

Empowerment of Gorontalo Local Natural Ingredients to Become Functional Food at Dasa Wisma, South Toto Village, Kabila District, Towards A Resilient Village in The Middle of COVID-19

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Abstract

COVID-19 is a global health problem, including in Indonesia. In addition to health problems, the increase in the number of cases of COVID-19 also has an impact on the global economy which affects stability in Indonesia. Based on the latest situation data on the development of COVID-19 cases released by the Task Force for the Acceleration of Handling COVID-19, Bone Bolango Regency, Gorontalo Province until December 31, 2020, Kabila District had the highest number of incidents, which had 122 positive confirmed cases of COVID-19. One of the 12 villages within the Kabila sub-district, South Toto Village had the highest incidence which had 38 cases. This community service aims to apply the results of research related to the use of natural materials such as Water Gourds (*Lagenaria siceraria*) which has antioxidant activity, so they can be used as an immunomodulator that can strengthen the body's resistance during the COVID-19 pandemic. The methods used were the distribution of Water Gourd juice syrup and training of cadres/community groups regarding the procedures for making Water Gourd juice syrup (*Lagenaria siceraria*). This is to increase the level of health and skills of the Gorontalo community in general and the awareness of cadres/community groups in the location where community service is carried out in particular. The parameters that can be measured in this community service are data from the pre-test and post-test results which include questions related to public knowledge about COVID-19, Gorontalo local natural ingredients that are nutritious, knowledge in making functional drinks, as well as the rules and procedures for managing p-IRT for food processing businesses. Based on the results of data analysis, it was found that the average level of public knowledge increased from 58% to 72.4%.

Keywords: COVID-19, Local Natural Ingredients, Functional Food, Resilient Village

INTRODUCTION

COVID-19 is a global health problem, which has changed the order of human life, including in Indonesia. In addition to health problems, the increase in the number of cases of COVID-19 also has an impact on the global economy which affects stability in Indonesia (Ardillah et al., 2022; Susilawati et al., 2020). Based on the latest situation data on the development of COVID-19 cases released by the Task Force for the Acceleration of Handling COVID-19, Bone Bolango Regency, Gorontalo Province as of December 31, 2020, Kabila District had the highest number of incidents, namely 122 positive confirmed cases of COVID-19. From 12 villages which is located in the Kabila Subdistrict, South Toto Village had the highest incidence rate of 38 cases (Gugus Tugas Percepatan Penanganan COVID-19, 2020).

The very fast spread through human-to-human contact, makes the number of confirmed cases has drastically increased in a short time, making COVID-19 a troubling outbreak. During this pandemic, it is very important for the community to maintain a strong immune system to protect the body from viral infections. One of the efforts that can be done to build immunity (immune system) is to maintain the intake of nutrients in food, especially those containing vitamins, minerals, and antioxidants (Dewi & Riyandari, 2020).

Exploration of Gorontalo's local natural ingredients that have antioxidant activity is needed to prevent the spread of COVID-19, including the Water Gourd (*Lagenaria siceraria* (Molina) Standley). Research conducted by Deore, et al (2009) showed that Water Gourd fruit has potential as a source of natural antioxidants. In addition, research conducted by Masrifah, et al (2017) also found that the leaves and skin of the water gourd are natural antioxidants that are very strong (Masrifah et al., 2017).

Based on the background, community service was carried out by lecturers as a form of application of the research results of the lecturer team implementing community service activities to increase the empowerment of the South Toto Village community, Kabila District towards a resilient village, both in terms of health and from an economic perspective in the midst of the COVID-19 pandemic through training on the use of Gorontalo's local natural ingredients into functional food preparations, including water gourd syrup.

METHOD

This activity was carried out in the form of counseling with metodes: lectures, discussions, consultations, mentoring, training on making health syrups using local Gorontalo ingredients, counseling on the management of P-IRT at Dasa Wisma, and food safety training with resource persons from the Bone Bolango Health Service, in order to prevent the spread of COVID-19 and help empower dasa wisma towards resilient villages in the midst of the COVID-19 pandemic. The instruments used in community service activities are: presentation materials, leaflets, stoves, cooking utensils and materials for making functional beverage products.

RESULTS

Counseling was carried out to 25 cadres/representatives from each dasa wisma group in South Toto Village, Kabila District, Bone Bolango Regency. The material provided were the form of COVID-19 and efforts to prevent its transmission, various local Gorontalo natural ingredients that have antioxidant compound based on scientific literature searches, functional food, food safety, and the flow of p-IRT management. The results of changes in community knowledge before and after counseling can be seen in table 1.

Table 1. Results of Community Knowledge Analysis

Number	Initial	Number of Correct Answers	
		Pre-Test	Post Test
1.	SH	6	10
2.	DP	8	9
3.	NN	7	9
4.	SHN	5	8
5.	MJ	4	5
6.	SK	8	9
7.	YL	8	7
8.	HK	8	10
9.	HH	6	7
10.	FT	4	9
11.	FH	2	6
12.	WM	6	8
13.	OK	7	6
14.	FA	4	2
15.	AR	8	6
16.	OI	5	8
17.	RR	2	7
18.	PP	5	6
19.	RG	4	7

Number	Initial	Number of Correct Answers	
		Pre-Test	Post Test
20.	MS	6	9
21.	AI	8	7
22.	LI	6	7
23.	YN	7	9
24.	JM	6	2
25.	SAH	5	8
Average Percentage		58%	72.4%

Based on table 2, it can be seen that there is an increase in the percentage of cadres who understand the counseling material as much as 14.4%. This means that counseling activities have an impact on increasing the knowledge of community cadres.

DISCUSSION

Counseling is a form of non-formal education effort to individuals or community groups that is carried out systematically, planned and directed in an effort to change sustainable behavior in order to achieve increased income, improve welfare to the degree of public health (Riadi, 2020). Prior to the outreach activities, to find out the gap in public knowledge on a particular issue, a pre-test was conducted through distributing questionnaires to the target community. After the counseling was done, participants were given a post test to measure changes in their knowledge. Increased knowledge of participants as cadres will be the first path to increase understanding that can affect changes in people's attitudes and skills in dealing with the Covid-19 pandemic.

In addition to counseling, community service activities are also carried out in the form of training. Training is one of the human resource programs to assist the community in sharpening their competence which aims to improve their performance and productivity (Nasrudin, 2022). In this activity, the training was carried out in 2 stages with the aim of supporting the economic recovery of the South Toto Village community during the COVID-19 pandemic. The first training was conducted to improve the skills of cadres/representatives of the South Toto Village *dasa wisma* through the manufacture of sample products made from Water Gourd fruit, which had previously been formulated by a team of lecturers. The product is made in the form of a functional drink as a type of functional food. Through this training, it is hoped that the interest of cadres/*dasa wisma* representatives to develop similar products by utilizing Gorontalo's local natural ingredients found in the vicinity is expected. In addition, it is also hoped that the cadres who have been trained can pass on the information they get to train other community members.

Cadres or people who want to make products are then accompanied by the mentors from community service team in terms of making their products. Mentoring is an activity to teach a group of people starting from their needs and potential, on the basis of interactions from, by, and for group members. From 25 participants who were trained, there was 1 cadre/*dasa wisma* who was assisted in developing their products. Products derived from natural ingredients are made in the form of functional food preparations with the aim of increasing economic value, especially with regard to shelf life, taste and aroma.

In order to fulfill the demands for quality and food safety requirements at the home industry level, the government has formulated guidelines for Good Food Production Methods for Home Industry (CPPB-IRT). This guideline is used as a reference in the food safety training process with the aim of ensuring the quality of food produced by IRTPs is safe and quality for consumers (Komalasari et al., 2020). The management of p-IRT is important for people who want to produce food on a household scale. P-IRT can have a positive impact on the products produced, including increasing consumer confidence and adding to the marketing network (Epriliyana, 2019). Food safety training carried out in this community service activity was carried out by the authorities at the Bone Bolango District Health Office. As a result of the training, participants will receive a food safety certificate as one of the requirements in managing p-IRT.

Furthermore, the management of p-IRT is done online where registration is done through the SPP-IRT Application which is integrated with the OSS (Online Single Submission) System.

CONCLUSIONS AND RECOMMENDATIONS

Based on the results of community service activities carried out, it can be concluded that there was an increase in the understanding of the people of South Toto Village, Kabila District regarding efforts to prevent the spread of COVID-19, how to make functional drinks and procedures for obtaining p-IRT permits, from 58% to 72.4%. However, there is only 1 (one) cadre/dasa wisma who are interested in developing products, so it is hoped that in the future the local government can increase public interest in developing p-IRT based on Gorontalo's local natural ingredients.

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APPENDIX



Figure 1. Counseling and Discussion with Cadres



Figure 2. Demonstration How To Make Functional Drink



Figure 3. Product



Figure 4. Food Safety Certificate