

Generation X's Understanding of and Adherence to Covid-19 Prevention Protocol in Religious Activities

*Pengetahuan Generasi X dengan Kepatuhan Penerapan Protokol
Pencegahan Covid-19 pada Kegiatan Keagamaan*

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Abstract

The Coronavirus disease 2019 (Covid-19) pandemic has become a serious global health problem, control its spread through knowledge that can influence people's behavior and compliance with certain rules knowledge can help prevent the spread of Covid-19. This study aimed to determine the relationship between Generation X's knowledge of Covid-19 with their compliance with the protocol of mask-wearing, physical distancing, and hand washing in religious activities. This research was analytical observational research with a cross-sectional design. The research population was Generation X, who carried out religious activities at houses of worship in Palembang. Individuals born between 1965 and 1980 met the criteria for Generation X in this study. The sample was collected using the cluster random sampling method, yielding 147 samples. A google forms questionnaire and structured interviews are used for primary data collection. The results showed that as many as 80 (54,4%) subjects had good knowledge of Covid-19, while 67 (45,6%) did not. Regarding the level of compliance, 90 (6,2%) complied with the instruction of mask-wearing, 57 (38,8%) did not, 79 (53,7%) obeyed the protocol of physical distancing and hand-washing, while 68 (46,3%) did not. This finding revealed a relationship between the level of knowledge and compliance with the instruction of wearing masks, physical distancing, and washing hands in doing religious activities in houses of worship in Palembang City to prevent Covid-19, with a p-value=0,00. However, preventing and monitoring the termination of the Covid-19 pandemic must continue to be carried out by various parties.

Keywords: Covid-19, knowledge, prevention, age

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Abstrak

Pandemi *Coronavirus disease 2019* (Covid-19) telah menjadi masalah kesehatan global yang serius, untuk mengendalikan penyebarannya melalui pengetahuan yang dapat mempengaruhi perilaku masyarakat dan kepatuhan terhadap aturan tertentu, sehingga pengetahuan dapat membantu mencegah penyebaran Covid-19. Penelitian ini bertujuan untuk mengetahui hubungan antara pengetahuan Generasi X mengenai Covid-19 dengan kepatuhan penggunaan masker, menjaga jarak dan mencuci tangan untuk kegiatan keagamaan di rumah peribadatan Kota Palembang. Penelitian ini merupakan penelitian analitik observasional dengan menggunakan rancangan *cross-sectional*. Populasi penelitian ini adalah Generasi X yang melakukan kegiatan keagamaan di rumah peribadatan Kota Palembang. Kriteria Generasi X pada penelitian ini merupakan individu yang lahir antara tahun 1965 hingga 1980. Pengambilan sampel dengan metode *cluster random sampling* dan diperoleh 147 sampel. Pengumpulan data primer menggunakan kuesioner melalui *google formulir* dan wawancara terstruktur. Hasil penelitian sebanyak 80 (54,4%) responden memiliki pengetahuan baik, 67(45,6%) pengetahuan buruk. Tingkat kepatuhan memakai masker didapatkan sebanyak 90 (61,2%) patuh dan 57 (38,8%) tidak patuh, sedangkan jaga jarak dan cuci tangan sebanyak 79 (53,7%) patuh dan 68 (46,3%) tidak patuh. Terdapat hubungan tingkat pengetahuan dengan kepatuhan memakai masker, menjaga jarak, dan mencuci tangan ($p\text{-value}=0,000$) pada kegiatan keagamaan di rumah peribadatan Kota Palembang sebagai bagian dari upaya preventif Covid-19. Namun demikian, pencegahan dan pemantauan penghentian pandemi Covid-19 harus terus dilakukan oleh berbagai pihak.

Kata Kunci: Covid-19, pengetahuan, pencegahan, usia

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PENDAHULUAN

The Covid-19 pandemic is still ongoing. The number of Covid-19 cases and deaths continues to rise. Based on the WHO report the confirmed cases of the coronavirus in the world dated July 6, 2020, reached 11,4 million, 534 thousand of whom died (WHO, 2020a). National Agency for Disaster Management data revealed that as of July 6, 2020, there were 64,958 confirmed cases in Indonesia, 3,241 of which died. One of the provinces with quite a high number of confirmed cases was South Sumatra, with 2326, 106 of which died, the most in Palembang. Until 5 July 2020, Palembang had recorded that the number of cases has continued to increase, reaching 1502 cases and 73 deaths (Djalante *et al.*, 2020; NDMA, 2020).

Covid-19's ability to transmit between humans makes its spread difficult to control. Droplets are the primary mode of transmission for this disease. It has also been researched that the virus is viable to aerosols (Jayaweera *et al.*, 2020). To prevent transmission, the government urges people to keep their distance from each other, hand-washing and mask-wearing (WHO, 2020b). Practicing physical distancing can help prevent the spread of Covid-19 (Martinez *et al.*, 2020). Hand washing is also recommended because the hands are the body part that comes into contact with the majority of things. Mask-wearing is mandatory for all people, whether they have a cough/flu or not, to prevent direct or indirect transmission (Chua *et al.*, 2020) (Cirrincione *et al.*, 2020).

However, many people do not apply these three items due to many factors such

as knowledge, motivation, perception, and belief in disease control and prevention efforts, environmental variables, quality of health instructions, and ability to access existing resources (Sinuraya *et al.*, 2018). One's very low level of knowledge will make someone disobedient, due to the lack of information he obtained (Octavienty *et al.*, 2019).

Several locations, including places of worship, are encouraged to implement health protocols. The community and congregations of houses of worship cannot carry out routine worship, service, and social activities that are constantly restricted or closed during the Covid-19 pandemic because it will have a negative impact. However, allowing freedom of activity, including worship in houses of worship, as was done before the coronavirus pandemic, was also inappropriate (Ho *et al.*, 2023). As a result, the government issued Minister of Religion Circular Number 15 of 2020 concerning Guidelines for Organizing Religious Activities in Houses of Worship in Creating a Productive and Covid-19 Safe Society During the Pandemic Period through the Ministry of Religion. This policy is a national guideline for all religious places of worship, including Palembang City's houses of worship. This policy is expected to improve religious communities' spiritual quality while remaining vigilant about the Covid-19 pandemic and its consequences (Kemenag, 2020).

According to Putra (2016), in general, society divides generations into three groups: Generation X (Gen X), Generation Y (Gen Y), and Generation Z (Gen Z). Among them, generation X is the most vulnerable to transmission of the coronavirus because they are around 40 - 90 years old in 2020. The increasing number of cases of Covid-19 and the risk of more severe diseases increase with age. However, ironically, several studies have shown community non-compliance with the rules for preventing disease in the elderly (Daoust, 2020; Davies *et al.*, 2020). The aim of study the association between Generation X's knowledge of Covid-19 with their obedience to the instructions to wear a mask-wearing, practice physical distancing, and hand-washing in religious activities in houses of worship in Palembang City.

METHODS

This research was an analytical observational study with a cross-sectional approach, which was conducted in houses of worship in Palembang City. The research was carried out from October to December, 2020. The sampling method was obtained through a cluster random sampling method that was carried out in three stages: first, the randomization of Palembang City subdistricts yielded the Bukit Kecil District; second, the randomization of Kelurahan yielded the Kelurahan 19 Ilir, third, randomization of places of worship, including the Great Mosque of Sultan Mahmud Badaruddin II, the Great Mosque of Sukur, the Siloam Christian Church, and the Hati Kudus Catholic Church were all randomly selected in Kelurahan 19 Ilir. As many as 147 subjects, according to the calculation of the analytical sample size, were taken as the research sample (Dahlan, 2019).

The inclusion criteria were subjects who attend houses of worship registered with the Palembang Ministry of Religion, subjects who were domiciled in Palembang City, subjects who were born from 1965-1980 (Gursoy *et al.*, 2013), and subjects who were present at places of worship to carry out religious activities at the time of the research. The exclusion criteria were unwillingness to become a respondent and incompleteness of the questionnaire. There were two variables in this study: the independent variable public knowledge and education. The dependent one is

compliance with the protocol of mask-wearing, physical distancing, and hand-washing. The research instruments used were questionnaires distributed through google forms. Each of the questionnaires consisted of 34 questions, including 10 questions about knowledge and 24 about compliance. Data was collected using a structured interview method by applying the Covid-19 prevention protocol. Data analysis was carried out using univariate and bivariate analyses, the former of which used tables to describe the frequency distribution and percentages of research variables, while the latter used chi-squared with a significance level of $p\text{-value} < 0,05$ using the help of a computerized statistical program. Ethics in this study emphasized informed consent, anonymity, and confidentiality, after obtaining approval from the Ethical Commission with Number 30/EC/KBHKI/FK-UMP/XI/2020.

RESULTS AND DISCUSSIONS

Table 1 showed the distribution of subjects based on their knowledge of Covid-19 and their compliance with the instructions of wearing masks, physical distancing, and washing hands.

Table 1. Distribution of frequency of subjects' knowledge regarding Covid-19 disease and their compliance level in wearing masks, practicing physical distancing, and washing hands

Variable	Category	n	%
Knowledge regarding COVID 19	Good	80	54,4
	Bad	67	45,6
Compliance with Wearing Masks	Complying	90	61,2
	Not Complying	57	38,8
Compliance in Practicing Physical Distancing	Complying	79	53,7
	Not Complying	68	46,3
Compliance with Washing Hands	Complying	79	53,7
	Not Complying	68	46,3

Source: Primary data, 2020

The results of this research on religious activities in houses of worship in Palembang City showed that of the 147 subjects studied, 80 (54,4%) had good knowledge about Covid-19. The same was reported by Sari *et al.* (2020) that in the Ngronggah community of Central Java, of a total of 62 subjects studied, 43 (69,3%) had a good level of knowledge about the Covid-19 disease. Research conducted by Al-Hanawi *et al.* (2020) also found that among people in the country of Saudi Arabia, of a total of 3388 research subjects, the majority had a high level of knowledge about Covid-19. According to Notoatmodjo (2014), knowledge is a cognitive domain that is very influential in shaping one's actions.

People will implement a new behavior more continuously when they understand its benefits, a behavior will not last long without good knowledge (Silalahi *et al.*, 2013). The results of this study were also in agreement with those of Zhong *et al.* (2020) research regarding knowledge, attitudes, and actions against Covid-19 in Chinese society during the period of the rapid increase in the Covid-19 outbreak. Zhong found that the level of knowledge affects the level of Covid-19 prevention by 90%, preventing people to go to crowded places and encouraging them to wear masks when going outside. This finding supported the adaptation theory, which states that a good level of

knowledge can encourage someone to have good actions (Silalahi *et al.*, 2013).

Knowledge is a theoretical and practical understanding (know-how) owned by humans. Knowledge is obtained through perceiving circulating information and sensing an object, which in this case is Covid-19 (Lau *et al.*, 2020). The knowledge a person has is very important for the intelligence, life, and development of an individual, society, or organization. Several factors influence a person's knowledge: education, experience, information, socio-culture, economy, environment, and age. The latter plays a significant role, the older a person is, the more the development of his perceptive power and mindset (Manstead, 2018).

The results of research on religious activities in houses of worship in Palembang City showed that of the 147 subjects studied, 90 (61,2%) obeyed to wear masks, 79 (53,7%) obeyed to practice physical distancing, and 80 (54,5%) obeyed to wash hands. Research conducted by Haischer *et al.* (2020) in a community in the United States showed that out of a total of 9935 study subjects, 4123 (41,5%) obeyed wearing masks. Research conducted by Glabska *et al.*, (2020) on people in Poland from a total of 2323 research samples found that 58,4% regularly washed their hands 6-15 times a day. Yanti *et al.* (2020) found that in Indonesia, out of a total of 1102 research subjects, 1093 (93%) had good habits or obedience in practicing physical distancing to prevent Covid-19 transmission.

Compliance is a positive behavior shown by society. Factors that influence compliance include knowledge, motivation, perception, and belief in disease-controlling and preventing efforts, environmental variables, quality of health instructions, and the ability to access existing resources (Sinuraya *et al.*, 2018). Generation X is the generation born in 1930-1980. They can adapt and accept changes well enough so that they can be said to be a responsible generation, which has an independent and loyal character, prioritizes images, fame, and money, and consists of hardworking people (Putra, 2016). Moreover, psychologically, they have far more to experience perceptions and beliefs. This has led to an attitude to comply with applicable rules concerning health instructions, such as wearing masks, practicing physical distancing, and washing hands to prevent Covid-19.

Table 2. The relationship between Generation X's education level and their compliance with the instruction regarding mask-wearing, practicing physical distancing, and hand-washing

Education Level	Compliance						p-value
	Mask-wearing		Physical distancing		Hand-washing		
	Yes	No	Yes	No	Yes	No	
Basic	24	38	16	46	11	51	0,000*
Secondary	35	16	30	21	35	16	0,000*
Higher	31	3	33	1	33	1	0,000*

Note: *The chi-square test is considered significant if p-value<0,005

According to Table 2, the results of the chi-square test analysis revealed a significant relationship between education level and adherence to wearing masks with a p-value of 0,000 (<0,05), a significant relationship between education level and adherence to keeping a distance with a p-value of 0,000 (<0,05), and a significant relationship between education level and adherence to washing hands with soap with a p-value of 0,000 (<0,05). The results of the research on the relationship between Generation X's education level and compliance showed that most of the subjects with

secondary and higher education always or frequently wear masks, practice physical distancing, and wash their hands regularly. These findings were consistent with the research of [Gannika and Sembiring \(2020\)](#) on the people of North Sulawesi that found that most subjects with secondary and higher education often wash their hands, use hand sanitizers, wear masks when doing activities outside the houses, exercise, and carrying out home quarantine when they are sick and after traveling from outside the area, maintain cleanliness, and consume nutritious food. The statistical tests using the chi-squared test found that there was a correlation between the education level and compliance in implementing health protocols in religious activities in houses of worship in Palembang City.

This research was also to the results of research by [Gannika and Sembiring \(2020\)](#) where the test results showed a p-value=0,000, indicating the association between education level and Covid-19 prevention behavior in the people of North Sulawesi. Research conducted by [Chen et al. \(2020\)](#) with logistic regression analysis found that the parent’s level of education is a factor that influences the hand-washing and mask-wearing behavior of students of elementary schools in Wuhan City, China, in efforts to prevent coronavirus transmission. The Precede-Proceed theory by Lawrence Greene states that three factors can affect a person's compliance, including predisposing factors, namely age, gender, education level, and occupation, driving factors, namely effect or success of implementation, and reinforcing factors, namely family support, health workers, and health services ([Rahmani et al., 2021](#)).

Both formal and non-formal education can influence a person in making decisions and behaving. With education, a person can increase intellectual maturity so that he/she can decide whether to do an action or not. The higher a person’s education, the easier it will be for him to accept and develop knowledge and technology ([Idris et al., 2012](#); [Karimli et al., 2020](#)) This is in agreement with the opinion of [Notoatmodjo \(2014\)](#) who said that the level of education also affects a person’s knowledge and behavior. The higher the education, the easier the ability to get information and understand something. A person with higher education has more knowledge in receiving information, thus affecting his behavior. The level of education hence is related to disease-preventing behavior.

Table 3. The relationship between knowledge of Covid-19 and their compliance with the instruction regarding mask-wearing, practicing physical distancing, and hand-washing

Variable	Good Knowledge Level		Bad Knowledge Level		p-value
	Complying	Not Complying	Complying	Not Complying	
Maks-wearing	74	6	16	51	0,000
Physical distancing	64	16	15	52	0,000
Hand-washing	71	9	8	59	0,000

Note: *The chi-square test is considered significant if (p<0,005)

According to Table 3, statistical tests using the chi-square test revealed a significant relationship between Generation X knowledge and adherence to wearing masks with a p-value of 0,000 (<0,05), a significant relationship between knowledge and adherence to keeping a safe distance with a p-value of 0,000 (<0,05), and a significant relationship between knowledge and hand washing compliance with a p-

value of 0,000 ($<0,05$). The findings of this study indicate that if the community has a good understanding of how to prevent Covid-19, it will comply with health protocol implementation. The findings of this study are consistent with the findings of previous studies conducted by Ramayanti *et al.*, (2021) on the Relationship between Knowledge, Attitudes of Gen Z, and Compliance in Revealing the Covid-19 Health Protocol in Religious Activities in the City of Palembang, which found a significant relationship (p-value $<0,05$) between Generation Z's knowledge about Covid-19 and adherence to using masks (p-value=0,001), keeping your distance (p-value=0,002), and hand washing.

The findings of this study are also consistent with the findings of Purnamasari and Raharyani (2020), that in the people of Wonosobo Regency, knowledge and people's behavior against Covid-19 had a great correlation with a p-value of 0,047. Research by Moudy and Syakurah (2020) in communities throughout Indonesia, through online questionnaires distributed from 5 February 2020 to 22 March 2020, found individual knowledge and individual actions regarding Covid-19 (p-value=0,000) are in connection to each other. Research conducted by Zegarra *et al.*, (2020), in Peruvian society, based on Logistic regression analysis with a significance value (p-value=0,031), concluded that the level of knowledge and behavior to prevent the spread of Covid-19 interrelated with one another. Research conducted by Rahman and Sathi (2020), on communities in the City of Bangladesh, found a positive correlation between the level of knowledge and the practice of preventing the transmission of Covid-19 with a significance value ($r=0,291$, p-value $<0,01$).

The results of research on community compliance with the rule concerning mask-wearing were also in line with research by Sari *et al.*, (2020) in the Ngronggah community of Central Java that found an association between public knowledge and compliance with the instruction of wearing masks with a p-value of 0.004. Meanwhile, the hand-washing behavior found was also following the research of Sahiledengle *et al.* (2020) who observed visitors at the main entrance of the Bale Zone referral hospital in Southeast Ethiopia from 27 April 2020 to 3 May 2020 that found a correlation between knowledge level and hand-washing behavior to deal with the Covid-19 spread with a p-value of 0,03.

Knowledge is obtained through sensing certain objects, experiences, information, and education, both formally and informally. Knowledge of diseases, especially Covid-19, is very important. It means understanding the disease itself and knowing how to prevent and treat it, as well as understanding its complications (Mona, 2020). Knowledge influences a person's attitude to comply with certain rules, including adherence to efforts to prevent diseases. It plays an important role in determining complete behavior and will form beliefs that then perceive reality, provide a basis for decision-making, and determine behavior toward certain objects (Yuliastuti *et al.*, 2018). The level of public knowledge affects their compliance with efforts to prevent Covid-19, namely masks wearing, hand-washing, and practicing physical distancing.

Covid-19 can be transmitted from human to human through droplets when an infected person coughs or sneezes or talks. Various types of contact, such as direct contact, can spread respiratory droplets between people. Direct contact allows the mouth, nose, or eyes to contract the virus when an infected person coughs, sneezes, or talks (Guo *et al.*, 2020). In this case, wearing medical masks is one of the preventive measures that can limit any viral spread. Another effort is to practice physical distancing, as a means of prevention and non-medical control that is implemented to prevent Covid-19 by reducing contact between those infected with it (Chu *et al.*, 2020). Because the transmission of the virus is via droplets (saliva particles), people are

instructed to keep a minimum distance of 2 meters from each other. Shaking hands or hugging when meeting each other is also not recommended due to the risk of transmission due to touching droplets containing the coronavirus (Central Disaster and Safety Countermeasure Headquarters, 2020; Dhand and Li, 2020).

Another way of the transmission of the coronavirus is indirect contact, namely through hands or objects affected by the virus such as door handles, tables, and chairs. One of the ways to do sanitation is washing your hands using soap or antiseptic liquid because antiseptics are substances that can hinder microorganisms' growth and development without having to kill them in living tissues (Larasati and Haribowo, 2020; Purnama and Susanna, 2020). Soap can damage the membrane of the coronavirus, making its lipid membrane dissolve and making it inactive (Ong *et al.*, 2020). Therefore, washing your hands with soap or hand sanitizer effectively prevents coronavirus transmission (Jing *et al.*, 2020). Certain groups of people, especially the elderly or Generation X, have a higher risk of being exposed to the coronavirus which can lead to death. This is because the elderly's immune system has begun to weaken, coupled with the presence of comorbidities such as hypertension, diabetes mellitus, and others (Mueller *et al.*, 2020).

CONCLUSIONS

The results of this study indicated that the knowledge of people who carry out religious activities at houses of worship in Palembang City was in a good category and Generation X's knowledge and compliance with instructions for masks wearing, practicing physical distancing, and hand washing as an effort to prevent Covid-19 significantly interrelated with one another. However, preventing and monitoring the termination of the Covid-19 pandemic must continue to be carried out by various parties.

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CONFLICT OF INTEREST

This study does not contain any conflict of interest.

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