



KNOWLEDGE, ATTITUDE AND BEHAVIOR FOR USING MASKS AND HAND WASHING DURING PANDEMIC COVID-19

Emdat Suprayitno¹, Rendi Editya Darmawan², Nailiy Huzaimah³

^{1,3}Fakultas Ilmu Kesehatan Universitas Wiraraja

²Politeknik Kesehatan Surakarta

Email : emdat@wiraraja.ac.id, rendiedityad@gmail.com, nailiy.huzaimah@wiraraja.ac.id

ABSTRACT	Keywords
Corona Virus Disease-19 or Covid-19 is becoming a pandemic, a global health threat, and a public health emergency of international concern, especially in Indonesia. Knowledge, attitude, and preventive measures are essential in breaking the chain of COVID-19 transmission. The purpose of the research is to know the knowledge, attitudes, and behavior of Madurese in using masks and handwashing in preventing COVID-19 transmission. This research is a descriptive type, with a cross-sectional survey approach in Madura people in Indonesia. Data collection was conducted using an online questionnaire. The number of people who responded to questions was 282 people. Data is descriptively analyzed by calculating frequency, percentage, and cross-tabulation. Data analysis was performed with univariate analysis. The study results obtained the level of knowledge of Madurese towards the use of masks and handwashing in the prevention of COVID-19 transmission. Which (97.2%) a271 respondents with good category, attitude (99.6%) 281 respondents with positive category, behavior (76%) 214 respondents with a good category. It can be concluded that the knowledge, attitudes, and behaviors of Madurese in using masks and handwashing in preventing COVID-19 transmission fall into the excellent category.	Knowledge, Attitude, Use of mask, Hand washing, COVID-19

INTRODUCTION

The 2019 coronavirus outbreak (COVID-19) has been a pandemic since March 11, 2020, which has caused more than 3000 deaths worldwide (Cucinotta & Vanelli, 2020). A case of coronavirus has emerged and first attacked humans in Wuhan province, China. The beginning of its appearance is thought to be pneumonia, with similar symptoms of flu in general. These symptoms include coughing, fever, fatigue, shortness of breath, and no appetite (Supinganto et al., 2021). But unlike

influenza, the coronavirus can develop rapidly, resulting in more severe infections, organ failure, and death. This emergency mainly occurs in patients with previous health problems (Mona, 2020). Indonesia has begun exposure to the coronavirus as many as 172 people, with a total of 55 deaths as of March 17, 2020. On March 31, 2020, COVID-19 cases increased to 1,528 people with 136 deaths (Setiati & Azwar, 2020). On March 31, 2020, COVID-19 cases increased to 1,528 people with 136 deaths. The first COVID-19 positive case in

Madura island occurred in Pamekasan Regency on March 30, 2020, until March 2020 in Madura island amount patients who have a sign or symptom related to Covid-107 389 people who have contact with probable patient Covid-19 (Sakti, 2020).

Since Madura island has been a red zone causing some communities to become restless and anxious, based on interviews with 11 Madurese, they will be more careful and adhere to health protocols such as washing hands and using masks. Symptomatic Covid-19 infections can spread from one person to another through a droplet of the respiratory tract, often produced when coughing or sneezing. No cure or vaccine has been found, so what can be done in the treatment of coronavirus is to reduce the rate of virus spread. The wang 2020 study results explain that in preventing the transmission of COVID-19, people should take precautions by using masks because transmission can occur when a person confirmed COVID-19 sneezes, coughing, causing the fluid transition from the respiratory tract (Wang et al., 2020). According to current evidence, the COVID-19 virus is transmitted easily among people with droplets carried through sneezing and close contact through the respiratory tract (World Health Organization, 2020). Recent research shows that talking to people and air can transmit the coronavirus (Van Doremalen et al., 2020). A recent study published on April 3, 2020, showed that surgical masks could prevent the transmission of the human coronavirus from symptomatic individuals (Leung et al., 2020) Besides, carriers of presymptomatic or asymptomatic coronavirus can spread COVID-19 coronavirus (Wei et al., 2020).

Measures that can be taken to prevent COVID-19 transmission are: wash your hands clean using soap if there is no hand sanitizer with a minimum alcohol content of 60%, close your mouth or nose

when sneezing or coughing using tissues or with folded elbows, Use a mask according to medical mask standards or cloth mask no more than 4 hours, Social distancing with a minimum distance of 1 meter and avoid crowds with various physical contacts, Do not travel out except during emergencies, Do not touch the eyes, nose, mouth with dirty hands. (Nurkholis, 2020). Prevention efforts against increasing the number of Covid-19 sufferers, as set out by the WHO in March 2020, that all countries are urged to take adequate measures to reduce transmission, i.e., by cleaning by hand washing (Beiu et al., 2020), in addition to using masks (Greenhalgh et al., 2020). Who and the U.S. Centers for Disease Control and Prevention (CDC) have issued advice to prevent the spread of COVID-19 by diligently washing hands and wearing masks (Sohrabi et al., 2020).

There are no report on knowledge, attitude and behavior for using masks and hand washung in Madurese Community. This study is important to know the basic problem of Covid-19 prevention, and strategy from government to finish it. There are many conflicting theories between the factors that influence a person's behavior. There are studies that state that behavior is related to knowledge such as research Malik, Bafadal, Wahyuni, & Sahidin (2020) study that report good knowledge related with good behavior. There are also those who state that it is not knowledge that affects behavior, but other factors such as Karo, (2020) study. There are no statistically significant correlation between knowledge and practice, and between attitude and practice. Other factors beyond knowledge and attitudes that influence general practitioners, and public figur. This study aims to discover the knowledge, attitude, and precautions of coronavirus COVID-19 in Madura people. The researcher never read a paper related to

Madurese habit to prevent covid-19. It is the first study that to find out the habit prevention of covid-19 in Madura island. This study aims to describe of knowledge, attitude, and behavior of COVID-19 in Madura island.

METHOD

This research is a descriptive type with a cross-sectional survey approach in the Madura community in Indonesia. The population in this study was all Madura living in Pamekasan, Sumenep, Sampang, and Bangkalan. The number of research sample is calculated with binomunal proportion with result 282 sample. Respondent choosen using purposive sampling, with criteria are: able to read, fill out a questionnaire with a google form, and be willing to be research respondents. The variables in this study are the knowledge consists of 11 questions, attitudes comprised of 9 items, and behavior six questions about the use of masks and handwashing in the prevention of COVID-19. Knowledge is measured by whether respondents know the correct use of masks, the benefits of using masks, how to wash hands correctly, and the benefits of washing hands. Attitude is measured from awareness in using masks and handwashing as prevention of transmission of COVID-19 coronavirus. Behavior is measured by the ability and habit of prevention of COVID-19 by washing hands and using masks. Data collection was conducted using an online questionnaire from April 10 to April 24, 2020. the questionnaire using closed questions was distributed to 4 districts, namely Sumenep, Pamekasan, Sampang, and Bangkalan. Before filling out the questionnaire, the respondent is asked to read and fill out the willingness to become a respondent form. If you agree with the request to become a respondent, you will

immediately fill out the research questionnaire with 26 closed questions.

RESULTS

Characteristics	Total	Percentage
Education		
Elementary school	2	0,7
Junior high school	1	0,4
high school	152	53,9
Diploma	10	3,5
Bachelor/Magister	117	41,5
Profession		
Private employees	43	15,2
Entrepreneur	17	6
Farmer	1	0,4
Student	170	60,3
Health Profession	28	9,9
government employees	28	9,9
Marriage Status		
Married	186	66
Single	96	34
Domicile		
Pamekasan	81	28,7
Sampang	39	13,8
Sumenep	116	41,1
Bangkalan	46	16,3
Gender		
Male	94	33,3
Female	188	66,7
Religion		
Muslim	281	99,6
Non muslim	1	0,4
Information about Covid-19		
Social media	115	41
Television	69	24,4
Poster, Magazine	28	9,9
Medical personnel	37	13
Family, friend	33	11,7

Total	282	100%
-------	-----	------

DISCUSSION

1. The Knowledge of Handwashing and Using Mask.

Based on the study results, the knowledge of the Madurese community about the prevention of Covid-19 by using masks and washing hands mainly was good, namely 97.2%. This result is in line with the 2020 sari study. A total of 201 people had good knowledge (98%) and a positive attitude (96%) regarding the COVID-19 pandemic (Sari et al., 2020). Research results in Kebede 2020. Overall, 41.3% of respondents have high knowledge (Kebede et al., 2020). Yanti 2020 research shows that the majority of Indonesians (99%) have good knowledge about social distancing to prevent transmission of COVID-19, and most of the respondents have graduated from university, so they can get information about the prevention of Covid-19 more easily and quickly, which is accessed through social media. These can all affect the level of knowledge in this study (Yanti et al., 2020). Knowledge is what is known by people or respondents related to health and illness or health, for example: about the disease (causes, modes of transmission, methods of prevention), nutrition, sanitation, health services, environmental health, and family planning (Notoatmodjo, 2010). A person's knowledge is usually obtained from experiences from various sources, such as mass media, electronic media, manuals, health workers, poster media, and close relatives. Most of the

respondents knew about Covid-19, the majority of 41% through mass media such as WhatsApp, Instagram, and Facebook. Mass media has a strategic role in disseminating messages and information (Suprayitno et al., 2020). Communication as a process of transferring data, news, knowledge, and technology has a massive role in bringing about changes in people's minds, attitudes, and behavior (Dewi, 2010). This study is in line with Chan's 2020 research that social media has the potential, if used responsibly and appropriately, to provide a source of rapid and effective dissemination of information for the prevention of COVID-19 (Chan et al., 2020). Apart from mass media, education level can also influence respondents' knowledge where most of the respondents' education level is high school 53%, as many as 152 people, 41.5% have a bachelor's degree (Notoatmodjo, 2010).

2. The attitude of hand washing and using masks

The study results showed that the Madurese community's attitude about the prevention of Covid-19 by using masks and washing hands was primarily positive, namely 99.6%, as many as 281 respondents. This result is in line with the 2020 sari study. A total of 201 people had good knowledge (98%) and a positive attitude (96%) regarding the COVID-19 pandemic (Sari et al., 2020). The majority of Kebede 2020 research, 170 (68.8%), felt it was valuable and essential to controlling Covid-19 (Kebede et al., 2020). Yanti 2020 research shows that most Indonesians (59%) have a positive attitude about social distancing to prevent transmission of COVID-19 (Yanti et al., 2020). Notoatmodjo (2014) states that

attitude is an essential concept in the socio-psychological component because it tends to act and perceive. According to Azwar (2012), the factors that influence the attitudes of electronic mass media and print media have a significant effect on forming one's opinion and beliefs. Providing information through the mass media about something will give a new cognitive foundation for creating attitudes (Azwar, 2013).

Social distancing is one of the pandemic strategies against COVID-19 that the World Health Organization urged and recognized by China and other countries during the COVID-19 pandemic. By providing much information about infections and diseases, it is hoped that the public will become aware of and comply with all government regulations to reduce morbidity rates. Besides, this study shows that most respondents have good attitudes, meaning that they are mindful of the importance of maintaining social distancing. Attitudes have three main components, i.e., awareness, feelings, and behavior (Notoatmodjo, 2010b). Attitudes are more likely to be stable and reflect behavior when the evaluative implications of initial information are related to behavior. Two factors can influence the formation of an attitude. First, people can quickly receive information (knowledge). Second, thinking about problems can increase the tendency to form attitudes (Glasman & Albarracin, 2006).

3. The behavior of hand washing and the use of masks.

The attitude becomes a predisposing factor for doing or not doing a specific behavior. The attitude becomes a conscious process that is individual. This means that this process occurs in individuals subjectively and uniquely. (Wawan., 2012). The 2020 Kebede research results obtained

that respondents often washed their hands by 77.3% and avoided shaking hands by 53.8% (Kebede et al., 2020). In sustainable research 2019, there is a relationship between attitudes and the act of washing hands. The community's attitude towards washing hands can influence whether or not the community carries out the behavior of washing hands. The more positive a person's attitude, the more likely that behavior will occur (Suprayitno et al., 2021). Behavior is an individual response to a stimulus. Knowledge and attitudes can become stimuli that increase the likelihood of taking behavior. The better the individual's understanding of something, the more likely it is to do this behavior. Likewise, the better a person's attitude towards something, the more likely it is to behave (Lestari, 2019). A person's knowledge will determine his behavior in terms of health. A person who has good knowledge will take appropriate behavior against the disease. Knowledge includes factors that facilitate (predisposing factors) for behavior change (Sodri et al., 2018). Notoatmodjo (2007) states that act or practice is the realization of knowledge and attitudes into real stories.

Respondents' good knowledge and attitudes that support good practice will tend to be better at taking behavior. A person will behave if he views the behavior positively and believes that other people want him to do it. These beliefs affect a person's attitude and behavior to do an act or not. This belief can come from experiences with the behavior in question at another time, and it can also be influenced by indirect information about the behavior (Azwar, 2013). The advantages of this research are finding out the description of the prevention of Covid19 in Madurese society by using a mask and washing hands with soap. This research is being conducted for the first time in Madura to provide knowledge for the Madurese community and regional heads in

4 districts so that they can further increase awareness of the spread of Covid19. The weakness in this research is that the questionnaire used is google form so that only some people can participate as respondents. The number of respondents participating in the districts of Bangkalan and Sampang is still tiny compared to the communities of Sumenep and Pamekasan. The research time is relatively short, which is only two weeks.

CONCLUSIONS

This study concluded that, in general, the Madurese community has good knowledge, positive attitudes, and good behavior towards wearing masks and washing hands to prevent the transmission of the COVID-19. We suggest that this good behavior can prevent the spread of COVID-19 to control this pandemic.

REFERENCES

- Azwar, S. (2013). Sikap Manusia: Teori dan Pengukurannya. In Sikap Manusia: Teori dan Pengukurannya. <https://doi.org/10.1038/cddis.2011.1>
- Beiu, C., Mihai, M., Popa, L., Cima, L., & Popescu, M. N. (2020). Frequent hand washing for COVID-19 prevention can cause hand dermatitis: management tips. *Cureus*, 12(4).
- Chan, A. K. M., Nickson, C. P., Rudolph, J. W., Lee, A., & Joynt, G. M. (2020). Social media for rapid knowledge dissemination: early experience from the COVID-19 pandemic. *Anaesthesia*, 1–4. <https://doi.org/10.1111/anae.15057>
- Cucinotta, D., & Vanelli, M. (2020). WHO declares COVID-19 a pandemic. *Acta Bio-Medica: Atenei Parmensis*, 91(1), 157–160.
- Dewi, R. N. V. R. (2010). Hubungan penggunaan media massa dengan tingkat pengetahuan kesehatan reproduksi pada remaja di SMAN 8 Surakarta.
- Glasman, L. R., & Albarracin, D. (2006). Forming attitudes that predict future behavior: A meta-analysis of the attitude-behavior relation. *Psychological Bulletin*, 132(5), 778.
- Greenhalgh, T., Schmid, M. B., Czypionka, T., Bassler, D., & Gruer, L. (2020). Face masks for the public during the covid-19 crisis. *Bmj*, 369(April), 1–4. <https://doi.org/10.1136/bmj.m1435>
- Karo, M. (2020). Perilaku Hidup Bersih dan Sehat (PHBS) Strategi Pencegahan Penyebaran Virus Covid-19. *Prosiding Seminar Nasional Hardiknas*, 1–4.
- Kebede, Y., Yitayih, Y., Birhanu, Z., Mekonen, S., & Ambelu, A. (2020). Knowledge, perceptions and preventive practices towards COVID-19 early in the outbreak among Jimma university medical center visitors, Southwest Ethiopia. *PLoS ONE*, 15(5), 1–15. <https://doi.org/10.1371/journal.pone.0233744>
- Lestari, A. O. A. W. (2019). Relationship Between Knowledge and Attitude To Hand. *Jurnal Promkes: The Indonesian Journal of Health Promotion and Health Education*, 7(1), 1–11. <https://doi.org/10.20473/jpk.V7.I1.2019.1>
- Leung, N. H. L., Chu, D. K. W., Shiu, E. Y. C., Chan, K.-H., McDevitt, J. J., Hau, B. J. P., Yen, H.-L., Li, Y., Ip, D. K. M., & Peiris, J. S. M. (2020). Respiratory virus shedding in exhaled breath and efficacy of face masks. *Nature Medicine*, 26(5), 676–680.
- Malik, F., Bafadal, M., Wahyuni, W., & Sahidin, S. (2020). Edukasi Perilaku Hidup Bersih dan Sehat (PHBS), Gerakan Menggunakan Masker (GEMAS), Serta Penggunaan Antiseptik dan Desinfektan. *Jurnal Pengabdian Masyarakat Anoa*, 1(3), 154–159.
- Mona, N. (2020). Konsep Isolasi Dalam Jaringan Sosial Untuk Meminimalisasi Efek Contagious (Kasus Penyebaran Virus Corona Di Indonesia). *Jurnal Sosial Humaniora Terapan*, 2(2), 117–125.
- Notoatmodjo. (2010a). Konsep Perilaku

- Kesehatan Dalam: Promosi Kesehatan Teori & Aplikasi. In *Konsep Perilaku Kesehatan Dalam: Promosi Kesehatan Teori & Aplikasi edisi revisi*.
- Notoatmodjo, S. (2010b). Ilmu Perilaku Kesehatan, Penerbit Rineka Cipta. Jakarta.
- Nurkholis. (2020). Dampak Pandemi Novel-Corona Virus Disiase (Covid-19) Terhadap Psikologi Dan Pendidikan Serta Kebijakan Pemerintah. *Pgsd*, 6(1), 39–49. <https://ejournal.umc.ac.id/index.php/JPS>
- Sakti. (2020). *Satu pasien positif covid-19 di pamekasan meninggal jadi kasus pertama di madura*. <https://madura.tribunnews.com/2020/03/30/satu-pasien-positif-covid-19-di-pamekasan-meninggal-jadi-kasus-pertama-di-madura>
- Sari, D. K., Amelia, R., Dharmajaya, R., Sari, L. M., & Fitri, N. K. (2020). Positive Correlation Between General Public Knowledge and Attitudes Regarding COVID-19 Outbreak 1 Month After First Cases Reported in Indonesia. *Journal of Community Health*, 0123456789. <https://doi.org/10.1007/s10900-020-00866-0>
- Setiati, S., & Azwar, M. K. (2020). COVID-19 and Indonesia. *Acta Medica Indonesiana*, 52(1), 84–89.
- Sodri, J. A., Adhani, R., & Hatta, I. (2018). Hubungan Pengetahuan, Sikap, dan Tindakan Kesehatan Gigi dan Mulut dengan Status Kebersihan Rongga Mulut Perokok. *Jurnal Kedokteran Gigi*, 2(1), 32–39.
- Sohrabi, C., Alsafi, Z., O'Neill, N., Khan, M., Kerwan, A., Al-Jabir, A., Iosifidis, C., & Agha, R. (2020). World Health Organization declares global emergency: A review of the 2019 novel coronavirus (COVID-19). *International Journal of Surgery*, 76(February), 71–76. <https://doi.org/10.1016/j.ijssu.2020.02.034>
- Supinganto, A., Pramana, C., Sirait, L. I., Kumalasari, M. L. F., Hadi, M. I., Ernawati, K., Staryo, N. A., Suprayitno, E., Utami, K., & Hadi, S. P. I. (2021). The Use of Masks, as an Effective Method in Preventing the Transmission of the COVID-19, During Pandemic and the New Normal Era: A Review. *Kusniyati and Hadi, Selasih Putri Isnawati, The Use of Masks, as an Effective Method in Preventing the Transmission of the COVID-19, During Pandemic and the New Normal Era: A Review (February 7, 2021)*.
- Suprayitno, E., Hidayat, S., Mumpuningtias, E. D., Permatasari, D., & Wardita, Y. (2021). Community-Based Health Education Improve Knowledge and Attitudes of COVID-19 Prevention. *Journal Of Nursing Practice*, 5(1), 136–145.
- Suprayitno, E., Rahmawati, S., Ragayasa, A., & Pratama, M. Y. (2020). Pengetahuan dan Sikap Masyarakat dalam Pencegahan COVID-19. *Journal Of Health Science (Jurnal Ilmu Kesehatan)*, 5(2), 68–73.
- Van Doremalen, N., Bushmaker, T., Morris, D. H., Holbrook, M. G., Gamble, A., Williamson, B. N., Tamin, A., Harcourt, J. L., Thornburg, N. J., & Gerber, S. I. (2020). Aerosol and surface stability of SARS-CoV-2 as compared with SARS-CoV-1. *New England Journal of Medicine*, 382(16), 1564–1567.
- Wang, J., Pan, L., Tang, S., Ji, J. S., & Shi, X. (2020). Mask use during COVID-19: A risk adjusted strategy. *Environmental Pollution*, 266(7), 115099. <https://doi.org/10.1016/j.envpol.2020.115099>
- Wawan. (2012). Pengetahuan, Sikap dan Perilaku Manusia. In *Syafni*. <https://doi.org/doi:10.1023/B:HYDR.0000008590.37567.f>
- 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, January 23–March 16, 2020. *Morbidity and Mortality Weekly Report*, 69(14), 411.

- World Health Organization. (2020). Modes of transmission of virus causing COVID-19. *Scientific Brief, March*, 19–21.
<https://doi.org/10.1056/NEJMc200497>
- 3.Cheng
- 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), 4–14.
<https://doi.org/10.20473/jaki.v8i2.2020.4-14>