

Prevalence Analysis of Knowledge, Perception, Conspiracy, Belief and Acceptance of The Covid-19 Vaccine in a Global Crossing Study

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ARTICLE INFO

ABSTRACT

Keywords:

Pandemic , Covid-19, Vaccine

Corona Virus Disease-19 (Covid-19) is declared a world pandemic that has resulted in thousands of deaths in 216 countries around the world. The emergence of this disease at the end of December 2019 in Wuhan (China) was a result of zoonotic transmission. This study seeks to assess the acceptance of the COVID-19 vaccine in the world. The results of this research are expected to contribute to the government in formulating the best approach to implement the mass vaccination program for COVID-19 in Indonesia, as well as other countries in the world, in the future. Survey of empirical studies and analysis of articles related to the prevalence analysis of knowledge, perceptions, conspiracies, beliefs, acceptance, attitudes, behavior, willingness to pay for the covid-19 vaccine in a cross-global study. The concerns and doubts about the covid-19 vaccine were caused by factors, including: 1) the emergence of a conspiracy related to the covid-19 vaccine, including the risk of side effects of infertility, 2) misinformation on social media related to the covid-19 vaccine (untrue news / hoax), 3) tendency of parents to be more likely to receive the vaccine for themselves than their child, 4) ethnicity Blacks are almost 3 times more likely to reject the COVID-19 vaccine than white participants, 5) More than 50% of citizens are willing to pay for the vaccine and 72% feel the vaccine should first be given to health workers and high-risk groups. To increase awareness and acceptance of the importance of the covid-19 vaccine as an effort to increase immunity to prevent the onset of covid-19, efforts are needed, including: 1) a structured awareness campaign (health promotion) is needed globally, 2) policies government regarding the importance of careful fact-checking (spreading hoax news) related to vaccines, 3) a strategic approach considering various economic classes of society can be applied in developing countries, 4) increasing risk perceptions in the community, 5) developing a model for vaccine payments and subsidizing some vaccines for them those who are less capable, 6) the implementation of post-efficacy tasks in a timely and coordinated manner will make the pandemic effective and efficient

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1. Introduction

Corona Virus Disease-19 (Covid-19) is declared a world pandemic that has resulted in thousands of deaths in 216 countries around the world. The emergence of this disease at the end of December 2019 in Wuhan (China) was a result of zoonotic transmission (Benarba and Pandiella, 2020).

Based on statistical data, there are 103 million cases of Covid-19 in the world, with the number of patients who recovered is 57.3 million and patients who died were 2.24 million. Meanwhile, Indonesia has reported 1,099,687 cases, the highest in Southeast Asia, above the Philippines. With 30,581 deaths, Indonesia ranks third in Asia and 17th in the world. However, a data review suggests that the death toll may be significantly higher than reported because those who die with acute COVID-19 symptoms but have not been confirmed or tested are not counted in the official death toll. Jakarta Province is the province with the highest number of Covid-19 cases in Indonesia, namely 273 thousand cases with the number of cases dying is 4,312. Meanwhile, in East Java, 113 thousand cases were reported with the highest number of deaths in Indonesia, namely 7,864 cases (Allard, Tom; Lamb, 2021).

Vaccine development efforts have moved fast, and several major vaccine platforms are moving towards clinical evaluation (Corey et al., 2020). Vaccine development began in several research centers and pharmaceutical companies as soon as SARS-CoV-2 was identified as the causative agent and the first genome sequence was published. On March 16, 2020, the first COVID-19 vaccine candidate, the mRNA-based vaccine developed by Moderna Inc, entered Phase 1 clinical trials (NCT04283461) in the US and then the non-replicating vector-based vaccine developed by China CanSino Biologics was also tested in China (ChiCTR2000030906). Other vaccine candidates, including DNA-based vaccines, vector-based, attenuated, live-attenuated, subunit and replication vaccines are also being developed. It's unclear how effective this vaccine will be. If the COVID-19 vaccine resembles that of the influenza vaccine, its effectiveness could be 50% or lower. People may have a strong preference for getting vaccines to be very effective, and vaccines with low-estimated effectiveness can impact people's willingness to be vaccinated. It is also possible that individuals will see the pandemic vaccine to be less safe based on novelty or lack of testing. Perceptions of safety can also influence vaccine acceptance. High vaccination coverage globally may be needed to stop the COVID-19 pandemic. However, the need for vaccines in low- and middle-income countries (LMICs) is less literate and

there may be different considerations of the population compared to high-income countries. The LMIC may have less capacity to introduce new vaccines and may need to deal with citizens of dubious beliefs. Indonesia is a middle-income country with relatively low vaccine coverage and high vaccine doubt. This study seeks to assess the acceptance of the COVID-19 vaccine in the world. The results of this research are expected to contribute to the government in formulating the best approach to implement the mass vaccination program for COVID-19 in Indonesia, as well as other countries in the world, in the future (Harapan et al., 2020).

2. Methods

This research was conducted based on a survey of general empirical studies on the prevalence analysis of knowledge, perceptions, conspiracy, beliefs, acceptance, attitudes, behavior, willingness to pay for the covid-19 vaccine in a cross-global study. In this study, we carried out a general search under the name "global acceptance of the COVID-19 vaccine". From this search we found a great many abstracts of articles, which we have read to determine which articles to include in this paper review. After reading, most of the articles found were case study approaches and qualitative analysis of research. In this paper, we focus directly on empirical studies and related keywords to the acceptance of the covid-19 vaccine in the world.

3. Results and Analysis

Globally there are concerns and doubts about the covid-19 vaccine. There are concerns and doubts about the covid-19 vaccine due to factors, including: 1) the emergence of a conspiracy related to the covid-19 vaccine, including the risk of side effects of infertility, 2) misinformation on social media related to the covid-19 vaccine (false news / hoaxes), 3) the tendency of parents to be more likely to receive the vaccine for themselves than their children, 4) the tendency of Black, Asian, Chinese, Mixed, low-income or Other households is almost 3 times more likely to reject the COVID-19 vaccine for themselves and their children than the white British, Irish Whites, and Other Whites, 5) the level of public confidence that the vaccine will be publicly available next year but at the same time half of them believe that the number may not be sufficient for all to have. More than 50% are willing to pay for the vaccine and 72% feel the vaccine should be given first to health workers and high-risk groups.

The factors that influence the behavioral intention of receiving the covid-19 vaccine include: 1) the higher the effectiveness of the covid-19 vaccine, the higher the acceptance of the covid-19 vaccine, 2) trust / satisfaction with the government, 3) exposure to positive social media information about vaccines covid-19, 4) descriptive norms, 5) perceived impact on the pandemic, 6) perceived duration of protection, 7) life satisfaction, 8) being a health worker, 9) having high income, and 10) having a high risk perception associated with willingness to pay (WTP) is higher.

The factors that influence low intention in the behavior of receiving the covid-19 vaccine include: 1) young people, 2) women, and 3) single people.

To increase awareness and acceptance of the importance of the covid-19 vaccine as an effort to increase immunity to prevent the onset of covid-19, efforts are needed, including: 1) a structured awareness campaign (health promotion) is needed globally that offers transparent information about the specific context of cost, safety, effectiveness, side effects and efficacy of vaccines and the technology used in their production, 2) government policies regarding the importance of careful fact-checking (spreading hoax news) related to vaccines, 3) strategic approaches considering various economic classes of society can be applied in developing countries , 4) increasing risk perceptions in the community, 5) developing a model for payment of vaccines and partial vaccine subsidies for those who are less fortunate, 6) implementing post-efficacy tasks in a timely and coordinated manner will make the pandemic effective and efficient billions of vaccine doses be high quality, support for vaccine purchases, supply coordination, fair distribution of vaccine and global vaccine delivery logistics, additional scientific questions about vaccines remain to be answered to improve vaccine efficacy including questions regarding vaccination regimen optimization, booster dose, protective correlation, vaccine effectiveness, security and increased surveillance. Surveillance for COVID-19 mutations and the sensitivity of these mutations to vaccine-induced immune responses will be needed, as will continued vigilance for the emergence of new zoonotic diseases (coronavirus infections).

4. Conclusion

To increase awareness and acceptance of the importance of the covid-19 vaccine as an effort to increase immunity to prevent the onset of covid-19, efforts are needed, including: 1) a structured awareness campaign (health promotion) is needed globally that offers transparent information about the specific context of cost, safety, effectiveness, side effects and efficacy of vaccines and the technology used in their production, 2) government policies regarding the importance of careful fact-checking (spreading hoax news) related to vaccines, 3) strategic approaches considering various economic classes of society can be applied in developing

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