JUSINDO, Vol. 8 No. 1, January-July 2026
p-ISSN: 2303-288X, e-ISSN: 2541-7207

Overview of the Level of Knowledge and Behavior of Social Rehabilitation and Child Care Center (BRSPA) Officers in Bimomartani Regarding COVID-19

Prastika Dica Izwara*, Wulandari Berliani Putri
Puskesmas Ngemplak 1, Yogyakarta, Indonesia
Email: prastikadicha@gmail.com*

Keywords:
COVID-19; Knowledge; Behavior; BRSPA officers; Health protocols

ABSTRACT

COVID-19 is an infectious disease caused by the SARS-CoV-2 virus and was declared a global pandemic by the WHO in March 2020. The high number of cases in Indonesia, including in Sleman Regency, requires increased vigilance in various social institutions, including the Bimomartani Social Rehabilitation and Child Care Center (BRSPA), which has a child population that is highly vulnerable to infection. The transmission cases within the BRSPA environment demonstrate the importance of staff knowledge and behavior in preventing COVID-19. This study aims to describe the level of knowledge and behavior of Bimomartani BRSPA staff regarding COVID-19. This study used a quantitative descriptive design with a cross-sectional approach. The sample was drawn using a total sampling technique with 33 respondents. Data were collected through a validated questionnaire distributed online using Google Forms. Data analysis was conducted descriptively to illustrate the distribution of knowledge and behavior levels based on respondent characteristics. The study showed that 90.1% of respondents had good knowledge and behavior regarding COVID-19, while 9.9% had inadequate knowledge and behavior. Levels of knowledge and behavior were not evenly distributed across gender, age group, and education level. Furthermore, it was found that knowledge levels did not always align with preventive behaviors among some respondents. In general, Bimomartani BRSPA officers have good knowledge and behavior regarding COVID-19, but efforts are still needed to improve and equitably distribute health education to strengthen the consistent implementation of preventive behaviors.

INTRODUCTION

As time progresses, the risk of disease transmission is becoming increasingly widespread, encompassing both viral and bacterial infections. One notable example of a deadly case is COVID-19, caused by infection with the SARS-CoV-2 virus. On January 30, 2020, the World Health Organization (WHO) designated Coronavirus Disease 2019, better known as COVID-19, as a Public Health Emergency of International Concern (Ourworldindata.org, 2021; Republika.co.id, 2021). COVID-19 was finally declared a pandemic by the WHO on March 11, 2020. This new type of coronavirus disease first appeared in Wuhan, China, in December 2019, was initially named the novel coronavirus, and is currently formally known as SARS-CoV-2 (Wulandari, Triswanti and Yuliani, 2021).

Transmission of SARS-CoV-2 can occur through direct contact, indirect contact, or close contact with an infected person through secretions such as saliva and respiratory secretions, or through respiratory droplets expelled when an infected person coughs, sneezes, speaks, or sings. Some recent studies have shown the possibility of airborne transmission, defined as the spread of an infectious agent that remains suspended in the air and travels over long distances. Airborne transmission can also occur during the execution of medical procedures that produce aerosols, especially in indoor settings with poor ventilation. Clinically, the presentation of SARS-CoV-2 infection in humans ranges from asymptomatic to very severe pneumonia, with acute

respiratory distress syndrome (ARDS), septic shock, and multi-organ failure, potentially leading to death. The clinical signs and symptoms reported in most cases include fever, with some patients having trouble breathing, and chest X-ray results showing extensive pneumonia infiltrates in both lungs. The average incubation period is 5–6 days, with the longest incubation period being 14 days (Parasher, 2021).

Based on data from the COVID-19 Task Force of the Republic of Indonesia, as of July 30, 2021, the total number of confirmed COVID-19 patients was 3.3 million, with 2.7 million recovered patients and 92,311 deaths (Data, 2021; Indonesia, 2020, 2021). The province of the Special Region of Yogyakarta ranked fifth in Indonesia in the number of COVID-19-positive patients at 117,833, and Sleman Regency ranked second in the Special region of Yogyakarta (DIY) with 27,202 active cases (Ministry of Health, 2021).

The Social Rehabilitation and Child Care Center (BRSPA) is a technical implementing unit for the protection, nurturing, development, and social rehabilitation of children with social welfare problems (Setiawan, 2021; Setyawan, 2021). Established in 1973, the BRSPA Bimomartani unit in Sleman provides several service facilities, including health care, clothing, food, educational facilities, skills training, tutorials, religious and moral guidance, and tutoring assistance. BRSPA has at least 41 employees and 75 children with varying ages ranging from infants to teenagers. Infancy and childhood represent the most vulnerable periods of life due to immature immunity and a limited capacity for self-protection. This can result in infants and children being more susceptible to infection (Harahap, 2019). In early July, cases of COVID-19 transmission occurred at BRSPA, with as many as 36 children and 10 officers testing positive on antigen swab tests. It is known that this occurred due to inadequate management in handling COVID-19 and the patterns of childcare at BRSPA (Nicola et al., 2020; Zhou et al., 2020).

Knowledge is an important domain in the formation of a person's actions. Knowledge is needed as a psychological foundation for fostering healthy living attitudes and behaviors to prevent COVID-19. Ideally, individuals act based on the knowledge they possess, as actions reflect one's knowledge (Sunardi & Kriswanto, 2020). Behavior in implementing health protocols refers to activities carried out to protect oneself from contracting COVID-19, including maintaining cleanliness, washing hands, wearing masks, and maintaining physical distance. Against this background, the researcher is interested in conducting research on the level of knowledge and behavior of BRSPA officers in Bimomartani toward COVID-19.

Several previous studies have shown that the level of public knowledge has an important relationship with infectious disease prevention behavior. Research by Yanti et al. found that most Indonesians have a good level of knowledge regarding social distancing policies in efforts to prevent COVID-19. Other research by Purnamasari and Raharyani shows that good public knowledge about COVID-19 can encourage the adoption of clean and healthy living behaviors as a preventive measure. In addition, research by (Wiersinga et al., 2020; A. Wulandari et al., 2020; D. Wulandari et al., 2021) revealed that individual characteristics such as age, education, and access to information also affect the level of public knowledge about COVID-19. These studies demonstrate that knowledge is an important factor that can influence individual behavior in responding to the pandemic, particularly in the implementation of health protocols and the prevention of disease transmission.

Although various studies have examined the relationship between public knowledge and behavior toward COVID-19, most studies still focus on general populations such as urban

communities, college students, or health workers. Research that specifically examines the level of knowledge and behavior of officers in childcare social institutions remains relatively limited. In fact, institutions such as BRSPA have unique environmental characteristics because they involve vulnerable groups—namely, children whose immune systems have not been optimally developed and who depend on caregivers for the implementation of health protocols. Therefore, research is needed that specifically examines the level of knowledge and behavior of officers within such social institutions, so that it can provide an overview of institutional readiness in preventing the transmission of infectious diseases such as COVID-19.

The urgency of this research is further underscored by the cases of COVID-19 transmission that occurred within the BRSPA Bimomartani environment, where several children and officers tested positive based on antigen tests. This condition demonstrates that although health protocols have been widely disseminated, their implementation at the institutional level still faces various challenges. The knowledge possessed by officers does not necessarily translate into consistent preventive behavior. Therefore, an analysis of the level of knowledge and behavior of officers is important to identify factors that affect the effectiveness of health protocol implementation in the social institution environment. The results of this research are expected to serve as a basis for formulating more effective health education strategies for social institution officers.

The general objective of this research is to provide an overview of the level of knowledge and behavior of BRSPA officers in Bimomartani regarding COVID-19. Specifically, this study aims to describe the level of knowledge of BRSPA officers in Bimomartani about COVID-19 and to examine the behavioral patterns of BRSPA officers in Bimomartani in response to COVID-19.

METHOD

This study used a quantitative descriptive design approach in a cross sectional manner, namely sampling and measurement of the variables is carried out only once at a time (Sastroasmoro, 2011). This type of design assesses the level of knowledge and behavior of BRSPA officers towards COVID-19. Data collection using a validated questionnaire adapted from the research of (Yanti et al., 2020) was distributed to BRSPA officers through an online Google Form.

Population

The subjects for this study have the following inclusion and exclusion criteria:
Inclusion criteria:

1. Is a BRSPA officer
2. Fill out the complete google form data Exclusion criteria:
3. Filling in google form data is incomplete

Sample

The sampling technique in the study is total sampling, which involves the entire population that meets the inclusion criteria.

Research Steps

1. Preparation of questions to find out the level of knowledge and behavior of BRSPA officers towards COVID-19
2. Google form creation
3. Filling out google forms
4. Data processing

Research Variables

1. Free Variables: Level of Knowledge and Behavior
2. Bound Variable : Covid-19

Operational Definition

Tabel 1. Operational Definition

Name Variable	Definition Operational	Measuring Instruments	Results Measure	Scale
Independent Variables				
Knowledge Level	Knowledge is a result of the sense of curiosity through sensory processes, especially in the eyes and ears towards certain objects	The knowledge questionnaire consists of 10 questions with a choice of correct and incorrect answers. True is given a score of 1 and false Score 0.	Good = >5 Less = ≤5	Categorical: Ordinal
Behavior	Behavior is a part of a person's actions that Learnable and observed.	Behavioral questionnaire used consists of seven statement items with answer choices using the Likert scale. The behavioral questionnaire scores for positive statements are: Always score 4, Almost always 3, Rarely score 2, Never 1, as for negative statements the score On the other hand	Good = >14 Less = ≤14	Categorical: Ordinal

Source: Processed from the research questionnaire instrument adapted from previous studies and used in this research

RESULTS AND DISCUSSION

Demographic Data

The Yogyakarta Social Rehabilitation and Child Care Center (BRSPA) is a Technical Implementation Unit at the Yogyakarta Special Region Social Service, this center carries out Social Welfare Service Tasks to children in terms of protection, nurturing, development, and social rehabilitation for people with child social welfare problems. BRSPA has two orphanage locations, namely in Bimomartani, Sleman and Kepek, Gunung Kidul. BRSPA located in Bimomartani has a hall area 870 m2.

The area of Bimomartani village is 6.02 km2, while the area of Ngemplak District is 35.71 km², or about 6.21% of the entire area of Sleman Regency.

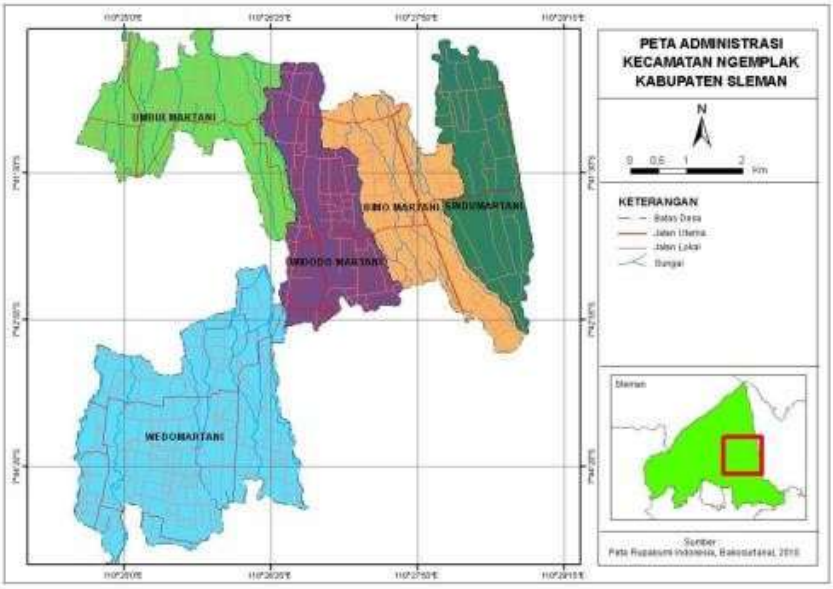


Figure 1 Map of Ngemplak District, Sleman Yogyakarta

Work area boundaries :

a. North: Cangkringan District.
b. South: Kalasan District.
c. West: Widodomartani Village, Ngemplak District.
d. East : Klaten Regency, Central Java

Distance between BRSPA and the Government Center

a. Sub-district approx. : 3 km
b. Regency approx. : 20 km
c. Province approx. : 25 km

Transportation is easy, because all roads are paved and public transportation is available.

Subject Characteristics

This study involved all BRSPA Bimomartani officers with a total of 33 subjects, with the following characteristics:

Table 2. Characteristics of subjects by gender

Gender	Quantity	Percentage
Women	19	57,6%
Male	14	42,4%

Source: Primary data obtained from the questionnaire responses of BRSPA Bimomartani officers, 2026

The number of female respondents was more than men, which was 57.6%.

Table 3. Subject Characteristics by Age Group

Age	Quantity	Percentage
<20 th	3	9%
21-30 th	7	21,2%
31-40 th	9	27,3%
41-50 th	8	24,2%
>50 th	6	18,3%

Source: Primary data obtained from the questionnaire responses of BRSPA Bimomartani officers, 2026

The largest number of respondents were from the age group of 31-40 years, which was 27.3%. The fewest respondents were from the age group < 20 years old amounting to 9%.

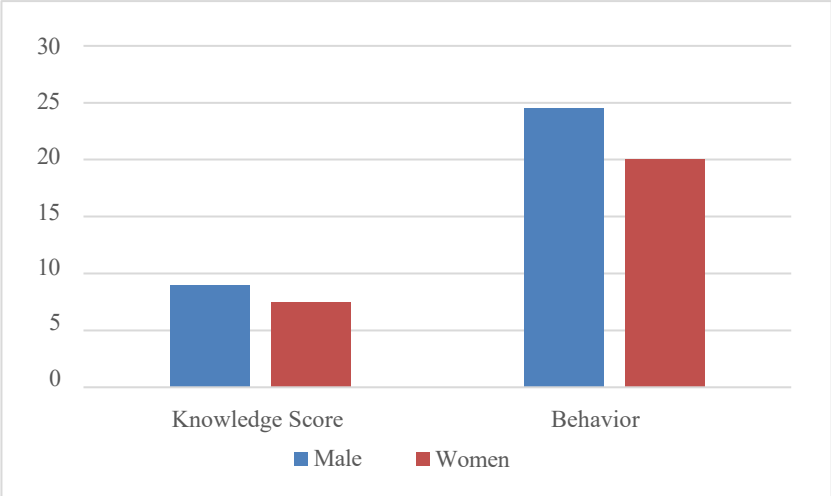
Table 4. Characteristics of Subjects by Education

Education	Quantity	Percentage
SD	1	3%
Junior High School	3	9,1%
High School	13	39,4%
Diploma	2	6,1%
Bachelor	14	42,4%

Source: Primary data obtained from the questionnaire responses of BRSPA Bimomartani officers, 2026

The respondents had the most level of education as a bachelor, which was 42.4%, while respondents with the least level of elementary education / equivalent had the least amount of education, which was 3%.

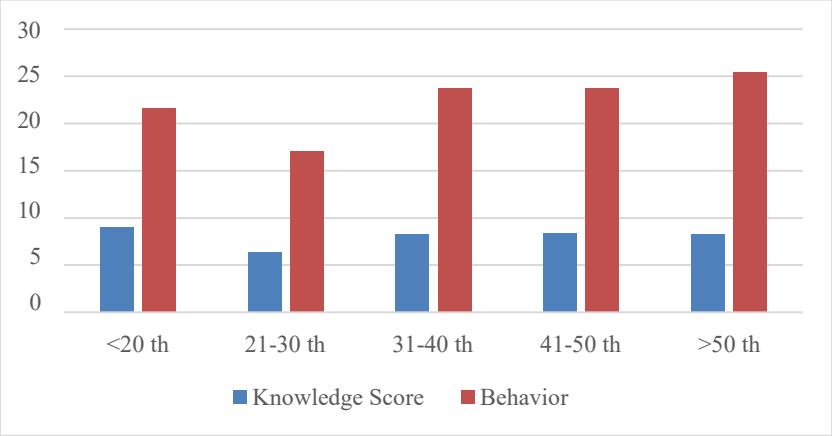
Level of Knowledge and Behavior on COVID-19 by Gender



Graph 2. Levels of Knowledge and Behaviour towards COVID-19 by Gender

The level of knowledge and behavior towards COVID-19 in men is higher than in women. The average male score on knowledge of COVID-19 was 9 and behavior towards COVID-19 was 24.5.

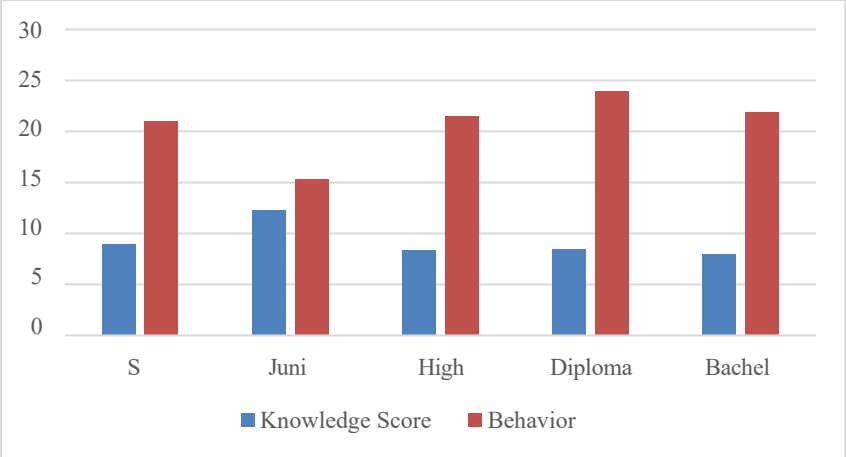
Level of Knowledge and Behavior on COVID-19 by Age Group



Graph 3. Level of Knowledge and Behavior towards COVID-19 Based on

The highest level of knowledge about COVID-19 is the age group of <20 years with an average score of 9. Meanwhile, the highest level of behavior towards COVID-19 is the age group of >50 years with an average score of 25.5. Meanwhile, the lowest level of knowledge and behavior towards COVID-19 is found in the age group of 21-30 years with a knowledge score of 6.4 and behavior of 17.1, respectively.

Level of Knowledge and Behavior on COVID-19 Based on Education



Graph 4. Level of Knowledge and Behavior on COVID-19 by Education

The highest level of knowledge about COVID-19 was in respondents with a diploma education level with an average score of 8.5 while the lowest were respondents with a junior high school education level with an average score of 5. Based on the data obtained, respondents with higher levels of education do not necessarily have better knowledge of COVID-19.

The best behavior towards COVID-19 was respondents with a diploma education level with an average score of 24 while the least behavior towards COVID-19 were respondents with a junior high school education level with an average score of 15.3.

Frequency Distribution of Knowledge and Behavior Levels of COVID-19

Based on table 4.4, 90.1% of respondents with good knowledge and behavior were obtained. Respondents with less knowledge and behavior by 9.9%.

Table 5. Frequency Distribution of Knowledge and Behavior Levels against COVID-19

Variable	Quantity	Percentage
Knowledge		
Good	30	90,1%
Less	3	9,9%
Behavior		
Good	30	90,1%
Less	3	9,9%

Source: Primary data from the analysis of questionnaires on the level of knowledge and behavior of BRSPA Bimomartani officers regarding COVID-19, 2026

Knowledge about and behavior about COVID-19 in men is higher than female BRSPA Bimomartani officers with a difference of more than 1 point. This may be due to the fact that men have a higher time and opportunity to access information than women. The results of this study are not in line with the research by Wulandari., et al (2020) that female genitalia tend to

have better knowledge about Covid-19 prevention when compared to men. This is because most men spend time working outside the home, so information can be obtained from outside.

The highest knowledge about COVID-19 is in the age group of <20 years, while the lowest is in the age group of 21-30 years. These results show that access to information in the digital era like this is not limited by age. Knowledge in the 21-30 year age group should be higher, considering that the 21-30 year old age group is a productive age group. This may be due to the lack of access to information obtained by this age group, or the lack of self-awareness to access information. In line with the research of Wulandari., et al (2020) that there is no relationship between age and knowledge about COVID-19. Meanwhile, the results of the study show that the best behavior is found in the age group of >50 years. This could be due to older age having caution in behavior (Hurlock, 2003), reducing movements outside the home if it is not urgent. However, this level of knowledge and behavior is the opposite. show that respondents have not been able to implement the knowledge they have (Wulandari., et al 2020).

Based on the results of the study, knowledge and behavior of COVID-19 in BRSPA officers are not influenced by their level of education. The level of knowledge of the community with diploma graduates is the highest, followed by the levels of high school, undergraduate, and elementary education. The lowest level of knowledge is the people with the last junior high school education. This is in line with the research of (Pujianti et al., 2020) because the knowledge obtained by people with low education about the transmission of Covid-19 is not only from formal education but also from their own experiences and the community living environment.

Based on the results of the distribution of the knowledge category about the COVID-19 pandemic, BRSPA officers are categorized as having good knowledge related to the COVID-19 pandemic which is shown by the majority of correct answers to the question items given related to knowledge about COVID-19. Knowledge is one of the important things to consider in the context of handling COVID-19 cases. Public knowledge, especially in preventing the transmission of the spread of the SARS-CoV-2 virus, is very useful in suppressing the transmission of the virus (Law et al., 2020). By having good knowledge of something, a person will have the ability to determine and make decisions on how he can deal with it (Purnamasari & Raharyani, 2020) Raharyani, 2020). The results of this study are in line with other clinical studies, where out of 1,102 respondents in Indonesia, the majority of respondents have a good level of knowledge related to social distancing in the context of preventing COVID-19 transmission with a prevalence of 99% (Yanti et al., 2020).

Based on the results of the distribution of BRSPA officers' behavior during the COVID-19 pandemic, it is generally classified as good behavior that is selected in the question items given. The behavior of the community, especially BRSPA officers, is very important to help the environment itself in recognizing and overcoming the problem of COVID-19 which is a pandemic today.

CONCLUSION

A study conducted at the Social Rehabilitation and Child Care Center (BRSPA) in Bimomartani, Ngemplak District, Sleman Regency, found that officers generally demonstrate good knowledge and behavior related to COVID-19, though further improvement remains necessary, as variations were observed across gender, age group, and educational background,

and a higher level of knowledge did not always correspond to better preventive behavior among individual officers. These findings underscore the importance of strengthening continuous health education programs, alongside regular training, monitoring, and evaluation of health protocol implementation, to ensure that officers' knowledge is consistently translated into protective action for the children in their care. Future research should explore the factors driving the gap between knowledge and behavior, employ larger and more diverse samples, and extend to other social institutions in order to yield more comprehensive insights into infectious disease prevention in vulnerable institutional settings.

REFERENCES

Data, O. W. in. (2021). *COVID Cases in the World Today*. Our World in Data. https://ourworldindata.org/coronavirus-data

Hurlock, E. B. (2003). *Developmental Psychology of an Approach Throughout the Life Span*. Erlangga.

Indonesia, M. of H. of the R. of. (2020). *Questions and Answers about the Coronavirus*. Ministry of Health of the Republic of Indonesia.

Indonesia, M. of H. of the R. of. (2021). *Guidelines for the Prevention and Control of Coronavirus Spread (Covid-19) Revised to V*. Ministry of Health of the Republic of 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.2020.03.059

Nicola, M., Alsafi, Z., Sohrabi, C., Kerwan, A., Al-Jabir, A., Iosifidis, C., Agha, M., & Agha, R. (2020). The socio-economic implications of the coronavirus pandemic (COVID-19): A review. *International Journal of Surgery*, *78*, 185–193. https://doi.org/10.1016/j.ijsu.2020.04.018

Ourworldindata.org. (2021). *COVID Cases in the World Today*. Our World in Data. https://ourworldindata.org/coronavirus-data?country=

Parasher, A. (2021). COVID-19: Current understanding of its pathophysiology, clinical, and treatment. *Postgraduate Medical Journal*, *97*, 312–319. https://doi.org/10.1136/postgradmedj-2020-138234

Pujianti, N., Sari, A., Wulandari, A., Rahman, F., & Laily, N. (2020). *The Relationship between Individual Characteristics and Knowledge about Coronavirus Disease 2019 Prevention in Communities in South Kalimantan*.

Purnamasari, I., & Raharyani, A. E. (2020). The Level of Knowledge and Behavior of the People of Wonosobo Regency about Covid-19. *Health Scientific Journal*, *10*(1), 33–42.

Republika.co.id. (2021). *Pemkot Siapkan Satu RS Khusus COVID-19 di Yogyakarta*. Republika. https://www.republika.co.id/berita/qvso35436/pemksiapkan-satu-rs-special-covid19-in-yogyakarta

Setiawan, S. (2021). *City Government Prepares One Special COVID-19 Hospital in Yogyakarta*. https://yogya.inews.id/berita/wilayah-sleman-didominasi-zona-red-COVID-19

Setyawan, P. (2021). *Sleman Region is Dominated by COVID-19 Red Zones*.

Sunardi, J., & Kriswanto, E. S. (2020). Clean and Healthy Living Behavior of Sports Education Students of Yogyakarta State University during the Covid-19 Pandemic. *Jurnal Pendidikan Jasmani Indonesia*, *16*(2), 156–167.

Wiersinga, W. J., Rhodes, A., Cheng, A. C., Peacock, S. J., & Prescott, H. C. (2020). Pathophysiology, Transmission, Diagnosis, and Treatment of COVID-19. *JAMA*, *324*(8),

783–790. https://doi.org/10.1001/jama.2020.12839

Wulandari, A., Rahman, F., Pujianti, N., Sari, A., & Laily, N. (2020). *The Relationship between Individual Characteristics and Knowledge about Coronavirus Disease 2019 Prevention in Communities in South Kalimantan*.

Wulandari, D., Triswanti, N., & Yuliani, V. (2021). The Relationship between Knowledge Level and COVID-19 Prevention Behavior in Lebak Village, Peniangan, Lampung. *ARTERIES: Journal of Health Sciences*, 55–61.

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. *Journal of Indonesian Health Administration*, *8*(2), 4. https://doi.org/10.20473/jaki.v8i2.2020.4-14

Zhou, F., Du, R., Fan, G., Liu, Y., Xiang, J., Wang, Y., Song, B., & Gu, X. (2020). Clinical Course and Risk Factors for Mortality of Adult Inpatients with COVID-19 in Wuhan, China: A Retrospective Cohort Study. *The Lancet*, *395*, 1054–1060. https://doi.org/10.1016/S0140-6736(20)30566-3