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Are You Willing to Vaccinate Your Children? Using Covid Risk Perception, Hesitate to Vaccinate, Covid Conspiracy Belief, and Vaccine Attitude to Assess Children's Vaccination Intentions

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Abstract: Children are vulnerable to the spread of the omicron variant of the covid-19 virus. Childhood vaccination inability will lead to low vaccination uptake, trying to make herd immunity difficult to achieve. The purpose of this study is to determine the role of the covid-19 conspiracy belief, perception of covid risk, vaccine hesitancy, and vaccine attitude for children in the intention to vaccinate children. Purposive sampling was used in this study, with the criteria of parents with children aged 6 to 11 years. This study's respondents amounted to 242 people, and research conducted in Indonesia. Path regression is the analysis technique used. According to the result of this research, this study proves that there is a significant direct and indirect role between belief in the covid-19 conspiracy, perception of covid risk, and vaccine hesitancy for children play a significant role in the intention to vaccinate children. Meanwhile, vaccine attitude has not been proven to play a role in parents' intention to vaccinate their children. The covid conspiracy belief, like the vaccine attitude, has not been proven to play a direct role in vaccine intention, but it has been shown to play a significant role in vaccine intention through covid risk perception and vaccine hesitancy. Based on research evidence, it is recommended that parents select COVID-19-related news with caution in order to guarantee their children's safety and health.

Keywords: Covid-19 conspiracy belief, Perception of Covid risk, Vaccine hesitancy, Vaccine attitude, Intention to vaccinate, Children

Introduction

The emergence of the Covid-19 Omicron variant at the end of 2021 warns that vigilance and efforts are still needed to increase the body's immune system. WHO classifies this species as a VOC or "Variant of Concern" meaning that this type can have a considerable impact on global public health or can be said to spread more quickly. Omicron has a very large number of mutations compared to other variants, indicating a greater risk of re-infection (Anugrah, 2021). The Indonesian Minister of Health, Budi Gunadi Sadikin, appealed not to panic, to remain calm and most importantly, immediately vaccinate, especially for vulnerable groups such as children (Rokom, 2021). According to Prof. Soedjatmiko (Rafie, 2021), this vaccine is safe and can stimulate immunity to COVID-19 based on the results of clinical trials in the age group of children. Further explained several reasons why {: gap {:kind:userinput}} should vaccinate children, (1) Groups of children must study offline at

school so that they risk transmitting it to themselves, fellow students, teachers, parents, and the elderly at home, (2) Considering the possibility low compliance of children in wearing masks that are not loose and sag, not crowding, keeping distance, also washing hands, (3) This vaccine is safe and can stimulate immunity against COVID-19 in children, (4) Children are accustomed to getting immunizations since infancy, toddlers and in school grades 1 to 5, (5) Puskesmas which is the implementing party for vaccination has long experience in implementing immunization programs, (6) The Convention on the Rights of the Child and the Child Protection Law state that children have the same right to be protected from illness. injuries, and various types of violence.

However, there are many pros and cons regarding this vaccination program for children. Suwandi (2021) explained that some parents in Jambi refused to have their children injected with vaccines due to health reasons. One of the causes of many rejections of the child vaccination process is the amount of fake news that is spread. Wicaksono (2021) mentions some false information circulating in the community, such as the issue that the covid-19 vaccine is dangerous for children because it contains polysorbate 80 which can poison the body and damage the brain, there is a spike in protein in children after being injected with the COVID-19 vaccine, which can cause organ damage, (as well as news that the Sinovac covid-19 vaccine is a trial material for Indonesian children. The spread of misinformation through various channels can have a major impact on the acceptance of the COVID-19 vaccine (Lushington 2020).

Paul et al., (2021) explained that most of the groups who are vulnerable to getting sick and dying from COVID-19 are those who come from ethnic minority backgrounds and have low incomes who tend to have negative attitudes towards vaccines and are less willing to be vaccinated against COVID-19. According to Junaidi, Arsyad et al., (2020) Vaccine doubt is a major barrier to vaccine uptake and the achievement of community immunity, which is necessary to protect the most vulnerable populations. Anti-vaccination activists are already campaigning in many countries against the need for a vaccine, with some denying the existence of COVID-19 altogether (Lushington 2020). The number of reports that COVID-19 is just a conspiracy has made many people begin to doubt the existence of COVID-19, this is in accordance with the research of Sallam et al., (2021) which also showed high vaccine doubts in Jordan and Kuwait because respondents believed that covid-19 was a man-made disease. . Some people start to think that covid is just a fabrication and is something that is not dangerous. This is in line with the results of research by Karlsson et al., (2021) where most parents think that COVID-19 will not pose a major risk to their personal health even though they consider the disease to be severe and many are worried that they will transmit it to others. Protection Motivation Theory states that public perceptions of the severity and vulnerability to certain health threats determine risk perceptions about a disease (Khosravi, 2020).

People's instinctive and intuitive reactions to danger are described as risk perception (Slovic et al., 2002, 2004; Slovic and Peters, 2006). demonstrates that people's reactions differ depending on the characteristics of a hazard Risks are deemed more dangerous when they cannot be explained scientifically, are characterized by natural disasters, or kill a large number of people at once (Slovic, 1987, 1992). Another important factor in risk perception is the influence that emerges, which limits the stimulus or context as positive or negative, depending on whether it is good or bad (Slovic et al., 2004). The perception of risk influences decision-making (Slovic et al., 2004). According to Finucane et al., (2000), when a person has positive feelings about an event or stimulus, they have a low risk perception, whereas when they have negative feelings about an event or stimulus, they have a high risk perception. According to Van Den Weerd et al. (2011), one of the factors that contribute to increased community participation in taking preventive measures is a person's perception of their risk in a pandemic.

On December 14, 2021, the Indonesian government launched a vaccination program for children aged 6 to 11. The administration of the Sinovac vaccine has passed the Covid-19 vaccination study for ages 6-11 years, according to the National Immunization Expert Advisory Committee (ITAGI), and has received EUA status / Emergency Use Authorization from BPOM (Mutiara, 2021). The availability of Covid-19 vaccination for children aged 6-11 years has several advantages, including: first, increasing body resistance (with the vaccine, it is hoped that children exposed to Covid-19 will not experience severe and dangerous symptoms), and second, lowering the risk of Covid-19 transmission. -19 from children to their parents, families, or the environment around them, and third, to hasten the emergence of herd immunity (communal immunity) (Hayati, 2020). Although the benefits of vaccination are significant in reducing the severity of COVID-19 cases, vaccination acceptance and absorption remain high. Vaccination has been widely rejected in some countries.

According to a survey conducted on a group of dentists in Italy by Michael et al., 39% of the total 421 participants were opposed to the vaccine due to a lack of information (Belingheri et al., 2021). According to Edwards et alstudy's of 3000 adults in Australia, 29% of participants had a low level of doubt about vaccination, while 7% had a high level of doubt. Those who hesitate and tend to refuse are women, people who live in disadvantaged areas, those who believe the risk of Covid-19 is excessive, and those who are religious (Edwards

et al., 2021). According to the Education and Teacher Association (P2G), which conducted a survey of 9,287 parents from 34 provinces in Indonesia, 36.7% of parents are hesitant and even refuse to vaccinate their children with Covid-19 (Harbani, 2010). There are several factors influencing parental acceptance of vaccination in Indonesia, one of which is the spread of negative and concerning information about vaccinations, the credibility of which is unknown, causing community controversy. This has hampered the government's goal of completing the vaccination program. Information that causes concern and uncertainty about credibility, such as: (1). skepticism about vaccine benefits (2) Concerns about unanticipated future consequences, beliefs about government commercialization, and beliefs about natural immunity (Martin & Petrie, 2017). The vaccine's attitude caused parents to be hesitant to vaccinate their children.

Vaccine hesitation is defined by Shapiro et al. as an attitude or behavior (worry or doubt) that refers to delays in receiving or refusing vaccinations despite the availability of services (Shapiro et al., 2017). Vaccine hesitancy is also defined as people's unwillingness to receive vaccines that have been proven to be safe and effective in protecting them from infectious diseases (Danabal et al., 2021). Vaccination skepticism is also linked to the belief that vaccine production is accelerated, that the risks of vaccination outweigh the benefits, and that vaccines are used to increase profits by large pharmaceutical companies (Bacon, & Taylor, 2021). Belief in conspiracy theories refers to the behavior of believing or believing in theories that are not yet known to be true. The term "conspiracy theory" refers to a theory developed to explain events as a powerful and evil secret act (Douglas, 2021). The figure behind the assassination of John F. Kennedy, the 35th President of the United States, who was shot dead on November 22, 1963, is one example of a major conspiracy theory that has circulated. In this assassination case, 61% of Americans believe there is a conspiracy. One theory is that FKJ was assassinated by the CIA in retaliation for the failure to depose the Cuban leader. Another theory holds that the killing was a mass act because it was in response to a mafia hit (Damara, 2021).

Another conspiracy theory that is still being circulated today is the COVID - as population control theory. Bill Gates is using the virus as population control, contrary to popular belief that microchips are implanted in vaccines to track people. According to other experts, COVID-19 is a "biological weapon." These theories have been repeatedly debunked, but they continue to circulate in the community (Damara, 2021). This happened during the Zika virus outbreak in 2015-2016, when conspiracy theorists claimed the virus was a biological weapon. Researchers discovered that the conspiracy arose as a way for people to cope with the uncertainty that occurs when a major event occurs. In Indonesia, popular anti-vaccine conspiracy theories include the belief that vaccines are "a tool created by Jews to reduce the Muslim population" (Sinuhaji, 2021). Other theories debate the halalness of vaccines, and some argue that vaccines are profitable (Intan, 2021). These conspiracy theories gave rise to three anti-vaccine groups: first, the group that refused due to the vaccine's halal status. This group believes that there are ingredients in the vaccine that should not be given; the second group rejects the vaccine concept. This group believes that vaccination is the result of a profit-seeking corporate conspiracy; third, vaccine safety and effectiveness. This group refuses vaccination because they are afraid of the side effects of the vaccine. As a result, many children have succumbed to the anti-vaccine movement's beliefs (Telaumbanua, 2017). The behavior of believing or believing in conspiracy theories is defined as belief in conspiracy theories themselves (Douglas, 2021). The emergence of conspiracy beliefs is driven by a lack of information and the inability to obtain reliable information, which creates the illusion of control over the situation in order to maintain self-esteem, reduce anxiety, and restore opportunities for activity (Egorova et al., 2020).

The behavior of believing or believing in conspiracy theories is defined as belief in conspiracy theories themselves (Douglas, 2021). According to Prooijen and Vugt, belief in conspiracy theories is always related to events, that there are people who deliberately carry out their secret plans, and that there are groups of people who work together to develop their conspiracy plans. It is also said that conspiracies are always secret and dangerous (Egorova et al., 2020). Hofstadter's initial research on conspiracy theory beliefs resulted in the statement that conspiracy beliefs tended to be paranoid. He also stated that belief in conspiracies can stem from a sense of powerlessness among people who believe they have no power, implying that people are experiencing despair as a result of the Covid-19 pandemic (Abalakina -Paap et al., 1999). Conspiracy thinking is usually fleeting, but it has long-term negative consequences and can increase social isolation (Leibovits et al., 2021). According to Sunstein and Vermeule (2008), belief in conspiracy is motivated by a lack of information and the inability to obtain reliable information, which occurs frequently, particularly in a crisis situation such as Covid-19. Typically, the information that emerges is contradictory or difficult to understand (Egorova et al., 2020). According to Egorova et al (2020), belief in conspiracy is included in a unidimensional variable, which stands alone and is not associated with other variables. This conspiracy theory is linked to belief in the conspiracy theory.

According to Sulfikar Amir, Associate Professor of Disaster Sociology at Nanyang Technological University (NTU) Singapore, this conspiracy belief is widespread not only in Indonesia but also in higher-education countries such as the United States, Singapore, and Europe. This can occur as a result of gaps in knowledge acquisition in a country's community (Shanti, 2022). Douglas research in 2021 revealed that conspiracy beliefs develop easily in times of crisis when a person feels threatened, unsure, and insecure, so that the spread of conspiracy theory beliefs is becoming increasingly out of control during this Covid-19 pandemic (Permana, 2021). Van Prooijen's research survey of 5,745 participants in the Netherlands found that those who believed in conspiracies were more likely to be exposed to or positive for Covid-19 than those who did not believe in conspiracies (Kamaliah, 2021). People who believe in or support conspiracy theories in general have a positive correlation with anti-science attitudes, including anti-vaccine attitudes, according to Hornsey et al (2018).

Vaccine hesitancy is defined as both an attitude (worry or doubt) and a behavior (Shaphiro et al., 2017). Vaccine hesitancy is also defined as people's unwillingness to receive vaccines that have been proven to be safe and effective in protecting them from infectious diseases (Danabal et al., 2021). Vaccine hesitancy, according to Noni and the SAGE Working Group on Vaccine Hesitancy (2015), is the behavior of being late in accepting or refusing vaccinations despite the availability of vaccination services (MacDonald, N.E & the SAGE Working Group on Vaccine Hesitancy, 2015). According to Shaphiro et al, vaccine doubts are complex and multi-layered; some people refuse some vaccines but agree with others, others delay vaccination, and still others receive vaccinations despite their reservations (Shaphiro et al., 2017). According to Shaphiro et al. (2017), vaccine skepticism can be divided into two categories: trust in health authorities and treatment (Level of confidence in the health authorities and mainstream medicine). This dimension describes the level of trust in health authorities who provide treatment programs, both medical and alternative. While the risk culture / healthism dimension is defined as a person's efforts to remain aware of the risks and opportunities in their own daily lives, particularly in terms of health, so that they can assess the risks and benefits for a safer future. Based on the observed phenomena, this study aims to investigate the role of covid risk perception, conspiracy covid belief, vaccine hesitation, and vaccine attitude in parents' intentions to vaccinate their children with covid.

Method

This study uses a statistical and correlational approach. The quantitative approach is used to examine specific populations or samples; data collection involves the use of research measuring instruments; data analysis is statistical; and the goal is to test and prove established hypotheses (Sugiyono, 2018). The survey method used is an online questionnaire distributed via Instagram social media.

Research Participants and Design

The population in this study is parents who have children with an age range of 6-11 years. This study has five variables to be studied. The variable (X) of this study is belief in the Covid-19 conspiracy theory, perception of the risk of covid and doubts about the vaccine, while the variable (Y) of this study is the attitude of the vaccine. In addition to variables X and Y, there is a variable Z, namely the intention to vaccinate children.

Research Scale

Covid Risk Perception

Perceptions of covid risk were measured using a scale created by Asefa et al., (2020). This scale is composed of two dimensions, namely perceived susceptibility and perceived severity. This instrument consists of 6 items of perceived susceptibility and 6 items of perceived severity. The type of scale used is a Likert scale with responses on a 6-point Likert-type scale ranging from "strongly disagree" to "strongly agree". The higher the score, the higher the perceived risk of covid.

Vaccine Attitude

Anti-vaccine attitudes were measured using the Vaccine Attitudes Examination (VAX) scale (Martin & Petrie, 2017) which has a reliability of 0.914 and is said to have high reliability. The VAX scale contains four subscales: Mistrust of vaccine benefit, Worries over unforseen future effect, Concerns about commercial

profiteering and Preference for natural immunity. This instrument consists of 12 items, 3 items favorable and 9 items unfavorable composed of 4 dimensions. The type of scale used is a Likert scale with responses on a 6-point Likert-type scale ranging from "strongly agree" to "strongly disagree".

Covid Conspiracy Beliefs Scale

Conspiracy beliefs scale is used to measure the covid-19 conspiracy beliefs referring to the scale developed by Egorova et al., (2020). Conspiracy beliefs scale consists of 4 items, all of which are favorable items. Conspiracy beliefs scale reliability level is 0.945 and is said to have high reliability.

Vaccine Hesitancy Scale

The scale used to measure vaccine hesitancy is the vaccine hesitancy scale. This scale was developed by Shapiro, et al (2017). This vaccine hesitancy scale has 9 items, 7 items favorable and 2 items unfavorable. This scale has two dimensions, namely Healthism/Risk Culture and Confident in the health authorities and mainstream medicine.

Vaccine Intenention

The scale used to measure the vaccine intention scale was developed by Karlsson, et al (2021). The vaccine intention scale is a research scale with a single item. To measure the intention to receive the COVID-19 vaccine, respondents were asked “How likely would you be to take the COVID-19 vaccine, if the vaccine was available, free of charge, and recommended for everyone by the authorities?”. Alternative answers ranged from 1 to 5 (1 = very unlikely, 2 = unlikely, 3 = difficult to say, 4 = very likely, 5 = very likely).

Procedure and Measurement

This study uses five research scales. The scale is in the form of a Likert scale. The Likert scale used in this study consisted of 6 answer options, including Strongly Disagree = value 1, Disagree = value 2, Slightly Disagree = 3, Somewhat Agree = 4 , Agree = 5, Strongly Agree = 6. This form of scale is usually used to measure attitudes, opinions, and perceptions of a person or group of people about social phenomena (Sugiyono, 2018). The measuring instrument used in this study is the Conspiracy Beliefs Scale, this scale is used to measure conspiracy theory beliefs and the Vaccine Hesitancy Scale is used to measure vaccine hesitancy. The research scale is distributed to parents who are the target subjects of this study. Filling in the instrument is done online using a google form distributed directly through social media. The social media chosen in this study is Instagram. Furthermore, at the data analysis stage, the researcher checked all the data that had been entered. This is done to ensure that the data obtained is in accordance with the criteria so that it can be used and carried out further processing.

Reliablility

The reliability test is designed to assess the instrument's level of confidence as well as its consistency over time. The scale used in this study is the Conspiracy Beliefs scale, which has a reliability level of 0.945 and was taken from the research of Akhrani, et al (2022), while the Vaccine Hesitancy scale has a reliability level of 0.930, the Covid Risk Perception (CRP) Scale has a reliability level of 0.927, and the vaccine attitude has a reliability level of 0.914, so it can be concluded that all measuring instruments are reliable.

Result

Testing the theoretical model of this research using Path Analysis. Path analysis through testing of 4 theoretical models to get a direct or indirect role between variables X, Y and Z. The 1st model only has a significance value of less than 0.05 on the hesitate to vaccine variable in table 1. Covid Risk Perception, Hesitate to Vaccinate, and Covid Conspiracy Belief all contribute 12% to Vaccine Attitude. The formula $\sqrt{1-0.12}$ is used to calculate the value of e1, which is 0.94. As a result, the regression diagram model 1 is as follows.

Table 1. 1st Model Summary

Model 1		Standardized Coefficients Beta	Sig.	R	R Square
1	(Constant)		.000	.346[a]	.120
	Covid Risk Perception	.047	.491		
	Hesitate to Vaccine	.292	.000		
	Covid Conspiracy Belief	-.056	.426		

a. Predictors: (Constant), Conspiracy Covid Belief, Covid Risk Perception, Hesitate to Vaccine

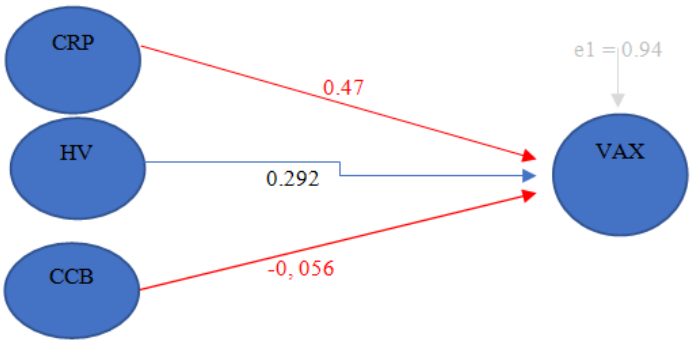

Figure 1. Model 1

Table 2. 2nd Model Summary

Model		Standardized Coefficients Beta	Sig.	R	R Square
2	(Constant)		.009	.669[a]	.447
	Covid Risk Perception	.167	.002		
	Hesitate to Vaccine	.540	.000		
	Conspiracy Covid Belief	-.044	.430		
	Vaccine Attitude	.038	.466		

a. Dependent Variable: Vaccine Intention
Predictors: (Constant), Vaccine Attitude, Covid Risk Perception, Conspiracy Covid Belief, Hesitate to Vaccine

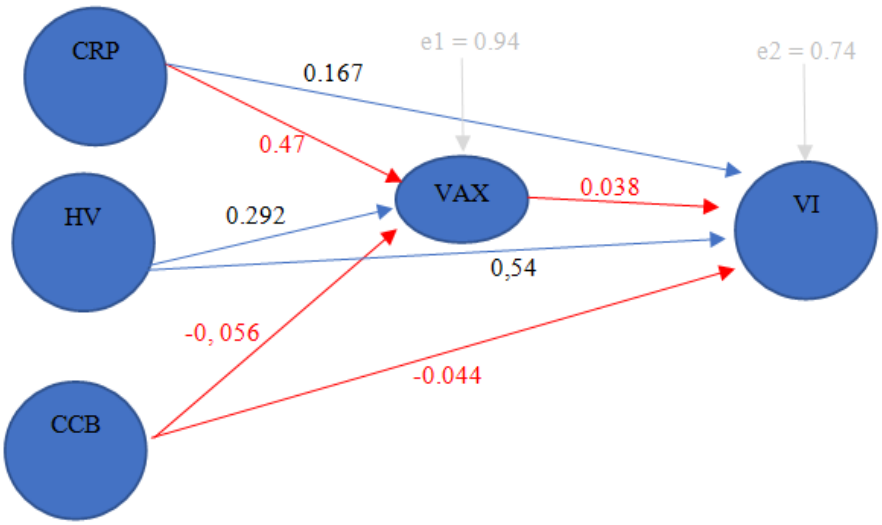

Figure 2. Model 2

The 2nd model shows the Covid Risk Perception sig value of 0.002, Hesitate to Vaccine of 0.000, Covid Conspiracy Belief 0.43 and Vaccine Attitude of 0.446. These results show that the 2nd model is only significant on the Covid Risk Perception and Hesitate to Vaccine variables on Vaccine Intention. The contribution of the

role in this model is 44.7%. The value of e2 is calculated by the formula √1-0.447 and the value of e2 is 0.74. So that the regression diagram model 2 is obtained as above:

Table 3. 3rd model summary

Model		Standardized Coefficients Beta	Sig.	R	R Square
3	(Constant)		.000	.619[a]	.384
	Covid Risk Perception	.389	.000		
	Conspiracy Covid Belief	-.425	.000		

a. Dependent Variable: Hesitate to Vaccine
Predictors: (Constant), Conspiracy Covid Belief, Covid Risk Perception

The 3rd model shows a Covid Risk Perception sig value of 0.000, and a Covid Conspiracy Belief of 0.000. These results indicate that 3rd model is significant for Hesitate to Vaccine. The contribution of the role in this model is 38.4%. The e3 value is calculated by the formula √1-0.384 and the e2 value is 0.787. So that the 3rd model regression diagram is obtained as below:

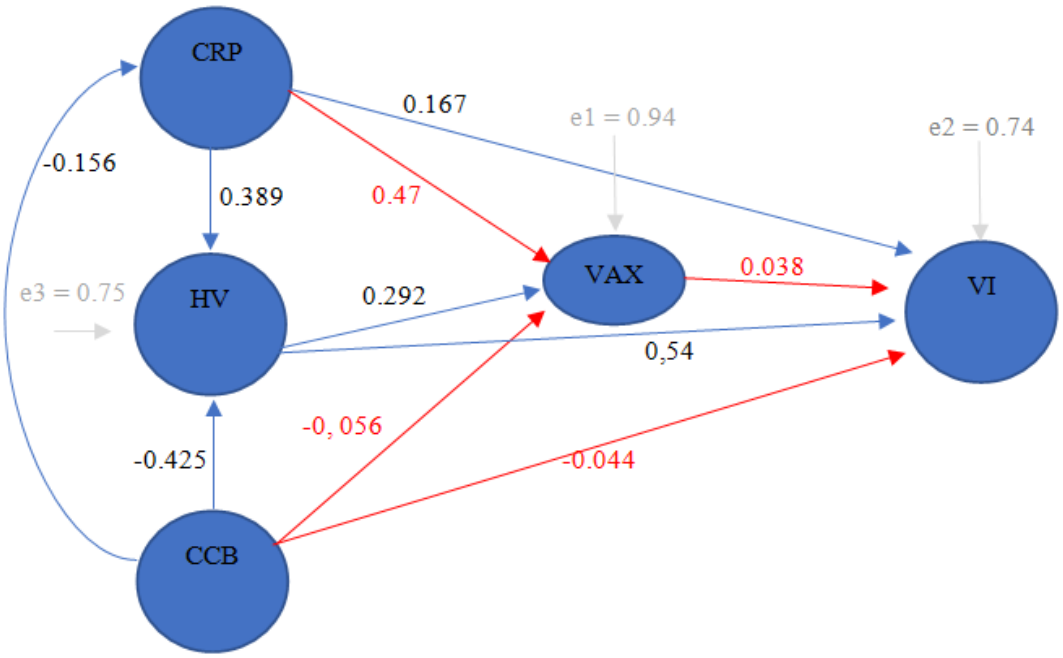

Figure 3. Model 3

Table 4. 4th Model Summary

Model		Standardized Coefficients Beta	t	Sig.	R	R Square
4	(Constant)		38.599	.000	.156[a]	.024
	Conspiracy Covid Belief	-.156	-2.452	.015		

a. Dependent Variable: Covid Risk Perception
Predictors: (Constant), Conspiracy Covid Belief

The 4th model shows the Covid Conspiracy Belief sig value of 0.015. These results show that model 4 is significant to Covid Risk Perception. The contribution of the role in this model is 2.4%.

Discussion

The study's results suggest that there is a direct or indirect relationship between the perception of covid risk, covid conspiracy belief, and vaccine intention. Path analysis was used by the researchers to explain the direct and indirect roles of variables in the four models studied.

Based on the results of the study, it is known that the belief in the covid conspiracy plays a role in the attitude of vaccines for children by parents. This result is in line with the research conducted by Yang et al., (2021) on conspiracy theories and public attitudes towards COVID-19 vaccination, revealing that different types of conspiracy theories have different impacts, only belief in conspiracy theories is relevant to vaccines (not only the covid-19 vaccine) which has a significant negative impact on the Chinese public's intention to vaccinate. The results of this research show that the higher the belief in conspiracy theories, the lower the attitude towards child vaccines by parents.

Cognitive, conative, and affective components make up attitude. The cognitive component includes beliefs and knowledge about a goal, with a particular emphasis on tangible physical forms (Pike & Ryan, 2004). In the current pandemic situation, the cognitive component refers to how individuals receive large amounts of information quickly and how they respond to it. According to Tasci (2009), the conative component is a different construction because many sources consider it synonymous with intentions and behavior. As was the case during this pandemic, the conative component refers to how individuals make decisions about whether or not to vaccinate, as well as how they follow government regulations aimed at preventing the spread of covid-19. Furthermore, according to Hallmann et al., (2015), the affective component refers to the individual's emotional response or assessment. The affective component in the current pandemic situation is related to the emotions that individuals feel whether they agree or disagree with the vaccination. Individual vaccine attitudes can be influenced by a variety of factors, including conspiracy theories. According to Sallam et al., (2021), conspiracy beliefs can lead to vaccine hesitancy by fueling distrust in governments, health care providers, and the pharmaceutical industry.

According to the findings of this study, conspiracy theories make parents hesitant to give their children the vaccine. The concerns stemmed from parents' concerns about the safety of vaccines for their children. According to a study conducted by Ruiz and Bell, (2021), when a COVID-19 vaccine is available, doubt will be a challenge. More than a third of those polled in this study said they were unlikely or unsure about getting the COVID-19 vaccine. Respondents were hesitant to be vaccinated for safety and effectiveness reasons. Based on the research presented above, it is clear that conspiracy theory beliefs influence vaccine attitudes. Another study has been conducted by Eberhardt & Ling, (2021) on the prediction of covid-19 vaccination intentions using protective motivation theory and conspiracy beliefs, showing that conspiracy beliefs and coronavirus play an important role in individuals' intentions to receive the covid-19 vaccine. Giving the right intervention can affect the vaccine attitude of parents. Health promotion regarding vaccines should consider techniques that lead to increasing perceptions of the severity of COVID-19. Those who do not get the vaccine will be vulnerable to contracting COVID-19. The results of this study indicate that conspiracy beliefs have a role because of the lack of education about the benefits of vaccines. Lack of education and a lot of negative news about vaccines, lead to negative attitudes of parents to give vaccines to their children. Providing the right education is expected to be able to provide a positive attitude for parents to give vaccines to their children.

Conspiracy beliefs play a role in parental child vaccination attitudes. This result is in line with the research conducted by Yang et al., (2021) on conspiracy theories and public attitudes towards COVID-19 vaccination, revealing that different types of conspiracy theories have different impacts, only belief in conspiracy theories is relevant to vaccines (not only the covid-19 vaccine) which has a significant negative impact on the Chinese public's intention to vaccinate. The results of this research show that the higher the belief in conspiracy theories, the lower the attitude towards child vaccines by parents.

This study has differences with previous studies such as the study of Milošević orđević et al., (2021) the criteria for the research subjects conducted by Milošević orđević were Serbian adults in general, while the subjects in this study were more specific to parents who have children. Ages 6 to 11 years. The results of this study have a small role, perhaps because there are other variables that have a large role in influencing vaccine attitudes, such as hoax news. The survey conducted by Mastel (2019) in 2017 from 1,146 respondents, 44.3% of respondents received hoax news every day and 17.2% received it more than once a day.

The research of Salali and Uysal (2021) says that belief in Covid-19 conspiracy theories and conspiracy mentality are the strongest predictors of vaccine doubt, so the more parents believe in the Covid-19 conspiracy theories circulating, the more parents have doubts. - doubts about childhood vaccines (Salali, & Uysal, 2020). This result is also in accordance with the research of Callaghan et al. who said that conspiracy thinking is one of the reasons parents delay vaccines (Callaghan et al., 2019). The greater the conspiracy beliefs about the bad effects of vaccines such as parental distrust of the benefits of vaccines, parental concerns with the long-term effects that will occur, the belief that the government only wants to take commercial advantage of the vaccine for children, and the belief that parents actually the body can naturally form immunity (Martin et al., 2017), the

greater the doubts of parents about child vaccination. This is because parents have believed in conspiracies regarding circulating child vaccines so they are reluctant to vaccinate their children. This is in line with what was written by Telaumbanua, who said that the impact of conspiracy beliefs was the emergence of three anti-vaccine groups, one of which was the rejection of the concept of vaccination (Telaumbanua, 2017).
According to the Spokesperson for the Covid-19 Vaccine from the Ministry of Health, Siti Nadia Tarmizi, the hesitation of parents to vaccinate their children can be overcome if there are efforts by the government or the authorities to provide education about the importance of giving vaccinations for children, especially where this year, offline or face-to-face teaching and learning programs have been implemented and the government can urge the public to be more critical in believing in a circulating conspiracy. Apart from the above efforts, a vaccine that is clinically tested and trusted also needs to be pursued by the government so that parents are calmer in deciding to give vaccines to their children. Apart from the above efforts, a vaccine that is clinically tested and trusted also needs to be pursued by the government so that parents are calmer in deciding to give vaccines to their children. This is in line with research conducted by Karlsson et al. that the strongest predictor of intention to vaccinate Covid-19 is trusting the potential safety of the vaccine (Karlsson et al., 2021).

This study still has several shortcomings, namely the researcher did not ask questions about the relationship between parents/guardians and children, such as the status of biological children, extended children, or adopted children because researchers only realized the importance of the relationship status of parents/guardians with children when the researchers conducted data processing. Researchers still use simple variables so that they cannot explain more complexly about the interrelationships of the variables studied. Researchers also did not choose more specific respondents so that it is not known whether the respondents are parents who have given vaccines to their children or not.

According to research conducted in the United States, belief in two popular variants of the COVID-19 conspiracy theory is the result of a combination of psychological tendencies: 1) to reject information from experts and other authority figures, and 2) to perceive major events as the result of a conspiracy, as well as partisan and ideological motivations. Conspiracy beliefs' psychological foundations have implications for the development of strategies to mitigate their negative consequences. 29% of respondents believe the COVID-19 threat has been exaggerated to President Trump's detriment; 31% believe the virus was intentionally created and spread. The strongest predictors of belief in these ideas were psychological tendencies to reject expert information and major event reports (denialism), psychological tendencies to view major events as the result of conspiracy theories (conspiracy thinking), and partisan and ideological motivations (Uscinski, et al, 2020). The existence of conspiracy beliefs related to the news of covid itself can reduce parents' perception of risk. The study's findings indicate a link between belief in the covid conspiracy theory and a negative weight, implying that the higher the belief in the covid conspiracy theory, the lower the perception of covid risk.

The findings of this study are supported by the findings of Egorova et al. (2020), who found that belief in the covid conspiracy theory has a relationship with perception of covid risk in the form of an assessment of the dangers of COVID-19. This COVID risk assessment influences decisions to engage in ineffective behavior, such as refusing quarantine, among other things. The media's role grew in importance as belief in the covid conspiracy theory spread (De Coninck, et al, 2021; Kim., & Kim, 2021; Luo., & Jia, 2021). Conspiracy theories are widely disseminated on the internet. This level of exposure determines an individual's belief in conspiracy theories. This exposure determines an individual's level of belief in conspiracy theories. The more people are exposed to digital media containing conspiracy theories, the more information they believe, which can cause anxiety, stress, and fear (De Coninck, et al., 2021). Belief in COVID-19 conspiracy theories undermines institutional trust, government regulatory support, physical distancing practices, and perceived risk, encouraging people to disregard health protocols. The findings highlight the serious social consequences of conspiracy theories in the context of COVID-19.

Conclusion

Based on the findings from this study, there is a significant both direct and indirect role between belief in the covid-19 conspiracy, perception of covid risk, and vaccine hesitancy for children in the intention to vaccinate children. Meanwhile, vaccine attitudes have not been shown to influence parents' willingness to vaccinate their children. The covid conspiracy belief, like the vaccine attitude, has not been shown to have a direct role in vaccine intention, but it has been proven to play a significant role in vaccine intention through covid risk perception.

Recommendations

The study's findings can be used by health professionals and the government to improve child vaccination education programs. The Indonesian government and the health office are expected to be able to educate parents about the benefits of vaccines for children and the dangers that will arise if children are not vaccinated, as well as education that emphasizes the benefits of child vaccinations in order to reduce parents' hesitations about vaccinating their children. Furthermore, parents are expected to be able to select COVID-19-related news from reliable sources.

Scientific Ethics Declaration

The authors declare that the scientific ethical and legal responsibility of this article published in EPHELS journal belongs to the authors.

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