



## The Influence of Public Knowledge and Perception on Motivation to Accept COVID-19 Vaccination

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**ABSTRACT:** The COVID-19 pandemic has had a significant impact on people's lives around the world, including Indonesia. One of the most important efforts in controlling the spread of the COVID-19 virus is by carrying out vaccination. Vaccination can prevent transmission and spread of the virus so it can be an important step that must be taken. However, the success of the vaccination program also depends on the public's knowledge and perception of the COVID-19 vaccine itself. This study aims to analyze the influence of public knowledge and perception on the motivation to receive the COVID-19 vaccination. This study uses an observational quantitative research design with a cross-sectional analytical survey, as well as a non-probability sampling technique. The results of data analysis using the Spearman Rank test showed a significant correlation between the level of knowledge and public perception of the motivation to receive the Covid-19 vaccination.

**KEYWORDS:** Knowledge, Perception, Motivation, Vaccination

### INTRODUCTION

Covid-19 has resulted in a high death rate, so the World Health Organization (WHO) has declared it a global pandemic (Coronavirus Disease 2019 (COVID-19), 2023). In the case of Covid 19, preventive measures are actions that must be used in the pandemic era, considering the very rapid spread of this virus and has claimed many lives (Zendrato, 2020). One important effort to prevent and control the spread of Covid 19 is to vaccinate (Widjaja & Widodo, 2021)

However, in general, the public still has a low level of knowledge regarding the Covid-19 vaccine and doubts its effectiveness (Widjaja & Widodo, 2021). The lack of public knowledge and understanding regarding the benefits and risks of vaccines is one of the causes of distrust of the Covid-19 vaccine. One of the main factors is doubts about the development process, because this vaccine was developed in a relatively short time, around one year, unlike other vaccines which generally require 10-15 years. This situation raises public concerns about safety and potential side effects (Ministry of Health, 2020). Public knowledge and perception are the main factors in shaping motivation towards disease prevention efforts. In addition, this motivation is also influenced by individual beliefs about the disease and the methods that can be used to reduce the symptoms experienced (Windi, 2019).

Motivation is a psychological characteristic in humans that plays a role in determining a person's level of commitment. These factors include aspects that drive, direct, and maintain human behavior towards certain goals (Nursalam, 2017). Motivation is a fundamental drive that drives a person to act. This drive comes from within the individual and directs them to do something according to their wishes. Therefore, every action taken by a person based on a certain motivation will reflect a goal or theme that is in accordance with that drive (Hamzah, 2017).

Good public knowledge about the COVID-19 vaccine can influence positive perceptions of the vaccine which will then increase motivation to receive vaccination. (Putra & Soedirham, 2021). Achieving the vaccination coverage target is very important, because vaccination has been shown to reduce the risk of severity and death if exposed to Covid 19.

Therefore, efforts are needed to increase public knowledge and perceptions regarding Covid-19 vaccination so that motivation to receive the vaccine increases.

### RESEARCH METHODS

This study used an observational quantitative research design with a cross-sectional analytical survey design. The population in this study were people living in the Bali region. The sampling technique used was non-probability sampling. Data were collected using a questionnaire covering respondent characteristics, level of knowledge regarding the COVID-19 vaccine, perceptions regarding the COVID-19 vaccine, and motivation to receive the COVID-19 vaccination. Data analysis used the Spearman Rank statistical test

to determine the relationship between the level of knowledge and perception of the community with the motivation to receive the COVID-19 vaccination.

**RESEARCH RESULTS**

Table 1 shows that based on gender, the majority of respondents were female, which was 46 people (51.1%). Meanwhile, the largest age group was in the early adulthood category, which was in the age range of 26–35 years, with a total of 51 people (56.7%). Based on the respondents' education level, the majority came from high school or equivalent, with a total of 66 people (73.3%).

**Table 1. Distribution of Respondent Characteristics**

<b>Gender</b>	<b>Count</b>	<b>% of Total</b>
Male	44	48,9%
Female	46	51,1%
<b>Age</b>	<b>Count</b>	<b>% of Total</b>
Early adulthood	51	56.7 %
Late adulthood	39	43.3 %
<b>Pendidikan</b>	<b>Count</b>	<b>% of Total</b>
Primary	2	2.2 %
Junior high school	7	7.8 %
Senior high school	66	73.3 %
College	15	16.7 %

**Relationship between knowledge and motivation in receiving Covid-19 vaccination**

The results of the analysis of the relationship between knowledge and motivation in receiving Covid-19 vaccination in Table 2 show that there are 11 respondents (47.8%) with low levels of knowledge who have low motivation, while 12 respondents (52.2%) with low knowledge have high motivation. On the other hand, as many as 15 respondents (22.4%) with high knowledge have low motivation, while 52 respondents (77.6%) with high knowledge have high motivation.

Based on the Spearman test, a significance value of 0.020 <0.05 was obtained, which indicates a significant relationship or correlation between knowledge and motivation in receiving Covid-19 vaccination. In addition, the results of the Spearman test also show an r value (correlation coefficient) of 0.245, which means that the relationship between knowledge and motivation in Covid-19 vaccination is relatively weak.

**Table 2. Relationship between knowledge and motivation in receiving Covid-19 vaccination**

<b>Knowledge</b>	<b>Motivation Vaccine</b>				<b>P Value</b>	<b>Correlation Coefficient</b>
	<b>Poor</b>		<b>Good</b>			
	<b>f</b>	<b>%</b>	<b>f</b>	<b>%</b>		
<b>Poor</b>	11	47,8%	12	52,2%	0,020	0,245
<b>Good</b>	15	22,4%	52	77,6%		

**Relationship of Perception to Motivation in Receiving Covid-19 Vaccination**

Based on Table 3, the results of the analysis of the relationship between perception and motivation in receiving the Covid-19 vaccination show that all respondents with low perception (100%) have low motivation, while no respondents with low perception have high motivation (0.0%). Meanwhile, among respondents with high perception, 20 people (23.8%) have low motivation, while 64 people (76.2%) have high motivation. The results of the Spearman test show a significance value of <0.001 <0.05, which indicates a significant relationship between perception and motivation in receiving the Covid-19 vaccination. In addition, the r value (correlation coefficient) obtained was 0.419, which indicates that the relationship between perception and motivation in Covid-19 vaccination is in the moderate category.

**Table 3. Relationship between Perception and Motivation in Receiving Covid-19 Vaccination**

<b>Perception</b>	<b>Motivation Vaccine</b>				<b>P Value</b>	<b>Correlation Coefficient</b>
	<b>Poor</b>		<b>Good</b>			
	<b>f</b>	<b>%</b>	<b>f</b>	<b>%</b>		
<b>Poor</b>	6	100%	0	0,0%	<0,001	0,419
<b>Good</b>	20	23,8%	64	76,2%		

## **DISCUSSION**

### **Characteristics of Respondents Based on Gender**

Research conducted in Bali on the characteristics of respondents based on gender shows that the majority of respondents are female. This finding is in line with research conducted by Ferguson et al. (2020), which also shows that most respondents are female.

### **Respondent Characteristics Based on Age**

The characteristics of respondents based on age show that the early adulthood age group (26-35 years) has the largest number, in accordance with the findings in Adhinata's research (2023), which stated that the level of acceptance of Covid-19 vaccination tends to increase with age, which is related to the development of individual mindsets.

### **Respondent Characteristics Based on Education**

The characteristics of respondents based on the education they have received show that most of them have a high school education. From the education received by most respondents, it shows that the level of education can affect the respondents' understanding in answering several questions asked by the researcher (Heri et al, 2020).

### **Relationship between Knowledge Level and Motivation in Receiving Covid-19 Vaccination.**

Based on the results of the study using the Spearman test, it was found that there was a significant relationship or correlation between the level of knowledge and motivation in receiving the Covid-19 vaccination. The results of the test showed an r value (correlation coefficient) of 0.245, which indicates that the relationship between knowledge and motivation in Covid-19 vaccination is relatively weak.

The results of this study are in line with a study conducted by Princess & Futriani (2021), which stated that there is a relationship between the level of public knowledge and their motivation in undergoing Covid-19 vaccination. This relationship is also influenced by a person's level of education, where the higher the level of education, the easier it is for individuals to receive and understand information. In this study, the majority of respondents had a high school education, namely 66 people (73.3%). Other studies also support this finding, showing that increasing knowledge can increase people's motivation to comply with vaccination policies set by the government (Febriyanti et al., 2021).

### **Relationship between Public Perception and Motivation in Receiving Covid-19 Vaccination**

The results of the Spearman test show an r value (correlation coefficient) of 0.419, which means that the strength of the relationship between perception and motivation in receiving Covid-19 vaccination is in the moderate category. This study is in line with Widayanti's research (2021), the results of statistical analysis show that there is a relationship between respondents' perceptions of the effectiveness of the Covid-19 vaccine and motivation to be willing to participate in vaccination. This can be seen from table 3 where the p value <0.001, which means that the perception variable has a significant relationship with the willingness to participate in Covid-19 vaccination.

A person's decision to undergo COVID-19 vaccination is influenced by their perception of health. If individuals feel vulnerable to this disease, consider it a serious threat, and see the benefits of vaccination as greater than concerns about side effects, then they will be more motivated to get vaccinated to prevent transmission. (Alfiqonita, 2022). In addition, related parties also need to build positive perceptions in the community regarding the safety and benefits of COVID-19 vaccination, so that the level of motivation to be vaccinated can be higher (Sulistiyanto & Jamil, 2021) (Adhinata, 2023) (Putri et al., 2023).

## **CONCLUSION**

The main results of this study indicate a relationship between public knowledge and perceptions about the COVID-19 vaccine, and their motivation to receive vaccination. Therefore, to expand the coverage of COVID-19 vaccination in the community, it is very important for the government and other related parties to increase public education and literacy efforts about the importance of vaccination in overcoming the pandemic.

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