



Contradiction Belief on COVID-19 among Academia: A Lesson for the Future Pandemic Management

Maulana Ikhsan^{1*}, Muhammad Syahriza¹, Tischa Rahayu Fonna², Baluqia Iskandar Putri¹

¹Department of Anatomy, Faculty of Medicine, Universitas Malikussaleh, Aceh, Indonesia

²Department of Pharmacology, Faculty of Medicine, Universitas Malikussaleh, Aceh, Indonesia

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*Corresponding author:

Maulana Ikhsan

E-mail address:

maulanaikhsan@unimal.ac.id

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ABSTRACT

Health protocol during the COVID-19 pandemic is one of the critical protocols against the pandemic. However, after more than one year, compliance with implementing this protocol is still a shortcoming. The overabundance of information, in particular hoaxes and misinformation, is accused of being the elemental reason why that disbelief exists even after one year apart. The World Health Organization even put hoaxes and misinformation as one of the current world health challenges in the modern era. This study aims to observe the perception of academia at Universitas Malikussaleh towards the COVID-19 pandemic. This study also scrutinizes the depiction of COVID-19 health protocol among its correlation to COVID-19 disbelief. We found that there is a cognitive dissonance among the academia who believe that the COVID-19 pandemic exists. This cognitive dissonance makes their action contradict their belief, in particular, the implementation of health protocol and its benefit to protect themselves and other people.

1. Introduction

Coronavirus infection identified as Severe Acute Respiratory Syndrome Corona Virus 2 (SARS CoV-2) first appeared in Hubei province, China, in December 2019. This virus is suspected of causing atypical respiratory disorders that can cause death.¹ Only a few months later, the World Health Organization (WHO) declared this virus a pandemic on March 11, 2020, with the name Corona Virus Disease 2019 (COVID-19).²

Coronavirus belongs to the subfamily orthocoronavirinae, family coronaviridae, and order nidovirales. It has an envelope with ssRNA and a nucleocapsid of the symmetric helix. The virus is

enveloped in an icosahedral protein. The coronavirus has stick-shaped spikes on the surface of the virus, which are similar to the formation of the sun's corona when observed using an electron microscope (ME). Therefore, this virus is able to survive in a long incubation period because of its ability to mutate and only infect cells from its parent species or species that are closely related to its parent. This means that the target cells and tissues for the proliferation of this virus are very specific.³

As of June 4, 2021, at 17:46 European time, the number of cases in the world has reached 171,782,908 cases, with 3,698,621 deaths. In the same period, Indonesia recorded 1,837,126 cases with 51,095



deaths.⁴ The handling of the SARS CoV-2 virus is almost the same as the SARS CoV virus by 79.5% and the middle east respiratory syndrome coronavirus (MERS CoV) by 51% because they have many similarities in clinical manifestations.⁵ SARS CoV-2 is transmitted from one host to another via droplets either by aerosol, fomite, or fecal-oral transmission and objects contaminated by the virus. Droplets can spread up to two meters and stay in the air for up to three hours.⁶ Coronavirus can also be spread through direct contact with hands to mucous tissues such as hands, nose or mouth.⁷ However, several other routes of infection, such as faeces⁷ and sperm⁸, have not been reported to occur in COVID-19.

WHO provides a wide range of educational materials to control virus transmission and to treat infected patients as part of overall management in handling COVID-19. Prevention is the most effective step to minimize the spread of the virus. Self-isolation by not doing non-essential travel, maintaining distance, avoiding crowds, avoiding shaking hands, and regularly washing hands with soap and running water or with 60% alcohol are some of the steps that are recommended by WHO to prevent SARS-CoV-19 virus infection.² Wearing a mask is also crucial to shortening the length of incubation of the virus. It can overcome the problem of asymptomatic patients who can infect others without any warning. Medical masks such as N95 or FFP3 are recommended because they have high protection.² A study in Wuhan, China, showed that wearing N95 masks, washing hands, and using disinfectants were useful for preventing the spread of the virus among health workers in hospital.⁹

Since being declared by WHO as a pandemic, more than \$1.7 billion has been disbursed in early 2020 to educate the global citizen about the COVID-19 pandemic.¹⁰ Meanwhile, in Indonesia, according to the Department of Finance, the budget used to deal with the COVID-19 pandemic in 2020 reached 800 trillion rupiah.¹¹ The first case of COVID-19 infection was detected in Indonesia on March 2, 2020. Since then, the government has been aggressively campaigning the health protocol to prevent COVID-19 infection,

which is well known as the 3M campaign, namely wearing masks, washing hands, and avoiding the crowd. This campaign is in line with the health protocol initiated by WHO.²

However, after more than a year, Indonesia has not experienced a significant decline in COVID-19 cases. The number of COVID-19 infections in Indonesia is still above the recommended value of the controlled pandemic category by WHO for some areas.¹² Aceh, the northwest province in Indonesia, is one of the provinces with the highest increase in COVID-19 in April and May 2021. This increase was recorded significantly in several cities in Aceh Province. One of them is Lhokseumawe, which occupies the second-highest position in increasing the number of COVID-19 infections. The presence of hoaxes could be one of the reasons for this insignificant decrease in this region.^{13,14}

The COVID-19 pandemic was the first pandemic that occurred in the 20th century. Since COVID-19 was declared a pandemic, there has been a lot of information overflow in the world, which is a concern by WHO as an overabundance of information.¹⁵ This condition makes it the public hard to identify the validity of the information, which sometimes leads to the spread of fake news (hoaxes) or misinformation.¹⁰ Both can influence obedience to follow health protocols, get treatment at health facilities, or participate in COVID-19 vaccinations.

In the first three months of 2020, it was recorded that 6000 people had to be treated due to misinformation related to the corona. And 800 people allegedly died due to misinformation related to COVID-19.¹⁵ A country such as Spain reports that the number of disinformation significantly affects social media users and has an impact on the deteriorating state of public health.¹⁶ The existence of the digital era makes the spread of this misinformation very fast and uncontrollable.¹⁵ The speed at which harmful information spreads is equal to the virus spreading speed.¹⁷ Brennen and colleagues show that COVID-19 misinformation is dominated by distorting facts and adding and subtracting information from actual



information. This type of misinformation accounts for 59% of all misinformation. In contrast, the second-order is false information (hoaxes) which reaches up to 38%.¹⁶

A study by Dida and colleagues in West Java shows that the level of acceptance of health information on social media varies. This difference is based on the level of education and generation. Older adults tend to receive more health information from health professionals than young adults. The same tendency is shown by the level of education. People with higher levels of education tend to be more open to receiving health information from health workers¹⁸. This study aims to observe the behavior of academia at Universitas Malikussaleh in Lhokseumawe, Indonesia, on receiving false information about COVID-19.

2. Methods

This research was a descriptive study with a cross-sectional survey design. The population in this study were all lecturers, staff, and students at Universitas Malikussaleh, Lhokseumawe, Indonesia. We used an online questionnaire that was distributed to all lecturers, staff, and students at Universitas Malikussaleh. The questionnaire was distributed on October 13, 2021. By October 31, 2021, with the participation of 228 respondents. This study has been approved by the local ethical committee of the Medical Faculty, Universitas Malikussaleh.

3. Results and Discussion

The highest number of respondents came from students (188 respondents), followed by lecturers (36 respondents) and staff (6 respondents). Most of the respondents came from the medical faculty (76 respondents = 33.33%) followed by the economics and business faculty (55 respondents = 24.12%) and the engineering faculty (44 respondents = 19.30%).

In the first question, respondents were asked to give their opinion regarding the COVID-19 pandemic in general. Then, respondents were asked if they think that enforcing health protocols has an effect in terms of protecting themselves from COVID-19. When they

were asked whether they believed in the COVID-19 pandemic at the first stance, three respondents (1,31%) admitted that they did not believe in the virus at all, and 56 respondents (24,45%) believed that the pandemic is real, but sometimes they have a doubt about it. There are 92 respondents (47,17%) who believe in the pandemic but, at the same time convinced that the situation is not as bad as what was broadcasted. Nevertheless, there are 78 respondents (34,06%) who believe in the presence of the pandemic no doubt.

Among those three respondents who did not believe at all about the existence of the coronavirus, 2 people strongly agreed (66.67%) and 1 person agreed (33.33%) with the statement that "The application of health protocols has no effect in protecting themselves from COVID-19" and those all 3 people agreed with the statement that "Application of health protocols on ourselves has no effect in preventing others from being infected."

Of 92 respondents who believe that the coronavirus exists, but it is not as scary as reported, five people strongly agree (5.43%) with the statement that "The application of health protocols has no effect in protecting themselves from COVID-19." A total of 12 people agreed (13.04%), 12 people were doubtful (13.04%), 44 people disagreed (47.82%), and 19 people strongly disagreed (20.65 %). When they were asked whether they agree with the statement that "Application of health protocols on ourselves has no effect in preventing others from getting infected", among the 92 respondents, 2 people strongly agreed (2.17%), 16 people agreed (17.39%), 13 people doubt (14.13%), 45 people disagreed (48.91%) and 16 people strongly disagreed (17.39%).

Another group shows there are 56 people who believe that the corona exists but sometimes still have doubts. Among these 56 people, there are 2 people strongly agreed (3.57%), 7 people agreed (12.5%), 10 people were doubted (17.85%), 28 people disagreed (50%), 9 people strongly disagreed (16.07%) with the statement that "The application of the health protocol has no effect in protecting themselves from COVID-



19". Meanwhile, when they were asked whether they agree with the statement that "The application of health protocols on ourselves has no effect in preventing other people from being infected," as many as 4 people stated strongly agree (7.14%), 10 people agreed (17.85%), 9 people were doubt (16.07%), 27 people disagree (48.21%), and 6 people strongly disagree (10.71%).

Among 78 respondents who believed the coronavirus existed without a doubt, 30 people disagreed (38.46%) with the statement that "The application of health protocols has no effect in protecting themselves from COVID-19". A total of 42 people strongly disagree (53.84%), two people are doubtful (2.56%), two people agree (2.56%), and two people strongly agree (2.56%) with the statement that "The application of health protocols has no effect in protecting themselves from COVID-19." Meanwhile, when they were asked whether they agreed with the statement that "Application of health protocols on ourselves has no effect in preventing other people from getting infected," 43 people strongly disagree (55.12%), 29 people disagreed (37.17%), two people are doubt (2.56%), one person agrees (1.2%) and three people strongly agree (3.8%).

The questionnaire also indicates a high level of obedience to the academic community in carrying out health protocol. Respondents answered that they had carried out health protocol perfectly, including wearing masks correctly by covering their noses and mouth (84%), washing hands with soap/hand sanitizer (74%), and staying away from crowds (66%).

When this study was performed, the COVID-19 pandemic had been going on for more than a year, but the downward trend was still very slow. The low number of vaccinations and enforcement of health protocols is one of the reasons for the slight decrease of the pandemic in several countries. Hoaxes are one of the causes of people's ignorance of health protocols. WHO even noted hoaxes as one of the threats to world health issues today.²

This study tries to compare the level of trust of the Universitas Malikussaleh academic community

towards the pandemic with adherence to health protocols. Respondents consisted of students and lecturers as well as staff. Overall, respondents were evenly divided on the issue of whether they believe in the existence of the coronavirus that causes the disease COVID-19. However, if we observe the proportion, the number of respondents who still doubt. Including those who believed that the situation was not bad as reported, became more dominant (65.94%) than those who fully believed (34.05%). However, the level of distrust of this pandemic is not directly proportional to the level of confidence in enforcing health protocols. This is indicated by the high number of respondents who claimed that they had performed the correct health protocols even if they did not believe or doubt the presence of the pandemic. However, these results must be followed up by a qualitative survey to ensure the reliability of the respondents in answering the questionnaire.

Apart from respondents who do not believe in COVID-19 at all, almost all respondents show a mismatch between belief in COVID-19 and belief that enforcement of health protocols is beneficial. The discrepancy between the level of trust in COVID-19 and the belief in the importance of enforcing health protocols to protect themselves and others can be caused by several factors. Among them is the incessant health promotion carried out by the government and health workers. This can explain why some respondents who are still unsure about COVID-19 have the awareness to enforce health protocols and believe that enforcement of health protocols has an impact on protecting themselves and others. A similar distribution was also found in the group of respondents who believed but remained skeptical of the dangers of COVID-19. Even in the group who fully believe in the dangers of COVID-19, there is still a small segment who think that the enforcement of health protocols has no effect on protecting themselves or others. This phenomenon arises due to the uneven distribution of information received by the academic community and also incomplete knowledge. This behavior may result from conflicting beliefs on the



certain issue regarding COVID-19 that leads to cognitive dissonance. Cognitive dissonance is a negative feeling that occurs due to contradictory belief.¹⁹ It has been shown previously that the overabundance of information can trigger cognitive dissonance.²⁰

A previous study indicates that most of the COVID-19 misinformation in Indonesia comes from rumors instead of conspiracy theories. This indicates the absence of reliable fact-check information sources, which mislead the rumors as trustworthy information. On the other hand, the involvement of health professionals to counter the misinformation on social media has also become a concern. It is suggested that health professionals should involve more in rebutting the misinformation regarding health topics on social media. The contribution of health professionals in debunking the misinformation can be done unequivocal and bluntly and not emphasize the misinformation itself.

Meanwhile, there is no significant difference between the answers to the question of whether the enforcement of health protocols protects themselves or protects others across the groups of respondents. The proportion of respondents who most agree with the statement that enforcement of health protocols can protect themselves and others comes from groups who fully believe in COVID-19, while the smallest proportion comes from groups who do not believe at all. In the group who fully believed in COVID-19, respondents had a tendency to think that enforcing health protocols on themselves is beneficial to protect others compared to enforcing other people's health protocols in relation to protecting themselves. Further interviews are needed to confirm the reason behind this tendency.

The COVID-19 pandemic is a benchmark for how the global community handles pandemic outbreaks in the digital era. The presence of hoaxes is a challenge for eradicating the pandemic, not only in the COVID-19 pandemic but also for future pandemics. This research shows the importance of the equitable distribution of information as well as the integrity of

the information in which disseminated to the academic community in the face of a pandemic. Health promotion must be further enhanced to support preventive and curative efforts during the pandemic. The incoherent perception between believing that the COVID-19 pandemic is real and the thought that implementing health protocol does not give any benefit to protect them and others may come from dogmatic approaches from the stakeholder that rely on fearmongering rather than clear education. This tendency also can be seen in the dominant respondents who claim that they implement the health protocol properly despite that they think it gives no benefit to them. The external condition that has been created from the punishment of not implementing the health protocol often leads to temporary behavioral change. The consciousness to protect ourselves and other by implementing the health protocol need to be more encouraged. The fast and active action of the government, health professionals, and also policymakers at the universitas level in educating the public should be emphasized in providing complete information related to the pandemic. It is important to increase literacy and the dissemination of correct information to reduce the number of hoaxes consumers in the academic environment. Critical and skeptical thinking skills needs to be continuously trained in the education room in order to produce reliability and responsibility in academia.

4. Conclusion

There is a cognitive dissonance among the academia who believe that the COVID-19 pandemic exists. This cognitive dissonance makes their action contradict their belief, in particular, the implementation of health protocol and its benefit to protect themselves and other people.

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