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STRENGTHENING COMMUNITY CAPACITY TO BOOST IMMUNITY DURING THE COVID-19 PANDEMIC

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ABSTRACT

Covid-19 is a disease caused by a corona virus that was first discovered in the province of Wuhan, the People's Republic of China and has become a global pandemic. The virus attacks the respiratory system and causes mild disturbances to death. The severity of the symptoms that appear is related to the state of immunity. The worse the immunity, the more susceptible to contracting Covid-19. In addition, individuals with poor immunity tend to experience severe manifestations of covid. Therefore, it is important to increase immunity during the Covid-19 pandemic. Efforts made to increase immunity include increasing community capacity through community service activities in the form of a webinar entitled "Tips to Increase Immunity During a Pandemic". There is a difference in the average value of the pre-test (83.79) and post-test (96.21) after the activity. As many as 66.7% of participants considered that the activity went very well. Thus, the webinar that was held was useful in increasing community capacity in increasing immunity during the co-19 pandemic. It is hoped that this activity will continue to be carried out at different targets in order to reduce the spread and transmission of Covid-19.

Keywords: Covid-19, Health, Immunity

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1. INTRODUCTION

Since 2009, the world has been hit by a pandemic caused by a contagious virus that has had a significant impact on the lives of millions of people. This disease has not only impacted healthcare services but has also placed a burden on business leaders, scientists, and politicians to address economic challenges, develop vaccines, and manage public anxiety and expectations. This infectious disease emerged in late 2019 and originated in China. This was evident from the sudden emergence of several cases of acute pneumonia with similar symptoms in Wuhan, one of China's largest cities. Subsequently, the cause of the disease was identified through genome sequencing technology as a new strain of coronavirus named severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (Khan et al., 2020).

Coronaviruses are generally zoonotic viruses transmitted from animals to humans. Transmission occurs via respiratory droplets and the fecal-oral route from bats, camels, civets, and bamboo rats, which serve as hosts for the coronavirus. However, the disease has now evolved to spread through human-to-human contact and can even be transmitted via airborne aerosols, having spread widely to nearly every corner of the world (Susilo et al., 2020). Following the large number of people affected by this disease, the World Health Organization (WHO) announced the name of the virus as Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2), and the disease is now known as Coronavirus Disease 2019 (COVID-19) (WHO, 2020).

Day by day, this virus is spreading faster and faster across the globe, and to date, it shows no signs of abating. As of May 1, 2020, a total of 150,989,410 people worldwide had tested positive for COVID-19, and 3,173,576 people had died from the virus. Indonesia ranks second highest in the number of confirmed COVID-19 cases after India, with 1,672,880 cases and 45,652 deaths (WHO, 2021). A COVID-19 infection can, of course, cause various signs and symptoms that may affect the well-being of individuals who test positive for the virus.

A study at Zhongnan Hospital, Wuhan University, identified the signs and symptoms of COVID-19 as they developed over time in 140 patients (Ministry of Health, 2020). According to the CDC (2021), the characteristic signs and symptoms of COVID-19 include loss of smell and taste, nasal congestion, anxiety, and sleep disturbances. Many COVID-19 cases result in death among the adult population today, but many others have successfully recovered from the disease. This is due to the role played by the immune system. Viral diseases are generally "self-limiting diseases" that rely on the body's own defenses.

Immunity is the body's defense system against attacks by foreign substances that come into contact with our bodies. These foreign substances can originate from outside or within the body itself. Examples of foreign substances originating from outside the body (exogenous) include bacteria, viruses, parasites, fungi, dust, and pollen. Meanwhile, foreign substances from within the body can take the form of dead cells or cells that have changed in shape and function (Lee et al., 2020). These foreign substances are called immunogens or antigens (Abbas, 2018). Everyone has a different immune response

They are not even the same due to the diversity of inflammasome genes. Therefore, it is necessary to strengthen the immune system during the COVID-19 pandemic.

Immunity—or the body's resistance—in a pandemic situation like the current one is a critical factor to consider in order to avoid viral infection. Immunity can be maintained and strengthened by continuing to follow a healthy lifestyle. Based on the above discussion, it is essential to undertake efforts to build the community's capacity to boost immunity during the COVID-19 pandemic (Rolland, 2020).

2. METHODS

An online community capacity-building initiative for the general public to provide information and knowledge on boosting immunity during the COVID-19 pandemic. The number of people infected with the COVID-19 virus continues to rise daily. An individual's immunity plays a crucial role in the body's defense mechanisms during a pandemic. Boosting immunity during this pandemic is essential so that the public can minimize the risk of contracting the virus. Tips for boosting immunity during the COVID-19 pandemic were shared with the public via a virtual platform, with the hope of improving the quality of life at both the micro and macro levels.

The event took place on Wednesday, May 5, 2021, from 9:00 AM to 11:00 AM in the form of a webinar using Zoom as the primary platform. The series of activities began with a knowledge assessment regarding the material to be presented (pre-test). This was followed by the presentation of the material through lectures and discussions or Q&A sessions with participants. At the end of the event, another knowledge

assessment was conducted after participants received the material (post-test) to evaluate the extent to which participants paid attention to and understood the material presented.

3. RESULTS AND DISCUSSION

This health education activity was part of a community service program held on Wednesday, May 5, 2021. Prior to the event, our organizing committee made several preparations, such as creating posters for distribution, registration links, attendance links, and Zoom links. In addition, we prepared educational materials, including a PowerPoint presentation, and created pre-test and post-test questions, which had previously been reviewed by our academic advisor. We coordinated with the health education participants one day before the event and throughout the event.

The webinar titled “Tips for Boosting Immunity During the Pandemic” was attended by 29 participants. The largest group consisted of 13 participants (45%) aged 23, followed by 11 participants (38%) aged 22, 1 participant (3%) aged 24, and 1 participant each (3% each) aged 18, 19, 21, and 26. The youngest participant was 18 years old (1 person, 3%), while the oldest was 26 years old (1 person, 3%). Additionally, the majority of the health education participants were female, totaling 28 people (97%). Most participants held a bachelor’s degree (S-1), totaling 21 people (72%).

Table 1. Demographic Data of Health Education Participants

No	Demographics	Frequency	Percentage (%)
1.	Age		
	18	1	3%
	19	1	3%
	21	1	3%
	22	11	38%
	23	13	45%
	24	1	3%
	26	1	3%
2.	Gender		
	Male	1	3%
	Female	28	97%
3.	Highest Level of Education		
	SMA	4	14%
	SMA	3	10%
	D-III	1	3%
	D-IV	21	72%
	S-1		

Table 2. Survey on Healthy Lifestyles

Healthy Living Activities	Frequency	Percentage
Frequency of consuming nutritious foods		
Sometimes	5	17.2%
Often	19	65.5%
Always	5	17.2%
Regular exercise for at least 30 minutes a day		
Yes	1	3.4%
No	28	96.6%
Sunbathing for 30 minutes in the morning		
Never	2	6.9%

Rarely	17	58.6%
Sometimes	10	34.5%
COVID-19 Vaccine		
Yes	4	13.8%
Not yet	25	86.2%
Daily sleep duration		
<6 hours	14	48.3%
6–8 hours	13	44.8%
>8 hours	2	6.9%

Table 2 shows that the majority of participants—19 people (65.5%)—already consume nutritious food, but nearly all participants—28 people (96.6%)—do not exercise regularly. Most participants—17 people (58.6%)—still rarely spend 30 minutes sunbathing in the morning. Nearly all participants—25 people (86.2%)—had never received the COVID-19 vaccine, and the vast majority of participants did not get enough sleep, with 14 people (48.3%) still falling into the category of sleeping less than 6 hours.

Table 3. List of Questions for the Discussion Session

No	Question
1.	What is the best time in the morning to get some sun?
2.	Are there any foods that can boost the immune system?
3.	We've been taking vitamins regularly, exercising consistently to boost our immunity, and always maintaining social distancing, but why can we still get COVID-19? Why does this happen?
4.	If you've already been vaccinated, is it still possible to get COVID-19? If so, why?
5.	Are there any other tips for boosting immunity, especially for pregnant women?
6.	Are there any recommended types of exercise that can be done at home, and how long should each session last?
7.	Can people who have previously had COVID-19 and recovered still get COVID-19 again? If so, what causes this to happen? Does receiving hospital treatment for COVID-19 affect a person's immune system?

Table 3 shows that during the health education session, the participants paid close attention to the material presented by the instructor. This is evident from the large number and wide variety of questions asked, all of which were relevant to the material presented. The instructor was able to answer all of these questions, and the session received a positive response from the participants.

Table 4. Average Pretest and Posttest Scores

Activity	Average Score	Highest Score	Lowest Score
Pretest	83.79	100	60
Posttest	96.21	100	70

Table 4 shows that following the health education session during the mini-webinar “Tips for Boosting Immunity During the COVID-19 Pandemic,” there was an increase in the average post-test score to 96.21, compared to the previous average pre-test score of 84.79.

Table 5. Evaluation of the “Tips for Boosting Immunity During the COVID-19 Pandemic” Mini-Webinar

Evaluation	Frequency	Percentage
Quality of the Mini-Webinar Session		
Fair	2	6,7
Good	11	36,7
Very Good	17	56,7
Quality of the Mini-Webinar Topic		
Fair	2	6,7
Good	8	26,7
Very Good	20	66,7

Table 5 shows that the majority of participants—17 participants (56.7%)—gave a “very good” rating for the conduct of the event, and 20 participants (66.7%) rated the mini-webinar topic as “very good.”

The research results indicate that some of the participants in the “Tips for Boosting Immunity During the COVID-19 Pandemic” mini-webinar were 23 years old, and the majority held a bachelor’s degree as their highest level of education. In line with the mini-webinar’s theme—boosting immunity during the COVID-19 pandemic—as an effort to prevent individuals from contracting the virus, the large number of participants in their productive years presents a significant opportunity to position the younger generation as change agents in reducing COVID-19 transmission rates in Indonesia. The productive years are a time of high activity, such as work or school, so enhancing this age group’s knowledge regarding immunity will be highly beneficial.

Regarding their role as change agents, survey results indicate that many participants have not yet adopted a healthy lifestyle. Therefore, through this health education program, participants will receive enhanced knowledge on boosting the body’s immunity during the COVID-19 pandemic (Wahyudin & Perceka, 2021). It is hoped that this health education will lead to changes in the health behaviors of all participants attending the “Tips for Boosting Immunity During the COVID-19 Pandemic” mini-webinar, enabling them to effectively fulfill their role as change agents. This mini-webinar was organized with thorough preparation to ensure the achievement of its predetermined objectives.

Various preparations were made to ensure the event ran smoothly, and ultimately the “Tips for Boosting Immunity During the COVID-19 Pandemic” Mini Webinar went well. The “Tips for Boosting Immunity During the COVID-19 Pandemic” Mini Webinar consisted of several core activities, including a presentation and a relaxation session with an icebreaker. The presenter delivered the material effectively and received a positive response from the participants. The presenter was able to cover the entire material, and the participants followed along attentively. Following the discussion session, an icebreaker activity was held, designed to provide a break and relaxation while re-energizing the participants. The ice-breaking activity went smoothly, and the participants’ enthusiasm was clearly evident, as demonstrated by all participants attempting to answer the riddles posed by the organizing committee. In addition to the participants’ enthusiasm during the ice-breaking session, their engagement during the discussion session was also very high.

During the discussion session, many participants asked questions related to the presentation, as shown in Table 3, which lists the seven varied questions raised during the session. The presenter was able to answer all the questions, and the responses from the participants who asked them were positive. In addition, the participants actively shared their impressions and messages after the event concluded. The organizers provided door prizes, which were awarded to the most active participant and the participant with the highest post-test score.

The evaluation of the “Tips for Boosting Immunity During the COVID-19 Pandemic” mini-webinar received a positive response. This can be seen in Table 5, which shows that the majority of participants gave a “very good” rating for the quality of the event’s execution and the webinar topic. However, it is possible

that there were still some shortcomings in its implementation, as indicated in Table 4.5 where two participants gave a “fair” rating. These findings can serve as lessons learned and areas for improvement for future events. Overall, the “Tips for Boosting Immunity During the COVID-19 Pandemic” mini-webinar was successfully conducted, as evidenced by the participants’ enthusiasm and the positive feedback provided by all attendees.

The “Tips for Boosting Immunity During the COVID-19 Pandemic” mini-webinar is a health education program organized by the 41st cohort of PPN students. This event was held online due to the ongoing pandemic, a measure taken to reduce the spread of COVID-19. The event involved a Medical-Surgical Nursing instructor who served as the academic advisor and supervisor, as well as a consultant for the content and topics presented.

Interview results indicated positive feedback from the Medical-Surgical Nursing instructor and the participants. Therefore, this program should be implemented on an ongoing basis with topics and materials tailored to the needs of the general public and specific individuals in particular. Given that many people remain unaware of the importance of healthy behaviors, nurses play a crucial role in providing education to enhance health-related knowledge.

4. CONCLUSION

The community service activity, in the form of a webinar titled “Tips for Boosting Immunity During the Pandemic,” was effective in enhancing the community’s capacity to prevent the spread and transmission of COVID-19, as evidenced by an increase in knowledge following the activity. There was a difference between the pre-test score (83.79) and the post-test score (96.21). A total of 66.7% of participants rated the event as “very good.”

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