



JURNAL PENGABDIAN MASYARAKAT DALAM KESEHATAN

Vol. 5 No. 1, April 2023

<https://e-journal.unair.ac.id/IPMK>

This is an Open Access article distribute under the terms of the [Creative Commons Attribution 4.0 International License](#)



“RISK COMMUNICATION” EDUCATION AS AN EFFORT FOR CONTROL AND PREVENTION OF COVID-19 WITH THE TARGET OF ACADEMIC CITIZENS

Rana Nadiyah Adwinda, Santi Martini, Kurnia Dwi Artanti and Arief Hargono

Faculty of Public Health, Universitas Airlangga, Surabaya, Indonesia

ARTICLE HISTORY

Received: February 26, 2023

Accepted: April 30, 2023

CONTACT

Santi Martini
santi-m@fkm.unair.ac.id
Faculty of Public Health,
Universitas Airlangga,
Surabaya, Indonesia

ABSTRACT

Introduction: Knowledge about COVID-19 in the community which is a new disease (emerging disease) is varied thus, the community must be given education so they can stop the transmission of COVID-19 infection. The activity in the form of education (risk communication) regarding COVID-19 aims as an effort to control and prevent COVID-19 with the target of the academic community.

Methods: The form of activity is in the form of online seminars or webinars via the zoom platform which are carried out every week to two weeks with the target of the Universitas Airlangga academic community including students, educational staff, and lecturers. Education about COVID-19 must be carried out for the academic community considering the enormous potential of Airlangga University academics who live in Surabaya and areas in East Java with the hope that the Airlangga University academic community can become agents of change in their environment.

Results: The provision of education is carried out in the form of virtual discussions which are packaged in the form of the "Casual Talk to Get to Know COVID-19 Closer" event which has been held since May 2020 with speakers from the academic community with the target audience of the academic community.

Conclusion: Educational activities or risk communication that have been carried out to provide knowledge about COVID-19 so that the academic community is expected to contribute to breaking the chain of transmission of COVID-19 by implementing health and prevention behaviors.

KEYWORDS

COVID-19; risk communication; education; prevention; academic community

Cite this as:

Adwinda, R. N., Martini, S., Artanti, K. D., & Hargono, A. (2023). "Risk Communication" Education as An Effort for Control and Prevention of COVID-19 with the Target of Academic Citizens. *J. Pengabdian Masyarakat dalam Kesehatan*. 5(1). 20-26. Doi: [10.20473/jpmk.v5i1.42064](https://doi.org/10.20473/jpmk.v5i1.42064)

1. INTRODUCTION

Coronavirus Disease 2019 (COVID-19) is a new infectious disease caused by SARS-CoV-2. Most people infected with COVID-19 experience mild to moderate respiratory illness and recover without requiring special treatment (WHO, 2020a). COVID-19 is currently a serious pandemic with the number of daily cases continuing to increase, including in Indonesia. In the absence of vaccines and special drugs, prevention efforts have been carried out as the

main control mechanism for COVID-19. The best way to prevent and reduce transmission is to understand about COVID-19, the disease it causes, and how it spreads.

The spread of COVID-19 is related to public knowledge, attitudes and behavior towards the dangers of COVID-19. Knowledge, attitudes, and behaviors are interrelated with one another and are used to define situations and formulate appropriate risk interventions and communications. People who

have good knowledge are expected to carry out good behavior in preventive actions (Saunders-Hastings, 2016)).

Public knowledge about COVID-19 is a very important aspect in a pandemic which includes the causes of COVID-19 and the characteristics of the virus, signs and symptoms, terms related to COVID-19, necessary examinations and the transmission process and efforts to prevent the disease. Good knowledge can be supported by receiving information circulating in the community about COVID-19 (Tri, 2020). Someone who already knows certain information, will be able to determine and make decisions that indicate that they must deal with it. In other words, when someone has information about COVID-19, they will be able to determine how they should behave towards COVID-19.

Variations in public knowledge are known in research conducted by Sulistiyawati in 2020, people with higher education have better knowledge about COVID-19. Women have better behavior to gain knowledge about COVID-19 and are always looking for information and knowledge about COVID-19 to deal with anxiety because they tend to be the main caregivers of family members.

Health behavior is influenced by many factors, including knowledge, perceptions, emotions, motivation, and the environment (Rahayu, 2014). Exploration of public health behavior can be seen from various components, including perceptions of disease susceptibility, perceptions of obstacles in prevention efforts, perceptions of benefits, encouragement, and individual perceptions of their ability to carry out prevention efforts.

According to the Knowledge-Attitude-Behavior Model theory, knowledge is an important factor that can influence behavior change, and individuals can acquire knowledge and skills through the learning process (Liu, 2016). Thus, community knowledge that still needs to be straightened out and community behavior that is still negative can be pursued through

learning activities through health education. The platform that we use is zoom webinar because it provides an opportunity for attendees to learn from experts in a convenient and cost-effective way.

Several behaviors have been recommended to limit the spread of COVID-19 such as wearing masks, limiting social distancing or physical distancing, ethics when coughing and sneezing and washing hands with soap more often (WHO, 2020b). However, the increasing cases of COVID-19 in Indonesia still need serious attention from various sectors. Therefore, it is very important to activate the coordination mechanism as early as possible so that the spread of COVID-19 does not spread. Preparedness plans and management systems such as surveillance systems and epidemiological investigations in institutions must be improved to prevent and deal with the COVID-19 pandemic. For this reason, educational activities (risk communication) regarding COVID-19 have been planned with the target of the academic community at Universitas Airlangga. It is hoped that with this educational activity, Universitas Airlangga academics can become agents of change in their respective environments considering that the dynamics of COVID-19 are very high.

2. MATERIAL AND METHODS

The form of activity carried out is in the form of online seminars or webinars via the zoom platform which are carried out once every week to two weeks from May to August 2020 with the target of the academic community of Universitas Airlangga. The variables in this activity are knowledge, perceptions, attitudes, and behavior of community leaders in preventing COVID-19. This activity is carried out routinely by the Universitas Airlangga COVID-19 Surveillance Team. The webinar topic is determined based on the discussion conducted by the team and then the team contacts the resource person according to the topic that has been determined including COVID-19

disease, immunity, mental health, the world of work and learning during a pandemic so that the academic community is expected to contribute to breaking the chain of transmission of COVID-19 by implementation of health behavior and prevention of COVID-19. Then, the team made activity posters which were distributed via whatsapp groups of lecturers, students, and students. In every webinar, there are always three people who are in charge of the webinar, namely resource persons, moderators, and note takers.

3. RESULTS

COVID-19 is a new disease, so providing education about COVID-19 is very necessary so that the knowledge of the academic community about COVID-19 increases so that the academic community can become agents of change in their respective environments to break the chain of transmission of COVID-19. The provision of education is carried out in the form of virtual discussions which are packaged in the form of the "Casual Talk to Get to Know COVID-19 Closer" event which has been held since May 2020 with speakers from the academic community with the target audience of the academic community. Education about COVID-19 must be carried out for the academic community considering the enormous potential of Universitas Airlangga academics who live in Surabaya and areas in East Java with the hope that the Universitas Airlangga academic community can become agents of change in their environment.

4. DISCUSSION

The circulation of false information related to COVID-19 has created confusion among the public about taking steps to protect themselves from COVID-19. This is further exacerbated by the rate of information dissemination that is so fast and easy along with the use of social media. In addition to the spread of COVID-19, people are also faced with a lot of false information that is widely spread on social media.

One way that can be done to break the chain of spreading hoaxes is through health education.

Providing education which is carried out in the form of virtual discussions in the "Casual Talk to Get to Know COVID-19 Closer" presents health education on several topics around COVID-19. Topics discussed include COVID-19 disease, immunity, mental health, the world of work and learning during a pandemic.

Maintaining a healthy immune system during the COVID-19 pandemic must be a priority. The healthier the immune system is to fight infection, the more likely it is to develop minor illnesses if exposed. A healthy lifestyle, good digestive health and certain dietary supplements can play a role in optimizing the body's immune response to viral infections. Nutritional levels, quality of sleep, stress, and physical activity have a significant effect on the immune system. This is in accordance with research conducted in the United States on 6514 respondents showing that acute stress and depressive symptoms increased significantly over time as deaths from COVID-19 increased throughout the United States. Pre-existing mental and physical health diagnoses, daily exposure to COVID-19-related media, conflicting COVID-19 information in the media, and secondary stressors are all associated with acute stress and depressive symptoms. The results have implications for targeting public health interventions and risk communication efforts to promote community resilience as pandemics wax and wane over time (Holman, Thompson, Garfin, & Silver, 2020). An online experiment with a US sample tested the impact on perceived likelihood, trust, concern, behavioral intention, and agreement with numerical responses (percentage mortality/infection by age group) and core expressions (which age group is less [mortality] or approx. approximately equivalent [infected]). While the differences in risk perception and willingness to engage in activities between younger and older participants were small, "core infection and death" increased the desire to wear

Tabel 1. The following is a schedule of education or risk communication that has been implemented:

No	Date	Topic	Source Person	Moderator	Target Participants
1.	22 May 2020	Get to Know COVID-19 Closer	Dr. Atik C.H.	Dr. Santi Martini	Education Personnel
2.	5 June 2020	Immunity & Herd Immunity	Dr. Theresia Indah Budi	Pudji Lestari, dr., M.Kes	Lecturers
3.	5 June 2020	Immunity & Herd Immunity	Dr. M. Atoillah I.	Dr. Atik C.H.	Students
4.	12 June 2020	Entering Work in the New Normal Era	Dr. Purnawan Basundoro, S.S., M.Hum (Direktur SDM)	Sigit Kurnianto, SE., MSA	Academic Community
5.	19 June 2020	Maintaining Mental Health	Valina Khiarin Nisa, S.Psi., MSc	Dwi Wahyu Indriati, S.Si., PhD.	Students
6.	10 July 2020	Experience treating COVID-19 patients	Nisa Aruming Sila, S.Kep., Ns. M.Kep	Sylvia Dwi Wahyuni, S.Kep, Ns., M.Kep	Academic Community
7.	10 July 2020	Experience treating COVID-19 patients	Muhammad Ardian Cahya Laksana, dr., Sp.OG (K), M.Kes	Sylvia Dwi Wahyuni, S.Kep, Ns., M.Kep	Academic Community
8.	24 July 2020	Herbs in the Vortex of COVID-19	Prof. Mangestuti MS., Apt	Dr. Sapto Andriyono, SPi, MT	Academic Community
9	7 August 2020	Work Environment Readiness in NHA (New Habit Adaptation)	Karnaji, S.Sos., M.Si (Dir. Sarana Prasarana dan Lingkungan)	Dr. Arief Hargono, drg., M.Kes	Academic Community
10	14 August 2020	Teaching and Learning Process in AKB (New Habit Adaptation)	Prof. Dr. Bambang Sektiari L, Drh., DEA (Dir. Edukasi)	Dr. M. Atoillah I., dr., M.Kes.	Academic Community

masks among younger participants (Joslyn et al., 2021).

The COVID-19 pandemic has disrupted lives around the world and created stress and anxiety. Mental health issues are not only relevant but also crucial. Mental health is the intersection of emotional, psychological, and physical well-being. Along with the health impact of this disease, COVID-19 has caused self and social isolation, disconnection from family and friends, quarantine and lockdowns resulting in more people experiencing feelings of helplessness, isolation, sadness, anxiety and depression. The demand for health support services has increased exponentially as a result. To address these challenges and increase the capacity and availability of support, governments, local communities and civil society organizations need to increase resources directed at addressing psychological suffering, now and after the

pandemic has passed. Government restrictions (e.g. social distancing) that impact the desire to engage are risk reduction and risk-seeking activities. The biggest difference is due to political ideology. Although conservatives perceive the same level of risk as liberals, they are less willing to engage in protective behavior and support government policies. However, conservatives are influenced by several formats of risk communication and restrictions indicating that future work should be directed at this issue (Joslyn et al., 2021).

Activities such as working from home continue due to the COVID-19 pandemic, so it is very important to pay attention to work-life balance. Workers can take some measures to protect themselves, but employers must also take responsibility for their workforce. Stress has very serious physical and psychological effects on health and negatively

impacts productivity by reducing worker efficiency and effectiveness. Stress needs to be minimized at work including when working from home by balancing a healthy work and life.

The COVID-19 pandemic has produced at least one positive thing, namely a much greater appreciation of the importance of education. It is hard to imagine another moment in history when the central role of education in the country's economic, social and political prosperity and stability was so clearly and well understood by the general public. Education during the COVID-19 pandemic amplifies and enlivens the learning experience inside and outside the classroom. These learning experiences will support educators in the healthy mental and physical development of students. Another study in Korea states that risk communication in Covid -19 involves many important elements in the country. . The circulars we have examined highlight significant changes in the approach to patient visits on the part of political decision makers in Italy, indicating that their aim is to strike the right balance between protecting the communication rights of nursing home residents and their safety. The document focuses on residents' health care needs and expectations, in relation to effectiveness and support from family members, and on effective clinical risk management.

Education is needed to improve people's perceptions that are still not quite right. Continuous professional education is needed to increase knowledge and change negative attitudes and improve prevention and treatment practices (Olum, 2020). Education is a learning process to gain knowledge. Understanding COVID-19 is important in efforts to prevent and control COVID-19 disease because it can prevent the same virus from infecting humans in the future. Apart from that, proper education can also have a positive impact on people's decisions to carry out activities that can prevent the transmission of Covid. This is similar to what was found in a study in Poland regarding the COVID-19

pandemic and its influence on their decision to continue or stop smoking. Their results show that smokers are highly receptive to communications related to COVID-19 and the risks of smoking. This phenomenon may be linked to the potential direct health consequences of smoking and infection with the COVID-19 virus. The results may suggest that an emphasis on argument combined with the short-term health consequences of smoking can lead to better outcomes in smoking cessation. There is a need for further and ongoing education about the health hazards associated with tobacco. Their results show that disorganized and mass communication on health consequences can result in high effectiveness in smoking cessation (Koczkodaj et al., 2022).

5. CONCLUSION

Educational or risk communication activities that have been carried out to provide knowledge about COVID-19 on topics including COVID-19 disease, immunity, mental health, the world of work and learning during a pandemic so that the academic community is expected to contribute to breaking the chain of transmission of COVID-19 by implementation of health behavior and prevention of COVID-19.

6. REFERENCES

- Angin, S. R. A. P., & Astutik, E. (2022). Knowledge, Attitude, and Perception of People in Compliance with the Covid-19 Health Protocol. *Jurnal Berkala Epidemiologi*, 10(1), 103–110. <https://doi.org/10.20473/jbe.V10I12022.103-110>
- Anggraeni, R., Mahdiani, S., & Nazar, I. B. (2020). Knowledge, Attitude, and Behavior of Indonesian Society towards COVID-19 Pandemic. *Systematic Reviews in Pharmacy*, 11(10), 779–785. <https://doi.org/10.31838/srp.2020.10.116>
- Ataguba, O. A., & Ataguba, J. E. (2020). Social determinants of health: the role of effective communication in the COVID-19 pandemic in developing countries. *Global Health Action*, 13(1), 1788263. <https://doi.org/10.1080/16549716.2020.1788263>
- Bolcato, M., Trabucco Aurilio, M., Di Mizio, G., Piccioni,

- A., Feola, A., Bonsignore, A., ... Aprile, A. (2021). The Difficult Balance between Ensuring the Right of Nursing Home Residents to Communication and Their Safety. *International Journal of Environmental Research and Public Health*, 18(5). <https://doi.org/10.3390/ijerph18052484>
- Brookings. (2020). Beyond reopening schools: How education can emerge stronger than before COVID-19. Retrieved from: <https://www.brookings.edu/research/beyond-reopening-schools-how-education-can-emerge-stronger-than-before-COVID-19/>
- Brophy, N. S., Seiter, C. R., & Zhao, X. (2021). COVID-19 Risk Perceptions and Intentions to Engage in Familial Advance Care Planning: The Mediating Role of Death Anxiety. *Journal of Health Communication*, 26(10), 684–695. <https://doi.org/10.1080/10810730.2021.1998844>
- ChinehamPark. (2020). The Importance of Work Life Balance During COVID-19. Retrieved from: <https://www.chinehampark.co.uk/blog/the-importance-of-work-life-balance-during-COVID-19/>
- Diana Laila Ramatillah, Hanif Fadjar Alam, Mairo Hamid Ipadeola, Syed Azhar Syed Sulaiman, Stefanus Lukas, Nina Jusnita, D. R. (2021). Public Knowledge about COVID-19 and Its Impact on the Psychic Condition of Indonesian Society. *Journal OfHunan University Natural Scienses*, Vol 48 No 8. <http://jonuns.com/index.php/journal/article/view/680>
- Hargono, A., Martini, S., Artanti, K. D., & Silvia, E. (2021). Early Detection and Self Monitoring of Covid-19 Status Through Electronic Based Surveillance in Kenjeran Sub-District, Bulak District, Surabaya. *Jurnal Pengabdian Masyarakat Dalam Kesehatan*, 3(1), 13. <https://doi.org/10.20473/jpmk.v3i1.24013>
- Hendrawan, K. T., & Saputro, A. A. (2021). Level of knowledge and behaviour of society district Jombang about COVID-19. *Journal of Science and Education (JSE)*, 1(2), 72–79. <https://doi.org/10.56003/jse.v1i2.35>
- Holman, E. A., Thompson, R. R., Garfin, D. R., & Silver, R. C. (2020). The unfolding COVID-19 pandemic: A probability-based, nationally representative study of mental health in the United States. *Science Advances*, 6(42). <https://doi.org/10.1126/sciadv.abd5390>
- Ironwood Cancer & Research Centers. (2020). Keeping Your Immune System Healthy During The Coronavirus Pandemic. Retrieved from: <https://www.ironwoodcrc.com/keeping-your-immune-system-healthy-during-the-coronavirus-pandemic/>
- Ismah, Z., Bahri, A. N., Siregar, I. K., Pane, D. T. A., & Suhendri, S. (2021). E-literacy in Indonesian Society Regarding COVID-19. *Jurnal Sains Sosio Humaniora*, 5(1), 90–95. <https://doi.org/10.22437/jssh.v5i1.13454>
- Joslyn, S., Savelli, S., Duarte, H. A., Burgeno, J., Qin, C., Han, J. H., & Gulacsik, G. (2021). COVID-19: Risk perception, risk communication, and behavioral intentions. *Journal of Experimental Psychology: Applied*, 27(4), 599–620. <https://doi.org/10.1037/xap0000398>
- Koczkodaj, P., Cedzyńska, M., Przepiórka, I., Przewoźniak, K., Gliwska, E., Ciuba, A., ... Mańczuk, M. (2022). The COVID-19 Pandemic and Smoking Cessation-A Real-Time Data Analysis from the Polish National Quitline. *International Journal of Environmental Research and Public Health*, 19(4). <https://doi.org/10.3390/ijerph19042016>
- Liu, L., Liu, Y. P., Wang, J., An, L. W., & Jiao, J. M. (2016). Use of a knowledge-attitude-behaviour education programme for Chinese adults undergoing maintenance haemodialysis: Randomized controlled trial. *Journal of International Medical Research*, 44(3), 557–568. <https://doi.org/10.1177/0300060515604980>
- Olum, R., Chekwech, G., Wekha, G., Nassozi, D. R., & Bongomin, F. (2020). Coronavirus disease2019: knowledge, attitude, and practices of health care workers at Makerere University Teaching Hospitals, Uganda. *Frontiers in public health*, 8, 181.
- Puspitaningrum, W. A., Afiana Zaen, N. ., & Umbul WahJune, C. . (2022). Epidemiology of Covid-19 Cases in the Klaten District in 2020. *Jurnal Berkala Epidemiologi*, 10(2), 210–218. <https://doi.org/10.20473/jbe.V10I22022.210-218>
- Rahayu, C., Widiati, S., & Widyanti, N. (2014). The relationship between knowledge, attitudes and behavior towards maintaining dental and oral hygiene with periodontal health status of pre-elderly in posbindu indihiang subdistrict, tasikmalaya city. *Majalah Kedokteran Gigi Indonesia*, 21(1), 27-32.
- Saunders-Hastings, P. R. and Krewski, D. (2016). 'Reviewing the history of pandemic influenza: Understanding patterns of emergence and transmission', *Pathogens*, 5(4), pp. 1–19. doi: 10.3390/pathogens5040066.
- Sulistiyawati, S., Rokhmayanti, R., Aji, B., Wijayanti, S. P. M., Hastuti, S. K. W., Sukesu, T. W., & Mulasari, S.

- A. (2021). Knowledge, attitudes, practices and information needs during the COVID-19 pandemic in Indonesia. *Risk Management and Healthcare Policy*, 14, 163–175. <https://doi.org/10.2147/RMHP.S288579>
- Tri, S. (2020). Information on the Covid-19 Virus outbreak: Power of Knowledge and Social Class. UN Volunteers. (2020). The importance of mental health during the COVID-19 pandemic. Retrieved from: <https://www.unv.org/Success-stories/importance-mental-health-during-COVID-19-pandemic>
- Widyasari, N., Basuki, H., & WahJune, C. U. (2021). Associated Risk of Death from Covid-19 Infection in Patients with Hypertensive Co-Morbidities. *Jurnal Berkala Epidemiologi*, 9(2), 130–139. <https://doi.org/10.20473/jbe.V9I22021.30-139>
- WHO. (2020a). Coronavirus diseases (COVID-19) Pandemic. Retrieved from: <https://www.who.int/healthtopics/coronavirus>
- WHO. (2020b). Responding to community spread of COVID-19. Retrieved from: <https://www.who.int/publications/i/item/responding-to-community-spread-of-COVID-19>
- WHO. (2020c). WHO tool for behavioral insights on COVID-19. Retrieved from: <https://www.who.int/europe/tools-and-toolkits/who-tool-for-behavioural-insights-on-covid-19>