



Utilization of Herbal Supplements to Improve Health Quality after Suffering from Covid-19 Infection in Elderly Posyandu Partners

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Abstract. This health promotion activity aims to increase knowledge and health quality of partner elderly groups in the use of herbal supplements, which consist of Black Seed, honey and Sumbawa oil. The implementation of this community service uses a Participatory Action Research (PAR) approach, namely the active involvement of elderly Posyandu participants to utilize herbal supplements to support the treatment of Covid-19 for adjuvant treatment and care for post-Covid-19 infection, education, and health checks in the form of measuring body temperature, pressure blood and oxygen saturation. This activity begins with conducting a pretest to find out the knowledge of health promotion participants before conducting education and mentoring. Community service activities are continued by providing education, mentoring and ending with conducting an evaluation to assess post health education knowledge. Community service was carried out for partners for 1 month, by providing education about the benefits of herbal supplements to improve the health quality of patients after Covid-19 infection by reducing or eliminating persistent sequelae they experience. The results of providing education after the evaluation showed significant changes in the participants' knowledge scores before and after education.

Keywords: Health Promotion, Herbal Supplements, Covid-19, Adjuvant Treatment

1 Introduction

The independent learning-independent campus program or MBKM (*Merdeka Belajar Kampus Merdeka*) Program which is a policy of the ministry of education, culture, research and technology is a mandate that must be carried out by higher education in an effort to improve the quality of learning and tertiary graduates. The MBKM program is an embodiment of learning in tertiary institutions that must be carried out by state universities and private universities which is planned to create a learning culture that is

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more innovative, not restrictive, and facilitates the interests and needs of students. Students can take part in program activities within the study program, outside the study program and outside the campus in accordance with the provisions of the academic guidelines that have been made by each tertiary institution. The learning activities for the MBKM program have been regulated in Permendikbud no 3, 2020 article 15 paragraph 1 [1]. One form of activity that can be carried out by students is conducting research with accompanying lecturers and implementing research results. The role of students in this activity is as research assistants and implementation of research results in society. The implementation of the results of this research is one of the lecturers' activities to do community service. As for students, it is intended that students have social sensitivity to explore and understand problems that exist in the community and with lecturers to be involved in providing solutions to problems found in the community.

The Community Service activities carried out in the Baki Community Health Center in Sukoharjo Regency are based on the results of research on the use of herbal medicines for supplementation to support the treatment of Covid-19 by involving nursing students as a form of implementation of off-campus learning and is one of the lecturer recognition programs for research results that has been generated. The results of research applied in the community in Community service activities aim to obtain formulas and prototypes of herbal medicines that can support the treatment of Covid-19 in people without symptoms, who have mild to moderate symptoms, which have been carried out in the 2019-2020 independent research scheme and continued with the grant scheme. Scientific Research for 2021 is still ongoing. This research obtained the results of one herbal product/prototype to support the treatment of Covid-19, in the form of *Habatussauda* (*Nigella sativa*) oil capsules, pure honey, and Virgin Coconut Oil/VCO oil. Clinical trials in this study showed that the product/prototype of herbal product was effective in curing patients from Covid-19. Other clinical findings were obtained that post-Covid-19 infected patients have sequelae that affect their quality of life. These findings are relevant to the results of previous studies which stated that patients who recovered from Covid-19 infection within one year experienced persistent symptoms in the form of fatigue and dyspnea by 50-87%, as many as 22% experienced depression, 27.3% joint pain and joint pain. chest 21.7% [2]. Another study found that post-infection with COVID-19 patients complained of headaches, impaired concentration, and fatigue [3] shortness of breath at 42.6% and psychological pressure [4], in addition to deteriorating quality of life was found at 44.1% [5].

This community service activity was carried out to provide education about the use of herbal supplement packages consisting of *Habatussauda* oil capsules, pure honey, and VCO oil to improve the quality of health by reducing sequelae in post-Covid-19 infection patients. This activity is a continuation of community service from what was previously done, namely providing education, accompanying and providing herbal packages. The target set in this community service activity is to increase the knowledge of the post-Covid-19 infection community in the assisted area of the Baki Health Center, partners at Posyandu Melati and Palem regarding improving the quality of life of sufferers after experiencing Covid-19 infection by reducing the sequelae of post-19 infection with Covid-19 delivery of herbal packages.

2 Method

The method of community service activities is carried out by lecture and demonstration methods which are generally divided into 3 stages (Fig. 1), namely:

Preparatory stage

Preparation of materials and creation of educational media. Materials, media, and herbal package materials for demonstrations are made and designed in such a way and adapted to the conditions of the community. The media is made as attractive as possible in order to increase public interest in reading. In educational media there is some information about non-pharmacological management of the use of herbal packages (habatussauda oil capsules, pure honey and VCO oil) as a supplement for Covid-19 treatment to improve health quality by reducing sequelae after Covid-19 infection.

Meeting with Team Members. Aims to prepare and unify the perceptions of members with the team leader. This meeting discussed general matters regarding program readiness, steps to be taken, and divided the tasks of each team member.

Coordination meeting with partners. Aims to unite perceptions between the community service team and cooperation partners.

Formation of educators. In this program, Dr. Fahrur Nur Rosyid, S.Kep., Ns., M. Kes and Prof. Dr. Muhtadi, M.Sc.

Implementation of activities

Identify target groups. Identification of target groups based on the availability of resources and exploring the extent of public knowledge regarding the use of herbal packages (habatussauda oil capsules, pure honey and VCO oil) as a supplement for Covid-19 treatment to reduce post-covid-19 infection sequelae by giving a pretest.

Meetings with target groups. Explanation of the aims and objectives of the activity. Followed by the delivery of material regarding the use of herbal packages (habatussauda oil capsules, pure honey and VCO oil) as a supplement for Covid-19 treatment to reduce post-Covid-19 infection sequelae. The activity continued with discussions and questions and answers from the audience and the distribution of herbal supplement packages.

Monitoring and evaluation. After the provision of health education or education is carried out, followed by the provision of herbal supplementation packages, monitoring of the results is carried out and evaluating how far the patient understands the information that has been obtained by being given a post test where questions have been prepared about the information that was previously given.

Data retrieval. Data collection was carried out by collecting post-test results which were carried out after counseling.

Final Stage

Data analysis. Data analysis was carried out by calculating the percentage of questions answered correctly and answered incorrectly. Of the 10 questions given, then averaged and the percentage calculated, then compared before and after being given counseling.

Preparation of activity reports. Activity reports are compiled after all the files and documentation of community service activities have been collected.

Publication. The preparation of the publication is done after the activity report is completed.

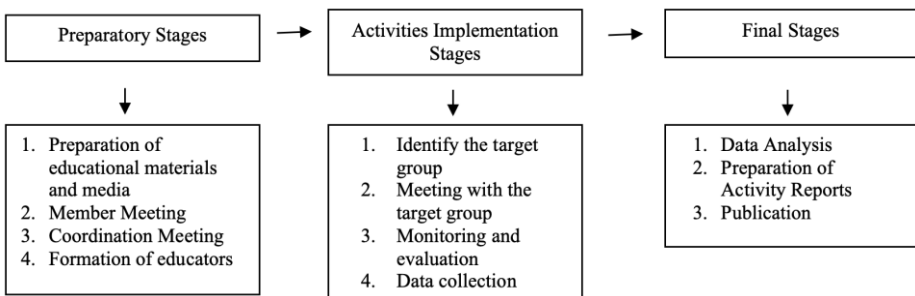


Fig. 1. Flowchart of the Implementation of Community Service Activities

3 Result and Discussion

3.1 Results

Community service activities have been carried out at the Baki Health Center with 15 participants as representatives of 45 post-covid 19 sufferers (Table 1). The community service team consists of lecturers and nursing students at the Muhammadiyah University of Surakarta. Community service activities begin with attendance, check blood pressure, measure oxygen saturation, pre test and continue with providing education regarding the use of herbal supplement packages (Habatussauda oil capsules, pure honey and VCO oil) as a supplement for Covid-19 treatment to reduce post-operative sequelae. Covid-19 infection as well as discussions, post tests and distribution of herbal packages. The pre-test and post-test questions used to measure community knowledge consisted of 10 questions, and from the analysis of the number of pre-test and post-test answers, it showed that there was an increase in the knowledge and understanding of participants with a history of Covid 19. This was indicated by the number of questions

answered by participants after better education than before education was given. The results of the pre and post test evaluations are shown in the graph of Fig. 2.

Table 1. Results of Respondent Characteristics

	Variable	Frequency (%)	
Gender	Male	7	46.7
	Female	8	53.3
Age category	Adults 17- 45 Years	6	40.0
	Early elderly 46-55 years	4	26.7
	Late Elderly 56-65 Years	5	33.3
Level of education	Elementary school	0	0
	Junior high school	3	20
	Senior High School	6	40
	Bachelor	6	40
Blood pressure	Normal to High 130-139 mmHg	1	6.7
	Mild hypertension 140-159 mm Hg	10	66.7
	Moderate hypertension 160-179 mm Hg	4	26.7
	Severe hypertension 180-209 mm Hg	0	0
Oxygen Saturation	Normal 90-100	15	100
	Low < 90	0	0

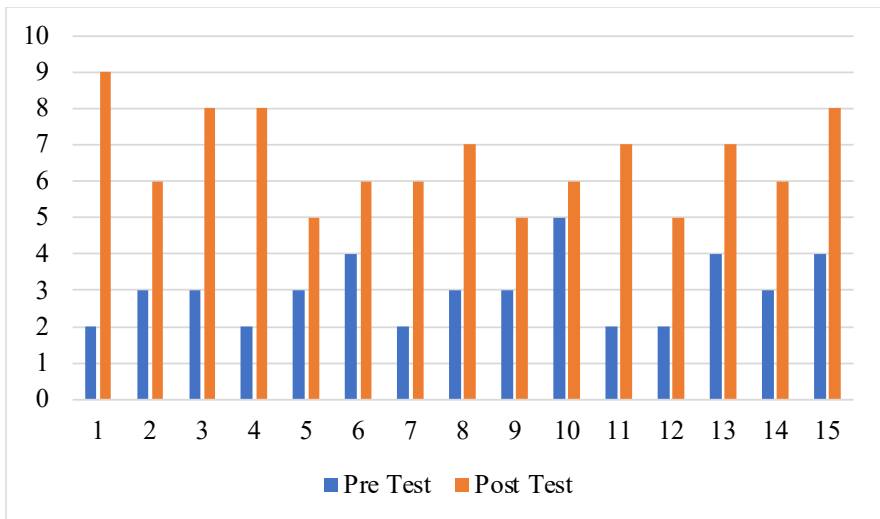


Fig. 2. Results of Pre Test and Post Test Answers Education Utilization of Herbal Supplementa-tion Packages

3.2 Discussion

A person's immunity or body immunity plays an important role in COVID-19 infection. Herbal medicines, which have immunomodulatory effects, can have potential as preventive and therapeutic agents for patients infected with COVID-19 infection [6]. Complementary and alternative medicine is one of the herbal treatment techniques, which can significantly reduce physical symptoms (inflammatory factors, physical activity, chest pain, and respiratory function) and psychological symptoms (depression, anxiety, stress), sleep quality, negative emotions, and quality of life in COVID-19 patients. The results of this community service activity are in accordance with the results of activities carried out by Badakhsh et al which stated that the provision of education about medicinal plants as a booster of body immunity during a pandemic received a positive response from the community and the knowledge and understanding of the community in processing and utilizing medicinal plants as non-pharmacological therapy. to improve the quality of life of post-covid patients has increased [7].

Herbal medicine supplements, including VCO oil, which has a high vitamin E content, can help treat viral respiratory infections. Honey [8], Black Cumin (*Nigella Sativa*) [9] and VCO [10] contain substances that are antiviral, anti-allergic, antiplatelet, anti-inflammatory, antitumor, and antioxidants. Honey has been clinically tested and reported to have excellent efficacies with *habatussauda* in the treatment of COVID-19 [11].

Based on Samarghandian et. al. [12] reported that honey is a natural therapeutic agent for various medicinal purposes. There is moderately valid evidence recommending the use of honey in the management of various disease conditions. Honey is also reported to have very good activity to increase immunity so it is very good in the prevention and treatment of Covid-19 [13]. Meanwhile, VCO oil is reported to have antibacterial and immunomodulatory activity [14], as an anti-virus and immune booster [15].

According to Prof. Dr. Thamrin Usman, DEA, virgin coconut oil (VCO) can kill the corona virus that causes COVID-19 because the lipid content in VCO can interact with the lipids of the corona virus cell membrane. VCO has also been tested and used clinically in 4 hospitals, namely RSUP Dr. Sardjito, RSA UGM, SA UGM, RSUD Wonosari, RSUD Sleman and it was concluded that VCO can be used as an adjuvant therapy for Covid-19, because VCO is medium chain fatty acids (MCA) which contain lauric acid which is converted into monolaurin monoglycerides which have an antiviral effect by destroying viral lipid membranes. *Habatussauda* is reported to be able to activate specific immunity because it can increase levels of helper T cells, suppressor T cells, and natural killer cells. One of the active compounds contained in black cumin (*Nigella sativa*), namely thymoquinone and thymohydroquinone, these compounds are known to reduce calcium ion entry so as to reduce mast cell degranulation and as an immunomodulator that can suppress inflammatory reactions [16].

This community service activity carried out in collaboration with lecturers, cadres, midwives, and students has the benefit of being an experience for students in socializing with the community, teaching students to interact directly with the community and

helping problems in the community by utilizing research results that can be implemented to provide solutions for solving health problems in the community, as well as helping and accompanying the community to find herbal products or plants that can be consumed to complement self-medication. Obstacles and obstacles that arise during the activity are related to the administration of permits for related work devices and there are still community concerns about the transmission of Covid-19.

4 Conclusion

The results of implementing community service activities in the form of health promotion and implementation of research herbal products through education on the use of herbal supplement packages consisting of Habatussauda oil capsules, pure honey, and VCO oil to improve health quality and reduce residual symptoms in post-Covid-infected patients 19 went well, and the result was an increase in the participants' knowledge of the activity between before and after health education and promotion. The use of herbal supplement packages for post-covid-19 treatment has been proven to be able to help improve and improve the quality of health and reduce post-covid-19 post-infection sequelae.

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