

Readiness of Parents of Students Against Vaccination During the Covid 19 Pandemic

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Abstract

The vaccination program is expected to bring back a broad positive impact on society, namely social and economic productivity. However, to successfully implement this COVID-19 vaccination plan, at least three key factors are required, namely the COVID-19 vaccine (including its provision and use); health workers; and community involvement. For a COVID-19 vaccination plan to be successful, these three factors must be defined and integrated. Research on the new corona virus vaccine is one of the stages of providing vaccines, so almost all countries are competing for this vaccine research. Research and discovery of a COVID-19 vaccine has been very rapid, including the reason for its wide impact, but also because it is supported by very modern research techniques and a huge budget that the world has never seen before.

Keyboard: Education, Vaccination, Covid 19

Introduction

In early 2020, a pandemic caused by a new strain of the corona virus (CoV), namely SARS-CoV-2, brought the world to a sudden halt. The disease caused by infection with SARS-CoV-2 is called Coronavirus Disease or COVID-19. (1) CoV itself is a type of RNA virus in the form of a solar corona that causes many diseases, including influenza, respiratory syndrome due to MERS-CoV in the Middle East (MERS) versus severe acute respiratory syndrome due to SARS-CoV (SARS). (2) The rate of transmission of the SARS-CoV-2 virus is much higher than that of MERS-CoV and SARS-CoV. Therefore, on January 5, 2021, COVID-19 has become a global pandemic that has infected around 84.5 million people. death rate. For 1.8 million people (2.3) in Indonesia, as of January 6, 2021, the use of positive cases of COVID-19 has reached approximately 780,000 and caused 23,000 deaths. The COVID-19 pandemic has undoubtedly had a major socioeconomic impact. Since the World Health Organization (World Health Organization, WHO) confirmed the COVID-19 outbreak on January 30, 2020, it has implemented state/regional border closures, travel restrictions, large-scale social restrictions, and as an emergency. The Quarantine Emergency Response has triggered economic crises around the world, including Indonesia.

Starting from the primary industry (production of raw materials), secondary industry (production of finished goods) and tertiary industry (service industry), most of the world's economic systems have been disrupted by this pandemic, including the health sector and the pharmaceutical industry. From the macroeconomic perspective, Indonesia itself has been

affected by the economic recession with the percentage of economic growth in the second and third quarters of 2020 of -5.32% and -3.49%, respectively. However, the Government of Indonesia has taken various strategies to overcome the impact of the pandemic through economic recovery strategies and increasing the capacity of the health system. Responding to the impact of the COVID-19 pandemic, the government has carried out various health interventions. As the President of the Republic of Indonesia said on December 16, 2020, in addition to ratifying the health agreement, Health efforts to overcome this pandemic also include seeking COVID-19 vaccination for all Indonesian people. The vaccination program is part of the health system and aims to address health problems, especially in diseases that can be prevented by immunization (PD3I). The COVID-19 vaccine is obtained by injecting a vaccine into the human body to fight specific immunity from the SARS-CoV-2 virus that can block the chain of transmission.

The vaccination program is expected to bring back a broad positive impact on society, namely social and economic productivity. However, to successfully implement this COVID-19 vaccination plan, at least three key factors are required, namely the COVID-19 vaccine (including its provision and use); health workers; and community involvement. For a COVID-19 vaccination plan to be successful, these three factors must be defined and integrated. Research on the new corona virus vaccine is one of the stages of providing vaccines, so almost all countries are competing for this vaccine research. Research and discovery of a COVID-19 vaccine has been very rapid, including the reason for its wide impact, but also because it is supported by very modern research techniques and a huge budget that the world has never seen before.

Based on WHO data on January 5, 2021, 63 COVID-19 vaccine candidates have entered clinical trials, 15 of which have entered the third phase. Although the third phase of all clinical trials has not yet been completed, several countries such as the UK and the United States have implemented COVID-19 vaccination through an emergency use authorization (EUA) mechanism. The EUA mechanism is in place to promote the provision and use of health products (including vaccines) in an emergency (including during the COVID-19 pandemic). The EUA mechanism certainly cannot replace the clinical trial system and program carried out by vaccine research itself. Therefore, the safety, quality and efficacy of the COVID-19 vaccine administered to humans must continue to be tested. In Indonesia, The Food and Drug Supervisory Agency (BPOM) is gradually sending clinical trial data through a rolling submission mechanism or vaccine evaluation to ensure that the safety and immune response of the COVID-19 vaccine meets the requirements for efficacy and immunogenicity. The availability and availability of vaccines is one of the determining factors for the successful implementation of the COVID-19 vaccine program. In accordance with the message from the Minister of Health on December 29, 2020, the Indonesian government has worked hard to meet the vaccine needs by allocating around 426 million doses of vaccines according to the standard. The availability and availability of vaccines is one of the determining factors for the successful implementation of the COVID-19 vaccine program. In accordance with the message from the Minister of Health on December 29, 2020, the Indonesian government has worked hard to meet the vaccine needs by allocating around 426 million doses of vaccines according to the standard. The availability and availability of vaccines is one of the determining factors for the successful implementation of the COVID-

19 vaccine program. In accordance with the message from the Minister of Health on December 29, 2020, the Indonesian government has worked hard to meet the vaccine needs by allocating around 426 million doses of vaccines according to the standard.

On the supply side, the government has planned to procure several alternative vaccines, including through the procurement of vaccines for Sinovac, Novavax, AstraZeneca, Pfizer, and through the procurement of COVAX / GAVI which is clearly regulated in Minister of Health Decree no. HK. 01.07 / Menkes / 12758/2020 (28 December 2020). Domestic vaccine producer Biofarma has also conducted research and production of COVID-19 vaccines through short-term and long-term cooperation strategies with many pharmaceutical industries. Institutions, domestic universities and related ministries/agencies. According to the vaccination roadmap that has been set, Biofarma vaccine will be launched in late February or early March 2021 (first half of 2021), while the planned imports of Novavax, AstraZeneca, Pfizer and COVAX vaccines are planned to arrive before mid-2021. All vaccines will be used immediately after receiving EUA from BPOM. At the same time, as of December 31, 2020, two batches of 3 million doses of COVID-19 vaccine were imported from Sinovac and are currently being distributed to 34 provinces and all primary, secondary and tertiary schools in Indonesia to provide vaccines targeted at this stage. first. However, the phenomenon in the field that occurs is, there are still many parents and the public doubting and questioning clinical trials of the covid vaccine, which every country is competing to promote their research results which have been used as pharmaceutical products that are ready to be used by many people, but on the other hand there are people to Volunteer for the Covid vaccine.

Materials and Methods

This type of research is a survey while the method is descriptive analytical. Whereas survey research is research conducted on large or small populations, but the data studied are data from samples taken from that population. Descriptive survey method is a research method that takes samples from the population and uses questionnaires as a data collection tool. In this study, a questionnaire was used to collect data and information from the respondents. After obtaining the data, the results will be described descriptively, and at the end of the study the description of the facts, nature and relationship between symptoms and explanatory research will be analyzed. Investigation by making observations to get clear information about specific issues in research. This study has made extensive efforts to find results that can be immediately used to describe sexual behavior, namely describing things that contain facts, which play a role in revealing and describing what happened. The results of the validity test resulted in an r value of > 0.3 , and a reliability test of Cronbach's alpha value > 0.6 . Before collecting data, the informants explained the purpose of the research and the rights of the object of research. In addition, the researcher also assisted the informants in filling out the questionnaire. and reliability test Cronbach alpha value > 0.6 . Before collecting data, the informants explained the purpose of the research and the rights of the object of research. In addition, the researcher also assisted the informants in filling out the questionnaire. and reliability test Cronbach alpha value > 0.6 . Before collecting data, the informants explained the purpose of the research and the rights of the object of research. In addition, the researcher also assisted the informants in filling out the questionnaire.

Research result

The following table lists the behavioral factors of pregnant women to complete basic Covid-19 immunization.

Table 1. The Effect of Trust on the Covid 19 Vaccine

Age	Public Perception				Total	Value
	Don't agree		Agree			
	n	%	N	%	n	%
18-27 years old	12	46.7%	14	55.3%	25	100%
27-37 years old	21	56%	19	47%	42	100%
37-47 years old	5	45.5%	7	56.7%	10	100%
Total	38	51.8%	38	48.4%	75	100%

Based on the table1 shows that most of the mothers are in the 27-37 year age group, as many as 40 respondents. Some mothers aged 18-27 years agreed that as many as 13 mothers (54.2%). Most of the mothers aged 27-37 years behaved disapprovingly as many as 22 respondents (55%), while most of the mothers aged 37-47 years behaved agreeably as many as 7 respondents (55.6%). Based on the results of the logistic regression statistical test, the value obtained is 0.720 (> 0.07). This shows that there is no effect on respondents in fulfilling vaccines in North Sumatra.

Table 2. The Effect of Parents' Work on Giving Covid 19 Vaccines

Job status	Parents' Perception				Total	Value
	Don't agree		Agree			
	n	%	N	%	n	%
18-27 years old	28	52%	28	52%	55	100%
27-37 years old	11	53.7%	10	52.6%	20	100%
Total	39	52.8%	38	51.7%	74	100%

Based on table 2 shows that most of the work status of mothers is not working, as many as 55 mothers. The number of mothers who have no working status is the same between mothers who behave badly and mothers who behave well, namely as many as 28 mothers (50%). Most of the mothers who have a working status have bad behavior, namely as many as 11 mothers (52%). Based on the results of logistic regression statistical tests, the value obtained is 0.845 (> 0.06). This shows that there is no effect of the mother's employment status on the mother's behavior in fulfilling the COVID-19 vaccine.

Table 3. Mother's Influence on Vaccine Compliance Behavior

Attitude	Mother's Treatment				Total	Value
	Don't agree		Agree			
	n	%	N	%	n	%
Not enough	6	100%	1	1%	5	100%
Enough	28	67.3%	13	32.9%	39	100%
Well	6	18.3%	25	83.9%	30	100%

Total	39	50.8%	37	49.4%	75	100%
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Based on table 3 shows that most of the mothers have an attitude with sufficient category towards immunization as many as 38 mothers. All mothers who have an attitude in the category of not having bad behavior are as many as 6 mothers (100%) and some mothers who have an attitude with a moderate category also have bad behavior as many as 28 mothers (67.3%). Most of the mothers who have an attitude with a good category have good behavior as many as 25 mothers (83.9%). Based on the results of logistic regression statistical tests obtained p-value is 0.001 (<0.06). This shows that there is an influence of mother's attitude towards mother's behavior in fulfilling the COVID-19 vaccine.

Table 4. Mother's Influence on Belief in Vaccine Compliance Treatment

Believe	Mother's Treatment				Total	Value
	Don't agree		Agree			
	n	%	N	%	n	%
Low	10	100%	1	1%	10	100%
Currently	22	68.8%	12	33.3%	37	100%
Tall	7	22.3%	27	84.9%	34	100%
Total	39	50.8%	37	49.4%	75	100%

Based on table 4, it shows that most of the mothers have high confidence in the COVID-19 vaccine, which is as many as 34 mothers. All mothers who have low confidence have bad behavior as many as 10 mothers (100%) and most mothers who have moderate beliefs also behave badly, as many as 22 mothers (68.8%). Most of the mothers who have high confidence have good behavior as many as 27 mothers (84.9%). Based on the results of logistic regression statistical tests, the value obtained is 0.003 (<0.05). This shows that there is an influence of mother's trust on mother's behavior in fulfilling the COVID-19 vaccine.

Table 5. Effect of Support on Vaccine Compliance Treatment

Family support	Mother's Treatment				Total	Value
	Don't agree		Agree			
	n	%	N	%	n	%
Low	3	100%	1	1%	3	100%
Currently	29	66.2%	15	34.9%	44	100%
Tall	7	26%	21	76%	29	100%
Total	39	50.8%	37	49.4%	75	100%

Based on table 5, it shows that most of the mothers received moderate support from the family, as many as 44 mothers. All mothers who received low support from their families behaved badly, as many as 3 mothers (100%). Most of the mothers who received moderate support from their families were not well behaved, namely as many as 29 mothers (66.2%), while most of the mothers who received high support from well-behaved families were 21 mothers (76%). Based on the results of logistic regression statistical tests obtained p-value is

0.007 (<0.05). This shows that there is an influence of family support on the behavior of mothers in fulfilling the COVID-19 vaccine.

Table 6. Effect of Maternal Information on Vaccine Compliance Treatment

Access	Mother's Treatment				Total	Value
	Don't agree		Agree			
	n	%	N	%	n	%
Not enough	23	82.6%	6	19.6%	28	100%
Well	16	33.6%	32	68.4%	47	100%
Total	39	50.8%	37	49.4%	73	100%

Based on table 6 shows that most of the mothers have access to good immunization, as many as 46 mothers. Most of the mothers who got access to bad behavior were 23 mothers (82.6%), while most of the mothers who got access to good behavior were as many as 32 mothers (68.4%). Based on the results of the logistic regression statistical test, the value obtained is 0.001 (<0.05). This shows that there is an influence on access to mother's behavior in fulfilling the COVID-19 vaccine.

Table 7. Effect of Support on Vaccine Compliance Treatment

Family support	Mother's Treatment				Total	Value
	Don't agree		Agree			
	n	%	N	%	n	%
Not enough	9	89.9%	1	12.1%	8	100%
Enough	26	66.2%	15	34.3%	44	100%
Well	4	16.5%	21	85.7%	30	100%
Total	39	50.8%	37	49.4%	75	100%

Based on table 7 shows that most of the mothers received immunization information with sufficient categories, namely as many as 39 mothers. most of the mothers who received less information were not well behaved as many as 9 mothers (89.9%) and most of the mothers who received sufficient information also misbehaved as many as 26 mothers (66.2%). Most of the mothers who received good information behaved well as many as 21 mothers (85.7%). Based on the results of the logistic regression statistical test, the value obtained is 0.001 (<0.05). This shows that there is an influence of information on mother's behavior in fulfilling COVID-19 information.

Discussion

The results of this study indicate that the mother's age does not affect the mother's behavior in vaccinating her child. This is in accordance with research conducted by (Kandeil, 2020) which showed that maternal age did not affect deviations in vaccination. In addition, another study conducted by (Kibreab, 2020) showed that there was no relationship between maternal age and child vaccination rates. To a certain extent, the increase in maternal age is in line with the development of ideas in the prevention and prevention of disease in children

and the prevention of the Covid 19 virus, one of which is through vaccine management (Dinleyici, 2020). As the mother grew older, she became more and more experienced in caring for children and vaccinating. This will have an impact on the mother's behavior. The older a person is, the higher his maturity and ability to think and receive information (Roncancio, 2019). However, it is not absolute that older people have higher knowledge than younger people (Barron, 2020).

The results of this study indicate that the mother's employment status has no effect on the vaccination behavior of the mother's child. This is different from research conducted by (Hadjicharalambous, 2021) which shows that the employment status of pregnant women will affect the behavior of pregnant women when applying the Covid 19 vaccine (2020). Mothers who are not working can pass on vaccine integrity to their children. This happens because mothers who do not work have more time to care for their children, while mothers who work are busy and do not have time to take care of their children (Eyimaya, 2021). The time a working mother has will be divided into work so that she does not pay attention to her children. Mothers who do not have working hours go to the doctor or receive health services. The mother's average working hour is in the morning and she also provides services in the morning. Therefore, the mother cannot bring the child to get the vaccine, or the child can still be vaccinated, but given by a caregiver or grandmother. Due to the COVID-19 pandemic, this study coincided with work-at-home activities (WFH), so that some mothers work at home and have more time with their children (Hopkins, 2020). Compared to mothers who do not work, mothers who do not work have more time with their children and tend to pay more attention to their children's health. In this case, children's vaccines are given during the COVID-19 pandemic (Cardinale, 2020). this study coincided with work-at-home activities (WFH), so some mothers work at home and have more time with their children (Hopkins, 2020). Compared to mothers who do not work, mothers who do not work have more time with their children and tend to pay more attention to their children's health. In this case, children's vaccines are given during the COVID-19 pandemic (Cardinale, 2020). this study coincided with work-at-home activities (WFH), so some mothers work at home and have more time with their children (Hopkins, 2020). Compared to mothers who do not work, mothers who do not work have more time with their children and tend to pay more attention to their children's health. In this case, children's vaccines are given during the COVID-19 pandemic (Cardinale, 2020).

Other studies have also shown that the mother's employment status influences the mother's child's vaccination behavior. In this study, working mothers were 1.4 times more likely to have their child vaccinated than non-working mothers (Assefa, 2019). This happens because working mothers have income which can later be used to finance the expenditure and transportation of vaccines. According to classical theory, a person's health is influenced by many factors, one of which is environmental factors, such as economic, social, and political (Stawicki, 2019). Job status will affect a person's income, if a person's income is high, his health condition tends to be the same (Baker, 2020). The results of this study indicate that the mother's attitude will affect the mother's behavior in vaccinating her child. A good mother's attitude towards vaccines tends to perform well when vaccinating her child. This is in accordance with research showing that the mother's attitude affects the integrity of the vaccine in children (Gualu, 2017). Another study conducted showed that there was a

relationship between the mother's attitude towards the achievement of child immunization. Attitudes are produced by stimuli or stimuli. The stimulus will give a response in the form of an attitude that may be reflected in action (Granjon, 2017).

The mother's attitude is influenced by the mother's perspective and background. The more developed the mother's way of thinking, the knowledge will increase so that the mother is able to choose good things for her child, one of which is vaccination (Zakkar, 2018). Mother's attitude towards immunization affects the level of adherence to basic vaccines given to children. Attitudes are not necessarily manifested in action, but a positive or good attitude can also make it easier for someone to get positive information. Therefore, attitude becomes one of the inducements of a person's behavior (Adame, 2020).

In this study, the mother's attitude affects the mother's vaccination behavior, which means that the more positive the mother's attitude towards immunization, the better the mother's behavior in completing her child's immunization. Positive mothers believe that vaccines have many benefits for their children's health and therefore tend to immunize their children (Rosso, 2019). On the other hand, if the mother has a negative attitude, that is, according to her, the vaccine has adverse side effects on the child's health, such as fever, the mother is more likely to delay or even not vaccinate her child (Mawson, 2017). The results of this study indicate that the mother's trust has an effect on the mother's behavior in fulfilling the child's vaccine. This is in line with research which states that maternal trust has a relationship with vaccine achievement (Garcia, 2020).

Most of the children who received the complete vaccine were children of mothers who believed in the vaccine, and the mother's belief in the vaccine had nothing to do with the status of the vaccine in the child (Santibanez, 2020). A person's belief in something influences behavior and behavior, and trust is formed through knowledge and experience (including personal experience and the experience of others) (Balde, 2019). Many parents are still worried about fever, and many mothers delay vaccination because of their child's cold and cough. These concerns lead to a lack of confidence in vaccines. However, because mothers are very worried about this, mothers prefer to delay giving children vaccines (Ampartwum, 2020).

The results of this study indicate that family support affects the behavior of mothers in vaccinating their children. This is consistent with research on the relationship between family support and the integrity of childhood vaccines. Another study showed that there was a significant relationship between child vaccination and family support (Usman, 2020). Based on this study, it was found that regarding the relationship between family support and the integrity of child vaccines, family support is one of the factors that support the community to take certain actions (Abdullahi, 2020). People with family support will feel comfortable both physically and mentally. The support can be in the form of information, attention, assistance, or appreciation in the form of expression. Good family support will make it easier for someone to make decisions, one of them is buying a vaccine decision. Not only that, support can also be in the form of willingness to receive immunizations from mothers and children, helping to care for children who are picky during immunization, or participating in caring for children after fever vaccination. This support has a major impact on the behavior of pregnant women. One of the reasons why mothers are late in giving vaccinations to their children (Lin, 2017).

The results of this study indicate that access to vaccines affects the behavior of mothers in fulfilling vaccines. Whereas on the influence of the affordability of health facilities on the completeness of vaccines in children, access to health facilities is strongly influenced by the condition of the existing infrastructure, both the affordability of services and transportation (Hassan, 2020). The ease and affordability of health services, in this case related to vaccines, really determines a person's choice to access a service or not. If access to a vaccine is considered easy and affordable both in terms of transportation and services, then this becomes a supporting factor for someone to fulfill the vaccine. in children (Bereitschaft, 2020). The results of this study differ from the research that there is no relationship between access to vaccine services and the completeness of basic vaccines in children. In this study, it was found that the community's residence was relatively close to health services, so that it was easy for people to access health services. This can also be seen from the length of time taken and the costs incurred to reach the vaccine service site. (Mekonnen, 2020).

This research was conducted at the time of the COVID-19 pandemic, therefore this study has advantages and disadvantages in terms of implementation and results. In collecting data, the advantage is that it is easier and more effective because it can regulate vaccine activities in the field, and the disadvantage is that researchers cannot conduct all random sampling during a pandemic, so it takes a long time to collect data. As for the results obtained, during this pandemic, most of the respondents did not have a job because some respondents lost their jobs during the pandemic.

Conclusion

The vaccination process for children is very necessary, in the current COVID-19 pandemic situation. There are several things that must be considered, including the readiness of parents to be willing or unwilling to give the best for their children, because vaccines are highly recommended from the basics so there is no need to worry about the vaccine itself. trust, family support, access and immunization information. Therefore, various ways can be used to intervene in giving vaccines to children for mothers who behave badly. First, increasing the role of health workers in providing vaccine-related information, which is communicated not only to mothers but also to fathers. Second, cadres must be trained and consulted so that they can educate their parents and convey information about vaccines to them so that cadres can independently provide understanding to their parents. Third, by providing education, increasing the role of the family in providing support to mothers. Fourth, strengthen health promotion related to vaccines through media that are easily accessible to parents.

Thank-you note

To all health workers and parents and teachers who have supported the vaccination program, parental involvement is very important for the implementation of good health in the future.

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