

## Public Perception and Education Play an Important Role in the Successful Implementation of the Covid-19 Vaccination

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Research Article

Volume: 01

Issue: 02

Years: 2022

Editor: Dayana

Available Article : (doi)

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### Abstract

**Background:** Covid-19 is a new type of disease that has never been identified in humans and can be transmitted from human to human through coughing or sneezing (droplets). The vaccination solution has been controversial for some. The Pondok Betung area is one of the village governments in South Tangerang City, Banten Province, which has participated in organizing the Covid-19 vaccination. The implementation of the new vaccination can be realized in 4236 people from the target of 4272 or 36 (0.84%) people who have not participated in the vaccination program.

**Objective:** This study aims to determine the relationship between perception and public education on the implementation of the covid-19 vaccination in RW 03 Pondok Betung.

**Methods:** This type of research is quantitative research. The research design used was cross-sectional. The population of this study was the residents of RW 03 Pondok Betung who became the target of vaccination as many as 343 people. The sampling technique used was random sampling. The instrument in this study used a questionnaire. Analyzed with Chi-Square analysis test.

**Results:** The results of the univariate study were obtained who vaccinated Covid-19 327 (95.3%), No Vaccine 16 (4.7%), Positive Perception 192 (56.0%), Negative Perception 151 (44.0%). Good Education 216 (63.0%) and Poor Education 127 (37.0%).

**Conclusion:** There is a relationship between perception ( $p$ -value = 0.008 and OR 1.78), and education ( $p$  value = 0.007 and OR 1.80) with the implementation of vaccination in RW 03 Pondok Betung in 2021.

**Keywords:** covid-19 vaccination, perception, public education

## **Introduction**

Covid-19 is a new disease found in humans and the virus can be transmitted through coughing or sneezing (drops). Common signs of infection and symptoms of Covid-19 include symptoms of acute shortness of breath such as cough, fever, and difficulty breathing. In the case of Covid-19, it can cause kidney failure, acute respiratory syndrome, and even death.<sup>1</sup> The Covid-19 virus is a contagious virus that has a global epidemic. In 2020 millions of people were exposed to the Covid-19 virus and died from contracting the Covid-19 virus disease. The mode of transfer is mainly through droplets and respiratory exposure. Covid-19 is an important problem that is endemic to all corners of the world, the number of cases is increasing sharply every day, and is contagious at various ages.<sup>2</sup>

Based on data from the Indonesian Ministry of Health on May 7, 2020, 1238 positive cases of Covid-19, 2,317 people have been declared dead and 20,726 people have been declared under surveillance (ODP) and 26,932 people have been declared patients under monitoring (PDP). Added 12 May 2020 to 55 medical personnel in Indonesia died of Covid-19. The COVID-19 pandemic is considered by the public an ordinary disease, so the government's recommendations to maintain health protocols are implemented. Not only related to the implementation of health procedures and effective steps to stop the spread of the Covid-19 virus through vaccination efforts.<sup>3</sup> Vaccines do not protect people who have been vaccinated but have a positive impact on reducing the rate of virus transmission. Vaccines can be an effective and safe option in reducing the number of virus spreads in the future.<sup>4</sup>

The government recommends the public vaccines, the government's goal is to strengthen the immune system, can decide the spread, and reduce the death rate due to exposure to Covid-19. Even so, there are still many people who refuse to be vaccinated. People avoid vaccination for various reasons. Based on public interest public health programs have different reasons and backgrounds. The death rate from the vaccine is feared to rise. Vaccination solutions are very controversial in the community. Firstly because there are doubts about vaccine development because development is quite short. This then raises anxiety about the accuracy of the vaccine effect or its effect on the body.<sup>5</sup>

The Pondok Betung area has participated in organizing Covid-19 vaccinations for its citizens, but this is still not optimal, because some people have not been vaccinated. Based on the data that researchers collected from the local kelurahan, the target in all Pondok Betung wards as vaccination targets in November 2021, only 22,572 people out of 23,450 or (3.74%) of the people in Pondok Betung kelurahan have not participated in the Covid-19 vaccination program. Especially in RW 03 Pondok Betung, where the implementation of the new vaccination can be realized in 4,236 people from the target of 4,272 or (0.84%) of the community who have not participated in the vaccination program.

## **Research Methods**

This type of research is quantitative research. The research design used was cross-sectional. The population of this study was the residents of RW 03 Pondok Betung who became the target of vaccination as many as 343 people. The sampling technique used was random sampling. The instrument in this study used a questionnaire. Analyzed with Chi-Square analysis test.

## **Results**

### **Univariate Analysis**

**Table 1.** Distribution of the Frequency of Covid-19 Vaccination, Perception, and Education

Variable	Frequency (f)	Percentage (%)
<b>Vaccination</b>		
Vaccine	327	95,3
No Vaccine	16	4,7
<b>Perception</b>		
Positive	192	56
Negative	151	44
<b>Education</b>		
Good	216	63
Not Good	127	37

In table 1, it is known that in the community of RW 03 Pondok Betung who took part in the 2021 Covid-19 vaccination as many as 327 respondents (95.3%) and 16 respondents (4.7%) did not carry out the Covid-19 vaccination. Having a positive view of the 2021 Covid-19 Vaccination, 192 respondents (56%) and 151 respondents (44%) had a negative view. Having a good education or understanding of the 2021 Covid-19 Vaccination, a total of 216 respondents (63%) and 127 respondents (37%) had poor education and understanding.

### Bivariate Analysis

**Table 2.** Relationship between Public Perception and Education on the Implementation of Covid-19 Vaccination

Variable	Covid-19 Vaccination				Total		OR	P-Value
	N	%	N	%	N	%		
<b>Perception</b>								
Positive	181	94,3	11	5,7	192	100	1,78	0,008
Negative	146	96,7	5	3,3	151	100		
<b>Education</b>								
Good	204	94,4	12	3,6	216	100	1,80	0,009
Not Good	127	96,9	4	3,1	127	100		

In table 2 the results of statistical analysis of the relationship between public perception and the implementation of Covid-19 in RW 03 Pondok Betung, resulted in 181 respondents (94.3%) having a positive perception, of carrying out the Covid-19 vaccination. 5 (3.3%) negative public perception of not implementing Covid-19. After statistical testing with Chi-Square was carried out, it was obtained p-value = 0.008 <0.05, meaning the relationship between public perception of the implementation of the Covid-19 vaccination in RW 03 Pondok Betung. The results of the analysis with an OR value of 1.78 means that the community has a positive perception of having a 1.78 chance to carry out the Covid-19 vaccination. The results of a statistical analysis of the relationship between public education and the implementation of Covid-19 in RW 03 Pondok Betung, it was found that 204 (94.4%) people had a good education in carrying out vaccinations, as many as 4 (3.1%) people had a poor education and did not carry out vaccinations. Covid-19. After carrying out statistical tests with the Chi-Square test, obtained p-value = 0.007 <0.05, meaning that the relationship between public education and the implementation of Covid-19 vaccination in RW 03 Pondok Betung in 2021. The results of the analysis obtained an OR value of 1.80, meaning that the community with has Good education has a 1.80 chance to carry out the Covid-19 Vaccination.

### Discussion

The majority of the people of RW 03 Pondok Betung have participated in the 2021 Covid-19 Vaccination as many as 327 respondents (95.3%) and the remaining 16 respondents (4.7%) did not carry out the Covid-19 Vaccination. According to Noto Admodjo in Zulmiyetfri (2020), Vaccination Implementation is a positive attitude towards the acceptance of the Covid-

19 vaccination which then affects the public's tendency to act. have good knowledge and are willing to vaccinate 24 (58.50%) of the total 41 people surveyed.<sup>6</sup>

According to the researcher's assumption, the people in RW 03 Pondok Betung tend to have an understanding of the Covid-19 virus and positive information so the people at the location tend to be willing to make the Covid-19 vaccination program a success held by the local government.

The positive perception of the community of RW 03 Pondok Betung towards the implementation of the Covid-19 vaccination was 192 respondents (56%) and the remaining 151 respondents (44%) had negative perceptions. Sugihartono, et al, revealed that the perception of every human being has a different perspective in each sense, there are positive perceptions and negative perceptions that will affect every action. The more one's opinion increases, the more likely it is to take actions that are considered good.<sup>7</sup> This study agrees with the research conducted by Kusumawati & Widayati (2021), it was found that from 188 people surveyed, 164 (87.2%) of them had good perceptions. of the effectiveness of the Covid-19 vaccination.<sup>8</sup>

According to the researcher's assumption, people in RW 03 Pondok Betung tend to have a good perception of Covid-19 vaccination, because access to information and education for the community is very good, so people in RW 03 Pondok Betung do not hesitate to vaccinate against Covid-19. It is known that the majority of RW 03 Pondok Betung residents have good education or understanding of Covid-19 vaccination, as many as 216 respondents (63%) and the remaining 127 respondents (37%) have poor education or understanding. Notoatmojo, et al explain that sensing is the main object to gain knowledge, social media is an object for the public to obtain various information about the dialectics that occur in society.

This study is in line with research conducted by Lasmita (et al, 2021), it was found that 50 (53.80%) of the 93 communities surveyed had good open access to information on vaccination.<sup>8</sup>

According to the researcher's assumption, the people of RW 03 Pondok Betung have access to information that is quite good in understanding the benefits of Covid-19 vaccination for preventing the transmission of the Covid-19 virus in their RW, considering that the Pondok Betung area is in a fairly advanced location to access information.

### **The Relationship of Public Perceptions on the Implementation of the Covid-19 Vaccine**

In a study conducted on 343 respondents, it was found that 181 (94.3%) people had a positive perception of carrying out the Covid-19 vaccination, and as many as 5 (3.3%) people had a negative perception did not vaccinate.

This opinion is in line with the opinion of Sugihartono, et al, who stated that human perception has a different point of view, some perceive something positively or negatively which will affect every visible or real action. The positive perception of the community will be beneficial in administering the Covid-19 vaccination.<sup>7</sup>

Based on the results of the study, it is known that the  $p\text{-value} = 0.008 < 0.05$ , meaning that there is a relationship between public perception and the implementation of the Covid-19 vaccination in RW 03 Pondok Betung in 2021. The results agree with the research conducted by Kusumawati & Widayati in the study "The relationship between awareness of vaccine efficacy with a willingness to participate in Covid-19 vaccination" the study had a  $p\text{-value} < 0.000 < 0.05$ , meaning that there was a relationship between perception and the implementation of the Covid-19 vaccination.<sup>8</sup> This research is also in line with the research of Ardiningsih & Kardinawati (2021), people who have a high awareness of the benefits of implementing Covid-

19 vaccination and have a relationship with Covid-19 vaccination with a p-value of 0.014 <0.05.<sup>9</sup>

Research by Febriyanti et al., (2021) in the Dukuh Menanggal sub-district, Surabaya City, showed that around 81.1% of respondents agreed to carry out the Covid-19 vaccination because respondents knew the side effects of Covid-19 vaccination which can increase immunity. Meanwhile, 18.9% of respondents did not agree to carry out the Covid-19 vaccination, this is due to the existence of negative issues regarding the Covid-19 vaccination.<sup>10</sup> Hafid's research. F.et al., (2021) in the people of Central Sulawesi showed that only a third of the 266 respondents, or only 35.3% of the respondents who were willing to receive the Covid-19 vaccination were willing to receive the Covid-19 vaccination. The results of this study show that although 79.3% of respondents believe in the safety and effectiveness of the Covid-19 vaccine.<sup>11</sup>

The results of research conducted by Zega, E.N (2021) found that there was a weak positive correlation between perceptions of vaccines and perceptions of acceptance of Covid-19 vaccination in the people of Gunungsitoli City with a p-value of <0.05, which is 0.001, and an R-value of 0.237. The doubts that arose from the public were caused by a lack of adequate information. Addressing widespread Covid-19 vaccine doubts requires the collaborative efforts of government, health policymakers, and media sources, including recommended social media to build confidence in Covid-19 vaccination among the public, through timely and very clear dissemination of messages through advocacy channels. trusted in the safety and efficacy of currently available Covid-19 vaccines.<sup>12</sup>

The WHO report in 2020 stated that to increase the willingness of vaccination recipients, what can be done is to create a supportive environment, utilizing people who have a positive influence in increasing people's motivation. Efforts to create a positive mindset, reward and socialization are very important to increase the number of vaccination receipts in the community.<sup>2</sup>

According to the researcher's assumption, socialization about health in the community of RW 03 Pondok Betung needs to be improved and supported by the cooperation of the local government.

Relationship between Public Education and the Implementation of Covid-19 Vaccination Based on research conducted on 343 respondents, it was found that 204 (94.4%) people with good education carried out the Covid-19 Vaccination and as many as 4 (3.1%) people with poor education. in carrying out the Covid-19 vaccination. Education is an idea that can produce information to be processed by the mind and understood to develop new ideas or information. The better the information obtained by the public, the public will be willing to participate in the implementation of the Covid-19 vaccination that has been set by the government.<sup>13</sup>

Based on the results of the study, the p-value = 0.007 < 0.05, meaning that there is a relationship between public education and the implementation of the Covid-19 vaccination in RW 03 Pondok Betung in 2021. This study agrees with the research conducted by Ichsan, et al, in the study, " Determinants of Community Willingness to Receive Covid-19 Vaccination in Central Sulawesi", Research on the variable Education or education got a p-value of 0.000 < 0.005 which means there is a significant relationship between education and the implementation of Covid-19 vaccination.<sup>11</sup> Research by Natsir, et al (2021) found that there was a relationship between knowledge or education and the implementation of Covid-19 with a p-value of 0.00 < 0.05. Statistical test obtained p-value = 0.001 (p< $\alpha$ ), it can be concluded that there is a relationship between knowledge and community readiness to receive the Covid-

19 vaccine in the Padang Laweh Health Center work area, Sijunjung Regency in 2021.<sup>14</sup>

According to the researcher's assumptions, health service workers in building relationships with the community are very important to provide information or education to the community regarding the Covid-19 vaccination in detail, actual and reliable so that the community is more educated, the better public education will play an important role in the success of the program. Covid-19 vaccination.

### **Conclusion**

Based on the results of the study, the researchers concluded that the majority of the RW 03 Pondok Betung community participated in the Covid-19 vaccination as many as 327 respondents (95.3%) in 2021. The majority of the RW 03 Pondok Betung community had a positive opinion of the implementation of the Covid-19 vaccination as many as 192 respondents (56%) in 2021. The majority of the people of RW 03 Pondok Betung have good education or understanding of the implementation of the Covid-19 Vaccination as many as 216 respondents (63%) in 2021.

There is a relationship between public perception and the implementation of the Covid-19 vaccination in RW 03 Pondok Betung in 2021 with a p-value of  $0.008 < 0.05$ . The relationship between public education and the implementation of Covid-19 vaccination in RW 03 Pondok Betung in 2021 between a p-value of  $0.007 < 0.05$ .

### **Conflict of Interest Declaration**

The researcher states that this research is free from conflicts of interest, both individuals and organizations

### **Acknowledge**

The researcher would like to thank all parties who have contributed in completing this research

### **Funding**

Funding for this research comes from researchers

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