

TRAINING ON MAKING HAND SANITIZERS IN PREVENTING COVID-19 IN THE DATARAJAN VILLAGE COMMUNITY, LAMPUNG

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Abstract - *The coronavirus diseases 2019 (COVID-19) pandemic has spread on March 11, 2020. The status of the pandemic on COVID-19 has spread to 213 countries. Indonesia is a country affected by the COVID-19 pandemic. The economy, education, and public health aspects are severely affected. Distribution data released from Covid19.go.id explained that on September 6, 2021, positive COVID-19 patients reached 4,133,433 patients. Efforts in Clean and Healthy Living Behavior (PHBS) and always implementing health protocols are the most effective efforts in stopping the spread of the COVID-19 pandemic. Washing hands with soap is an implementation of public awareness in breaking the chain of the spread of COVID-19. However, activities outside the home make it difficult for people to find a place to wash their hands. Therefore, the use of hand sanitizer can be a solution to clean hands from bacteria and germs attached. Hand sanitizer is an antiseptic substance that functions as a germ killer by inactivating viruses or germs. Community service activities go through 2 stages, namely the preparation and debriefing stage, then the implementation stage is carried out offline. The raw materials used are 70% alcohol and aloe vera in a ratio of 3:1. The finished hand sanitizers are distributed to government officials, Islamic boarding schools, hamlet heads, and village communities. Based on the results of the activities that have been carried out, it can be concluded that the activities were successfully carried out offline while still complying with health protocols and all participants understood and were able to apply training on making hand sanitizers independently at household scale.*

Keywords: *Alcohol, Aloe Vera, COVID-19, Training, PHBS.*

1. INTRODUCTION

The coronavirus diseases 2019 (COVID-19) pandemic has spread on March 11, 2020. The status of the pandemic on COVID-19 has spread to 213 countries (WHO, 2020). Coronavirus Diseases 2019 (COVID-19) is a disease caused by a coronavirus strain, namely SARS-CoV-2 which first appeared in Wuhan, Hubei, China. The Coronavirus has become an epidemic that has been known to the world. The condition of this pandemic has made people feel restless and alert both from the political, social, cultural, health, economic, and social welfare aspects.

Indonesia is a country affected by the COVID-19 pandemic. The economy, education, and public health aspects are severely affected. Distribution data released from Covid19.go.id explains that in Indonesia on September 6, 2021, positive COVID-19 patients reached 4,133,433 patients. This virus has influenza-like symptoms (Gorbalenya *et al*, 2020). Common signs and symptoms of COVID-19 include fever, headache, and cough. The spread of COVID-19 is transmitted through the air by coughing or sneezing, which creates an aerosol containing the virus.

Efforts in Clean and Healthy Living Behavior (PHBS) and always implementing health protocols are the most effective efforts in stopping the spread of the COVID-19 pandemic. There is a government regulation that encourages the public to follow the direction of the circular letter of the COVID-19 handling officer unit no. 16 of 2021 regarding health protocols during the COVID-19 pandemic, there are 6M including wearing masks, maintaining distance, staying away from crowds, reducing mobility and avoiding eating together, and washing hands with soap and running water (Indriani, 2021). Washing hands with soap is an implementation of public awareness in breaking the chain of the spread of COVID-19. However, activities outside the home make it difficult for people to find a place to wash their hands. Therefore, the use of hand sanitizer can be a solution to clean hands from bacteria and germs attached.

So looking at the problems above, it is necessary to have community service activities regarding training in the manufacture of hand sanitizers as the implementation of clean and healthy living behavior in the midst of the COVID-19 pandemic. The service activity was carried out in Datarajan Village, Ulu Belu District, Tanggamus Regency, Lampung Province. The target of the training activity is understanding the participants in PHBS efforts and making hand sanitizers.

2. METHOD

Community service activities go through 2 stages, namely, the preparation and debriefing stage then continued with the implementation stage. The preparation and debriefing stage is in the form of preparing counseling materials as well as tools and materials used for training in making hand sanitizers. Meanwhile, the implementation stage is as follows:

- 1) Field observations to analyze the situation faced by the community in Datarajan Village, Ulu Belu District, Tanggamus Regency, Lampung Province.

- 2) Preparation of activities, including the preparation of a schedule for the implementation of activities agreed by the community.
- 3) Socialization about the implementation of PHBS which is carried out with the lecture method followed by an offline question and answer session
- 4) Training on making hand sanitizers from alcohol and aloe vera which is done offline

The tools and materials used in the manufacture of hand sanitizers and their working procedures are as follows:

1) Tools

- Container
- Stirrer
- Spray bottle
- Stickers
- Funnel
- Glass
- Scissors

2) Material

- Alcohol 70%
- Aloe Vera

3) Work Procedure

- Put 100 grams of aloe vera into the container.
- Add 300 mL of 70% alcohol.
- Stir both ingredients for 15-20 minutes.
- Prepare a spray bottle then the homogeneous mixture is put in a spray bottle using a funnel.

3. RESULTS AND DISCUSSION

Based on the results of field observations that have been carried out, it shows that there is still a lack of public knowledge regarding PHBS and how to make hand sanitizers as antiseptics so that this work program activity becomes effective. People do not know about the benefits of alcohol which can be used as an antiseptic, then aloe vera as a hand softener because alcohol makes hands dry.

Washing hands is one of the steps to break the chain of the spread of COVID-19. Keeping hands clean is the right thing to avoid attacks by germs, bacteria, and viruses because hands are part of the body that are very vulnerable and can easily become a nesting place for germs that cause disease. Therefore, the recommendation to wash hands in the health protocol amid this pandemic is routinely published. However, there are times when you need something that is practical and easy to clean your hands without having to find it difficult to find water and soap, namely by using a hand sanitizer.

Hand sanitizer is an antiseptic substance that functions as a germ killer by inactivating viruses or germs (Prabhadevi, Jain, & Satish, 2020). The raw materials used are 70% alcohol and aloe vera. According to the World Health Organization (WHO), alcohol is useful as an antiseptic or germ killer with a concentration requirement of 65% -80%. Alcohol can kill germs by destroying cell proteins and pulling water out of the germ cell body until finally, the germs can't survive (WHO, 2010). Although alcohol is effective in killing germs, excessive use will cause dry and irritated skin because it is volatile and easy to extract water from the skin (hygroscopic) so it is necessary to have a supportive skin moisturizer (Subasree, S., Murthykumar, K., Dhanraj, 2016).

The second raw material is aloe vera which functions as a moisturizer. The aloe vera extract contained in it has very good functions for the body, including antioxidants, vitamins, minerals, and enzymes. In addition, all of these ingredients function to moisturize the skin and nourish the skin. Then, aloe vera which has anti-microbial properties can increase the effectiveness of alcohol in the manufacture of hand sanitizers (Evitasari *et al*, 2021).

Training on making hand sanitizers will be held on August 24, 2021, at 10:00 WIB until it is finished at the house of the Head of Datarajan Village, Ulu Belu District, Tanggamus Regency, Lampung Province. The implementation of activities is carried out offline while still paying attention to health protocols. The training begins with counseling on the implementation of PHBS which is carried out using the lecture method which is then followed by a discussion session (question and answer). The participants who attended were representatives from each hamlet in Datarajan Village. The offline counseling is presented in Figure 1. Then followed by a question and answer session which is presented in Figure 2.



Figure 1. Counseling on the implementation of PHBS and how to make hand sanitizers



Figure 2. Discussion session (question and answer)

The raw material for making this hand sanitizer uses a ratio of alcohol and aloe vera 3:1, making hand sanitizer is very simple and practical so that it can be followed along with more economical expenses. The success of the hand sanitizer manufacturing activity was shown by the very high enthusiasm of the community from the beginning to the end of the activity. The finished hand sanitizers are distributed to government officials, Islamic boarding schools, hamlet heads, and village communities. The symbolic handover of the results of making hand sanitizer to the head of the Datarajan Village, Ulu Belu District, Tanggamus Regency, Lampung Province in Figure 3. Followed by Figure 4, handing over to the counseling participants.



Figure 3. Symbolic handover to the Datarajan Village Head



Figure 4. Handing over the results of making hand sanitizers to participants

Based on the results of counseling on PHBS and training on how to make hand sanitizers, the results of the activities showed that there was an increase in the knowledge and skills of the people who participated in the counseling and training.

4. CONCLUSION

PHBS counseling activities and training on making hand sanitizers in Datarajan Village, Ulu Belu District, Tanggamus Regency, Lampung Province have been carried out well. Based on the results of the activities that have been carried out, it can be concluded that the activities were successfully carried out offline while still complying with health protocols and all participants understand and are able to implement the manufacture of hand sanitizers independently on a household scale. It is hoped that this training can continue so that it becomes one of the efforts to control the spread of the COVID-19 virus and it is recommended that this activity be the forerunner of the community's creative efforts in Datarajan Village in responding to the COVID-19 pandemic so that it can also be an effort to improve the economy in the Village Datarajan.

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