

ONLINE EDUCATION POSTERS AS A MEDIA FOR UNDERSTANDING THE NEW VARIANT OF COVID-19 AND ITS PREVENTION

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ABSTRACT

The case of Covid-19 in Indonesia has a lot of issues due to the latest variant, namely the delta variant, which is very dangerous and easily transmitted. The highest number of hoaxes and lowest interest in reading among Indonesian people had made Indonesia at the second-lowest level of world literacy. These online education posters are one of the community's innovative educational media, as stated in program number 4 of Sustainable Development Goals (SDGs), the Quality Education. This research described the effectiveness of educational posters as a media for Instagram users to understand the new variant of Covid-19. Educational posters are uploaded online, and the target audience is the general public through Instagram's feed and story features. They were then evaluated using quizzes in Instagram stories. The data obtained were analyzed descriptively and quantitatively. As many as 407 Instagram social media users participated in this research. There were 336 participants (82.5%) with a score more than or equal to 71 (range of values 0-100), where they could answer a minimum of 5 questions correctly. This study showed that online education posters were considered effective in educating the majority of the community about the new variant of Covid-19 and its prevention.

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INTRODUCTION

Currently, Covid-19, which is one of the new types of coronavirus, is an infectious disease that has become a worldwide concern. This is because hundreds of millions of people in the world have now been confirmed to have Covid-19. As declared by the WHO, Covid-19 has been classified as a global pandemic.¹ According to data obtained from John Hopkins University and Medicine,

confirmed cases of Covid-19 had reached 193.9 million worldwide as of July 25, 2021, with 4.1 million deaths.² Meanwhile, in Indonesia, the number of deaths was reported to be extremely high, with 83 thousand cases of death reported from 3.1 million confirmed Covid-19 cases, particularly after the second Covid-19 spike. As of July 25, 2021, Indonesia was listed as the country with the highest mortality rate in the world, with 1,266 cases

of death per day as reported by the Covid-19 Handling Task Force.³

The spike that occurred in Indonesia was proven to be caused by exposure to the latest Covid-19 virus, namely the delta variant. According to OurWorldinData.org, the distribution of delta variants in Indonesia since July 12, 2021, was 93.27%.⁴ The results of research conducted by the Indonesian Institute of Sciences found that samples of Covid-19 patients taken between June 10 and 18 June 2021 contained nearly 100 % of the delta variant.⁵ A mutation in the delta variant causes it to have a characteristic that can reduce the effectiveness of treatment and vaccination. As a result, this delta variant was considered very dangerous and has a massive spread. As of May 11, 2021, the delta variant, which was previously classified as a Variant of Interest (VoI), had been reclassified by WHO as a Variant of Concern (VoC). A variant is defined as VoC if it causes an increase in transmissibility or detrimental change in Covid-19 epidemiology; an increase in virulence or change in clinical disease presentation; or causes a decrease in the effectiveness of public health and social measures or reduces the effectiveness of available diagnostics, vaccinations, or therapeutic treatments.⁶

The current Covid-19 pandemic has had a serious impact on Indonesia in various aspects, including health, economics, and social aspects. This has led to the importance of dealing with Covid-19 at several levels, such as the government, health workers, and the general public. One of the active actions that the community can take to prevent the spread of Covid-19 is to comply with health protocols.⁷ The health protocols that had been recommended by the government include wearing masks,

maintaining a safe distance, washing hands, avoiding crowds, and reducing mobility. The general public is considered to play an important role in dealing with Covid-19. Active community participation is regulated under Law No. 4 of 1984 concerning infectious disease outbreaks, where people are encouraged to obey and participate in activities to prevent and spread them in their respective environments.⁸

Various elements influence certain people's willingness to actively participate in preventing the spread of Covid-19. According to Lawrence Green in Notoatmodjo (2012), the elements that influence a person's behavior are predisposing factors, such as knowledge, education, attitudes, socioeconomic status, enabling factors, and reinforcing factors.⁹ According to the KBBI, education is the process of changing a person's or a group's attitudes and conduct in order to mature human beings through efforts such as teaching and training. The goal of health education is to raise awareness and change attitudes and behaviors in order to reach the desired level of health. In this Covid-19 circumstance, one form of education is to provide education about the latest Covid-19 situation and its prevention efforts in an effort to increase public awareness about Covid-19.¹⁰

With a literacy rate of 0.001%, Indonesia is currently ranked second-lowest in the world, indicating that the Indonesian people's interest in reading remains low.¹¹ According to Pawitra (2021), traditional methods of conveying information, both promotional and preventive, cannot be implemented conventionally since the speed of information and the reliability of technology are now the keys to the

distribution of information in order to ward off misinformation. Thus, innovation in the form and method of conveying information, as well as the media used, is required. One of the media trends that can be used to convey information is the social media platform Instagram.¹² According to a study conducted by Yulianti, et al., (2020), among the Muslim community in West Java, the preferred source of information media about Covid-19 was Instagram, where the trend of the activities carried out on it was used frequently check and get information about health, despite the fact that hardly anyone commented or spread information about Covid-19.¹³

Education in the form of online posters through feed and story features on Instagram that are packaged as attractively as possible is a good approach to attracting the reading interest of the Instagram user community. Providing quality education using educational posters to the general public is also one of the actions to reduce educational disparity. This is also supported in the global action plan agreed by world leaders, including Indonesia, namely the Sustainable Development Goals (SDGs) program for the 4th goal, Quality Education. The aim of the program is to ensure inclusive and equitable quality education, while also supporting lifelong learning opportunities for all.¹⁴ According to Ulya, et al., (2017), using poster media as a means of education was more effective in increasing respondents' knowledge of hypertension management.¹⁵

The broader public's participation in countering the Covid-19 pandemic will be impossible if the public does not have knowledge about the pandemic. If the community understands the current Covid-19 conditions, vigilance and active involvement from the community will

emerge. Several studies have described the level of public knowledge about Covid-19. Wonok, et al., (2020), who conducted research on the residents of Tumani Village in the South Minahasa Regency, found that most people had a good understanding of Covid-19 prevention.¹⁶ Meanwhile, Yanti, et al., (2020) investigated the description of people's knowledge in Sumerta Kelod Village, Bali City, where the findings show that public knowledge regarding the Covid-19 pandemic is in a good category.¹⁷ Therefore, we conducted this research with the aim of learning about the perception of the Indonesian people regarding the new variant of Covid-19 and its prevention. The results of this study can later be used as a reference for evaluating public education campaigns in response to the Covid-19 pandemic. The objective is that by describing public knowledge, it will be possible to evaluate general public knowledge and develop a better understanding of Covid-19 as well as how to prevent it, so that it may be used as a reference in efforts to raise awareness and the community's participation against the Covid-19 pandemic.

MATERIALS AND METHODS

Publication of the evaluation through a questionnaire was done by posting an Instagram story with a total of seven questions based on the content of an Instagram educational poster that was previously uploaded the day before. Quiz questions were uploaded simultaneously on all nine accounts on July 3, 2021, at 17.00. In this research, the sampling method used was accidental sampling. After giving 24 hours to complete the quizzes, the results revealed that there were 663 different quiz-filling accounts across the nine Instagram

profiles. Participants must complete all quiz questions out of a total of seven submitted questions in order to be included in this study. Participants who filled out the quiz more than twice on two or more distinct accounts were excluded from this study. After collecting data by including inclusion and exclusion criteria, it was found that the total number of quiz participants in this study's sample was 407. The quiz participants' responses were analyzed descriptively and quantitatively through Microsoft Excel, with diagrams, tables, and graphs to describe the results.

This educational poster can be described as informative, as it can provide information about Covid-19 and its preventive measures, such as the use of masks and 5M protocols. Participants can answer as many as five questions correctly out of a total of seven quiz questions. In the era of digital technology, various social media platforms are increasingly being used by all groups, particularly during the Covid-19 pandemic. Instagram, which has become a trend in communication and publication, is one of the most popular social media applications for people of all ages due to its free access and simple operation. This research activity was carried out through online poster publications on social media platforms like Instagram to raise awareness about the new Covid-19 variant and its preventative measures (mask use and 5M). The general public, who used Instagram as a social media platform, was the target audience for this activity. There were a total of nine Instagram accounts used to provide instructional posters and quizzes. On July 2, 2021, at 17.00, the online education was posted simultaneously via Instagram feeds and stories on nine different Instagram accounts. "Beware, Covid-19 is Getting

Ferocious!" (*Awat, Covid-19 Makin Ganas!*), and "Then, What Should We Do?" (*Lalu, Apa Yang Harus Kita Lakukan?*) are two of the titles of the uploaded educational content. Although educational materials were condensed to the greatest extent feasible based on a variety of kinds of literature, scientific publications, and official health websites, the visualization and content of the material still attracted the attention of the readers.

RESULTS

A total of 407 Instagram users took part in the quizzes that were shared through Instagram stories. The questionnaires were taken from an educational poster that was posted the day before. Based on the distribution of participants' scores Figure 1, the participants' scores were in the range of 0-100. A total of 48 individuals achieved a score of 100, demonstrating their ability to accurately respond to every question. Six of the quiz questions were answered correctly by the 175 participants who received a score of 86. Five of the quiz questions were properly answered by the 113 participants who had a score of 71. Of the participants, 44 were able to properly answer four quiz questions, and they received a score of 57. Nineteen individuals achieved a score of forty-three, and they were able to accurately respond to three exam questions. Four people achieved a score of 29, and they were able to accurately respond to two quiz questions. The individuals had a score of 14, indicating that they properly answered one exam question, and one individual received a score of 0, indicating that they were unable to correctly answer all of the questions.

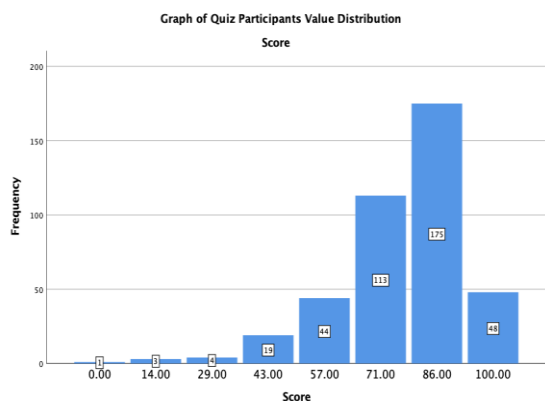


Figure 1. Graph of Quiz Participants' Value Distribution

Participants who answered five or more questions correctly could be said to have a better understanding of the contents of the uploaded online education poster. According to the data, there were 336 education poster quiz participants who were able to correctly answer five quiz questions or more (82.5%). Meanwhile, participants who only answered the correct questions below five were 71 participants (17.5%).

Based on Table 1 and Table 2, the educational poster quiz questions regarding the use of double masks showed a percentage of correct answers as high as 84.52%. In quiz questions regarding the new, more virulent variant of the Covid-19 virus, the percentage of correct answers is 88.94%. For quiz questions about prevention with the 5M protocol, the percentage of correct answers is 98.77%. In quiz questions regarding the time of transmission of the delta variant to others, the percentage of correct answers is 74.45%. For quiz questions regarding the symptoms of the delta variant, the percentage of correct answers is 18.67%. In quiz questions regarding the characteristics of the delta variant, the percentage of correct answers is 80.84%. Meanwhile, the quiz questions about the origin of the delta

variant showed a percentage of correct answers as high as 91.89%.

Table 1. Distribution of Quiz Answers

Quiz Number	Correct Total	(%)	False Total	(%)
1	344	84.52%	63	15.48%
2	362	88.94%	45	11.06%
3	402	98.77%	5	1.23%
4	303	74.45%	103	25.31%
5	76	18.67%	330	81.08%
6	329	80.84%	78	19.16%
7	374	91.89%	32	7.86%

Table 2. Quiz Questions

Materials	Number of Questions	Question Contents
The New Covid-19 Variant	5	2. New variant of the more virulent Covid-19 virus
		4. The time it takes for the delta variant to transmit to others
		5. Which is not a symptom of the delta variant
		6. Which is not a characteristic of the delta variant
		7. The origin of the delta variant
Preventive Measures (use of masks and 5M protocols)	2	1. The correct use of double masks
		3. Which is not a 5M protocols

The highest correct answers were found in the questions regarding preventive measures with 5M protocols, with 402 participants answering correctly out of a total of 407 participants. The second-best correct answer was found in the question about the origin of the delta variant. Meanwhile, for the third and fourth most correct answers, there were questions regarding the new, more virulent variant of

Covid-19, and double masks. The fifth and sixth most correct answers for participants were found in questions regarding the characteristics of the delta variant and the time of transmission of the delta variant to others. Finally, the questions about the symptoms of delta variants had the lowest percentage of accurate answers.

DISCUSSION

The results of the study revealed that public awareness of the new variant of Covid-19 and its prevention in general was quite high. Out of a total of 407 Instagram users that took part in the quizzes that were shared through Instagram stories, there were 336 participants who were able to correctly answer 5 quiz questions or more (82.5%) with the majority of the online education poster quiz participants, i.e. 175 participants, getting a score of 86, where the participants were able to answer 6 quiz questions correctly. This demonstrates that the content of the educational poster shared on Instagram has been read and understood by the general public. On the other side, participants who only answered the correct questions below 5 were 71 participants (17.5%).

There are several factors that influence the difference in the level of public knowledge. Education, age, and income are all elements that influence people's knowledge.⁹ Information about Covid-19 and its prevention that is disseminated through the mass media can also be one of the influences on people's mindsets and their ability to grasp concepts of something. Triyaningsih (2020) suggests that the media has a major influence on knowledge of Covid-19.¹⁷ The number of hoaxes spread throughout the community is also an important factor in understanding

the truth of information. This is due to some people's skepticism regarding information spread through social media.¹⁸ Widjajanto and Natalia (2021) said that there was an influence between the intensity of accessing hoax news about Covid-19 on Instagram and the level of disinformation received by the public.¹⁹ Susianto, et al., (2020) responded by demonstrating that, even if they have obtained knowledge from the internet, people are now inquiring or consulting experts first.²⁰ As a result, it is important to verify the accuracy of information, which is a problem for both the government and other highly educated parties, in order for the public to avoid being misled. Another factor that allowed this to happen was that the participants had read but did not fully comprehend the content of the educational posters. Furthermore, there is the chance that participants will just skim the material, resulting in some information being overlooked. Participants who received a score of 0 most likely did not read the instructional poster but still participated in filling out the quiz until they could correctly answer the question.

Based on data from the content of each quiz number listed in Table 1 and Table 2, the highest number of correct answers were found in the questions regarding preventive measures with 5M protocols, with 402 participants answering correctly out of a total of 407 participants. The second-best correct answer was found in a quiz question about the origin of the delta variant. Meanwhile, for the third and fourth most correct answers, there were quiz questions regarding the new, more virulent variant of Covid-19, and double masks. The fifth and sixth most correct answers for participants were found in quiz questions regarding the characteristics of

the delta variant and the time of transmission of the delta variant to others. Finally, the quiz questions about the symptoms of delta variants had the lowest percentage of accurate answers. This demonstrated that, as compared to other quiz questions, the majority of Instagram social media users who answered the educational poster quizzes knew and comprehended more about virus prevention with 5M. Furthermore, the research demonstrated that the majority of people were unaware of the symptoms of the delta variant.

Based on the 7 quiz questions uploaded via Instagram stories, the materials could be classified into two: the New Covid-19 Variant material and the Covid-19 Prevention Action material. There were five questions in the new variant of Covid-19 material, four of which were properly understood by the public based on the percentage of accurate answers to each question. However, there was one question in the material that had more incorrect answers than accurate answers, and that was the topic of delta variant symptoms. Only 18.67% of participants were able to accurately answer the question about delta variant symptoms (which was the lowest percentage compared to other questions). This was due to the fact that studies on the differences in the symptoms of various Covid-19 types, were rare, and so there were only a few educational materials circulating in the community on the subject. It appears that the general public had a decent comprehension of the material on the new variant of Covid-19, but there was still a need for education on the symptoms of the delta variant.

There were two questions in the Covid-19 prevention material, both of

which, based on the percentage of right answers to each question, were properly understood by the general public. Almost all participants were familiar with and understand 5M prevention because Covid-19 preventive education had been widely publicized since the beginning of the pandemic. Although there were modifications or revisions related to the prevention of Covid-19, the updates were rather simple for the general public to understand. This allows the highest percentage of correct answers to be obtained on this question. According to the above explanation, the general public had a good knowledge of the Covid-19 Prevention Action Material. Based on some of the descriptions above, it indicated that the education offered through online educational posters released via Instagram was helpful in providing comprehension of the new variant of Covid-19 and its prevention to the majority of participants. However, when it comes to the question on the symptoms of delta variants, the lowest percentage of answers was obtained when compared to other questions, indicating that understanding of the topic in this area has to be improved.

This study had several limitations, so it needs to be improved for further similar research. Although the number of respondents in this study was high, it cannot represent the entire Indonesian population as it was still small in comparison to the total active Instagram followers of the nine accounts used, and the distribution of samples based on age and regional origin is also needed. This study also did not measure the level of public knowledge prior to receiving education in the form of educational posters uploaded to Instagram, implying that the findings did not sufficiently reflect a considerable rise in

public awareness of the new Covid-19 variant and its prevention. In the next research, researchers should intend to take measures of the community before posting educational posters so that it can be seen that there is a significant increase in community knowledge. The research needs to be followed up using a questionnaire that has been tested for validity and reliability, and it is necessary to carry out more complex statistical data processing. Furthermore, education on the symptoms of the new Covid-19 variant should be expanded so that the public has a better grasp of the problem and is more aware of it in an effort to control the Covid-19 pandemic.

CONCLUSION

The online education poster activity that the research conducted through Instagram feeds and stories is considered effective as a medium for understanding the new variant of Covid-19 and its prevention by the majority of the public. The majority of Instagram social media users have grasped most of the content addressing the delta variant of the Covid-19 virus and its preventive measures. As a result of these findings, this educational poster program can be deemed to be effective.

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CONFLICT OF INTEREST

All authors declare that there is no conflict of interest regarding the publication of this article.

ETHICS CONSIDERATION

No ethnic approval was obtained or needed due to no human subjects were directly involved in this study.

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AUTHOR CONTRIBUTION

The author contributes to this study by collecting data, analyzing data, and drafting the manuscript. The author has approved of the study.

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