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## INCREASING KNOWLEDGE ABOUT COVID-19 VACCINATION IN THE COMMUNITY THROUGH THE PRODOMAT WEBINAR

Yanasta Yudo Pratama<sup>1,2</sup>, Trismadani Erlina Putri<sup>1</sup>, Sri Wahyunita Mohamad<sup>1</sup>, Rissa Widyasworo Hartanti<sup>1</sup>, Sunarti Sunarti<sup>1</sup> and Solikhah Solikhah<sup>1</sup>

<sup>1</sup> Faculty of Public Health, Universitas Ahmad Dahlan, Yogyakarta, Indonesia

<sup>2</sup> Faculty of Medicine, Public Health and Nursing, Universitas Gadjah Mada, Yogyakarta, Indonesia

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### CONTACT

Yanasta Yudo Pratama

[yanasta.yudo.pratama@mail.u](mailto:yanasta.yudo.pratama@mail.u)

[gm.ac.id](http://gm.ac.id)

Faculty of Medicine, Public

Health and Nursing,

Universitas Gadjah Mada,

Yogyakarta, Indonesia

### ABSTRACT

**Introduction:** The COVID-19 pandemic has become an issue that has been in the world's spotlight in the last 2 years. The high mortality and morbidity rates have caused the world to work hand in hand to control the spread of COVID-19. This webinar is expected to increase knowledge in the community so that later it can help the Government and Health Workers in efforts to control the spread of COVID-19.

**Methods:** This webinar was held in 1 day with 2 resource persons who are experts in their fields. This webinar uses the Zoom Webinar facility from the UAD Faculty of Public Health. The target of this webinar was the general public, both students and non-students. In the webinar session, there were pretest and posttest which are distributed online using a Google Form questionnaire. The analysis used a descriptive analysis of the characteristics of webinar participants.

**Results:** There were 50 participants in this webinar with different job characteristics and educational backgrounds. More than half of the total participants already had knowledge of COVID-19 vaccination and mostly participants had increased knowledge seen from the posttest results. The result of post test are 84.6%, 48.7%, 100%, 100%, 100%, 87%, 84%, 87%, 87% in the first until nine questions.

**Conclusion:** Webinar by zoom could increase knowledge about COVID-19 vaccination. This webinar still uses a small participant, and should be increased to a larger by promoting similar webinars in advance or with more platforms.

### KEYWORDS

COVID-19; vaccinations; knowledge; webinar

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## 1. INTRODUCTION

At the end of 2019, the world was shocked by a disease that was endemic to the whole world (Cirrincione et al., 2020). The disease caused by the SARS-CoV-2 Virus or better known as the Novel Corona Virus has claimed many lives. The high morbidity and mortality rate causes the world to work hand in hand to overcome it (Li et al., 2020; Piroth et al., 2021; Zhang et al., 2020). In July 2021,

Indonesia was ranked number one in the whole world with the highest death rate and high number of new cases, making Indonesia facing the problem of poor health. (Worldometers, 2021). Overcoming this pandemic requires various roles of experts, both the role of medical experts and the role of the government (Karno & Sulaiman, 2021). Experts suggest choosing to control the spread of the pandemic in Indonesia by strengthening the promotive and preventive lines (Aprihatn, 2020). Various promotive health efforts

by intensifying the Movement to comply with Health Protocols while for Preventive Health efforts using the COVID-19 Vaccination Steps (WHO, 2020). Without sufficient support from the environment and human resources, all policies from the government cannot be effective in controlling the COVID-19 pandemic (Afsas et al., 2020). Improving the quality of Human Resources can be done by providing Promotional and Persuasive Education regarding the COVID-19 virus insight itself will make awareness of the importance of controlling the spread of COVID-19 (Rantai & Ciakar, 2020).

In Indonesia, the COVID-19 vaccine is provided free of charge and can be easily accessed by the public (Kementerian Sekretariat Negara Republik Indonesia, 2021). However, problems arise from the community itself, related to the many contradictions of the COVID-19 vaccination, making vaccinations delayed or slow (Rahayu & Sensusiyati, 2021). We need to know together that controlling the spread of COVID-19 is not only focused on tracing and testing, but also preventive efforts must be carried out by giving vaccines to all elements of society without exception. (Satuan Tugas Penangan COVID-19, 2021). Fulfillment of coverage of 70% of the entire population in Indonesia will make Indonesia in the Herd Immunity (McDermott, 2021). If there is Herd Immunity, it is hoped that an infectious disease can be eradicated by itself (Clemente-Suárez et al., 2020; The Royal Society, 2020).

The unpredictable Covid-19 pandemic has changed communication activities. Conventional teaching activities cannot be implemented (Gogali et al., 2020). The current trend in conveying information is utilizing internet-based communication media through web-based seminars or better known as webinars. The webinar will be held as a solution that is being faced by society in general (Damayanti, 2021).

Based on the Decree of the Minister of Health Number H.K.01.07/Menkes/9860/2020 concerning

the Determination of Vaccines for the Implementation of Corona Virus Disease (Covid 19) Vaccination, it is known that six types of vaccines have been established for the vaccination process in Indonesia. The type is a vaccine produced by P.T. Bio Farma (Persero), Astra Zeneca, China National Pharmaceutical Group Corporation (Sinopharm), Moderna, Pfizer-BioNTech, and Sinovac Biotech Ltd. (Rahayu & Sensusiyati, 2021)

Scientifically, there are at least four types of vaccines from the way they are made. First, "dead vaccines" or also called inactivated vaccines are types of vaccines that contain viruses or bacteria that have been killed by heat, radiation, or chemicals. This process keeps the virus or germ intact, but cannot reproduce and cause disease in the body. A person will get immunity to disease when getting this type of vaccine without any risk of being infected with germs or viruses contained in the vaccine. Of course, "dead vaccines" tend to produce a weaker immune response, when compared to "live vaccines". Thus the administration of "dead vaccine" needs to be given repeatedly or function as a booster (Rahayu & Sensusiyati, 2021).

According to the Oxford dictionary, the word hoax is defined as an action that aims to make someone believe something that is not true, especially something that is unpleasant (Oxford Dictionary, 2020). Hoax is a popular term that is often used widely to indicate false information. Hoax is defined as information that contradicts the facts, even though it is misinformed (Nadzir et al., 2019). Currently, hoax news, especially in online media, has become a public concern. On the one hand, the flood of information can make people confused in determining the truth of an information, namely which one is in the false category and which one is in the true category. Sometimes the presence of false information can cause conflict between groups of friends. This is because each group feels that the information it conveys is the correct information (Rahayu & Sensusiyati, 2021).

Based on the analysis of the current situation, the amount of information that is still unclear about the COVID-19 vaccination has made the public even more confused. Some people actually think that COVID-19 vaccination is less important. Ignorance of the public so that people are reluctant to get vaccinated is a serious problem in an effort to control the spread of COVID-19. One solution to this problem is to increase knowledge and understanding through the Prodamat Webinar which carries the topic of COVID-19 Vaccination. For this reason, the Community Service Webinar is expected to increase public knowledge so that the public will have no more doubts about the COVID-19 vaccine and cannot trust news on issues that are not necessarily true or hoaxes.

## 2. MATERIAL AND METHODS

The Vaccination Review Webinar from a Medical Perspective, which is part of the Community Empowerment Program or known as Prodamat, was held on August 20, 2021. This webinar is a community service program conducted online using the Zoom Meeting platform, Faculty of Public Health, Ahmad Dahlan University due to the COVID-19 Pandemic situation. which is not possible face-to-face. This webinar is held for one day only with general objectives. All participants were given a questionnaire which was distributed before the event as a form of pretest and after the event as a form of posttest. The method of implementing Prodamat is carried out by looking at aspects of health services comprehensively, both preventive and promotive aspects through webinars to the public which are not limited to only the medical community.

The stages of implementing the Prodamat Webinar Vaccination Review from a Medical Perspective are carried out through several stages. The following are the stages of the activities:

### **Before the Implementation Takes place**

Prior to the implementation of the activity, we carried out several planning steps to make this Webinar a

success: Meeting to determine the topic of activity, Coordination with Advisory Lecturers, Preparation of Activity Promotion Media, Webinar Media Preparation, Coordinate between Resource Persons, Moderators and MCs through Zoom Meetings.

### **During Activities**

Some things that must be done by the participants are doing the pretest. The aim is to find out the basic level of public knowledge related to the scope of the COVID-19 Vaccine topic. During the activity, a discussion session was given with the aim of confirming the explanation from the resource person or sharpening the basic knowledge that each participant previously had regarding the scope of the COVID-19 Vaccine topic.

### **After the Implementation Takes place**

This stage is also called the stage of preparing reports on Prodamat activities and evaluating activities that have taken place. The evaluation was carried out using a questionnaire via Google Form which was distributed after the discussion session ended. Questionnaires were distributed online through the Whatsapp Group provided by the committee. Evaluation indicators cover several aspects: Knowledge of COVID-19 Vaccination Classification, Adverse Events After Immunization and What do we need to do after getting the COVID-19 Vaccination.

## 3. RESULTS

The Webinar is carried out using Zoom Webinar for 120 minutes with a total duration of 90 minutes of Webinar material exposure, where each topic is 45 minutes. After the second topic was completed, all 50 participants were given a questionnaire via Google Form for further descriptive analysis.

### **Descriptive Analysis of the Characteristics of Webinar Participants**

Based on table 1, it can be seen that the majority of webinar participants are female with a total of 41 people (82%) and webinar participants with male sex are 9 people (18%). Based on table 1, the distribution of participants by occupation, data obtained that the

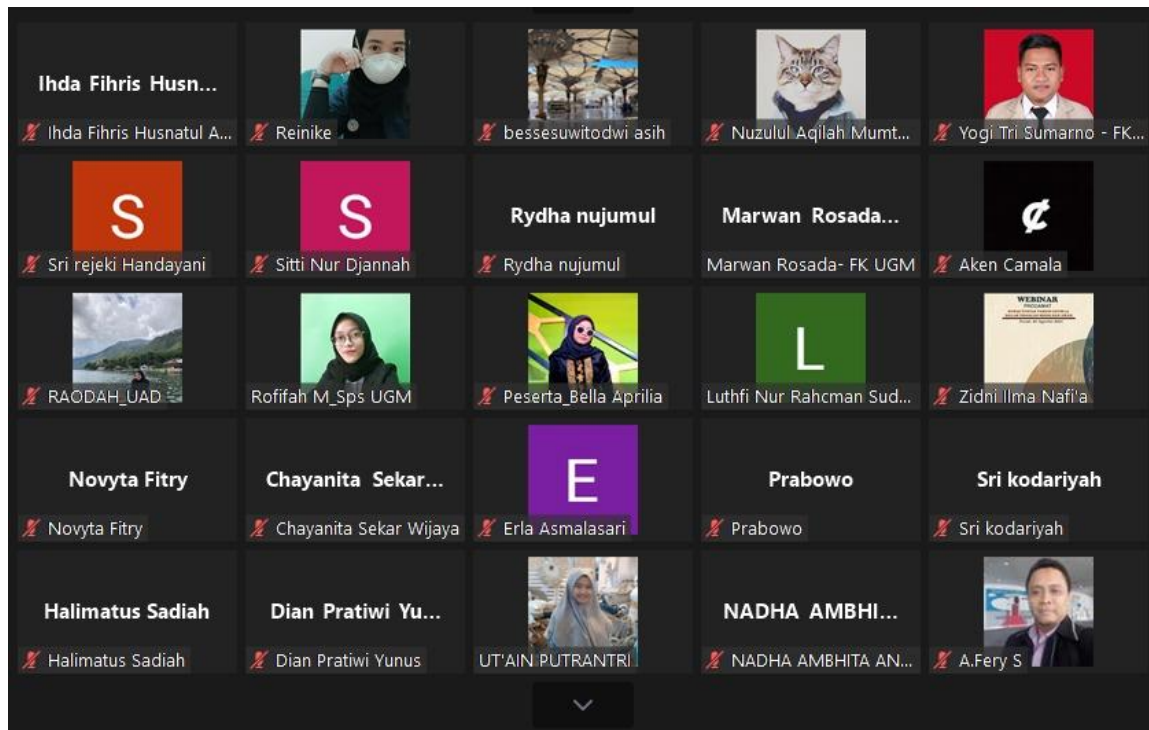


Figure 1. Participants of the COVID-19 Vaccination Review Webinar in Lay's and Medical Perspectives

Table 1. Distribution of Participants (n=50)

Variable	Amount	(%)
Gender		
Male	9	18
Female	41	82
Occupation		
Nutritionist	1	2
Midwifery	1	2
Lecturer	1	2
Students	39	76
Non-State Civil Apparatus	3	6
State Civil Apparatus	3	6
Physician / Doctor	3	6

Table 2. Level of Public Knowledge About COVID-19

Variable	Pretest				Posttest			
	Know		Not Know		Know		Not Know	
	N	%	N	%	N	%	N	%
Post-Immunization Adverse Events COVID-19	30	50	30	50	19	48.7	20	51.3
Effects After Getting the COVID-19 Vaccination	55	91.7	5	8.3	39	100	-	-
Behavior After Getting the COVID-19 Vaccination	60	100	-	-	39	100	-	-
Hoax/ Untrue news	60	100	-	-	39	100	-	-
Factors That Cause Hoaxes	55	0.91	5	0.08	34	0.87	5	0.12
Social Stigma	53	0.88	7	0.11	33	0.84	6	0.15
Why Social Stigma Appears	49	0.81	11	0.18	34	0.87	5	0.12
Dangerous Social Stigma	51	0.85	9	0.15	34	0.87	5	0.12

majority of participants were students as many as 39 people (78%), from the health Workers (Midwives, Nutritionists, Doctors) as many as 5 people (10%), and the remaining 6 people (12%) not from health workers or students.

**Descriptive Analysis of Community Knowledge Levels Based on Pretest and Posttest Results**

The level of knowledge of respondents was measured twice through a google form questionnaire, namely, before (pretest) and after (posttest). The results of the measurement of the respondent's level of

knowledge can be seen in table 2. Before the webinar was conducted, the pretest results of respondents who knew the classification of the COVID-19 vaccination were 83.3%, while the posttest results were 16.7%. From the data in table 2, we can see that there is no increase in public knowledge about COVID-19 infection. the pretest results of respondents who knew the Post-Immunization Adverse Events (KIPI) of COVID-19 were 50%, while the post-test results were 48.7%. From the data in table 3, we can see that there is no increase in public knowledge about the Post-Immunization Adverse Events (AEFI) of COVID-19.

The webinar was conducted, the pretest results of respondents who knew the effect after getting the COVID-19 vaccination were 91.7%, while the posttest results were 100%. From the data in table 4, we can see that there is an increase in public knowledge about the effects after getting the COVID-19 vaccination. The pretest results of respondents who knew the behavior after receiving the COVID-19 vaccination were 100%, while the posttest results were obtained as much as 100%. From the data in table 6, we can see that the community already has the correct knowledge about behavior after getting the COVID-19 vaccination.

The webinar was conducted, the pretest results of respondents who knew about hoaxes were 100%, while the posttest results were obtained as much as 100%. From the data we can see that the public already knows what a hoax or news is that is not necessarily true. The pretest results of respondents who knew about the factors that caused hoaxes were 0.91%, while the posttest results were 0.12%. We can see that many people already know the factors that cause hoaxes.

The webinar was conducted, the pretest results of respondents who knew about Social Stigma were 0.88%, while the posttest results were 0.84%. We can see that many people already know about social stigma. The pretest results of respondents who knew

about why social stigma could appear were 0.81%, while the posttest results were 0.87%. It can be concluded that many people already know why social stigma can appear in ordinary people. The pretest results of respondents who knew about the dangers of social stigma were 0.85%, while the posttest results were 0.87%. It can be concluded that many people already know how dangerous social stigma is that often appears in society.

#### 4. DISCUSSION

Webinars are often found during the COVID-19 pandemic, in addition to filling time with productive things, webinars are one of the online communication and information media that utilize networks (Prehanto et al., 2021). Internet-based communication media will facilitate the dissemination of information and communication. Webinars are one of the best ways to reach your audience (Gogali et al., 2020). By using the zoom webinar software "Covid-19 Vaccine Peel in Public and Medical Reviews", it is proven to be effective and efficient in reaching the public.

Participants were enthusiastic about the webinar with a high response during pretest-posttest and full attendance in the webinar. The presenters designed the presentation of the material by including illustrations or pictures in accordance with the material and content described so that information and received by participants could be well absorbed. The resource person who provided material on the Review of Vaccination from a Medical Perspective was dr. Yanasta Yudo Pratama, AIFO-K (UAD Public Health Masters Student). The first topics discussed were Definition of Vaccines / Vaccinations / Immunizations, Importance of Vaccinations to Prevent Disease Transmission, Knowing Types of COVID-19 Vaccines, Herd Immunity, COVID-19 Vaccinations for Controlling COVID-19 Transmission, Policy Regulations, Priorities, Implementation, Adverse Events Post Immunization.

Meanwhile, in the second session, the resource person who gave material on Vaccination Review from the Layman's Perspective was Sri Wahyunita Mohamad S.KM (UAD Public Health Masters Student). The topics discussed more are the definition of hoaxes, the Covid-19 vaccine hoax on social media, examples of vaccine hoaxes and stigma that often appear in the community. The two topics are very useful and mutually sustainable because they discuss the importance of vaccines and hoax news about the vaccine itself which is still widely spread on various social media.

### **Characteristics and level of knowledge of participants before and after the webinar**

The level of public knowledge about the classification of Covid-19 vaccination between before and after the webinar and is measured through the form of pretest and posttest. increased knowledge was categorized into 2, namely "Know" which means Knowing increased knowledge of the Covid-19 Vaccine classification and "Don't Know" which means not knowing the increase in knowledge of Covid-19 Vaccine Classification. The results were 83.3% of those who knew about vaccine classification and 16.7% of those who did not know, while the posttest results showed that people who knew about vaccine classification were 84.6% and those who did not know were 15.4%. So there is no increase in public knowledge about covid-19 infection.

The level of public knowledge about the post-immunization co-occurrence (KIPI) of COVID-19 between before and after the webinar and measured through the form of pretest and posttest. The result is that 50 percent of people know about AEFI and 50 percent who don't know, while the posttest results show that people who know about vaccine classification are 48.7% and those who don't know are 51.3%. So there is no increase in public knowledge about the Post-Immunization Adverse Events (KIPI) of COVID-19.

The level of public knowledge about the effect of getting the COVID-19 vaccination between before and after the webinar and measured through the form of pretest and posttest. The results are 91.7% of those who know about the Effects of Getting a COVID-19 Vaccination and 8.3% of those who don't know, while the post-test results show that people who know about vaccine classification are 100% and those who don't know are 0%. So there is an increase in public knowledge about the effects after getting a COVID-19 vaccination.

The level of public knowledge about hoaxes/untrue news between before and after the webinar and is measured through the form of pretest and posttest. The result is a pretest who knows 100% of hoaxes and who doesn't know as much as 0%, while the posttest results get people who know about behavior after getting COVID-19 vaccinations as much as 100% and those who don't know as much as 0%. So people already know what a hoax is and know which news is true and not necessarily true.

The level of public knowledge about the factors that cause hoaxes between before and after the webinar and is measured through the form of pretest and posttest. The result is that the pretest who knows about the factors that cause hoaxes is 0.91% and those who don't know are 0.08%, while the posttest results are obtained by people who know about behavior after getting the COVID-19 vaccination as much as 0.87% and those who don't know as much as 0.12%. So many people know the factors that cause hoaxes.

The level of public knowledge about social stigma between before and after the webinar and is measured through the form of pretest and posttest. The result is that the pretest who knows about social stigma is 0.88% and those who don't know are 0.11%, while the post test results show that people who know about social stigma are 0.84% and those who don't know are 0.15%. So many people already know about social stigma

The level of public knowledge about why social stigma appears between before and after the webinar and is measured through the form of pretest and posttest. The result is a pretest who knows why social stigma appears as much as 0.81% and those who don't know as much as 0.18%, while the post test results get people who know why social stigma appears as much as 0.87% and 0.12%. So many people already know why social stigma can appear in ordinary people.

The level of public knowledge about how dangerous social stigma is between before and after the webinar and is measured through the form of pretest and posttest. The result is that the pretest who knows about how dangerous is social stigma is 0.85% and those who don't know are 0.15%, while the posttest results show that people who know why about how dangerous is social stigma are 0.87% and those who don't know are 0, 12%. So many people know how dangerous social stigma is that often appears in society.

According to Meliyanti (2015), a person's knowledge can be influenced by how much information he gets, either directly or indirectly. Knowledge can also be influenced by the speed with which a person receives the information obtained, so that more and more people obtain information, the better the knowledge, and vice versa. This information can be obtained through mass and electronic media as well as health workers and health counseling (Meliyanti 2015).

## 5. CONCLUSION

Efforts to increase knowledge about the covid-19 vaccine can be carried out through PRODAMAT activities with the webinar method. From the pretest and posttest, it was found that all participants had good knowledge. In addition, the knowledge of the participants increased and had a better understanding.

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