Indonesian Journal of Nutritional Epidemiology and Reproductive

ISSN: 2620-8261 (Online)

DOI ·

Vol. 3 No. 2 May 2020, pp. 43-50

The Effectiveness Of Health Education On Compliance With The Health Protocol Of The Covid19 Pandemic In The Community Of Bulurejo Village, Benjeng District Gresik

Danni Tri Juansa*1, Muhammad Ali Sodik 2

^{1,2}Institut Ilmu Kesehatan STRADA Indonesia *Corresponding Author : dannitrijuansa@gmail.com

ABSTRACT

Coronaviruses are a large family of viruses that cause disease in humans and animals. In humans, it usually causes respiratory tract infections, ranging from the common cold to serious diseases such as Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS). The purpose of this study is to analyze The effect of health education on compliance with the COVID-19 pandemic health protocol in the community in Bulurejo Village, Benjeng District, Gresik Regency. The design of this research is an experimental quantitative study with a Quasy Pre Post Experimental approach with the focus of the research being directed at analyzing the effect of health education on compliance with the covid-19 pandemic health protocol in the community in Bulurejo Village, Benjeng District, Gresik Regency with a population of 74 respondents and a sample of 58 respondents taken by the Accidental Sampling technique. The findings show that shave not been given health education most of the respondents 42 respondents did not comply with health protocols (73.3%). After being given health education, most of the respondents complied with health protocols as many as 37 respondents (63.8%). Research results using Paired T-Test This shows that the p-value is 0.000 < 0.05, then H0 is rejected and H1 is accepted, so it can be concluded that there is an effect of health education on compliance with the COVID-19 pandemic health protocol in the community in Bulurejo Village, Benjeng District, Gresik Regency.. It is hoped that the public can comply with health protocols as they should where they must use standard masks, keep their distance and diligently wash their hands with soap. This will reduce the risk of spreading the Covid-19 virus.

Keywords: Covid-19, Health Education, Compliance

INTRODUCTION

Coronaviruses are a large family of viruses that cause disease in humans and animals. In humans, it usually causes respiratory tract infections, ranging from the common cold to serious diseases such as Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS). The disease is mainly spread between people through respiratory droplets from coughs and sneezes. The virus can survive up to three days with plastic and stainless steel SARS CoV-2 can survive up to three days, or in aerosol for up to three hours (Gorbalenya, 2020) The virus has also been found in feces, but as of March 2020 it is not known whether transmission through feces is possible, and the risk is estimated to be low (Van Doremalen et al, 2020)

On December 31, 2019, the WHO China Country Office reported a case of pneumonia of unknown etiology in Wuhan City, Hubei Province, China. On January 7, 2020, China identified the pneumonia of unknown etiology as a new type of coronavirus (novel coronavirus). In early 2020 NCP began to become a global pandemic and became a health problem in several countries outside the PRC. According to the World Health Organization

(WHO), cluster cases of pneumonia with unclear etiology in Wuhan City have become a global health problem. The spread of this epidemic continued to grow until it was finally discovered that the cause of this pneumonia cluster was the Novel Coronavirus. This pandemic continues to grow until there are reports of new deaths and cases outside China. On January 30, 2020,

On February 12, 2020, WHO officially designated this novel coronavirus disease in humans as Coronavirus Disease (COVID-19). COVID-19 is caused by SARS-COV2, which belongs to the same large family of coronaviruses that caused SARS in 2003, only with a different type of virus. Symptoms are similar to SARS, but the death rate for SARS (9.6%) is higher than for COVID-19 (currently less than 5%), although the number of cases of COVID-19 is much higher than that of SARS. COVID-19 also has a wider and faster spread to several countries than SARS (Kemendagri, 2020).

Based on the results of a preliminary study conducted by researchers on September 19, 2020 in one of the hamlets Bulurejo Village, Benjeng District Gresik Regency to 10 respondents found that a number of 7 respondents (70%) have low knowledge related to covid-19 where people think that the virus is just a government political game while the positive cases announced by the government are just a lie so people think that the corona virus doesn't actually exist and people don't care about the health protocol which must use masks, keep your distance or have to wash your hands often are also ignored by the community. Meanwhile, 30 respondents (30%) admitted that they were afraid of the corona virus and always obeyed the health protocols. It was also found that a total of 10 positive cases of COVID-19, out of 8 patients, were market clusters, while the other 2 patients were immigrants from the Surabaya cluster (Data from Benjeng Gresik Health Center, 2020).

A new type of coronavirus found in humans since an extraordinary event appeared in Wuhan, China, in December 2019, was later named Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-COV2), and caused Corona virus Disease-2019 (COVID-19). COVID-19 belongs to a genus with elliptic flora and is often pleomorphic in shape, and is 60-140 nm in diameter. This virus is genetically very different from the SARS-CoV and MERS-CoV viruses. Current research shows that the homology between COVID-19 and the characteristic DNA of coronavirus in bat-SARS is more than 85% similar. When cultured in vitro, COVID-19 can be found in human respiratory epithelial cells after 96 hours. Meanwhile, it takes about 6 days to isolate and culture vero E6 and Huh-7 cell lines (Kemendagri, 2020).

The lungs are the organs most affected by COVID-19, as the virus accesses host cells via the enzyme ACE2, which is most abundant in type II alveolar cells of the lungs. The virus uses a special surface glycoprotein, called a "spike", to link to ACE2 and enter the host cell (Letko, 2020). The density of ACE2 in each tissue correlates with the severity of disease in that tissue and some experts argue that decreased ACE2 activity may be protective. And as alveolar disease progresses, respiratory failure is possible and death is possible (Xu H et al, 2020).

Based on the above conditions, the authors are interested in researching the effectiveness of health education on compliance with the COVID-19 pandemic health protocol in the community in Bulurejo Village, Benjeng District, Gresik Regency.

METHODS

In this study, the researcher used a quantitative design experimental design with one group pre test and post test design. The author chose the design of this study to find out the differences betweencompliance with the COVID-19 pandemic health protocol in the community in Bulurejo Village, Benjeng District Gresik Kabupaten before and after intervention. This research will analyze the effect of health education on compliance with the COVID-19 pandemic health protocol in the community in Bulurejo Village, Benjeng District, Gresik Regency with a population of 74 respondents and a sample of 58 respondents taken using the Accidental Sampling technique.

RESULTS

Table 1 Results of Paired t-test Analysis the effectiveness of health education on compliance with the COVID-19 pandemic health protocol in the community in Bulurejo Village, Benjeng District Gresik Regency which was held on March 3-20 2021 with a total of 58 respondents.

Category	mean	Sample	Sig
Compliance before	3.38	58	0.000
Compliance After	5.84	58	

Based on the results of the Paired T-Test. analysis This shows that the p-value is 0.000 <0.05, then H0 is rejected and H1 is accepted, so it can be concluded that there is an effect of health education on compliance with the COVID-19 pandemic health protocol in the community in Bulurejo Village, Benjeng District, Gresik Regency.

DISCUSSION

A. Compliance with the Covid19 Pandemic Health Protocol in the Community in Bulurejo Village, Benjeng District Gresik Regency Prior to Health Education

The results showed that most of the respondents did not comply with the health protocol as many as 42 respondents (73.3%). Meanwhile, a total of 16 respondents (26.7%) complied with the health protocol.

Coronaviruses are a large family of viruses that cause disease in humans and animals. In humans, it usually causes respiratory tract infections, ranging from the common cold to serious diseases such as Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS). The disease is mainly spread between people through respiratory droplets from coughs and sneezes. The virus can survive up to three days with plastic and stainless steel SARS CoV-2 can survive up to three days, or in aerosol for up to three hours (Gorbalenya, 2020) The virus has also been found in feces, but as of March 2020 it is not known whether transmission through feces is possible, and the risk is estimated to be low (Van Doremalen et al, 2020)

On December 31, 2019, the WHO China Country Office reported a case of pneumonia of unknown etiology in Wuhan City, Hubei Province, China. On January 7, 2020, China identified the pneumonia of unknown etiology as a new type of coronavirus (novel coronavirus). In early 2020 NCP began to become a global pandemic and became a health problem in several countries outside the PRC. According to the World Health Organization (WHO), cluster cases of pneumonia with unclear etiology in Wuhan City have become a global health problem. The spread of this epidemic continued to grow until it was finally discovered that the cause of this pneumonia cluster was the Novel Coronavirus. This pandemic continues to grow until there are reports of new deaths and cases outside China. On January 30, 2020.

A new type of coronavirus found in humans since an extraordinary event appeared in Wuhan, China, in December 2019, was later named Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-COV2), and caused Corona virus Disease-2019 (COVID-19). COVID-19 belongs to a genus with elliptic flora and is often pleomorphic in shape, and is 60-140 nm in diameter. This virus is genetically very different from the SARS-CoV and MERS-CoV viruses. Current research shows that the homology between COVID-19 and the characteristic DNA of coronavirus in bat-SARS is more than 85% similar. When cultured in vitro, COVID-19 can be found in human respiratory epithelial cells after 96 hours. Meanwhile, it takes about 6 days to isolate and culture vero E6 and Huh-7 cell lines (Kemendagri, 2020).

The lungs are the organs most affected by COVID-19, as the virus accesses host cells

via the enzyme ACE2, which is most abundant in type II alveolar cells of the lungs. The virus uses a special surface glycoprotein, called a "spike", to link to ACE2 and enter the host cell (Letko, 2020). The density of ACE2 in each tissue correlates with the severity of disease in that tissue and some experts argue that decreased ACE2 activity may be protective. And as alveolar disease progresses, respiratory failure is possible and death is possible (Xu H et al, 2020).

According to researchers, knowledge is the basis for someone to do something. If the knowledge is good, then what will be done will be directed, while if the knowledge is lacking, what will be done tends to be undirected Based on the results of the study, it was found that many people who do not comply with health protocols where this can be seen from the public's wrong view of the Covid-19 disease and ignores the recommendation to wear masks, still like to crowd and even don't really care about washing their hands. The community considers that health protocols do not need to be cared for where when using health protocols it actually makes it difficult for the community, especially in the economic sector. So that people tend to disobey health protocols.

В. Compliance with the Covid19 Pandemic Health Protocol in the Community in Bulurejo Village, Benjeng District Gresik Regency After Health Education is Given

The results showed that most of the respondents complied with the health protocol as many as 37 respondents (63.8%). Meanwhile, a number of 21 respondents (36.2%) did not comply with the health protocol.

Compliance or adherence is the level of a person carrying out activities and behaviors that have been suggested or determined (Konis, 2012). Compliance is a term to describe obedience or surrender to a predetermined goal.

Wesker (2014) argues that the factors that affect the level of compliance are everything that can have a positive effect so that the patient is no longer able to maintain his compliance, to the point of becoming less obedient and disobedient.

No one obeys instructions if he misunderstands the instructions given to him. Sometimes this is due to the failure of the professional to fail to provide complete information and to provide many instructions that a person must remember. The level of education can increase compliance, as long as it is an active education that is obtained independently, through certain stages. Suparyanto (2010) suggests that the older a person is, the better his mental development process is, but at certain ages, this mental development process is not as fast as when he was a teenager, Thus, it can be concluded that the age factor will affect a person's level of knowledge which will peak at a certain age and will decrease the ability to accept or remember something along with advancing age. This supports the existence of a low level of education.

The personalities of those who obey and those who fail are different. Disobedient people are people who experience depression, anxiety, are very concerned about their health, have weaker ego strength and have a more social life, focus on themselves. The strength of the ego is characterized by a lack of control over its environment. Demographic variables are also used to predict non-compliance (Wilujeng, 2015).

According to researchers, compliance is the level of a person carrying out activities and behaviors that have been suggested or determined. Compliance is a term to describe obedience or surrender to a predetermined goal. Likewise in the community, most people do not obey when given instructions by the government or related agencies because people easily accept all negative information rather than positive information, so that false news is easily spread in the community and people believe it. So as a result of the large amount of goax information, people tend to ignore and disobey the health protocol instructions from the government. So that by providing health education about Covid-19.

C. The Effect of Health Education on Compliance with the Covid19 Pandemic Health Protocol on the Community in Bulurejo Village, Benjeng District, Gresik Regency

Based on the results of the Paired T-Test . analysis This shows that the p-value is 0.000 < 0.05, then H0 is rejected and H1 is accepted, so it can be concluded that there is an effect of health education on compliance with the COVID-19 pandemic health protocol in the community in Bulurejo Village, Benjeng District, Gresik Regency.

In the world today, Covid-19 is a pandemic case since March 11, 2020. Covid-19 is a disease caused by the corona virus. Coronaviruses (CoV) are part of a family of viruses that cause illness ranging from the flu to more severe diseases such as Middle East Respiratory Syndrome (MERS-CoV) and Severe Acute Respiratory Syndrome (SARS-CoV). The disease caused by the corona virus, otherwise known as COVID-19, is a new type that was discovered in 2019 and has never been identified to attack humans before (Widiyani, 2020).

The case of the corona virus appeared and attacked humans for the first time in the province of Wuhan, China. Initially, it was suspected that it was pneumonia, with flu-like symptoms in general. Symptoms include cough, fever, fatigue, shortness of breath, and no appetite. However, unlike influenza, the corona virus can develop rapidly, resulting in more severe infections and organ failure and death. This emergency condition mainly occurs in patients with previous health problems (Mona, 2020).

Compliance is a term used to describe people's behavior in using masks. Compliance is a positive behavior shown by the community when people wear masks. Factors that affect adherence depend on many factors, including knowledge, motivation, attitudes, and beliefs about disease control and prevention efforts, environmental variables, quality of health instructions, and ability to access existing resources (Sinuraya et al, 2018). Meanwhile, noncompliance is a condition when an individual or group wishes to comply, but there are a number of factors that hinder adherence to health advice given by health workers (Prihantana et al, 2016).

According to researchers, compliance goes hand in hand with how high a person is aware of the dangers of Covid-19. When someone tends to have high knowledge, he will be more obedient to health protocols and vice versa when someone doesn't know much about Covid-19 and even has the wrong knowledge, he will tend to disobey health protocols. So it can be concluded that increasing public knowledge through health education can improve compliance with the COVID-19 pandemic health protocol in the community in Bulurejo Village, Benjeng District, Gresik Regency.

CONCLUSION

- 1. Before being given health education, most of the respondents 42 respondents did not comply with health protocols (73.3%).
- 2. After being given health education, most of the respondents compliance with health protocols as many as 37 respondents (63.8%).
- 3. There is The effect of health education on compliance with the COVID-19 pandemic health protocol in the community in Bulurejo Village, Benjeng District, Gresik Regency.

REFERENCE

Azwar Ali, S., Baloch, M., Ahmed, N., Arshad Ali, A., & Iqbal, A. (2020). The outbreak of Coronavirus Disease 2019 (COVID-19)—An emerging global health threat. Journal of Infection and Public Health, 13(4), 644–646. https://doi.org/10.1016/j.jiph.2020.02.0 33

- Bansal, M. (2020). Cardiovascular disease and COVID-19. Diabetes and Metabolic Syndrome: Clinical Research and Reviews, 14(3), 247–250. https://doi.org/10.1016/j.dsx.2020.03.01 3
- Davies, A., Thompson, K. A., Giri, K., Kafatos, G., Walker, J., & Bennett, A. (2013). Testing the efficacy of homemade masks: would they protect in an influenza pandemic? Disaster Medicine and Public Health Preparedness, 7(4), 413–418. https://doi.org/10.1017/dmp.2013.43
- Dewi, Ika; Raharyani, A. E. (2020). Tingkat Pengetahuan Dan Perilaku Masyarakat Kabupaten Wonosobo Tentang Covid-19. Jurnal Ilmiah Kesehatan, 10(1), 33–42. Retrieved from https://ojs.unsiq.ac.id/index.php/jik/artic le/view/1311/783
- Di Gennaro, F., Pizzol, D., Marotta, C., Antunes, M., Racalbuto, V., Veronese, N., & Smith, L. (2020). Coronavirus diseases (COVID-19) current status and future perspectives: A narrative review. International Journal of Environmental Research and Public Health, 17(8). https://doi.org/10.3390/ijerph17082690
- Fiorillo, L., Cervino, G., Matarese, M., D'amico, C., Surace, G., Paduano, V., ... Cicciù, M. (2020). COVID-19 surface persistence: A recent data summary and its importance for medical and dental settings. International Journal of Environmental Research and Public Health, 17(9). https://doi.org/10.3390/ijerph17093132
- Gorbalenya Guan, W., Ni, Z., Hu, Y., Liang, W., Ou, C., He, J., ... Zhong, N. (2020). Clinical characteristics of coronavirus disease 2019 in China. New England Journal of Medicine, 382(18), 1708–1720. https://doi.org/10.1056/NEJMoa200203 2
- Gugus Tugas COVID-19. (2020). Peta Sebaran Data COVID-19. Retrieved from https://covid19.go.id
- Güner, R., Hasanoğlu, İ., & Aktaş, F. (2020). Covid-19: Prevention and control measures in community. Turkish Journal of Medical Sciences, 50(SI-1), 571–577. https://doi.org/10.3906/sag2004-146
- Haybar, H., Kazemnia, K., & Rahim, F. (2020). Underlying Chronic Disease and COVID-19 Infection: A State-ofthe-Art Review. Jundishapur Journal of Chronic Disease Care, 9(2), 1–7. https://doi.org/10.5812/jjcdc.103452
- Hendra, Aslam, F. (2020). COVID-19 and Importance of Social Distancing. Preprints, 30(1), 1–6. https://doi.org/10.20944/preprints20200 4.0078.v1
- Howard, J., Huang, A., Li, Z., Tufekci, Z., Zdimal, V., & Westhuizen, H. Van Der. (2020). Face Masks Against COVID19: An Evidence Review. Preprints, 30(20), 1–8. https://doi.org/10.20944/preprints20200 4.0203.v1
- Huang, L., Zhang, X., Zhang, X., Wei, Z., Zhang, L., Xu, J., ... Xu, A. (2020). Rapid asymptomatic transmission of COVID-19 during the incubation period demonstrating strong infectivity in a cluster of youngsters aged 16-23 years outside Wuhan and characteristics of young patients with COVID-19: A prospective contact-tracing study. Journal of Infection, 80(6), e1–e13. https://doi.org/10.1016/j.jinf.2020.03.00 6
- Jiang, F., Deng, L., Zhang, L., Cai, Y., Cheung, C. W., & Xia, Z. (2020). Review of the Clinical Characteristics of Coronavirus Disease 2019 (COVID19). Journal of General Internal Medicine, 35(5), 1545–1549. https://doi.org/10.1007/s11606-020-05762-w
- Kampf, G., Todt, D., Pfaender, S., & Steinmann, E. (2020). Persistence of coronaviruses on inanimate surfaces and their inactivation with biocidal agents. Journal of Hospital

- Infection, 104(3), 246–251. https://doi.org/10.1016/j.jhin.2020.01.0 22
- Kemenkes RI. (2020). Tanya jawab seputar virus corona. Jakarta: Kementerian Kesehatan Republik Indonesia.
- Law, S., Leung, A. W., & Xu, C. (2020). Severe acute respiratory syndrome (SARS) and coronavirus disease-2019 (COVID-19): From causes to preventions in Hong Kong. International Journal of Infectious Diseases, 94, 156–163. https://doi.org/10.1016/j.ijid.2020.03.05 9
- Ma, R. C. W., & Holt, R. I. G. (2020). COVID-19 and diabetes. Diabetic Medicine, 37(5), 723–725. https://doi.org/10.1111/dme.14300
- Morawska, L., & Cao, J. (2020). Airborne transmission of SARS-CoV-2: The world should face the reality. Environment International, 139(1), 1–3. https://doi.org/10.1016/j.envint.2020.10 5730
- Notoatmodjo (2014). Pengembangan Sumber Daya Manusia. Jakarta: PT. Rineke Cipta
- Perencanaan, K., Nasional, P., Republik, B., Abstraksi, I., Baru, N., Pembangunan, R., ... Iv, V. (2020). Covid-19, New Normal, dan Perencanaan Pembangunan di Indonesia. Jurnal Perencanaan Pembangunan: The Indonesian Journal of Development Planning, 4(2), 240–252. https://doi.org/10.36574/jpp.v4i2.118
- Qian, H., & Zheng, X. (2018). Ventilation control for airborne transmission of human exhaled bio-aerosols in buildings. Journal of Thoracic Disease, 10(Suppl 19), S2295–S2304. https://doi.org/10.21037/jtd.2018.01.24
- Saadat, S., Rawtani, D., & Hussain, C. M. (2020). Environmental perspective of COVID-19. Science of the Total Environment, 728(1), 1–6. https://doi.org/10.1016/j.scitotenv.2020.138870
- Shahid, Z., Kalayanamitra, R., McClafferty, B., Kepko, D., Ramgobin, D., Patel, R., ... Jain, R. (2020). COVID-19 and Older Adults: What We Know. Journal of the American Geriatrics Society, 68(5), 926–929. https://doi.org/10.1111/jgs.16472
- Shereen, M. A., Khan, S., Kazmi, A., Bashir, N., & Siddique, R. (2020). COVID-19 infection: Origin, transmission, and characteristics of human coronaviruses. Journal of Advanced Research, 24(1), 91–98. https://doi.org/10.1016/j.jare.2020.03.00 5
- Soekidjo. (2012). Konsep Penerapan Metode Penelitian Ilmu Keperawatan. Jakarta: Salemba Medika.
- Sunaryo J. (2013) Beban Ganda Masalah Gizi dan Implikasinya terhadap Kebijakan Pembangunan Kesehatan Nasional. Penelitian Universitas Gajah Mada. Yogyakarta
- Suparyanto, F. (2018). Penerapan Perilaku Hidup Bersih Dan Sehat (Phbs) Demi Kesejahteraan Masyarakat Kecamatan Tuntang Kabupaten Semarang Jawa Tengah. Jurnal Pemberdayaan: Publikasi Hasil Pengabdian Kepada Masyarakat, 1(1), 13. https://doi.org/10.12928/jp.v1i1.309
- Suppawittaya, P., Yiemphat, P., & Yasri, P. (2020). Effects of Social Distancing, Self-Quarantine and Self-Isolation during the COVID-19 Pandemic on People's Well-Being, and How to Cope with It. International Journal of Science and Healthcare Research, 5(2), 12–20.
- Van Doremalen, N., Bushmaker, T., Morris, D. H., Holbrook, M. G., Gamble, A., Wiliamson, B. N., ... Munster, V. J. (2020). Aerosol and Surface Stability of SARS-CoV-2 as Compared with SARSCoV-1. Nejm, 382(1), 1564–1567.

- Verity, R., Okell, L. C., Dorigatti, I., Winskill, P., Whittaker, C., Imai, N., ... Ferguson, N. M. (2020). Estimates of the severity of coronavirus disease 2019: a model-based analysis. The Lancet Infectious Diseases, 20(6), 669-677. https://doi.org/10.1016/S1473-3099(20)30243-7
- Wei, W. E., Li, Z., Chiew, C. J., Yong, S. E., Toh, M. P., & Lee, V. J. (2020). Presymptomatic Transmission of SARS-CoV-2-Singapore. Morbidity and Mortality Weekly Report, 69(14), 411–415.
- Widiyani, Utami, R. A., Mose, R. E., & Martini, M. (2020). Pengetahuan, Sikap dan Keterampilan Masyarakat dalam Pencegahan COVID-19 di DKI Jakarta. Jurnal Kesehatan Holistic, 4(2), 68–77. https://doi.org/10.33377/jkh.v4i2.85
- Wijono Dramantyo (2012) Manajemen Puskesmas Berbasis Paradigma Sehat. Jakarta: Penerbit CV Sagung Seto
- Xu, Z., & McGoogan, J. M. (2020). Characteristics of and Important Lessons from the Coronavirus Disease 2019 (COVID-19) Outbreak in China: Summary of a Report of 72314 Cases from the Chinese Center for Disease Control and Prevention. JAMA the American Medical Association, 323(13), 1239–1242. Journal https://doi.org/10.1001/jama.2020.2648
- Yanti, B., Wahyudi, E., Wahiduddin, W., Novika, R. G. H., Arina, Y. M. D., Martani, N. S., & Nawan, N. (2020). Community Knowledge, Attitudes, and Behavior Towards Social Distancing Policy As Prevention Transmission of Covid-19 in Indonesia. Jurnal Administrasi Kesehatan Indonesia, 8(2), 4. https://doi.org/10.20473/jaki.v8i2.2020. 4-14