



## Evaluation of Acceptance of COVID-19 Vaccination : A Literature Review

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### Article details:

**Published:** 31<sup>th</sup> August 2022



### Abstract

Corona virus or severe acute respiratory syndrome coronavirus 2 (SARSCoV-2) is a virus that attacks the respiratory system. The Covid-19 vaccination is the right step to build immunity so that people can minimize transmission. Objective: To know the acceptance of COVID-19 vaccination in the community. Knowing the effect of providing education on increasing knowledge of pregnant women in preventing stunting. Article review was made using the literature review method. The articles used were obtained from relevant articles in the last 10 years. Results: From several studies that have been carried out, it is found that the factors that influence the

acceptance of COVID-19 vaccination include knowledge, parental roles, education, affordability, gender, positive perception, neutral perception. Acceptance of the COVID-19 vaccination is highly dependent on a person's education and knowledge, the role of parents, awareness of the community to vaccinate and positive perceptions from the community so that from this positive perception an attitude of acceptance and willingness to be vaccinated emerges.

**Keywords:** COVID-19, Reception, Vaccination



The International Journal of Health, Education and Social (IJHES)

### To cite this article :

Diyah Nur Ekowati, Nurjazuli, B. W. (2022). Evaluation of Acceptance of COVID-19 Vaccination : A Literature Review. *International Journal of Health, Education and Social (IJHES)*, 5(8), 32–54.



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## Introduction

COVID-19 is a disease caused by acute respiratory syndrome coronavirus 2 (SARS-CoV-2) a disease outbreak that has spread widely in several countries or continents and the rate of increase in cases continues to increase every day and covers a wide area to between continents.

In elderly patients with comorbidities such as cardiovascular disease, chronic kidney disease, and chronic obstructive pulmonary disease, the mortality rate increases significantly, it is necessary to increase immunity, take vitamins and there is no specific therapy approved by the US Food and Drug Administration, but the development of medical science and the spread of vaccines need to be done to overcome the pandemic outbreak.(Harapan et al, 2020)

Early January 2020 WHO stated that the corona virus outbreak had spread to all countries in the world, since then there has been a 13-fold increase in the number of cases reported outside China.(Utami et al, 2020)

High vaccination is a step and effort to suppress cases of COVID-19 transmission, various perceptions appear to color the launch of COVID-19 vaccination efforts, research shows that several factors affect vaccine acceptance, vaccine efficacy, vaccine impact, misunderstanding about the need for vaccination, lack of trust in the system health, lack of knowledge among the public about vaccine-preventable diseases.(Harapan et al, 2020)

The implementation of the health protocol is an effort to break the chain of transmission of the COVID-19 disease, but other than that, it is necessary to make effective intervention efforts through vaccination. Various efforts have been made by several countries, including SARS-COV-2 with various platforms, namely inactivated virus vaccines, live attenuated virus vaccines, viral vector vaccines, nucleic acid vaccines, and virus-like vaccines. vaccine), and protein subunit vaccines.(Kemenkes, 2021)

Research in France shows that around 74-77% relatively high acceptance of the COVID-19 vaccine and 67-69% in America, 72% received the vaccine in the survey in 19 countries, 89% in China, and 59% in Russia. The high acceptance of vaccines is due to public confidence in the effectiveness and safety of vaccines.(Atwell et al, 2021)

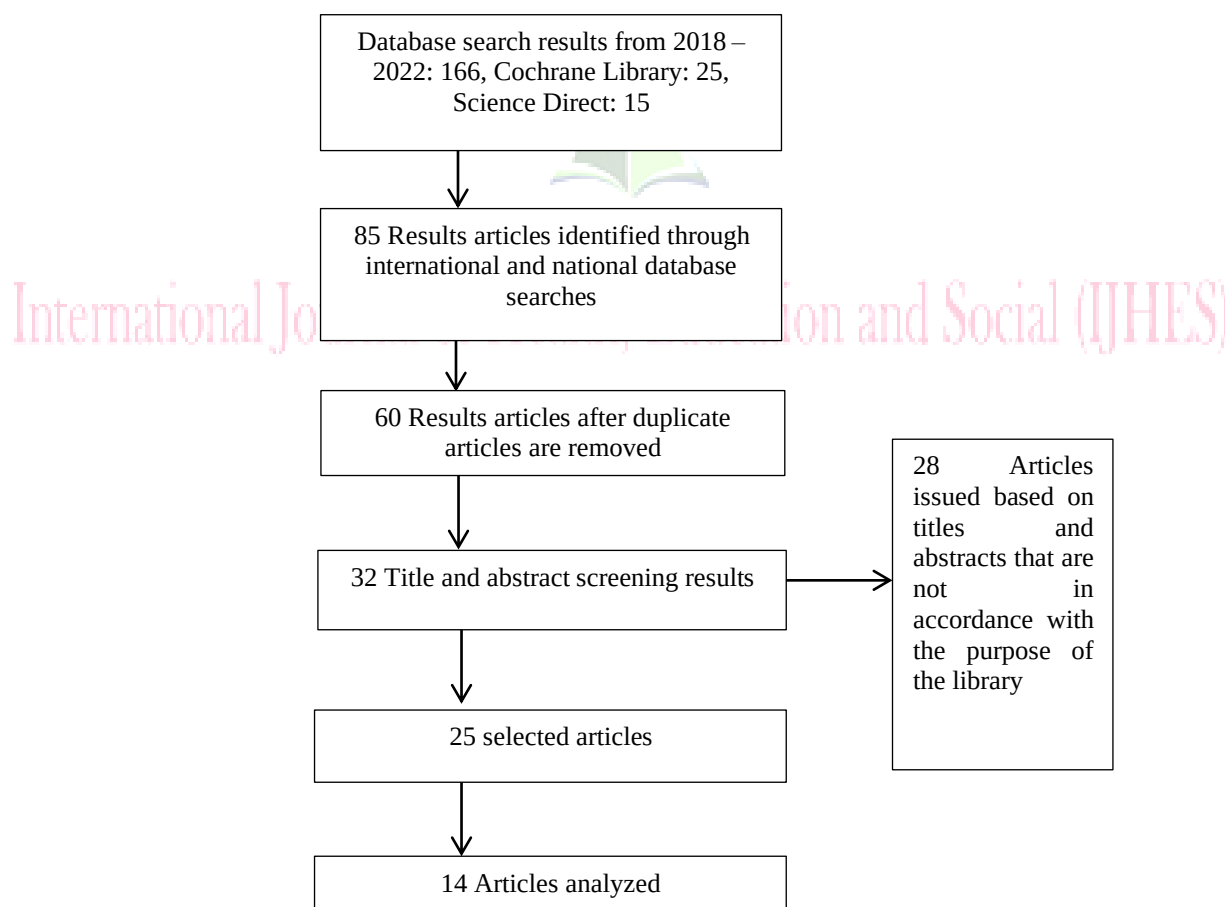
A survey conducted by ITAGI with a sample of more than 115,000 respondents from 34 provinces in Indonesia, the results show that around 65% of respondents stated that they are willing to receive the COVID-19 vaccine if provided by the government, while 8% of them refused. The remaining 27% expressed doubts about the government's plan to distribute the COVID-19 vaccine. Provinces with the highest level of acceptance are those on the islands of Papua, Java and Kalimantan. Several provinces have low revenues, namely the provinces in Sulawesi, Sumatra and Maluku. The highest province is West Papua with an acceptance rate of



around 74% and the lowest province is Aceh Province with 46%. (Kementrian Kesehatan RI, ITAGI, UNICEF, WHO, 2020)

## Methods

This study uses the literature review method, using electronic databases such as Google Scholar, Pubmed, and Science Direct to search for research published up to January 15, 2022. This study analyzes through literature review from various references so that it becomes a new discussion. The keywords used were adapted from the PICO framework (Population, Intervention/Interest, Comparator, Outcome). (Gatiti, 2010) The keywords used were related to parents and acceptance of the COVID-19 vaccine in children. Based on a search with keywords, 4030 articles were obtained which were then selected until the remaining 14 articles were discussed.



**Figure 1.** Selection of articles based on inclusion and exclusion criteria



## **Result and Discussion**

Research articles were searched through Google Scholar, Pubmed, and Science Direct using keywords related to acceptance, COVID-19 vaccination. The keyword used is acceptance, COVID-19 vaccination. The articles found after screening and category feasibility analysis contained 14 articles as listed in Table 1.

### **The Role of Parents**

Based on the results of the research, the role of parents is very influential in receiving COVID-19 vaccination, research in Serang stated that there was a significant influence between the role of parents in giving the Covid-19 vaccine to Class XII students at MAN I Serang City. This is evidenced by the acquisition of  $\text{sig} = 0.015 < 0.05$  and  $F\text{-count} = 6,648$ . (Fauzul et al, 2022)

Parents are in control of their children's decisions, especially when it comes to vaccinations to get immunity. (Wantini & Indrayani, 2020) The role of parents cannot be separated from the student's decision to vaccinate so that face-to-face learning activities can be carried out on behalf of and without worries. (Agustin, 2021) Therefore, the success of this vaccination cannot be separated from the seriousness of the role of parents in supporting the completeness of the vaccination stages. children. (Wantini & Indrayanti, 2020) The role of parents, especially mothers, is a positive influence on the success of vaccination in children, the role is in the form of moral support, providing information, emotional and parental trust in the quality of the vaccine so that the trust is understood by children and families. (Dethan & Suariyani, 2017)

Meanwhile research in six countries (USA, Canada, Israel, Japan, Spain, and Switzerland) showed 65% of caregivers reported that they intend to vaccinate their child against COVID-19, once the vaccine becomes available. (Goldman et al, 2021) Parental acceptance of COVID-19 vaccination for children are reported to be low in Turkey at 36.3%. (Yilmaz & Sahin, 2021)

Research in America states that the factors of age, gender, marital status, education, income and ethnicity greatly affect the success of parents and children in carrying out vaccinations.



Parental age also affects vaccination decisions, the younger they are, the fewer parents are concerned about supporting their children's vaccinations than older parents. Educational factors also influence vaccination decisions. Secondary school education certainly has little support in implementation. vaccinations than parents with undergraduate education.(Davis et al, 2020) These findings are also in line with research that the sincerity of intention and acceptance in carrying out vaccinations is related to parental education.(Bono, Siau, et al, 2021)

The best counseling is in the home where the family serves as the best buffer for disseminating information, giving the best advice, and giving advice that is heard by all family members. This family support is one of the determining factors for success in the implementation of vaccination, such as the theory expressed by Soekidjo Notoatmodjo which states that the determination of decisions and attitudes of family members that are formed and can turn into real action, one of which can come from supporting factors in this case is family support.(Notoadmojo, 2008)

Family is the most important place for family members in solving problems, and family support is a factor that can help individuals to solve their problems, because the best motivation and self-confidence will grow when the individual has full support from the family so that all decisions that are determined can also get blessing. and get psychological peace.(Kurniati, Alfaeni, & Andriani, 2020)

### **Knowledge**

Based on the results of the study, it is known from the chi square analysis that there is a relationship between knowledge and the perception of health workers about the COVID-19 vaccine. Good perceptions come from groups that have good knowledge and negative perceptions come from groups with poor knowledge.

Cancer research shows that there is a relationship between knowledge about cervical cancer and perceived barriers to vaccination against Human Papilloma Virus (HPV). (Dethan & Suariyani, 2017) The influence of educational background and experience can influence the



formation of perceptions. Knowledge comes from the results of finding out and results because after knowing, the process becomes knowing because after sensing certain objects. One of the most important factors to be able to change health beliefs and a factor to change behavior is knowledge.(Fauzia & Hamdani, 2021)

Positive and negative aspects greatly determine decisions in attitude, the more positive aspects obtained, the more positive the object will be.(Heryana, 2020) Changes in behavior and trust in vaccine safety will achieved and acceptance of the vaccination will occur if the individual has gained knowledge, therefore it is necessary to provide information about the benefits of vaccination and the safety of vaccines to health workers. Knowledge is one of the most important factors that change health beliefs and has the potential to cause changes in individual health behavior.(Iskak et al, 2021)

Negative aspects of vaccines can be reduced by providing education and communication of information related to vaccines from the government which is the right step. Community empowerment is the spearhead of behavioral change in the community, of course with learning media that is in accordance with the wishes of the community.

## **Education**

The results of the study stated that there were differences in the level of confidence of pharmacy and non-pharmaceutical students in receiving the covid-19 vaccine, in which there was a significant difference in the value of 0.000 ( $p < 0.05$ ) between the level of confidence of pharmacy and non-pharmaceutical students in receiving the covid-19 vaccine. This study shows that pharmacy students have a higher positive perception (92%) than non-pharmaceutical students (68%) towards receiving the covid-19 vaccine. Pharmacy student respondents have a positive perception and agree that vaccination is the right way to break the chain of transmission of COVID-19, besides that it means that pharmacy students believe that the COVID-19 vaccine is safe and has good effectiveness for increasing immunity.(Amalia, Surya, Dedy, 2021)



In another study, it was stated that the education factor was very important to influence someone to believe and have a positive perception of vaccination. The majority of students in South Carolina trust the information presented by scientists 83%, followed by Healthcare providers 74%, Healthcare Institutions 70% Vaccination Acceptance Analysis.(Yuni et al, 2021)

### **Information Access Availability**

Access to available information and sources of information also affects public acceptance of COVID-19 vaccination, the more accurate the information, the better public acceptance of the vaccine, therefore the dissemination of accurate and valid information about vaccine safety is important to shape public perception and trust. on the safety of the COVID-19 vaccine. Dissemination of information, understanding and belief about the COVID-19 vaccine is critical to the success of a vaccination campaign. Providing information about vaccine safety is also the focus of handling and prevention so that public acceptance of this vaccine increases.(Ika, Idaman, Zainy, 2020)

Research shows that misinformation on the internet can form resistance to vaccines.(Dodd, Cvejic, et al, 2021) Social media also affects vaccine acceptance in the community, the rapid and massive dissemination of this information can affect thoughts, perceptions and the formation of attitudes of acceptance or rejection of vaccines in the community. Surveys on six continents show that high trust is one of the factors that determine how much vaccine is accepted in the community, and that trust comes from information published by the government.(El-Elimat, Abu Al Samen, 2021)

### **Neutral Opinion**

Social media is an effective means of disseminating information to be able to form opinions in increasing vaccine acceptance in the community. The results of the study state that there are similar results to the analysis of Sinovac vaccine sentiment in Indonesia and the UK, this is evidenced by neutral opinion dominating tweets but with a different and higher percentage for world Twitter. It is said to be a neutral opinion if the public does not have a negative or positive



view of the Sinovac vaccine. Public opinion says that the Sinovac vaccine can be one of the vaccine prevention efforts to get immunity and a solution to achieve herd immunity. The public's optimism towards the acceptance of the Sinovac vaccine indirectly illustrates the least negative opinion on the vaccine, this means that this vaccination program has received support from the community and has made the COVID-19 vaccination program run well and smoothly.(Fuadiyah, Widawati, Pradani, 2021)

### **Work**

Occupational factors greatly affect vaccination acceptance in the community. According to research results, people with low and lower middle incomes have a lower chance of receiving vaccinations for their children compared to people with high incomes. (Bono, Siau, et al, 2021) This study is not in line with research in America which states that high incomes affect the acceptance of COVID-19 vaccines. (Goldman et al, 2021)

Lower social status and their income, the more they refuse and the lower the public's acceptance of the Covid vaccine. (Yilmaz & Sahin, 2021)

Parents who have low incomes also have no intention and refuse the vaccine. (Davis et al, 2020)

The part-time job of parents also has low intentions and acceptance of the COVID-19 vaccine to their children compared to parents who have full-time jobs.(Lushionton, 2020) The profession of parents also greatly influences vaccine acceptance, the profession of parents as health workers has the highest acceptance of parents' willingness to receive vaccines.(Yilmaz & Sahin, 2021)

### **Positive and Negative Perception**

These positive and negative perceptions affect a person's acceptance of the COVID-19 vaccine, according to the Health Belief Model, people who are afraid and worried about the COVID-19 vaccine influence the decision to receive the vaccine.(Lin et al, 2020) The fear and worry can be a stimulus and catalyst for parents and children want to carry out vaccination activities. The reasons for safety and protection are the reasons that strengthen the person



receiving the Covid vaccine.(Bell et al, 2020) Information from the caregivers of children is 62% of the motivation for vaccination among children because they want to get security and self-protection from the transmission of COVID-19.(Yilmaz & Sahin, 2021)

The knowledge factor also affects perceptions in the community, the lower the community's knowledge, the lower the awareness and doubts about the safety of the COVID-19 vaccine for children and vaccination for yourself.(Zhang, Lin, et al, 2021) The development of this vaccine research may affect parents' concerns including safety and health. effectiveness of the COVID-19 vaccine.(Bell et al, 2020) Some of the reasons people have doubts about vaccine safety include testing, side effects, long-term results, efficacy, vaccine safety and the process of making vaccines without a long research.(Bell et al, 2020) Parents' desire is also very strong to protect themselves and their children from the dangers of transmitting COVID-19.(Evans et al, 2021) Mothers' doubts were based on concerns about safety, efficacy and confusion over information to receive the COVID-19 vaccine, 44% of respondents said they agreed and 42.2% of respondents said they strongly agree when compared to other vaccines. Challenges of authority health around the world, namely minimize public doubts about vaccines.(Hetherington, Edwards, et al, 2020)

Negative perceptions and doubts arise because of misinformation or the delivery of information that is piecemeal, causing fear and resulting in low vaccine acceptance. (Iskak et al, 2021) Public trust greatly affects the level of vaccine acceptance in the community, because the lower the level of public trust, the lower the acceptance of the COVID-19 vaccine will be.

An approach is needed to break down existing barriers, so that the truth of the communication and information conveyed can be maintained and can reduce hoaxes circulating in the community. Positive perceptions are formed due to the factor of the usefulness of vaccines according to research in China that 83% of acceptance of vaccines is high due to high perceptions of benefits in the community.(Arumsari, 2021) Research in Indonesia also said the same thing, namely the relationship between vaccine reception and perceived benefits. This perception of benefit arises because the vaccination can reduce infections that occur and vaccination can reduce concerns about the dangers of transmission which is indicated by the OR



values in each of the 9.3 and 11.9 respectively, meaning that the higher the perceived benefit value, the greater the chance that the community will be willing to be vaccinated.(Achadi, 2021)

Trust is an intrinsic and potentially modifiable component of successful uptake of the COVID-19 vaccine. Our findings suggest that public trust in government is very low with regard to vaccine acceptance and may contribute to public compliance with recommended measures. Lessons from previous outbreaks of infectious diseases and public health emergencies, including HIV, H1N1, SARS, MERS, and Ebola, remind us that reliable sources of information and guidance are critical to disease control. However, overcoming vaccine hesitancy requires more than building trust. This is a multifactorial, complex and context-dependent endeavor that must be tackled simultaneously at global, national and subnational levels.(Hooker, Claire, & Julie Leask, 2020)

Higher parental acceptance of COVID-19 vaccination is related to positive attitudes towards COVID-19 vaccination, perception that family members will support them in getting their child to receive COVID-19 vaccination (i.e. perception of subjective norms), and perceived behavioral control so that the child -children receive COVID-19 vaccination. Higher exposure to positive information on social media regarding COVID-19 vaccination is also associated with higher parental acceptance of COVID-19 vaccination.

In low- and middle-income countries, income has also been shown to be linked to willingness to vaccinate children against COVID-19. Those with low, middle, and upper-middle income have a higher chance of receiving childhood vaccinations at a vaccine effectiveness rate of 95%, compared to those in the high-income group. (Bono, Siau, et al, 2021) However, this is in contrast to the results of studies in America where the higher family income, the higher the receipt of the COVID-19 vaccine. (Davis et al, 2020)

Lower economic status was associated with vaccine intention, with a stronger association for those who did not intend to vaccinate, compared with those who were unsure.(Bell et al, 2020) In other words, low-income parents were also more likely to refuse the COVID-19



vaccine.(Hetherington, Edwards, et al, 2020) Employment status of people Parents also have an influence on vaccination acceptance, where parents work part-time

The reasons for parents' hesitation in vaccinating against COVID-19 for themselves and their children are concerns about testing, side effects, long term results, vaccine efficacy and safety, rushed vaccination process. But parents expressed a strong desire to protect their children, and a desire for health information.(Evans et al, 2021)

The findings in this study represent an important determinant of the acceptance and skepticism of COVID-19 vaccination in various regions. Based on the selected studies, it can be concluded that the factors that influence the acceptance of COVID-19 vaccination in the elderly include parental age, gender, marital status, education level, socioeconomic status, income, race/ethnicity, fear of infection. COVID-19, death rate from COVID-19 and self-protection from COVID-19. Doubts about COVID-19 vaccination are influenced by low knowledge and awareness, doubts about vaccine safety and effectiveness, novelty and rapid development of vaccines, the Government has an important role in good and transparent communication based on scientific evidence is very important to increase trust and understanding about COVID-19 vaccination program.

### **Affordability**

The affordability factor in receiving the COVID-19 vaccination was categorized as good (68.8%). The results of this study can be concluded that the affordability factor affects the acceptance of the COVID-19 vaccination. From a financial perspective, the Central Statistics Agency (BPS) noted that the province of Aceh is still the poorest province on the island of Sumatra and this makes people unwilling to pay to get the COVID-19 vaccine. The Indonesian government has urged the public to participate in the COVID-19 vaccination which can be seen in the Presidential Regulation of the Republic of Indonesia No. 99 of 2020 concerning the procurement of vaccinations and the implementation of vaccinations in the context of dealing



with the COVID-19 pandemic. As many as 49.5% of the population are willing to be vaccinated if the government provides free COVID-19 vaccines.(Kemenkes, 2020a)

This is also supported by the Ministry of Health of the Republic of Indonesia which said that the Government of Indonesia provided free vaccines to increase acceptance, especially for people who were classified as poor and vulnerable. If vaccines are not provided free of charge, they should be provided at a price that is affordable for everyone.(Yulia et al, 2022)

The awareness factor also affects the acceptance of this vaccine, by 70.6% the level of awareness in receiving the COVID-19 vaccination, this means that the awareness factor can affect the acceptance of the COVID-19 vaccination. The provision of education and information must always be disseminated so that this level of acceptance increases and awareness increases, regarding the level of vaccine safety, effectiveness, halalness, vaccine emergencies, and valid accurate information to eradicate hoax news.(Sari & Sriwidodo, 2020)

Based on the results of the study, 50.5% of respondents agreed and were willing to receive COVID-19 vaccination, 58.7% of respondents thought that COVID-19 could be overcome and there was no need for vaccination, 47.7% of respondents had the intention to invite family members, relatives and friends. , their friends to follow the COVID-19 vaccination. Acceptance of the COVID-19 vaccine was 59.6% greater, which means respondents agreed that the COVID-19 vaccine provided was safe and effective, only 55% of respondents said they were not sure about the safety and effectiveness of the COVID-19 vaccine. The acceptance of this vaccination is inseparable from the affordability of respondents in accessing knowledge, sources of information, access to affordability in carrying out vaccinations, trust in vaccines and awareness in receiving and believing that the COVID-19 vaccine is effective and safe for the community.(Kemenkes, 2021)

| Acceptance Factors                | Study Design                                    | Samples and Research Locations                        | Findings                                                               | References                                                   |
|-----------------------------------|-------------------------------------------------|-------------------------------------------------------|------------------------------------------------------------------------|--------------------------------------------------------------|
| Age, Gender, Marital Relationship | <i>Quantitative and using a cross sectional</i> | The sampling technique is by using purposive sampling | The results showed that 51% of respondents were willing to receive the | Yulia Khairina Ashar, Ananda Dwi Puspita Sari, Dwika Ananda, |



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| Acceptance Factors                                                  | Study Design                                                 | Samples and Research Locations                                                                                                                                                                                    | Findings                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | References                                 |
|---------------------------------------------------------------------|--------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|
|                                                                     | <i>study design.</i>                                         | technique.                                                                                                                                                                                                        | Covid-19 vaccine. Factors that affect the willingness of the Tebing Tinggi community to receive vaccinations are age, gender, marital status, education, employment, economic conditions, and public confidence in the Covid-19 vaccine.                                                                                                                                                                                                                                                                                                                                                                                                       | Kania Utari                                |
| Knowledge, availability of access to information and family support | <i>Quantitative and using a cross sectional study design</i> | The sample used was 211 respondents with the determination of the sample using the Proportionate Stratified Random Sampling technique, the data were analyzed using univariate and bivariate chi square analysis. | The results showed that there was a relationship between knowledge (p-value 0.041), availability of access to information (p-value 0.009) and family support (p-value 0.000) with acceptance of the Covid-19 vaccination program, the factors affecting acceptance of Covid-19 vaccination among the community between other things are knowledge, the availability of access to information and family support, so efforts are needed to be made to the community in increasing knowledge, access to information related to Covid-19 vaccination and support from families to increase public acceptance of the Covid-19 vaccination program. | Yuni Lasmita, Misnaniarti, Haerawati Idris |
| Knowledge,                                                          | <i>Quantitative</i>                                          | The number of                                                                                                                                                                                                     | This study revealed a good                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Adin Hakim                                 |



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| Acceptance Factors                                           | Study Design                                                                                             | Samples and Research Locations                                                                                                                                                                                                                                           | Findings                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | References                                    |
|--------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|
| attitudes and policies of the district government            | <i>descriptive with cross-sectional design. The sampling technique used cluster stratified sampling.</i> | research respondents was 136 people. Statistical analysis techniques are chi-square and multiple regression logistic multivariate.                                                                                                                                       | level of knowledge (52.94%), positive attitude (59.82%), and intention to receive the COVID-19 vaccine (75.70%). From the logistic regression analysis, the factors that had a significant relationship with vaccine acceptance were: history of degenerative disease (p-value=0.004); knowledge about COVID-19 vaccine (p-value = 0.010), and attitude of agreeing to accept COVID-19 (p = 0.026). Vaccine knowledge education and communication from government sources is an important method for reducing negative attitudes towards the COVID-19 vaccine | Kurniawan, Yetri Elisya, Muhammad Fregi marsa |
| Neutral Sentiment, Negative Sentiment and Positive Sentiment | <i>Lexicon Based method is used to perform sentiment analysis.</i>                                       | The research sample obtained on social media with the Lexicon Based method is a simple, feasible, and practical method for sentiment analysis. The data that can be used comes from social media such as Twitter, Facebook, and other social media regarding the opinion | Neutral opinion (37.6%) has the highest percentage when compared to positive opinion (35.4%) and negative opinion (27.0%). Sentiment analysis of the world community also obtained the same result, namely neutral opinion (69.4%) was more dominant than other opinions. The percentage of neutral opinion in the world is higher than the                                                                                                                                                                                                                   | Dewi Hernikawati                              |



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| Acceptance Factors                                      | Study Design                                                                                               | Samples and Research Locations                                                                                                                                             | Findings                                                                                                                                                                                                                                                                                                                                                                                                              | References                                                                    |
|---------------------------------------------------------|------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
|                                                         |                                                                                                            | of a product or service.                                                                                                                                                   | percentage of neutral opinion in Indonesia. Neutral opinion shows that the community does not support and does not reject the existence of the Sinovac vaccine.                                                                                                                                                                                                                                                       |                                                                               |
| The role of parents                                     | <i>Analytical quantitative. Data analysis using regression analysis with the help of the SPSS program.</i> | Students of class XI MAN 1 Serang City, with a total sample of 34 students.                                                                                                | Significant influence between the role of parents on the delivery of the Covid-19 vaccine to Class XI students at MAN I Serang City. This is evidenced by the acquisition of $\text{sig} = 0.015 < 0.05$ and $F\text{-count} = 6.648$ . It can be concluded that the role of parents has an impact on the administration of the Covid-19 vaccine.                                                                     | Fauzul Hayat, Nurjaman, Nia Kurniatillah                                      |
| Negative Perception, Positive Perception, and Knowledge | <i>Cross sectional with quantitative approach.</i>                                                         | 53 health workers used the total sampling method. Data analysis was carried out with univariate and bivariate tests using chi-square statistical test with $\alpha = 0.05$ | Health workers with negative perceptions 22 people (41.5%), positive perceptions 31% (58.5%), young 24 people (45.3%), elderly 29 people (54.7%), 33 people (62.3%), 20 men (37.7%), 28 people (52.8%) poor knowledge, 25 good (47.2%), 14 years of new work (26.4%) and 39 years of service work (73.6%). Bivariate analysis showed that there was a relationship between the perception of health workers about the | Denny Wulandari, Ade Heryana, Intan Silviana, Erlina Puspita, Rini H, Deasy F |



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| Acceptance Factors                                                                                                                    | Study Design             | Samples and Research Locations | Findings                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | References                                     |
|---------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|
|                                                                                                                                       |                          |                                | COVID-19 vaccine with age (p value = 0.048, PR = 2.115), gender (p value = 0.029, PR = 2.727), knowledge (p value = 0.030, PR = 2.381 ). There is no relationship between perceptions of health workers and years of service (p value = 0.286, PR = 1.592). It is hoped that the agency will provide more socialization and understanding and involve the active role of health workers so that negative perceptions can be eliminated, considering that vaccine support from health workers is needed. |                                                |
| Education, occupation, knowledge, perception of security, perception of vulnerability, perception of benefits and perceived barriers. | Cross Sectional Research | Sample Respondents 110         | Variables related to acceptance of the COVID-19 vaccine were education (p-value = 0.010), occupation (p-value = 0.006), knowledge (p-value = 0.000), perceived safety (p-value = 0.000), vulnerability (p-value = 0.000) -p = 0.004, perceived benefits (p-value = 0.006) and perceived barriers (p-value = 0.000). While the unrelated are gender (p-value = 0.229) and age (p-value = 0.180). The results of the multivariate analysis showed that the related                                        | La Ode Liaumin Azim, Rahman, Lade Albar Khalza |



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| Acceptance Factors                              | Study Design                                           | Samples and Research Locations                                                                                                                                                                                                                                        | Findings                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | References                                    |
|-------------------------------------------------|--------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|
|                                                 |                                                        |                                                                                                                                                                                                                                                                       | variables were knowledge (p-value = 0.004), perceived security (p-value = 0.006), perceived vulnerability (p-value = 0.020) and perceived barriers (p-value = 0.004).                                                                                                                                                                                                                                                                                                                                                        |                                               |
| Awareness, affordability and acceptance factors | <i>Quantitative with cross sectional study design.</i> | The population in this study are people who are in the working area of the Kuta Alam Health Center as many as 109 people. The sampling technique was purposive sampling. Data was collected using a questionnaire using a 3-point Likert scale totaling 30 questions. | Of the 5 factors of vaccination acceptance (access, affordability, awareness, acceptance, and activation) the most influential factors are awareness factors (70.6%), affordability (68.8%) and acceptance (64.2%) and factors that are less influential factors are activation (57.8) and access (51.4). This indicates that health promotion and public education need to be improved to anticipate the number of hoax news circulating in the community so that people have a negative stigma about the COVID-19 vaccine. | Sri Wahyuni, Teuku Samsul Bahri; Riski Amalia |

Based on 8 articles that have met the criteria, 7 of them use the cross-sectional method and 1 other article uses the Lexicon Based research method for sentiment analysis. The results can be concluded that there are 5 factors that affect the level of acceptance of vaccines in the community, including access to health services, affordability, awareness, and activation, so it is necessary for the government to make efforts to the community in increasing access to health



services, affordability, awareness, access to information related to vaccination. Covid-19 and support from families to increase public acceptance of the Covid-19 vaccination program.

The results of other studies also show that 51% of respondents are willing to receive the Covid-19 vaccine. Factors that affect the willingness of the people of Tebing Tinggi to receive vaccinations are age, gender, marital status, education, employment, economic conditions, and public trust in the Covid-19 vaccine, so that wrong perceptions and knowledge arise in the community, where they assume that the program Vaccination to deal with the COVID-19 pandemic is just a matter of less importance to study.

Bivariate analysis showed that there was a relationship between the perception of health workers about the COVID-19 vaccine with age (p value = 0.048, PR = 2.115), gender (p value = 0.029, PR = 2.727), knowledge (p value = 0.030, PR = 2.381). There is no relationship between perceptions of health workers and years of service (p value = 0.286, PR = 1.592). It is hoped that the agency will provide more socialization and understanding and involve the active role of health workers so that negative perceptions can be eliminated, considering that vaccine support from health workers is needed.

Another study also stated that there was a significant influence between the role of parents in giving the Covid-19 vaccine to Class XI students at MAN I Serang City. This is evidenced by the acquisition of sig = 0.015 < 0.05 and F-count = 6.648. It can be concluded that the role of parents has an impact on the administration of the Covid-19 vaccine.

The opinion that developed regarding the perception of vaccine acceptance is, neutral opinion (37.6%) has the highest percentage compared to positive opinion (35.4%) and negative opinion (27.0%). Sentiment analysis of the world community also got the same result, namely neutral opinion (69.4%) was more dominant than other opinions. The percentage of neutral opinion in the world is higher than the percentage of neutral opinion in Indonesia. Neutral opinion shows that the community does not support and does not reject the existence of the Sinovac vaccine.

On the other hand, the study also revealed a good level of knowledge (52.94%), positive attitude (59.82%), and intention to receive the COVID-19 vaccine (75.70%). From the logistic regression



analysis, the factors that had a significant relationship with vaccine acceptance were: history of degenerative disease (p-value=0.004); knowledge about COVID-19 vaccine (p-value = 0.010), and attitude of agreeing to accept COVID-19 (p = 0.026). Vaccine knowledge education and communication from government sources is an important method for reducing negative attitudes towards the COVID-19 vaccine

The results showed that there was a relationship between knowledge (p-value 0.041), availability of access to information (p-value 0.009) and family support (p-value 0.000) with acceptance of the Covid-19 vaccination program, the factors affecting acceptance of Covid-19 vaccination among the community between other things are knowledge, the availability of access to information and family support, so efforts are needed to be made to the community in increasing knowledge, access to information related to Covid-19 vaccination and support from families to increase public acceptance of the Covid-19 vaccination program. It can be concluded that the level of acceptance of the COVID-19 vaccination is related to the level of knowledge possessed by the community itself.

This study also shows that there is a significant relationship between exposure to information received by the public that can increase knowledge about COVID-19 vaccination and acceptance of the COVID-19 vaccine in the community. It can be concluded that the information regarding the COVID-19 vaccination received by the public must be the right information so that the level of public knowledge of the facts of the COVID-19 vaccination can increase and the acceptance of the COVID-19 vaccination can run optimally. (Yura et al, 2021)

## **Conclusion**

Based on the results of a literature review of four articles on the relationship between the level of knowledge and the acceptance of the COVID-19 vaccine in the community, it was concluded that the level of knowledge is very influential in the acceptance of vaccination, the higher the level of knowledge, the higher the level of acceptance of the vaccine. Availability of information sources, neutral opinions, awareness, positive perceptions, affordability also significantly influence the acceptance of COVID-19 vaccination.



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