



## An Overview of Lifestyle in Communities During The Second Wave of Covid-19 Pandemic

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### A B S T R A C T

Coronavirus 2019 (COVID-19) is a virus causing high mortality rates in various countries. So, the communities make preventive efforts with healthy lifestyle behaviors. The research aims to study lifestyle behaviors and community health conditions during the Covid 19 pandemic. This paper was a quantitative research design with a cross-sectional approach. In addition, the population was 170 respondents domiciled in Surabaya. Sampling techniques used simple random sampling. Data collection through the dissemination of questionnaires in google form circulated through WhatsApp group. Furthermore, the data were analyzed with a Linear Regression Test with  $\alpha = 0.005$ . The analysis results gained public knowledge about the COVID-19 pandemic in the Low category (13.94%). In addition, in public behavior variable showed that the community did not comply with health protocols during the COVID-19 pandemic (59.18%). Most respondents were in the category of low-risk cases. Linear statistic regression test results showed lifestyle related to knowledge, healthy behavior, obedient protocol Health and health condition in individuals ( $\alpha = 0.007$ ). Public Health Condition is an indicator of the successful assessment of the disconnection of the covid 19 spread chain. Future research should analyze awareness, compliance, and the willingness of the community to carry out health protocols.

## INTRODUCTION

The COVID-19 pandemic (Coronavirus Disease-2019) caused by the SARS-CoV-2 virus (Severe Acute Respiratory Syndrome Coronavirus-2) is an event that threatens public health in general (Goni et al. 2019). On January 30, 2020, WHO (World Health Organization) has designated the COVID 19 pandemic as a public health emergency of international concern (Khader et al. 2020). There are impacts of pandemics on social and food fields in individuals' and communities' lives (Whitty et al. 2015). Problem-solving, especially on social impact, should involve the smallest element of the community. Every family must strive to overcome these problems, especially in lifestyle change (Goni et al. 2019).

Lifestyle is a daily habits pattern in individuals reflected in their activities, interests, and opinions (Dvorak et al. 2021). In addition, lifestyle reflects how a person interacts with the environment (Whitty et al. 2015). Performing a healthy lifestyle is a choice in an individual (Modjarrad et al. 2016). Healthy lifestyles recommended during the covid-19 pandemic include: (1) daily consumption of high protein foods; (2) daily consumption of fresh fruits and vegetables; (3) drink water not less than 1500 mL daily; (4) implement a balanced and diverse diet from different types and sources (5) Consumption of adequate

nutrient intake; (6) supplements consumption for an individual with malnutrition ; (7) regular rest for a minimum of 7 hours each day; (8) regular exercise (Kumar et al. 2021).

Behavior is an individual response to a stimulant or an action that can be observed and has a specific frequency, duration, and purpose-based (Alabi, Omoleke, and Abdulwahab 2021). Educational purposes develop or improve the three behavioral domains: the cognitive, the psychomotor, and the affective (Daniele Giansanti and Velcro 2021). Behavioral domains measurements include knowledge, attitude, and practice. Knowledge is the result of knowing after a person has sensed a particular object (Y. Zhou et al. 2018). It is also a basis for making decisions and determining the problems faced (Nogueira et al. 2019). In addition, attitude is a reaction or response that is still closed from a person to a stimulus or object (Pietrobelli et al. 2020). Furthermore, practice is an attitude that has materialized in action (overt behavior) (ALdowyan, Abdallah, and El-Gharabawy 2017).

It is necessary to have facilities and capabilities to realize attitude becomes practice. In addition, preventive behavior is to take action first before the event (Goni et al. 2019). Facing non-natural disasters of the Covid-19 outbreak in Indonesia, the government conducted various policies to prevent the Covid-19 virus transmission by implementing Large-Scale Social Restrictions (LSSR) (Ha 2020). This policy includes maintaining a distance of at least 2 meters, reducing direct contact with others, and using masks to mitigate and even break the chain of Covid-19 infection (Hennein and Lowe 2020). Fear and vigilance against Covid-19 impact attitudes and lifestyles in individuals. The community more performs healthy lifestyles such as not smoking, frequent exercise at home, and consumption of healthy foods (Kaur et al. 2020).

There are impacts of pandemics on social and food fields in individuals' and communities' lives (J. Zhou et al. 2021). Solving covid-19 problems, especially social impact, will involve the smallest element of the community, that is, every family that must strive to overcome difficulties, especially lifestyle (Cremasco et al. 2021). Solving this covid-19 problem, especially on social impact, will involve the smallest element of the community, that is, every family that must strive to overcome issues, especially lifestyle (Laghi, Saad, and Shaikh 2021); (Basray et al. 2021).

The government takes several steps to resolve the covid-19 pandemic by socializing the social distancing that reduces and breaks the chain of covid-19 infection (Shi et al. 2021). One must maintain at least 2 meters of safe distance with others, not make direct contact, and avoid mass gatherings (Riley et al. 2020). Unfortunately, the policies have not been well adhered to by the community. Government policies on an online learning system for students and work at home for workers were abused by communities. They use this condition to travel with their family (Haddad et al. 2021); (Zhong et al. 2020). In addition, although the pandemic condition in Indonesia is in a state of emergency, they still do activities that involve many people in one place. As a result, it can be a mediator for the spread of Covid-19 to a larger

scale (Modjarrad et al. 2016); (AlJohani and AlQahtani 2016). This condition causes government policies in handling the spread of Covid-19 to be less effective. It is because the public does not become aware of the dangers of Covid-19 (Sharma et al. 2019). The attitude of people who have not paid more attention to the pandemic that occurred in Indonesia triggered researchers to describe people's attitudes and lifestyles during the Covid-19 pandemic (Perkins et al. 2021); (Hsu et al. 2021). Therefore, this study describes attitudes and lifestyles in the community during the Covid-19 pandemic (Yao Huang et al. 2021).

## **METHOD**

### **Desain and Population**

This paper was quantitative research with a descriptive-analytical design. The respondents were 170 people residing in Surabaya, Sidoarjo, Gresik, and Mojokerto. The samples were selected by purposive sampling. The inclusion criteria were the communities and students who can be reached through WhatsApp chat via groups and personal, people who can read, people who can access google form, and people who are willing to participate in this research by signing informed consent (Dvorak et al. 2021); (Daniele Giansanti and Velcro 2021).

### **Time and Location of Research**

Research started from September to December 2020 because of the covid-19 pandemic. It did in the community in the group WhatsApp in Surabaya, Gresik, Sidoarjo, and Mojokerto.

### **Research Preparation**

The first step of this study was to contact prospective respondents via WhatsApp to be included in the group of prospective respondents. After the respondent was in the WhatsApp group of prospective respondents, a discussion related to the research plan and the respondents' willingness through informed consent was sent online (Daniele Giansanti and Velcro 2021). The first step of this study was to contact prospective respondents via WhatsApp to be included in the group of prospective respondents. After the respondent was in the WhatsApp group of prospective respondents, a discussion related to the research plan and the respondents' willingness through informed consent was sent online (D. Giansanti and Velcro 2021). Then, ten people were unwilling to continue the research, so they were expelled from the WhatsApp group. Furthermore, the authors provide a questionnaire in Google Forms (Daniele Giansanti and Velcro 2021);(Kumar et al. 2021).

### **Research Implementation**

The authors established good communication through WhatsApp groups to facilitate the research process. We created a questionnaire sheet in Google Forms to make it easier for respondents to fill out questionnaires whenever and wherever they were. Then, respondents filled out a questionnaire based on

questions that the researchers asked. Respondents fill a questionnaire based on their understanding and habits during the Covid-19 pandemic (Daniele Giansanti and Velcro 2021).

The variables in this study were knowledge of the COVID-19 pandemic and behavior during the COVID-19 pandemic (Hanik, Setiyowati, and Juliasih 2020). The instrument to assess both variables was an online questionnaire. The knowledge questionnaire consisted of 10 questions with a choice of right and wrong answers. We gave a score of 1 for the correct answer and 0 for the incorrect. The behavioral questionnaire consisted of seven statement items with answer options using the Likert scale (Setiyowati, Eppy. Juliasih 2020). The behavioral questionnaire scores for positive statements were: a score of 4 for Strongly Agree, 3 for Agree, 2 for disagree, and 1 for Strongly Disagree score. Meanwhile, the negative statements scored otherwise. The questionnaire tested for validity with a calculated p-value of 0.187 ( $r$ -table= 0.1409) and its reliability with Alpha Cronbach of 0.770.

The data were analyzed univariately to describe knowledge of the Covid-19 pandemic and behavior during the Covid-19 pandemic in individuals. In addition, data presentation utilized a categorical scale.

## RESULT

This study was conducted wherever the respondents were, of course, with enough signals to fill out the google form or questionnaires that we made. However, this research cannot be done offline but online. There were 170 respondents in this study. The general data of this study was characteristic of respondents.

Table 1. The Characteristics of Respondents by Gender, Age, and Occupation

Characteristics of Respondents	Frequency	Percentage (%)
Gender:		
Female	23	13.94
Male	147	86.06
Total	170	100
Age:		
15-20 years old	143	84.76
21-25 years old	17	10
>26 years old	10	5.24
Total	170	100
Occupation:		
Students	120	70.82
Students	50	29.18
Total	170	100

**Table 2. Frequency Distribution of knowledge of Covid-19 in Respondents**

Items	Correct	Percentage (%)	Incorrect	Percentage (%)
COVID-19 is a harmless disease and the same as the common cold	23	13.94	147	86.06
Coronavirus can survive several hours outside the human body	112	65.24	58	34.76
Coronavirus does not contagious when talking	16	9.18	154	90.82
Only people with symptoms can transmit COVID-19	48	28.53	122	71.47
Healthy people don't need to wear masks when out of the house	8	4.59	162	95.41
Symptoms of COVID-19 in old age are generally more dangerous than a young age	151	30	19	11.65
People with chronic illnesses have a higher risk of dying from COVID-19	152	89.18	18	10.82
Children are not included in the risk group because they are rarely infected with Covid-19	25	14.59	145	85.41
New normal means a return to its original habit before the corona outbreak	77	45.41	93	54.59
People who are infected but have no symptoms do not need to be quarantined	47	27.71	123	72.29

**Table 3. Frequency Distribution of people's behavior during the COVID-19 pandemic**

Items	Never	Percentage (%)	Rarely	Percentage (%)	Often	Percentage (%)	Always	Percentage (%)
I wash my hands or use hand sanitizer after handling objects in public	1	0.58	12	7.88	50	29.18	101	59.18
I take a shower and change clothes after going out of the house	1	0.58	20	11.47	50	29.18	99	58.53
I wear a mask when in public places (markets, terminals, places of worship)	0	0	1	0.58	11	6.06	158	92.12
I keep a minimum distance of 1 meter from other people when outdoors	3	1.47	34	20	65	38.53	68	40
I keep my distance from older people	5	2.12	47	27.71	53	31.65	68	40
I attend an event that gathered a lot of people	26	15.41	100	58.35	20	11.47	23	13.94
I use public facilities or go to public places (public transportation, malls, markets, tourist attractions)	42	24.59	89	52.29	18	10.82	21	12.29

**Table 4. Cross tabulation and linear regression test result**

Lifestyle	Community Conditions				Total %	
	Good		Bad			
	Frequency	%	Frequency	%		
Activity	65	60	4	40	10	100
Interest	29	47.3	10	52.7	19	100
Opinion	78	78.2	5	21.8	23	100
Total	170	68.3	19	31.7	170	100
Linear Regression Test						$\rho = 0.005$

## DISCUSSION

The results showed that the characteristics of respondents were people who had a low risk of exposure to the SARS-CoV-2 virus. Several factors increase the risk of coronavirus disease, including direct contact or being in the same room/environment with persons with confirmed COVID-19, the history of chronic diseases, fever (temperature above 38 degrees celsius), and symptoms of respiratory disorders (Fathian-dastgerdi, Tavakoli, and Jaleh 2021). Direct contact is a process when healthy people directly touch people infected with the SARS-CoV2 virus or hold objects that have been contaminated with the virus (Sultan and Afzal 2020). In general, objects contaminated by large droplets contain the SARS-CoV-2 virus from COVID-19 patients, and the virus can remain stable for a certain period (Faronbi et al. 2017). Direct contact causes the transmission of the SARS-CoV-2 virus into healthy individuals, and the infection will continue (Wei et al. 2020).

In addition, the transmission of the SARS-CoV-2 virus is also through the airway. The virus is in particles spreading in the air. This process is possible because COVID-19 confirmed individual removes droplets during sneezing or coughing. The liquid content in droplets will evaporate and form tiny particles so that their transport by airflow is more accessible and frees from gravitation forces (Alhamlan et al. 2017). These tiny particles are elementary to spread by sneezing or coughing and within a radius of tens of meters from COVID-19 confirmed people or in the same room (Yubei Huang et al. 2020).

Therefore, the need for preventive efforts to maximize the ventilation, avoid the potential for air recirculation and minimize the number of people in a particular room or who share the same environment (Alhamlan et al. 2017). the potential for particle buildup suspected to contain the SARS-CoV-2 virus is very high in public facilities with a relatively large population density. In addition, the closed room is considered to have increased stability of the SARS-CoV-2 virus so that the process of transmission of the virus to healthy people can occur very quickly (Li, Cao, and Zhu 2019).

Various studies reported that people suffering from chronic illnesses had a higher risk of being infected with the SARS-CoV-2 virus and increased mortality (Cunningham 2021). In addition, high blood sugar levels in individuals with diabetes could damage the immune system. The weaker the immune system, the lower the ability to fight infections, such as COVID-19. Thus, the virus can cause more damage to the body (Dvorak et al. 2021). Furthermore, the increased risk of death in people with diabetes and hypertension is caused by the increased expression of ACE2(Angiotensin-Converting Enzyme 2). Improved expression of ACE2 makes it easier for the SARS-CoV-2 virus to bind to the surface of epithelial cells and enter the host cell (Mcewan and Shang 2021).

Furthermore, history of cardiovascular diseases, such as heart disease and stroke, are highly susceptible to make clinical representation worse. Chinese Center for Disease Control and Prevention investigated clinical studies of 44,672 confirmed cases of COVID-19. The research showed that case fatality rate

(CFR) in cohort studies yielded scores of 6% for COVID-19 patients with a history of hypertension. In addition, 7% of CFR in history of diabetes, and 10.5% of CFR in history of cardiovascular disease (Gagliardi et al. 2021). Acute cardiac injury is the main sign of cardiovascular disease that showed increased severity of clinical representation in COVID-19 patients. It is a strong marker of negative prognostics in COVID-19 patients. In patients with acute heart injury, cardiac troponin levels are several times higher, thus exacerbating the patient's condition. In addition, COVID-19 patients also have the risk of viral myocarditis and an increased risk of death. The SARS-CoV-2 virus can cause myocardial injury marked by high viral ribonucleic acid (Haddad et al. 2021).

Elderly or individuals over 60 years old increased the risk of death in COVID-19 confirmed people (Vicenzi et al. 2020). A study showed that the main clinical manifestations in individuals with COVID-19 were fever (90% or more), cough (about 75%), and dyspnea (up to 50%) (Tahir Ul Qamar et al. 2019). Fever is a common early symptom in patients infected with the SARS-CoV-2 virus. However, fever is also a common symptom in many cases of infection. In addition, there are respiratory problems in COVID-19 patients manifesting coughing and dyspnea. Therefore, the public should be aware of the various signs and symptoms caused or avoid direct contact with COVID-19 positive people to prevent transmission (Cunningham 2021).

Based on this study results, it can be concluded that respondents were categorized as having less knowledge related to the COVID-19 pandemic. It was indicated by the majority of incorrect answers to question items given associated with the COVID-19 pandemic. Knowledge is one of the essential things to handling COVID-19 cases, especially in preventing the transmission of the SARS-CoV-2 virus spread. It is beneficial in suppressing the transmission of the virus (Sharma et al. 2019). Good knowledge increase the ability to determine and make decisions, including in maintaining a lifestyle and health conditions in a new era of coexistence with covid-19 (J. Zhou et al. 2021).

## CONCLUSIONS

Lifestyle is related to community conditions during the second wave of the covid-19 pandemic. Further research should conduct a more in-depth study on the correlation between a lifestyle change and willingness to change health behavior.

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