

## Virtual Socialization about the Use of Family Medicinal Plants (TOGA) as an Alternative for Treatment

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### Abstract

The use of plants as a treatment solution, whether as preventive, promotive, or curative therapy, is becoming popular again with the public in line with the trend of returning to nature for treatment. Family Medicinal Plants (TOGA) are plants that have medicinal properties and grow around community yards which are managed by families and planted to meet the family's medicinal needs. The development and utilization of family medicinal plant cultivation is very necessary to support public health. The aim of this service activity is to provide knowledge to improve health. The target of this health education activity is housewives. The activity method carried out in this community service is outreach using the lecture method and using power point slides containing explanations of several types of superior family medicinal plants and inviting the community to plant TOGA. The results of the service show that the success of this community service is assessed from the target number of participants of 75%, achievement of goals of 80%, achievement of material targets of 80% and success of planting TOGA at home of 80%. So, it can be concluded that through community service activities with TOGA education you can increase people's knowledge and understanding of TOGA.

### Keywords

education; family medicinal plants; socialization



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## INTRODUCTION

Family medicinal plants (abbreviated as TOGA) are home-cultivated plants that have medicinal properties. A family medicine garden is essentially a plot of land, either in the yard, garden or field, which is used to cultivate plants that have medicinal properties in order to meet the family's need for medicines (Hemalatha & Visantini, 2020); (Boroumand et al., 2018). The use of Family Medicinal Plants as a treatment option is in line with Government Regulation Number 103 of 2014 regarding

Traditional Health Services in article 70 which states that people can carry out health care independently by using Family Medicinal Plants (TOGA) (Rani et al., 2022).

Based on field surveys, some of them already know the benefits of TOGA and are also technically able to process TOGA, however, they do not yet understand the benefits of TOGA scientifically. Therefore, it is necessary to carry out training on the scientific efficacy of TOGA. People who already have knowledge about the properties of TOGA and master how to process it can cultivate medicinal plants individually and use them so that the principle of independence in family medicine will be realized. Apart from that, it can also be developed into small and medium businesses in the field of herbal medicines, which can then be distributed to the community.

Family Medicinal Plants (TOGA) are easy to plant around the home yard and can be developed to treat daily illnesses such as coughs, colds, heartburn and others. In fact, currently medicinal plants are not only used to treat disease but are also used as natural cosmetics (Aisyah, 2022); (Park et al., 2020). Apart from being cheap, family medicinal plants also do not cause side effects on health, in contrast to chemical medicines which have many side effects (Motsumi et al., 2020; Rahmah & Barizah, 2020). The current habit of housewives in Java is to utilize the minimal land in their respective homes by planting family medicinal plants (Lukitaningsih et al., 2020); (Widowati, 2017).

Factors that influence the use of TOGA by housewives are based on personal experience, age, education level, external information from television, radio, internet and even social media, per capita income as well as social and cultural aspects (Purwantisari et al., 2022; Tkacová et al., 2022). In this case, our target is mothers empowering family welfare which is dominated by housewives, where this influences the consumption behavior of family medicinal plants, for example regarding aspects of financial management when choosing and consuming medicines (Irawan et al., 2023; Yusransyah et al., 2021).

Based on interviews with community leaders at RT 13 in the Wates area, it can be seen that the community has a tendency to use traditional medicine, especially spice plants. Spice plants that are often used include ginger, cucumber, guava leaves, shallots, garlic and turmeric. In this area there is also quite extensive agricultural land available with minimal optimization of land use, which is the reason why it is important to provide information on the utilization and use of TOGA.

The development and utilization of family medicinal plant cultivation is very necessary to support public health. The aim of this service activity is to provide knowledge to improve health.

## METHODS

The method for implementing this service is outreach on the introduction and use of Family Medicinal Plants (TOGA) with interactive discussions. In general, the implementation stages are described as follows:

The implementation of the Community Service Program is carried out virtually. It is hoped that the public will know the types of family medicinal plants. The activities carried out include:

1. Preceded by licensing
2. Arrange a schedule to be able to carry out counseling via online webinars.
3. Creation of background (online), questionnaires.
4. Community service team meetings via WA group.
5. Interactive outreach and discussion activities.

The approach methods offered include (1) Focus Group Discussion (FGD) to find out and solve problems together. (2) Socialization lecture on the introduction and use of family medicinal plants in the surrounding environment using slide poster media to increase knowledge and understanding of TOGA. (3) Survey to increase knowledge through questionnaires. The stages of service activity planning are generally divided into four activity stages, namely planning and preparation, implementation, evaluation, and reporting and publication.

Service activities are carried out in several stages, namely planning, socialization as well as counseling and training to partners. At the planning stage, the activity took the form of a site inspection and request for permission from the Head of Purworejo Village, Candimulyo, Magelang. Then proceed with problem formulation based on the results of discussions with the Wates Village Head as well as field analysis where the use of TOGA is still limited, which is then continued with formulating problem solutions. At this stage, the types of activities that will be carried out along with service materials are prepared according to the problems faced by the community.

The team then prepares a schedule of activities and division of tasks. The preparation of the activity schedule is carried out by paying attention to solutions to community problems. Next, the team prepared activity materials in the form of material regarding TOGA. This preparation is based on the problems that have been explored. At this stage, the methods that will be used in service activities are also prepared. The next stage is outreach activities carried out to partners, namely the Wates Village Head, and the PKK Chair regarding the theme of service activities, activity objectives and technical implementation of service activities. Counseling is carried out after the socialization by providing material regarding TOGA and its use

based on scientific reference sources, introduction to types of traditional medicine. The activity continued with the delivery of socialization material and questions and answers. At this stage, participants were divided into several groups, where each group was given several examples of traditional medicine preparations sold in the community and asked to differentiate between herbal medicine groups by looking at the markings on the packaging as explained in the socialization material.

## FINDINGS AND DISCUSSION

### Findings

This activity will be carried out in January 2023, including providing outreach to mothers in the Wates area, by coordinating the outreach mechanism for mothers from PKK and Posyandu cadres. Implementation of activities includes measuring community knowledge about family medicinal plants. The socialization activity begins with providing material related to TOGA, then there are videos or visuals related to several examples of plants.

Counseling regarding family medicinal plants, medicinal plants that are easily available around the village such as galangal, red ginger, turmeric, and so on. The counseling carried out is displayed on a projector screen accompanied by poster leaflets related to the meaning of TOGA, examples of surrounding plants and some information to complement the material. After carrying out the education, the service and partners held a Focus Group Discussion to find out and solve common problems. The educational theme includes several elements, namely types of herbal medicines for self-medication, the purpose of using traditional medicines, reasons for use, dosage forms of medicines, and how to obtain them.



Figure 1. Socialization materials

## Discussion

At the implementation stage, the pre-test and post-test questions are given to participants in hard copy form and via Gform which has been sent to WhatsApp. In the results assessment there are three categories to assess participants' knowledge. These categories are taken from the participants' pre-test and post-test results.

The number of pre-test and post-test questions is 10 each with right and wrong answer choices. The scale used to measure knowledge is in the very good category if participants can answer 9-10 questions correctly; good category if participants can answer 6-8 questions correctly; and the poor category if participants answered 0-5 questions correctly. The data obtained were processed using the Microsoft Excel application and presented in column and graph form. The target achievement of this activity is to increase participants' knowledge regarding TOGA as seen from the results of the pre-test and post-test scores.

The counseling material includes the meaning of TOGA, plants that are included in TOGA, properties and methods of processing medicinal ingredients from plants (Gupta, 2018; Vears & Gillam, 2022). The selection of plant types discussed is in accordance with the types of plants that are easily found around people's home gardens (Asfahani, 2023; Jayani et al., 2022). Some medicinal plants that are often found include turmeric (*Curcuma longa*), galangal (*Alpinia pyramidata*) as an immunity enhancer, Curcuma (*Curcuma zanthorrhiza*) as an appetite enhancer, Red Jane (*Zingiber officinale*) and others (Memarzia et al., 2021; Nurcholis et al., 2015). When the counseling was taking place, the village residents seemed very attentive. Even though some experienced connection problems, village residents asked questions about how to mix potions to cure certain diseases, as well as the mechanism for planting family medicinal plants around their yards (Yusransyah et al., 2021). Important things such as critical points for processing TOGA as a medicinal herb are also conveyed in the counseling.

Things that must be considered when planting TOGA based on Putri et al. (2020) include: a) The plant material used must be fresh, if dried plants are used then the *simplicia* must be ensured to be of good quality and not moldy. b) Plant materials are washed with clean water and sourced from a clean place. The water used to use the potion must be boiled first. c) Storage time for the herb after processing is a maximum of 12 hours. For boiled ingredients, the maximum storage time is 24 hours. Medicinal herbs should not be consumed beyond the storage time limit. Using traditional medicine does not mean eliminating the role of medical drugs (Alfiana et al., 2023);

(Hikmah Harun & Firdaus Mohamad, 2022). Severe illnesses or those that require immediate action must be immediately referred to the nearest health facility.

Evaluation is carried out through surveys with questionnaire instruments to measure knowledge and determine changes after the socialization process.

Knowledge	Pre-test	Post-test
Not enough	11	1
Enough	7	4
Good	3	15
Total	20	100

Table 1. Public knowledge about TOGA

The results of the evaluation of community knowledge increased by around 76.9%, so it can be concluded that this service activity can increase community knowledge about family medicinal plants. Distribution of material via WhatsApp to participants was carried out as a tool to assist in delivering TOGA discussion material. Leaflets are distributed so that the public can get information related to TOGA in writing so that it can be saved and read again when needed.

## CONCLUSION

Socialization is an effective method that can increase public literacy about the use of herbal medicinal products. After being given counseling on all aspects of the study including the meaning of TOGA, the plants that are included in TOGA, the properties and methods of processing medicinal ingredients from plants. The selection of plant types discussed is in accordance with the types of plants that are easily found around the home gardens of the people of Wates Village. increased significantly. The outreach carried out was also effective in changing people's behavior regarding family medicinal plants (TOGA). The stages of the TOGA extension program consist of: coordination and preparation, socialization and distribution of leaflets which have been implemented according to plan and received a positive response.

## REFERENCES

- Aisyah, E. N. (2022). Pemberdayaan Ekonomi Perempuan Melalui Pengolahan Tanaman Obat Keluarga (TOGA) Menjadi Produk Minuman. *Aksiologi: Jurnal Pengabdian Kepada Masyarakat*, 6(1), 1. <https://doi.org/10.30651/aks.v6i1.4924>
- Alfiana, A., Mulatsih, L. S., Kakaly, S., Rais, R., Husnita, L., & Asfahani, A. (2023). Pemberdayaan Masyarakat Dalam Mewujudkan Desa Edukasi Digital Di Era Teknologi. *Community Development Journal: Jurnal Pengabdian Masyarakat*, 4(4), 7113–7120.
- Asfahani, A. (2023). Pendampingan UMKM melalui Penyediaan Lapak dalam

- Meningkatkan Perekonomian Masyarakat. *Assoeltan: Indonesian Journal of Community Research and Engagement*, 1(1), 31–41. <https://edujavare.com/index.php/Assoeltan/article/view/147>
- Boroumand, N., Samarghandian, S., & Hashemy, S. I. (2018). Immunomodulatory, anti-inflammatory, and antioxidant effects of curcumin. *Journal of HerbMed Pharmacology*, 7(4), 211–219. <https://doi.org/10.15171/jhp.2018.33>
- Gupta, T. (2018). Psychological management of bereavement among adolescents: A case series. *Journal of Indian Association for Child and Adolescent Mental Health*, 14(2). <https://doi.org/10.1177/0973134220180208>
- Hemalatha, M., & Visantini, P. (2020). Potential use of eco-enzyme for the treatment of metal based effluent. *IOP Conference Series: Materials Science and Engineering*, 716(1). <https://doi.org/10.1088/1757-899X/716/1/012016>
- Hikmah Harun, N., & Firdaus Mohamad, M. (2022). The Immunomodulatory effects of *Zingiber officinale* (Ginger): A Systematic Review. *Research Journal of Pharmacy and Technology*, 3776–3781. <https://doi.org/10.52711/0974-360x.2022.00634>
- Irawan, B., Rofiah, C., Asfahani, A., Sufyati, H. S., & Hasan, W. (2023). Empowering Micro Small and Medium Enterprises (MSMEs) to Improve Global Economic Welfare. *International Assulta of Research and Engagement (IARE)*, 1(2), 75–86.
- Jayani, N. I. E., Tandelilin, E., Widjaja, F. N., Mukti, Y. P., & Rani, K. C. (2022). Pelatihan Pembuatan Jamu Milenial untuk Kafe di Wisata Rainbow Garden Poetoeok Soeko Trawas Mojokerto. *Amalee: Indonesian Journal of Community Research and Engagement*, 3(2), 343–353.
- Lukitaningsih, E., Rohman, A., Rafi, M., Nurrulhidayah, A. F., & Windarsih, A. (2020). In vivo antioxidant activities of *Curcuma longa* and *Curcuma xanthorrhiza*: A review. *Food Research*, 4(1), 13–19. [https://doi.org/10.26656/fr.2017.4\(1\).172](https://doi.org/10.26656/fr.2017.4(1).172)
- Memarzia, A., Khazdair, M. R., Behrouz, S., Gholamnezhad, Z., Jafarnezhad, M., Saadat, S., & Boskabady, M. H. (2021). Experimental and clinical reports on anti-inflammatory, antioxidant, and immunomodulatory effects of *Curcuma longa* and curcumin, an updated and comprehensive review. *BioFactors*, 47(3), 311–350. <https://doi.org/10.1002/biof.1716>
- Motsumi, M. J., Mashalla, Y., Sebege, M., Ho-Foster, A., Motshome, P., Mokokwe, L., Mmalane, M., & Montshiwa, T. (2020). Developing a trauma registry in a middle-income country – Botswana. *African Journal of Emergency Medicine*, 10. <https://doi.org/10.1016/j.afjem.2020.06.011>
- Nurcholis, W., Ambarsari, L., Luh, N., Eka, P., Sari, K., & Darusman, L. K. (2015). Curcuminoid Contents, Antioxidant and Anti-Inflammatory Activities of *Curcuma xanthorrhiza* RoxB. and *Curcuma domestica* Val. Promising Lines From Sukabumi of Indonesia. *Prosiding Seminar Nasional Kimia Unesa*, 284–292.

- Park, T. Y., Son, S., Lim, T. G., & Jeong, T. (2020). Hyperthermia associated with spinal radiculopathy as determined by digital infrared thermographic imaging. *Medicine*, 99(11). <https://doi.org/10.1097/MD.00000000000019483>
- Purwantisari, S., Ardiansari, A., Jannah, S. N., & Saputro, R. W. (2022). Strategi Pemasaran Serbuk Jamu Instan UMKM Tiga Dara di Masa Pandemi Covid 19. *Jurnal Surya Masyarakat*, 4(2), 154. <https://doi.org/10.26714/jsm.4.2.2022.154-159>
- Putri, A. E., Khadijah, U. L. S., & Novianti, E. (2020). Community empowerment in the development of mangrove tourism in Batu Karas of Pangandaran, West Java. *Geo Journal of Tourism and Geosites*, 31(3), 972–978.
- Rahmah, M., & Barizah, N. (2020). Halal Certification of Patented Medicines in Indonesia in the Digital Age" A Panacea Pain? *International Journal Systematic Reviews in Pharmacy*, 11(12), 210–217.
- Rani, K. C., Tandelilin, E., Jayani, N. I. E., Darmasetiawan, N. K., Sukweenadhi, J., Waluyo, P. W., Rasyidah, U. M., & Parfati, N. (2022). Pengembangan Usaha Cafe Herbal di Desa Sentra Kelor Bogo. *Poltekita: Jurnal Pengabdian Masyarakat*, 3(2), 330–341. <https://doi.org/10.33860/pjpm.v3i2.913>
- Tkacová, H., Králik, R., Tvrdoň, M., Jenisová, Z., & Martin, J. G. (2022). Credibility and Involvement of Social Media in Education—Recommendations for Mitigating the Negative Effects of the Pandemic among High School Students. *International Journal of Environmental Research and Public Health*, 19(5), 2767.
- Vears, D. F., & Gillam, L. (2022). Inductive content analysis: A guide for beginning qualitative researchers. *Focus on Health Professional Education: A Multi-Disciplinary Journal*, 23(1), 111–127.
- Widowati, R. (2017). Efektifitas Terapi AKupuntur dan Inframerah Dalam Menurunkan Nyeri Muskuloskeletal Pada Lanjut Usia. R. Widowati," *Efektifitas Terapi AKupuntur Dan Inframerah Dalam Men* *Indonesian Journal of Medicine*, 2(1), 41–51.
- Yusransyah, Y., Stiani, S. N., & Zahroh, S. L. (2021). Pengabdian Masyarakat Tentang Dagusibu (Dapatkan, Gunakan, Simpan Dan Buang) Obat Dengan Benar Di Smk Ikpi Labuan Pandeglang. *Jurnal Abdi Masyarakat Kita*, 1(1), 22–31. <https://doi.org/10.33759/asta.v1i1.95>