

The Effectiveness of Education based on Youtube Videos in Promoting the COVID-19 Vaccine among Parents

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ABSTRACT

Vaccination is a biological intervention aimed at providing immunity against infectious diseases, including COVID-19. Despite national efforts in Indonesia to distribute vaccines, hesitancy remains prevalent due to concerns over side effects, halal status, and misinformation. A significant number of residents had not received the COVID-19 vaccine, highlighting the need for educational interventions to improve vaccine uptake. This study aims to analyze the effectiveness of YouTube media-based education in supporting the acceptance of the COVID-19 vaccine. A pre-experimental design with a one-group pretest-posttest approach was used. A total of 40 respondents aged 43–65 years who had not received the COVID-19 vaccine were selected through simple random sampling. Respondents were given a pretest, exposed to educational content via YouTube, and then administered a posttest. Data were analyzed using the Wilcoxon Signed Rank Test with a significance level of 0.05. Prior to the intervention, 72.5% of respondents demonstrated poor acceptance of the COVID-19 vaccine. After receiving YouTube-based education, this figure dropped to 7.5%, with 92.5% showing good acceptance. The Wilcoxon test yielded a p-value of 0.000 ($p < 0.05$) and a Z-score of -4.747, indicating a statistically significant improvement in vaccine acceptance. The findings confirm the effectiveness of YouTube media-based education in enhancing parental support and acceptance of COVID-19 vaccination. Educational strategies utilizing accessible media platforms are essential in addressing vaccine hesitancy and improving public health outcomes in rural communities.

Keywords: COVID-19 vaccine, Parents, Youtube Media Education

BACKGROUND

Vaccination is a biological process that enables an individual to develop immunity or protection against a particular disease. As a result, if the person is later exposed to the disease, they are either unlikely to fall ill or will experience only mild symptoms. This immunity is typically achieved through the administration of a vaccine. Vaccination not only aims to interrupt the transmission of disease and control outbreaks, but also serves a long-term purpose in reducing, eliminating, or even eradicating the disease entirely. In the context of Covid-19 management in Indonesia, several vaccine brands have been utilized (IDAI, 2021).

According to a report from the Ministry of Health, as of 6:00 p.m. on Tuesday, November 2, 2021, a total of 75,217,214 people in Indonesia had received two doses of the Covid-19 vaccine. This represents 61.97% of the 121,365,081 individuals who had received the first dose. Public officials were the largest group of vaccine recipients, with 28,078,817 individuals or 162.05% of the target receiving the first dose, and 22,990,111 people or 132.68% of the target receiving the second dose (Ministry of Health, 2021). In East Java, vaccine recipients were divided into target groups as follows: health workers (201,315

people), public servants (1,879,314 people), the elderly aged over 60 (2,551,472 people), socially and economically vulnerable populations (7,066,384 people), and the general public and economic actors (11,023,759 people), totaling 22,652,927 individuals (Ganjar, Dimas, 2021).

A preliminary study conducted in Tirtoudan Village on March 12, 2022, showed that the Covid-19 vaccination coverage was 56.2% in 2019, 59.2% in 2020, and 54.9% in 2021. There were still 956 individuals who had not received the Covid-19 vaccine (Puskesmas Pesantren II, 2022). Interviews with 10 community members revealed ongoing doubts about the halal status of the vaccine, particularly those produced abroad. Some people expressed fear of side effects, such as fever, while others simply refused to be vaccinated.

In addition, a public survey conducted on social media found that 49.9% of 601 respondents were unwilling to receive the Covid-19 vaccine (Kusumaningtyas, 2021). Certain regions have even imposed penalties for vaccine refusal. For example, Jakarta Capital City Regulation Number 2 of 2020 concerning Covid-19 management in DKI Jakarta stipulates that individuals who deliberately decline the Covid-19 vaccination may be fined up to IDR 5,000,000 (DKI Jakarta Provincial Government, 2020).

A vaccine is a biological substance that contains antigens which, when administered to a person, actively stimulate the immune system to develop specific protection against certain diseases. It is introduced into the body either through injection or orally to trigger an immune response (Marsa, 2021).

According to the Decree of the Minister of Health No. HK.01.07/Menkes/12758/2020 concerning the designation of vaccines for the Covid-19 vaccination program, several vaccine types have been authorized for use in Indonesia. These include vaccines produced by PT Bio Farma (Persero), AstraZeneca, Sinopharm (China National Pharmaceutical Group Corporation), Moderna, Novavax Inc., Pfizer Inc. in collaboration with BioNTech, and Sinovac Life Sciences Co., Ltd. The side effects of Covid-19 vaccines are generally similar to those of other vaccines and may involve local reactions such as pain, redness, and swelling at the injection site, or in some cases, more serious conditions like cellulitis. Systemic side effects can include fever, muscle aches (myalgia), joint pain (arthralgia), fatigue, and headaches. In addition, allergic reactions such as hives (urticaria), swelling (edema), anaphylaxis, and fainting (syncope) may also occur (Ministry of Health, 2021). If side effects appear after vaccination, it is recommended to stay calm, apply a cold compress to the affected area, and in the case of fever, use a warm compress or take a warm bath, stay hydrated, and get sufficient rest. Prescribed medication should be taken as directed by healthcare providers, and immediate medical attention should be sought if symptoms last more than three days or if more severe reactions occur (Unicef, 2021). Each type of Covid-19 vaccine has specific dosage and administration guidelines that must be followed according to the vaccine platform used.

METHODS

The design of this study is Pre-experimental Design because the researcher wants to reveal the causal relationship (influence) by involving a group of subjects, so that there is no control group that will be used as a comparison. This design uses one group pretest and posttest design. The sample is first given a pretest (initial test) before being given treatment and after being given treatment, a posttest (final test) is given. This design is used in accordance with the objectives to be achieved, namely analyzing the effectiveness of Providing Youtube Media-Based Education in Supporting the Covid-19 Vaccine for Parents. The population in this study was All parents aged 30-56 years who had not received the Covid-19 vaccine while in this study the sample size taken was Some respondents aged 43-65

years who received the Covid-19 vaccine). The sampling technique used in this study was simple random sampling.

The data analysis used is Wilcoxon Signed Rank for the influence before and after treatment. The calculation process is assisted by using the Statistic Program for Social Science (SPSS) with an error rate (α) 0.05, so the conclusion in this study is: *Wilcoxon Signed Rank* for the influence before and after treatment. The calculation process is assisted by using the Statistic Program for Social Science (SPSS) with an error rate (α) 0.05, so the conclusion in this study is:

Platform	Vaccine Development	Dosage Amount	Dosage Schedule (Day No.)	How to Administer
Inactivated virus	Sinovac Research and development Co., Ltd	2 (0.5ml per dose)	0.14	Intramuscular
Inactivated virus	Sinopharm + Beijing Institute Of Biological Products	2 (0.5ml per dose)	0.21	Intramuscular
Viral vector (Non-replicating)	AstraZeneca+ University Of Oxford	1-2 (0.5 ml per dose)	If 2 doses: 0.28	Intramuscular
Protein Subunit	Novavax	2 (0.5 ml per dose)	0.21	Intramuscular
RNA based vaccines	Moderna + National Institute Of Allergy and Infectious Diseases (NIAID)	2 (0.5 ml per dose)	0.28	Intramuscular
RNA based Vaccine	Pfizer Inc. + BioNtech	2 (0.3 ml per dose)	0.28	Intramuscular

$p < 0.05$ then H_0 is rejected and H_1 is accepted which means there is an influenceEffectiveness of Providing Youtube Media-Based Education in Supporting Covid-19 Vaccination for Parents.

$p < 0.05$ then H_0 is rejected and H_1 is accepted which means there is no influenceEffectiveness of Providing Youtube Media-Based Education in Supporting Covid-19 Vaccination for Parents.

RESULTS

Based on the respondents receiving the vaccine before being given education Covid-19 to Parents on August 4-6, 2022)

Recipient	Amount	Percent
Not good	29	72.5
Good	11	27.5

Based on the education provided to respondents who received the Covid-19 vaccine To Parents In Tirtoudan On August 4-6, 2022)

Recipient	Amount	Percent
Not good	3	7.5
Good	37	92.5
Total	40	100.0

Cross tabulation between pre-test and post-test recipients Covid-19 vaccine To Parents on August 4-6, 2022)

Vaccine Recipients			Post-test		Total
			Not good	Good	
Pre-test	Not Good	Count	1	28	29
		% of Total	2.50%	70.00%	72.50%
	Good	Count	2	22.50%	11
		% of Total	5.00%	37	27.50%
Total	Count		3	37	40
	% of Total		7.50%	92.50%	100.00%

Results of the Analysis of the Effectiveness of Providing Youtube Media-Based Education in Supporting the Covid-19 Vaccine for Parents.

Test	Variables	Sig. Value (2-tailed)	Z
Wilcoxon	Vaccine recipients before and after	0,000	-4.747b

DISCUSSION

In this study, there are still many people who have not received the Covid-19 vaccine. The problem that arises because people are worried about the side effects after being vaccinated against Covid-19. People are afraid of the halallness of the vaccine, many people ask about the contents of the vaccine, they are still hesitant because they have received information from other people so that people are afraid. The public has also not received education about the Covid-19 vaccine so that many people have not received the Covid-19 vaccine.

Efforts to assist the government by providing vaccinations were carried out in the community service of Nurhayati et al. The community service was carried out for 10 days in two stages (Nurhayati et al., 2021). Vaccinations were also carried out in the community service in the work area of the Made Health Center, West Surabaya. Training for vaccine officers was carried out for three days in order to obtain a certificate as a vaccinator. After that, efforts to assist in the implementation of new vaccinations could be carried out (Ritunga et al., 2021). In this study, the community was able to accept it because the community had been given education through YouTube media so that the community could receive the COVID-19 vaccine. As for the community who did not want to receive the COVID-19 vaccine because the community was afraid of the side effects of the vaccine.

To increase public acceptance of vaccines, one of the things that can be done is to develop a communication strategy that takes into account the diverse information needs of the public before, during, and after the introduction of the vaccine, especially those related to the benefits of the vaccine, safety, efficacy and issues of justice in obtaining the vaccine. Based on this background, it is necessary to carry out education related to the COVID-19 vaccine in

terms of safety effectiveness and the importance of the function of the vaccine for the wider community.

Some people may often hear news about vaccine development as one of the solutions to overcome the COVID-19 pandemic. However, some Indonesian people may still not understand and still wonder about the effectiveness of vaccines and how the vaccine development process before use can be used.

CONCLUSION

The results of the study before being given YouTube-based media can be described that some of the respondents who received the vaccine were not good at receiving the Covid-19 vaccine as many as 29 people (72.5%) out of a total of 40 people, while after being given education regarding receiving the Covid-19 vaccine, it can be described that some of the respondents who received the vaccine were good at receiving the Covid-19 vaccine as many as 37 people (92.5%) out of a total of 40 people. Based on the results of the Wilcoxon statistical test that has been carried out, it can be seen that the Sig. (2-tailed) value = 0.000 / $\alpha = 0.05$ while the Z value (-4.747b). So H1 is accepted, which means that there is Effectiveness of Providing Education Based on YouTube Media in Supporting the Covid-19 Vaccine.

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