesejahteraan mereka secara keseluruhan sekaligus melestarikan praktik pengobatan tradisional Indonesia.

Kata Kunci: PMI, Malaysia, Tanaman Obat, Kekebalan Tubuh

Abstract: Indonesian migrant workers in Malaysia face various challenges, including limited access to health services and vulnerability to diseases due to demanding working conditions and unfamiliar environments. This community service aims to increase knowledge and skills regarding the use of traditional medicinal plants to improve immunity. The method used is to provide training materials on identifying, processing, and consuming available medicinal plants safely. Evaluation of this community service activity showed an increase in participants' knowledge about traditional medicine, its benefits, and safe use practices. The long-term goal is to encourage sustainable practices in utilizing local herbal resources for self-care among PMI in Malaysia, which contributes to their overall health, productivity, and well-being while preserving traditional Indonesian medicinal practices.

Keywords: PMI, Malaysia, Medicinal Plants, Body Immunity

Introduction

Economic development has encouraged many people, including Indonesians, to migrate abroad in search of work, with Malaysia being one of the main choices. Data from the National Agency for the Placement and Protection of Indonesian Migrant Workers (BNP2TKI) shows that Malaysia is included in the list of favorite countries for Indonesian migrant workers, with the number reaching hundreds of thousands each year. As workers abroad, they often face various problems, such as high work demands, risk of disease, psychological stress due to work, and difficulty in obtaining adequate health services (Valensy and Afrizal 2017).

This condition makes them vulnerable to decreased immunity, which can have a serious impact on productivity, quality of life, and even the sustainability of their work. Therefore, efforts to increase body immunity are very important for migrant workers (Donal Nababan et al. 2023). Amid limited access to formal health services, the use of herbal medicine and traditional medicinal plants is an attractive and relevant alternative. Indonesia is known as one of the countries with the highest biodiversity in the world, including various types of herbal plants that have long been used in traditional medicine (Supriadi et al. 2021).

These plants, such as ginger, turmeric, temulawak, sambiloto, and meniran, have been proven empirically and scientifically to have properties to increase the body's immune system (Qonitah et al. 2024). For example, research conducted by Jantan et al. (2024) curcumin compound is an active compound in turmeric, has an immunomodulatory effect that can increase the response of the immune system (Jantan et al. 2024). In addition, a study by Mashhadi et al. (2013) showed that gingerol in ginger has antioxidant and anti-inflammatory properties that can help fight infections and increase endurance (Mashhadi et al. 2013). The use of herbal plants as immunity enhancers is also supported by easy access and relatively affordable costs. Many herbal plants can be found around the house or cultivated independently, making it easier for migrant workers to consume them regularly (Arisandi, Muhammad Taufiq Abadi, and Farmawati 2024).

This is in line with research conducted by Putra et al. (2022) which states that the use of herbal plants around the residential environment can be a practical and sustainable solution to maintain health, especially for people with economic limitations (Putra, Wahyuni, and Prasetyo 2022). In Malaysia, even though migrant workers live in different environments, they can still utilize herbal plants available around their homes or import herbal ingredients from Indonesia (Justicia 2022). In addition, the culture of drinking herbal medicine that is inherent in the daily lives of Indonesian people can be a strong social capital to promote the use of herbal plants as part of a healthy lifestyle (Satriyati 2016). Research by Diamahesa et al. (2022) regular consumption of herbal medicine can increase immunity parameters, such as increasing the number of white blood cells and natural killer (NK) cell activity, which play an important role in fighting infections (Diamahesa 2022).

Method

This community service activity aims to increase awareness of Indonesian Migrant Workers (PMI) in Malaysia about the importance of maintaining body immunity, introducing the use of herbal medicine and herbal plants around the house as a practical and economical solution, and providing training and assistance in identifying, processing, and consuming herbal plants correctly and safely. The target of this activity is PMI in Malaysia, with priority for those who have an interest in traditional medicine and a willingness to apply the knowledge provided. This activity is carried out through several stages, starting with preparation including identification of needs, coordination with the main partner of the activity is KESAH Educate Resource, a children's educational institution in Malaysia located in Darul Naim Pasir Tumboh, 16150 Kota Bharu, Malaysia and additional partners are the Nahdatul Ulama Special Branch Management (PCINU) Malaysia, Indonesian Student Association - Sultan Idris Kuala Lumpur Education University (PPI-UPSI), Indonesian School Kuala Lumpur. In the implementation stage, the activity was carried out on Sunday, May 25, 2024 at the Indonesian School Kuala Lumpur from 09.00 - 14.00. Where this activity began with education and socialization through

socialization about the benefits of herbal medicine and herbal plants for the immune system. Where in the socialization material there is a way to make simple herbal medicine or concoctions such as ginger, turmeric or temulawak and meniran. Participants are also taught techniques for drying and storing herbal plants so that they can be used in the long term.

Evaluation of the activity is carried out through three aspects, namely process evaluation to monitor participant participation and enthusiasm, outcome evaluation to measure the increase in participant knowledge through discussion and Q&A with community service participants. This activity is funded by Sahid Surakarta University in collaboration with the non-governmental organization (NGO) Sharing Indonesia along with main and additional partners and parties who care about the health of Indonesian migrant workers. The implementing team consists of herbalist experts, volunteers from the migrant worker community, and health workers to ensure the safety of herbal use.

Result

This community service activity was carried out at the Indonesian School of Kuala Lumpur (SIKL) for 1 day on Sunday, May 25, 2024, which took place at the SIKL sports building by delivering materials and asking questions, the number of participants who took part was 113 people who were Indonesian Migrant Workers (PMI).



Figure 1. Opening of the International Community Service Event in Kuala Lumpur

This service is carried out to increase PMI's knowledge about the efficacy of traditional medicinal plants on immunity. The medicinal plants presented are medicinal plants that can improve the body's immune system in the community, where these plants are widely found in Indonesia and Malaysia.



Figure 2. Delivery of Material by the Community Service Team

Easy prevention by utilizing medicinal plants found in the environment around PMI workplaces in Malaysia, so that traditional herbal medicine can be made that is efficacious, practical and safe for use by PMI.



Figure 3. Presentation Material Provided by the PKM TEAM

The medicinal plants presented in the community service are plants that are easily obtained by PMI Malaysia. Examples of medicinal plants are sambiloto herb, meniran herb, ginger rhizome, turmeric rhizome, temulawak rhizome, guava and others (Mulyani, W, and E 2017). The counseling materials presented in this community service event include: Definition and understanding of Jamu, Safety and efficacy of traditional medicine, Definition and working mechanism of the immune system in the body, How to check the correct finished product of traditional medicine, What plants can be used to increase immunity, and How to make herbal medicine recipes from medicinal plants by explaining storage.

PMI Malaysia before this PKM counseling event was held about making herbal medicine to increase body immunity still did not really understand, especially in the initial process until the finished herbal medicine preparation was formed for use. This made the village community very interested in participating in this counseling activity. The delivery of this material begins by discussing what traditional medicine is according to government regulations, which means ingredients or concoctions of ingredients in the form of plant materials, animal materials, mineral materials, galenic preparations or mixtures of these ingredients that have been used for treatment for generations, and can be applied in accordance with the norms prevailing in society (Ministry of Health of the Republic of Indonesia 2010). Traditional medicine itself according to government regulations is divided into 3, namely herbal medicine, standardized herbal medicine (OHT) and phytopharmaceuticals.

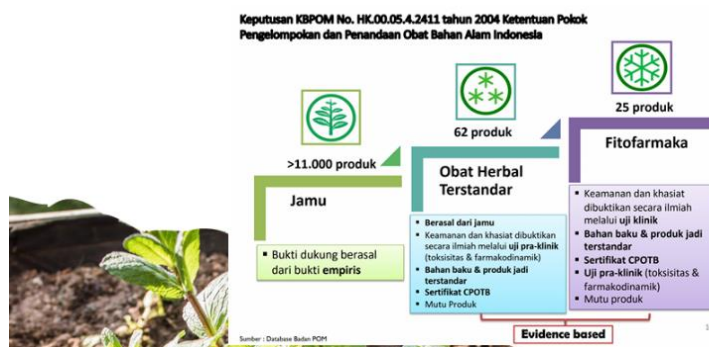


Figure 4. Classification of Traditional Medicine Grouping

The use of traditional medicine itself has various benefits including antioxidants, antidiabetics, ant hypercholesterolemia, anticancer and immunostimulatory. Traditional medicines that have benefits are those that function as immunostimulatory or enhance the body's immunity. Examples of plants used are those that have been explained in this material, namely sambiloto, meniran, turmeric, temulawak, ginger and guava. This presentation explains how to see and choose traditional medicine finished product preparations on the market by looking at the place of purchase of finished product preparations and checking the packaging labels including: 1. Indications of Traditional Medicine 2. Rules of use 3. Warnings / Caution traditional use 4. Contraindications of traditional medicine 5. Check the packaging, labels, distribution permits, and expiration dates.



Figure 5. BPOM Label Checking Process

The manufacturing process is carried out by boiling or making infusion by heating the simplicial with an infusion pan or jug for 15 minutes or until 2/3 of the water is heated. If you do not have an infusion pan, it can be replaced with a regular pan with a low stove flame, so that the content of secondary metabolite compounds (alkaloids, flavonoids, phenolics, saponins, anthraquinones and others) is not damaged by heating.

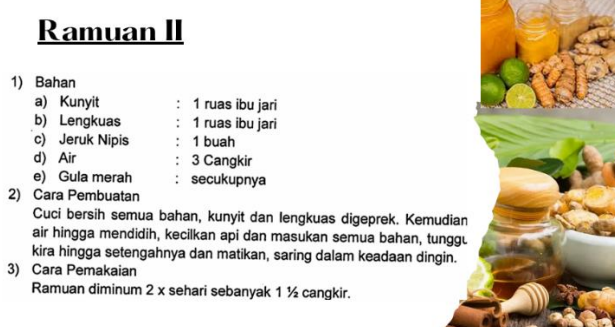


Figure 6. Example of Herbal Medicine Making Process

The storage of this preparation only lasts for one day and must be made new every day, because the solvent used is water which is a growth medium for bacteria, mold and yeast. This service provides great benefits to PMI in Malaysia in applying or implementing by utilizing medicinal plants around it which can be used as herbal medicine to increase immunity in maintaining body condition while working. In addition, there are other benefits with this service, it can increase PMI's knowledge and open up business opportunities when returning home by utilizing the knowledge gained by making herbal preparations that can be marketed.

Discussion

The community service activity carried out at the Indonesian School Kuala Lumpur (SIKL) aims to improve PMI's knowledge and skills in utilizing traditional medicinal plants to increase body immunity. Through the delivery of materials, questions and answers, and interactive discussions, participants are provided with comprehensive information about the definition of herbal medicine, the safety and efficacy of traditional medicine, the mechanism of the immune system, how to check traditional medicine products correctly, types of medicinal plants that are easily obtained in Malaysia, and how to make herbal medicine practically and safely.

The method of delivering materials that is adjusted to the needs and characteristics of PMI, such as the use of language that is easy to understand and examples that are relevant to everyday life, contributes to the effectiveness of the program in increasing participants' knowledge. The enthusiasm and active participation of 113 PMI who participated in this activity showed the high interest and need for information and training on the use of traditional medicinal plants.

The image of the community service results shows a conducive and interactive activity atmosphere. The delivery of materials by a competent community service team in their field ensures the quality of information delivered to participants. Material on how to check finished traditional medicine products correctly is very important to increase PMI awareness of the importance of choosing safe and quality products (Abdul and Suwarni 2021).

Although this activity only lasts for one day, its impact is expected to be sustainable. The knowledge and skills acquired by PMI are expected to be applied in everyday life to maintain health and increase their body's immunity. The success of this program can also be measured by the formation of a PMI community or group that actively utilizes traditional medicinal plants after the activity ends (Mahawikan, Abdul, and Ariastuti 2022).

To increase the effectiveness of the program in the future, it is recommended to conduct a long-term evaluation to see changes in PMI behaviour and increase immunity in a sustainable manner. In addition, collaboration with health institutions and PMI organizations in Malaysia can be expanded to increase the reach and impact of the program.

Referensi

- Abdul, Ahwan, and Anik Suwarni. 2021. "Penyuluhan Pembuatan Jamu Dalam Upaya Meningkatkan Imunitas Masyarakat Di Desa Sidoharjo Kecamatan Susukan Kabupaten Semarang." *Abdi Implementasi Pancasila: Jurnal Pengabdian Kepada Masyarakat* 1, no. 1: 1–6.
- Arisandi, Devy, Abadi Muhammad Taufiq Abadi, and Ira Farmawati. 2024. "PEMBERDAYAAN PEREMPUAN DESA MELALUI BUDIDAYA TANAMAN HERBAL: STUDI KASUS BUNGA TELANG." Ruang Aksara Media.
- Diamahesa, Wastu Ayu. 2022. "Pengaruh Immunostimulan Dari Bahan-Bahan Alami Pada Ikan Dalam Meningkatkan Imun Non-Spesifik Untuk Melawan Penyakit." *Clarias: Jurnal Perikanan Air Tawar* 3, no. 2: 37–44.
- Donal Nababan, S K M, Vera Chitra Dewi Saragih, Tri Yuniarti, S KM, Elsa Yuniarti, Annisa Andriyani, S S T Ardiani Sulistiani, M Keb, S K M Isnani Nurhayati, and Astri

- Wahyuningsih. 2023. *Gizi Dan Kesehatan Masyarakat*. Cendikia Mulia Mandiri.
- Jantan, Ibrahim, Nor Azrina Norahmad, Yuandani, Md Areeful Haque, Zeti-Azura Mohamed-Hussein, Mohd Ridzuan Mohd Abd Razak, Ami Fazlin Syed Mohamed, Kok Wai Lam, and Sarah Ibrahim. 2024. "Inhibitory Effect of Food-Functioned Phytochemicals on Dysregulated Inflammatory Pathways Triggered by SARS-CoV-2: A Mechanistic Review." *Critical Reviews in Food Science and Nutrition*, 1–26.
- Justicia, Irfan Pandu. 2022. "Partisipasi Masyarakat Dalam Kegiatan Urban Farming Di Masa Pandemi Covid-19 (Studi Kasus: Kelurahan Maharatu Kota Pekanbaru)." Universitas Islam Riau.
- Mahawikan, Syahnaz Sanjiwani Agatha Ruth, Ahwan Abdul, and Reni Ariastuti. 2022. "Persepsi Masyarakat Terhadap Efektivitas Penggunaan Jamu Dalam Meningkatkan Imunitas Selama Pandemi Covid-19." *Jurnal Farmasetis* 11, no. 1: 77–86.
- Mashhadi, Nafiseh Shokri, Reza Ghiasvand, Gholamreza Askari, Mitra Hariri, Leila Darvishi, and Mohammad Reza Mofid. 2013. "Anti-Oxidative and Anti-Inflammatory Effects of Ginger in Health and Physical Activity: Review of Current Evidence." *International Journal of Preventive Medicine* 4, no. Suppl 1: S36.
- Mulyani, Hesti, Sri Harti W, and Venny Indria E. 2017. "Pengobatan Tradisional Jawa Dalam Manuskrip Serat Primbon Jampi Jawi." *LITERA* 16, no. 1 (June): 139–51. <https://doi.org/10.21831/ltr.v16i1.14257>.
- Putra, Effendy De Lux, Henny Sri Wahyuni, and Bayu Eko Prasetyo. 2022. "Edukasi Pemanfaatan Tanaman Herbal Bagi Kesehatan Di Desa Liang Pematang Kabupaten Deli Serdang." *Jurnal Pengabdian Masyarakat* 5, no. 4: 1322–27.
- Qonitah, Fadilah, Riski Ishariyanto, Hardian Ningsih, and Hidayah Karuniawati. 2024. "Peningkatan Pengetahuan Dan Pemahaman Mahasiswa D3 Agrobisnis UNS Dalam Pengembangan Tanaman Obat Untuk Mendukung Kesehatan Tradisional Berbasis Potensi Lokal." *Jurnal Pengabdian Kepada Masyarakat Farmasi Kesehatan* 1, no. 02: 47–54.
- Satriyati, Ekna. 2016. "Pola Tradisi Minum Jamu: Upaya Pemertahanan Pengobatan Lokal Sebagai Identitas Masyarakat Bangkalan Madura." *DIMENSI-Journal of Sociology* 9, no. 2.
- Supriadi, Supriadi, Suryani Suryani, Lia Anggresani, Santi Perawati, and Rizky Yulion. 2021. "Analisis Penggunaan Obat Tradisional Dan Obat Modern Dalam Penggunaan Sendiri (Swamedikasi) Oleh Masyarakat." *Jurnal Kesehatan* 14, no. 2: 138–48.
- Valensy, Cici, and Afrizal Afrizal. 2017. "Peran International Labour Organization (ILO) Dalam Melindungi Buruh Migran Indonesia Di Arab Saudi Tahun 2012-2016." Riau University.