

Processing of Ginger Rhizomes and Moringa Leaves as an Effort to Maintain Body Health in the Village of Tarik Sidoarjo

Pengolahan rimpang jahe dan daun kelor sebagai Upaya Menjaga Kesehatan Tubuh Di Desa Tarik Sidoarjo

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Abstract

Indonesia is also affected by the coronavirus or Covid-19. Not only multivitamins but these spices are also consumed by residents. Low public knowledge related to the use of herbal medicines can result in not helping to maintain the body's immune system in preventing Covid-19. From this background, Training and Assistance in Making Immune System Enhancement Products to Preventing Infections are needed. The community service stage in Tarik Village is carried out face-to-face by fulfilling strict health protocols with the bureaucratic stages of applying for permits to village officials, preparing consumables for counseling and workshops on making herbal tea for ginger rhizomes and Moringa leaves, counseling and workshops on making herbal tea for ginger rhizomes and Moringa leaves, assistance in making herbal tea for ginger rhizomes and Moringa leaves and evaluating the implementation of community service. From the results of the training and mentoring carried out, there was an increase in knowledge which was initially 21% to 68%, there was a decrease from the fair-know category which was originally 49% to 43% and a decrease in the less know category from 81% to 11%. The herbal tea training received enthusiasm from the participants and assistance in making herbal tea products to increase the immune system in preventing infections went smoothly and was characterized by an increase in the understanding of participants.

Abstrak

Indonesia juga terdampak dengan virus corona atau Covid-19. Tidak hanya multivitamin tetapi rempah-rempahan ini juga dikonsumsi oleh warga. Pengetahuan masyarakat yang rendah terkait dengan penggunaan obat herbal dapat berakibat tidak membantu menjaga sistem imun tubuh dalam preventif Covid-19. Dari latar belakang tersebut maka Pelatihan Dan Pendampingan Pembuatan Produk Peningkatan Sistem Imun dalam Mencegah Infeksi sangat dibutuhkan. Tahapan pengabdian masyarakat di Desa Tarik dilaksanakan secara tatap muka dengan memenuhi protokol Kesehatan ketat dengan tahapan birokrasi permohonan izin kepada perangkat desa, penyiapan bahan habis pakai untuk penyuluhan dan workshop pembuatan teh herbal rimpang jahe dan daun kelor, penyuluhan dan workshop pembuatan teh herbal rimpang jahe dan daun kelor, pendampingan pelatihan pembuatan teh herbal rimpang jahe dan daun kelor dan evaluasi pelaksanaan pengabdian masyarakat. Dari hasil pelatihan dan pendampingan yang dilaksanakan terdapat kenaikan pengetahuan yang awalnya 21% menjadi 68%, terdapat penurunan dari kategori cukup tahu yang awalnya 49% menjadi 43% dan penurunan kategori kurang tahu dari 81% menjadi 11%. Pelatihan teh herbal mendapatkan antusias dari peserta Dan Pendampingan Pembuatan Produk Teh Herbal Untuk Peningkat Sistem Imun Dalam Mencegah Infeksi berjalan dengan lancar dan ditandai dengan terjadi peningkatan pemahaman peserta.

Keywords: herbal tea, community service, ginger rhizomes, Moringa leaves.

1. Introduction

Citizens of the world are starting to worry about cases of the coronavirus or Covid-19 which are very uncontrollable and cause many deaths. Supplements or multivitamins are widely consumed by the public to increase immunity.

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Indonesia is also affected by the coronavirus or Covid-19. Not only multivitamins but these spices are also consumed by residents (Aprilia Kusbandari, Dian Prasasti & Fakultas, 2020).

Maintain balanced nutrition and a regular diet. Every day consume at least 6 glasses of water, 30 minutes of exercise is done a week 3 times, and every day bathing to maintain body hygiene. After eating or drinking and leaving the bathroom, you must wash your hands. Every day of adequate sleep ranges from 6-8 hours. Every day does a nutritional balance diet by consuming supplements or multivitamins that are efficacious as immunomodulators (Amigo et al., 2021).

In other words, residents are always advised to protect their diet with balanced nutrition. 18 herbs have been studied and tested and can increase immunity. Some of these herbs include Kembang Sepatu (*Hibiscus rosa Sinensis*), Brotowali (*Tinospora cordifolia*), Teen (*Ficus carica*), Lidah buaya (*Aloe vera*), Murbei (*Morus alba*), Jeruk nipis (*Citrus aurantifolia*), Bawang putih (*Allium sativum*), Kunyit (*Curcuma longa*), Orang-aring (*Eclipta alba*), Manga (*Mangifera indica*), Mimba (*Azadirachta indica*), Mengkudu (*Morinda citrifolia*), Pegagan (*Centella asiatica*), Cabe Jawa (*Piper longum*), Echinace (*Echinacea pupurea*), Meniran (*Phyllanti niruri*), Keladi tikus (*Thyponium flagelliforme*) dan Sarang semut (*Myrmecodia tuberosa*). This type of plant is very easy to find in Tarik village so that it can be produced into household scale products. The use of herbal remedies should not be more than 8 weeks in a row because it can make the body's immune system naturally decrease its function. Not only that, the use of immunomodulators is not recommended to be given to patients with chronic diseases such as leukemia, and TB, as well as autoimmune diseases such as SLE, Rheumatoid arthritis, Idiopathic thrombocytopenic purpura, and Diabetes Mellitus type 1, these diseases, are autoimmune diseases so immunomodulators are not recommended. The body's defense against Covid-19 is to maintain a healthy diet and life. The coronavirus can be prevented with a good immune system. Formation of a good immune system by maintaining a healthy diet and life (Santi et al., 2022).

Low public knowledge associated with the use of herbal remedies, the use, and storage of antibiotics as well as the interaction of herbal remedies, and herbal drinks with synthetic drugs cause undesirable effects. From this background, Pharmacy Lecturers and practitioners also made community service with the theme of Training and Assistance in Making Immune System Improvement Products in Preventing Infections.

2. Methods

The community service process in Tarik Village is carried out face-to-face by fulfilling strict health protocols which also serves as an example for residents to always get used to health protocols during a pandemic. Discussions with officials are the first stage of digging up village information before going directly to the community. Field observations were carried out after receiving data from discussions with village officials. The results of observations made on residents obtained data that still not all residents have not mastered and understood the efficacy and manufacture of herbal drinks because some residents more often use them as seasonings for dishes. Community service is carried out for 5 days starting on August 24 – 31 August 2022, with the following details:

1. The application for permission to the village apparatus will be carried out on 24 August 2022
2. The purchase of distilled and Worksop ingredients such as ginger, brown sugar, lemongrass, moringa, etc. will be held on August 23- 24 August 2022.
3. Herbal drink counseling will be held on 24 August 2022.
4. Herbal drink training for residents will be held on 29 August 2022.
5. Herbal drink training assistance will be carried out on 30 August 2022
6. An assessment after the herbal drink training was carried out incidentally to assess whether residents had started producing on a household scale (Fadilah et al., 2022).

3. Result and Discussions

100% success in terms of the arrival of participants, has been achieved in counseling and community service training this time. The presence of 100% of the participants was the initial enthusiasm of the participants to accept the science and technology of making herbal tea. Of 37 participants, all of them were able to attend the activity from beginning to end. The participants were very excited and active in participating in the counseling and training of herbal teas. The presence of 100% of participants in counseling and training because participants considered the making of herbal tea

to be a new science so participants were very enthusiastic about this activity. From the counseling activities, the results of the participants' knowledge were obtained which increased in terms of the results of the questions and answers of the participants and the presenters. Before the counseling was carried out, almost 61% of the residents who attended did not know the benefits, content, dosage, and how to make Moringa leaf tea and ginger. After counseling and demonstrations, the community became aware of what are the benefits, content, dosage, and how to make Moringa leaf tea and ginger (Rinanto et al., 2021).

During the practice of making Moringa leaf and ginger tea, we explained starting from preparing moringa leaves and fresh ginger to becoming Moringa tea products. In addition, we also explain the benefits of Moringa leaf tea. The increase in knowledge and skills of participants in the herbal tea training of ginger rhizomes and Moringa increased well because the lack of knowing the process of making herbal tea at first became very proficient and active in the training process. In the process of counseling and training herbal tea, there were no obstacles because the whole series of events went smoothly and well (Luluk Anisyah, Ani Riani Hasana, 2022).



Figure 1. Counseling and Worksop herbal tea the Moringa and ginger

How make Moringa and ginger tea can be done by preparing Moringa leaves and ginger that have just been taken from the tree. Perform dry sorting, that is, choosing young Moringa leaves (characterized by light green leaves located near the shoots). Moringa leaves are washed with running water until clean so that there is no dirt attached to moringa leaves and ginger. Drying Moringa leaves, In this stage, Moringa and ginger leaves should not be dried in direct sunlight because exposure to direct sunlight can make the nutritional content of Moringa and ginger leaves decrease so that the drying of Moringa and ginger leaves can be done by spreading moringa and ginger leaves that have been washed thoroughly on the surface of the black cloth then covering the moringa leaves and ginger with the rest of the black cloth, then store it at room temperature for approximately 3-7 days. Drying Moringa and ginger leaves can also be done using an oven at 50 °C for ±20 minutes. Drying Moringa leaves above a temperature of 50°C can damage the flavonoid content of Moringa leaves and ginger. Dried Moringa and ginger leaves are called simplisia. Dry Moringa leaves are characterized by the crushing of Moringa leaves when kneading. Dried Moringa leaves and ginger are then in a blender or grown until smooth. Put moringa leaf powder and ginger into a tightly closed wash so that it is not contaminated by dust or other impurities. Store moringa and ginger leaf powder in a dry and cool place (at room temperature) (Marwati, Asril Burhan, Muh. Azwar AR, Yuri Pratiwi Utami, Burhanuddin Taebe, Khairuddin, Hamdayani L. A, Fadillah Maryam, Reny Syahrani & Imrawati, Wahyuddin, 2022).



Figure 2. Moringa and ginger tea

In making Moringa and ginger tea, you can use 2 forms: Moringa leaf simplisia and ginger or Moringa leaf powder and ginger. How to serve it can also be done in 2 ways, the first is by putting Moringa leaf simplisia and ginger or Moringa leaf powder and ginger into an empty tea bag of 1 tablespoon, then brewing with warm water then adding honey. The second is done by taking 1 tablespoon of Moringa leaf simplisia and ginger or Moringa leaf powder and ginger and then putting it in a glass and then brewing it with warm water and adding honey. The presentation of Moringa and ginger tea can be done according to each taste (Wangiyana et al., 2019).

The question and answer session was conducted to find out the participants' understanding of making Moringa leaf tea and ginger. In this session, not a few participants asked about the properties of Moringa and ginger, drying techniques for Moringa and ginger, and the benefits of Moringa leaf tea and ginger.

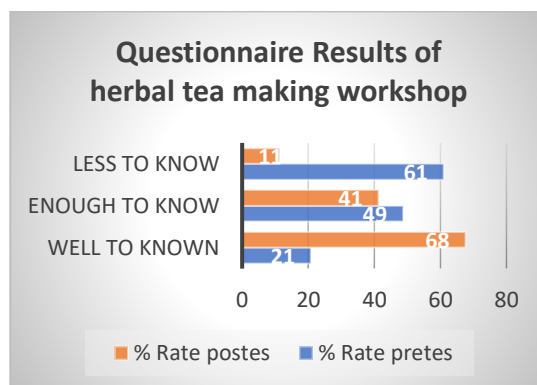


Figure 3. Questionnaire results in Workshop making Moringa tea and ginger

From the results of the training and mentoring carried out, there was an increase in knowledge which was initially 21% to 68%, there was a decrease from the fair-know category which was originally 49% to 43% and a decrease in the less know category from 81% to 11%.

4. Conclusion

The herbal tea training received enthusiasm from the participants and assistance in making herbal tea products to increase the immune system in preventing infections went smoothly and was characterized by an increase in the understanding of participants.

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References

- Amigo, T. A. E., Erwanto, R., & ... (2021). Pengembangan Kesehatan Melalui Pemanfaatan Olahan Tanaman Toga Menjadi Teh Herbal Penurun Tekanan Darah. *Jurnal Pengabdian ...*, 4(2), 75–80. <http://dharmabakti.respati.ac.id/index.php/dharmabakti/article/view/57>
- Aprilia Kusbandari, Dian Prasasti, C. A. E., & Fakultas. (2020). Pembudidayaan tanaman obat keluarga dan penyuluhan tanaman obat keluarga untuk pencegahan Covid-19 di dusun Ngentak Pelem, Baguntapan, Bantul. *Seminar Nasional Hasil Pengabdian Kepada Masyarakat, November*, 873–878.
- Fadilah, N. N., Mardianingrum, R., & Agustien, G. S. (2022). Pelatihan Pembuatan Produk Teh Pegagan untuk P-IRT di Desa Pagersari, Kecamatan Pagerageung, Kabupaten Tasikmalaya. *Jurnal Kreativitas Pengabdian Kepada Masyarakat (Pkm)*, 5(4), 1197–1204. <https://doi.org/10.33024/jkpm.v5i4.5527>
- Luluk Anisyah, Ani Riani Hasana, S. L. V. T. (2022). Pemberdayaan Kelompok PKK Kelurahan Kauman Kota

- Mlang Dalam Pemanfaatan Bunga Telang Sebagai Teh Herbal Di Masa Pandemi COVID 19. *SELAPARANG. Jurnal Pengabdian Masyarakat Berkemajuan*, 6(1), 175–179.
- Marwati, Asril Burhan, Muh. Azwar AR, Yuri Pratiwi Utami, Burhanuddin Taebe, Khairuddin, Hamdayani L. A, Fadillah Maryam, Reny Syahrini, A. H. U., & Imrawati, Wahyuddin, W. H. (2022). Pembuatan Teh Herbal dari Tanaman Sambung Nyawa. *Jurnal Pengabdian Kepada Masyarakat*, 02(8.5.2017), 2003–2005.
- Rinanto, Y., Masrurroh, L., & Herbal, T. (2021). Peningkatan Kesehatan Masyarakat Melalui Pendampingan Pembuatan Teh Herbal Sebagai Imunostimulator. *Prosiding Seminar Nasional Penelitian Dan Pengabdian 2021*, 1372–1376.
- Santi, I., Amirah, S., & Andriani, I. (2022). Sosialisasi Pembuatan Teh Herbal Dalam Kemasan Teh Celup Pada Kelompok Pkk Kalabbirang, Kabupaten Takalar. *Dharmakarya*, 11(1), 22. <https://doi.org/10.24198/dharmakarya.v11i1.32667>
- Wangiyana, I. G. A. S., Putri, D. S., & Triandini, I. G. A. A. H. (2019). Pelatihan Pengolahan Daun Gaharu Menjadi Teh Herbal Untuk Istri Petani Anggota Kelompok Tani Desa Duman. *Logista Jurnal Ilmiah Pengabdian Kepada Masyarakat*, 3(2), 82–89.