

International Journal of Research in Community Service

e-ISSN: 2746-3281 p-ISSN: 2746-3273

Vol. 2, No. 2, pp. 64-70, 2021

Covid-19 Pandemic Disaster Mitigation Training as an Effort to Minimize the Spread of Coronavirus in Majalaya Sub-District, Bandung Regency, Indonesia

Sukono^{1,*}, Endang Suryana Hasbullah¹, Yuyun Hidayat²

¹Department of Mathematics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia ²Department of Statistics, Faculty of Mathematics and Natural Sciences, Universitas Padjadjaran, Indonesia

Corresponding author e-mail address: sukono@unpad.ac.id

Abstract

The Covid-19 pandemic has hit almost all countries in the world, including Indonesia. In addition, the COVID-19 pandemic has also affected the education system in Indonesia, which causes the learning system to be conducted online. However, in some regions in Indonesia, it is allowed to organize a face-to-face learning system. Where according to the direction of the Minister of Education and Culture in the 2021/2022 school year, it will be held with limited face-to-face learning while still implementing health protocols. Through the Community Service program with the topic "Covid-19 Pandemic Disaster Mitigation Training as an Effort to Minimize the Spread of Coronavirus in Majalaya District" aims to increase motivation to learn during a pandemic and provide understanding to students (i) SMA Negeri 1 Majalaya regarding the impact of the Covid-19 Pandemic and health protocols that have been set by the Ministry of Health in an effort to minimize the spread of the coronavirus. This activity is intended for students (i) SMA Negeri 1 Majalaya by using the direct presentation method. This activity began with giving questionnaires to students to determine the level of student learning motivation during the Covid-19 pandemic. The results of the questionnaire showed that during the Covid-19 pandemic, students' learning motivation was quite affected. In addition, after counseling about the Covid-19 Pandemic disaster mitigation using Power Point media and games, there was an increase in knowledge of the impact of the Covid-19 Pandemic and the health protocols set by the Ministry of Health in an effort to minimize the spread of the coronavirus. Based on the results in the field, this activity has proven successful in increasing the knowledge of SMP Negeri 1 Majalaya regarding the mitigation of the Covid-19 Pandemic.

Keywords: Covid-19 pandemic, education, health protocol, learning motivation

1. Introduction

At the end of 2019, the world was shocked by a new disease that was reported on December 8, 2019. A disease called Covid-19 was first discovered in Wuhan City, Hubei Province, China (Balkhair, 2021; Ishiwatari et al., 2020). This disease is an infectious disease caused by a new type of coronavirus (Pfefferbaum and North, 2021). The disease is transmitted through small droplets that come out when sneezing/coughing which is then accidentally inhaled or hit an object then someone holding the object continues to touch his face so that he is also infected with Covid-19 (Alanagreh et al., 2021; Ćosić et al.,

2020). People with low immune systems such as the elderly (elderly), children, and people with a history of certain diseases are the main targets of this virus (Lee et al., 2021; Gersons et al., 2020). Not only those who have the potential to be exposed to Covid-19, but medical personnel who have direct contact with Covid-19 sufferers have a huge potential to be exposed to Covid-19, even in Indonesia itself there are already thousands of doctors infected with the virus. The WHO (World Health Organization) has stated that Covid-19 has become a global pandemic because it has spread widely throughout the world and has claimed many victims (Sheek-Hussein et al., 2021; Wankmüller, 2021; Zhao and Zhou, 2020).

The Covid-19 pandemic disaster has become a problem for every country, both in big cities and in villages. The Covid-19 pandemic disaster that occurs can have a large impact on human life, in the form of limited activities, loss of life, and socio-economic impacts (Cao et al., 2021; Cheval et al., 2020). In a densely populated village area, one of which is in the Majalaya District, it is one of the areas that has felt the direct impact of the Covid-19 pandemic disaster that occurred. As a result of the Covid-19 pandemic disaster experienced by the local community, it caused new problems such as disrupted daily activities, economic problems, and others (Papa et al., 2021; Qiu et al., 2021). To minimize the impact of the Covid-19 pandemic, it is necessary to provide understanding to the local community regarding the mitigation of preventing the Covid-19 pandemic (Ames et al., 2021; Dzigbede et al., 2020). Management of the spread of the coronavirus so that it can be controlled to the maximum can be done by following the health protocols set by the local government, planning for the Covid-19 disaster management, prevention, education, and training.

Therefore, we as academics intend to provide learning motivation to students and disseminate information regarding the mitigation and management of the Covid-19 pandemic disaster through Community Service (PPM). The materials that will be provided at PPM activities are related to education about learning motivation and mitigation and management of the Covid-19 pandemic disaster. This material will be given at the workshop session both to the community, local government, and high school students.

2. Materials and Methods

2.1. Materials

The data used in this study are primary data obtained from students of SMAN 1 Majalaya in Majalaya District, Bandung Regency, Indonesia. Data were obtained from questionnaires given to students. Questionnaires were given regarding the state of student learning motivation and knowledge related to the Covid-19 pandemic and health protocols.

2.2. Methods

The method used in this study is a Practical Qualitative method, which means that the results of intra-campus research can be applied directly to the community practically. The understanding given is more on qualitative approaches such as discussion, consultation, and joint evaluation. However, the discussion session at SMA provided a little quantitative explanation about the mitigation and management of the Covid-19 Pandemic disaster.

3. Literature Review

3.1. Covid-19 Pandemic

A Covid-19 pandemic is an event that spreads the 2019 Corona Virus Disease (English: Coronavirus disease 2019, abbreviated as Covid-19) throughout the world for all countries. This disease is caused by a new type of coronavirus called SARS-CoV-2. The Covid-19 outbreak was first detected in Wuhan City, Hubei, China on December 1, 2019, and was declared a pandemic by the World Health Organization (WHO) on March 11, 2021 (Balkhair, 2021).

The SARS-CoV-2 virus is thought to spread between people mainly through respiratory droplets produced during coughing. These sparks can also be generated from sneezing and normal breathing. In addition, the virus can be spread by touching a contaminated surface and then touching someone's face. Covid-19 is most contagious when the person who has it has symptoms, although it is possible for spread to occur before symptoms appear. The time period between exposure to the virus and the appearance of symptoms is usually about five days but can range from two to fourteen days. Common symptoms include fever, cough, and shortness of breath. Complications can include pneumonia and severe acute respiratory illness. There is no specific vaccine or antiviral treatment for this disease. The primary treatment given is symptomatic and supportive therapy. The recommended preventive measures include washing hands, covering the mouth when coughing, keeping a distance from others, as well as monitoring and self-isolation for people who suspect they are infected.

3.2. Mitigation of the Covid-19 Pandemic

Mitigation of the Covid-19 pandemic is an effort made to reduce or eliminate risks that may arise as a result of a pandemic disaster in the form of fatalities or infection. Mitigation of the Covid-19 pandemic is very important in carrying out activities before the spread of Covid-19 is more widespread, so that the impact of risk that occurs can be minimized.

The mitigation efforts carried out refer to the health protocol discipline standards that have been set by the Ministry of Health of the Republic of Indonesia. According to the Ministry of Health (2021), ways to prevent the transmission of Covid-19 to individuals include the following (Farokhah et al., 2021):

- a) Implement the habit of washing hands with soap and running water for 40-60 seconds or using an alcohol-based antiseptic liquid (hand-sanitizer) for at least 20-30 seconds.
- b) Get used to the use of personal protective equipment in the form of a mask that covers the nose and mouth if you have to leave the house or interact with other people whose health status is unknown.
- c) Implement the habit of keeping a minimum distance of 1 meter from other people to
- d) avoid getting droplets from people who are coughing or sneezing.
- e) Limit yourself to interaction or contact with other people whose health status is unknown.
- f) When you arrive home after traveling, take a shower and change clothes immediately before coming into contact with family members at home.
- g) Increase body resistance by implementing a clean and healthy lifestyle (PHBS).
- h) Managing comorbidities/comorbidities to keep them under control.
- i) Managing mental and psychosocial health.
- j) Apply to cough and sneezing etiquette.
- k) Implement adaptation of new habits by implementing health protocols in every activity.

4. Results and Discussion

Based on the questionnaire that was given to the students of SMA Negeri 1 Majalaya, it was found that the relationship between students' friends in the class was quite good. This can be seen in Figure 1.

Based on Figure 1, the relationship between friends in class at SMA Negeri 1 Majalaya is significantly good. Figure 1 informs that 35% of students strongly agree that the relationship between friends in class is good. Then, 41% of students agree that the relationship between friends in class is good. Furthermore, only 1% of students feel that they agree that the relationship between friends in class is not good, and there is no student who feels that the relationship between friends in class is not good.

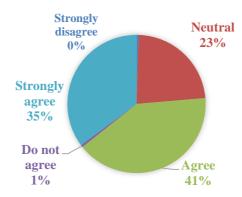


Figure 1. The relationship between friends in class at SMA Negeri 1 Majalaya

In addition, in the questionnaire we asked whether your teacher always accepted and explained the questions asked by students during the teaching process. From the analysis results are given in Figure 2.

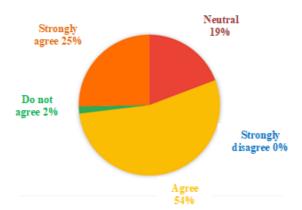


Figure 2. The Relationship Between Teachers and Students in the Classroom During the Teaching Process

Based on Figure 2, teachers at SMA Negeri 1 Majalaya significantly always accept and explain questions asked by students. Figure 2 informs that 25% of students strongly agree that teachers at SMA Negeri 1 Majalaya significantly always accept and explain questions asked by students. Then, 54% of students agree that teachers at SMA Negeri 1 Majalaya significantly always accept and explain questions asked by students. Furthermore, only 2% of students felt that they agreed that teachers at SMA Negeri 1 Majalaya significantly did not accept and explain the questions asked by students, and no students felt that teachers at SMA Negeri 1 Majalaya significantly did not accept and explain the questions asked. student.

During the PPM implementation, we also asked the level of ownership of learning tools such as laptops, cellphones, etc. for the implementation of online learning at home and the motivation of students in achieving their goals. From the analysis results are given in Figure 3 and Figure 4.

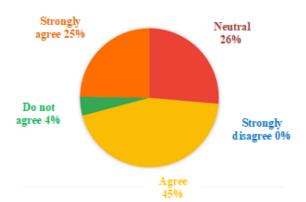


Figure 3. Availability of Learning Tools Needed by Students

Based on Figure 3, students at SMA Negeri 1 Majalaya significantly have the necessary learning tools. Figure 3 shows that the 25% of students strongly agree that they have the necessary learning tools. Then, 45% of students agree that they have the necessary learning tools. Furthermore, only 4% of students feel they agree that they do not have the necessary learning tools, and no students feel that they do not have the necessary learning tools.

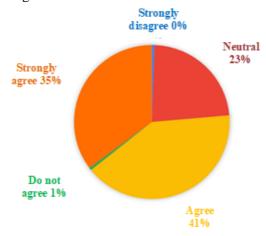


Figure 4. Student Motivation in Achieving Their Goals

Based on Figure 4, students at SMA Negeri 1 Majalaya are significantly enthusiastic in achieving their goals. Figure 4 shows that 35% of students strongly agree that they are passionate about achieving their goals. Then, 41% of students agree that they are passionate about achieving their goals. Furthermore, only 1% of students agree that they are not enthusiastic about achieving their goals, and no students feel that they are not enthusiastic about achieving their goals.

On the PPM opportunity, after providing material about the dangers of Covid-19 and socializing the student health protocol, a questionnaire was given to determine the level of students' understanding regarding the dangers and mitigation of Covid-19. Based on the results of the analysis given in Figure 5 as follows:

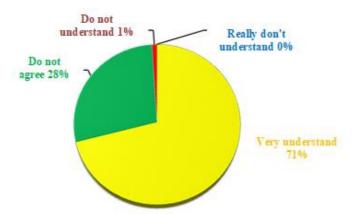


Figure 5. The Level Of Understanding Of The Dangers And The Process Of Mitigating The Covid-19 Pandemic

Based on Figure 5, students at SMA Negeri 1 Majalaya significantly understand the material given. Figure 5 shows that 71% of students feel very familiar with the dangers and mitigation processes of the Covid-19 pandemic. Then, 28% of students feel they understand the dangers and the process of mitigating the Covid-19 pandemic. Furthermore, only 1% of students felt that they did not understand the dangers and mitigation process of the Covid-19 pandemic, and no students felt that they did not understand the dangers and mitigation process of the Covid-19 pandemic.

5. Conclussion

Based on the presentation of the results carried out with the indicators shown, students' knowledge has increased about mitigating the Covid-19 pandemic. This is indicated by the percentage of student knowledge, 71% of students feel very familiar with the dangers and mitigation processes of the Covid-19 pandemic. Then, 28% of students feel they understand the dangers and the process of mitigating the Covid-19 pandemic. In addition, the student's learning motivation is quite good which is shown by the indicators that are asked of the students. This shows that the PPM program can add insight to students about the mitigation of the Covid-19 pandemic, and can increase student learning motivation during the Covid-19 Pandemic.

References

- Alanagreh, L. A., Alzoughool, F., and Atoum, M. (2020). The human coronavirus disease COVID-19: its origin, characteristics, and insights into potential drugs and its mechanisms. *Pathogens*, 9(5), 331.
- Ames, A. D., Molnár, T. G., Singletary, A. W., and Orosz, G. (2020). Safety-critical control of active interventions for COVID-19 mitigation. *Ieee Access*, 8, 188454-188474.
- Balkhair, A. A. (2020). COVID-19 pandemic: a new chapter in the history of infectious diseases. *Oman medical journal*, 35(2), e123.
- Cao, W., Fang, Z., Hou, G., Han, M., Xu, X., Dong, J., and Zheng, J. (2020). The psychological impact of the COVID-19 epidemic on college students in China. *Psychiatry research*, 287, 112934.
- Cheval, S., Mihai Adamescu, C., Georgiadis, T., Herrnegger, M., Piticar, A., & Legates, D. R. (2020). Observed and Potential Impacts of the COVID-19 Pandemic on the Environment. *International journal of environmental research and public health*, 17(11), 4140.

- Ćosić, K., Popović, S., Šarlija, M., & Kesedžić, I. (2020). Impact of human disasters and COVID-19 pandemic on mental health: potential of digital psychiatry. *Psychiatria Danubina*, *32*(1), 25-31.
- Dzigbede, K. D., Gehl, S. B., & Willoughby, K. (2020). Disaster resiliency of US local governments: Insights to strengthen local response and recovery from the COVID-19 pandemic. *Public administration review*, 80(4), 634-643.
- Farokhah, L., Ubaidillah, Y., & Yulianti, R. A. (2021, February). Penyuluhan Disiplin Protokol Kesehatan Covid-19 Di Kelurahan Gandul Kecamatan Cinere Kota Depok. *In Prosiding Seminar Nasional Pengabdian Masyarakat LPPM UMJ*, 1(1), 1-8.
- Gersons, B. P., Smid, G. E., Smit, A. S., Kazlauskas, E., & McFarlane, A. (2020). Can a 'second disaster'during and after the COVID-19 pandemic be mitigated?. *European journal of psychotraumatology*, 11(1), 1815283.
- Ishiwatari, M., Koike, T., Hiroki, K., Toda, T., & Katsube, T. (2020). Managing disasters amid COVID-19 pandemic: Approaches of response to flood disasters. *Progress in Disaster Science*, 6, 100096.
- Lee, P. I., Hu, Y. L., Chen, P. Y., Huang, Y. C., and Hsueh, P. R. (2020). Are children less susceptible to COVID-19?. *Lancet*, 395(1), 497-506.
- Papa, S. M., Brundin, P., Fung, V. S., Kang, U. J., Burn, D. J., Colosimo, C., ... and MDS-Scientific Issues Committee. (2020). Impact of the COVID-19 pandemic on Parkinson's disease and movement disorders. *Movement Disorders Clinical Practice*, 7(4), 357-360.
- Pfefferbaum, B., and North, C. S. (2020). Mental health and the Covid-19 pandemic. *New England Journal of Medicine*, 383(6), 510-512.
- Sheek-Hussein, M., Abu-Zidan, F. M., & Stip, E. (2021). Disaster management of the psychological impact of the COVID-19 pandemic. *International journal of emergency medicine*, 14(1), 1-10.
- Qiu, Y., Chen, X., and Shi, W. (2020). Impacts of social and economic factors on the transmission of coronavirus disease 2019 (COVID-19) in China. *Journal of Population Economics*, *33*, 1127-1172.
- Wankmüller, C. (2021). European disaster management in response to the COVID-19 pandemic. *Mind & Society*, 20(1), 165-170.
- Zhao, N., & Zhou, G. (2020). Social media use and mental health during the COVID-19 pandemic: Moderator role of disaster stressor and mediator role of negative affect. *Applied Psychology: Health and Well-Being*, 12(4), 1019-1038.