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COVID-19 Health Protocol and Religious Activities: Knowledge, Attitude, and Compliance among Generation Z

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ABSTRACT

Background: COVID-19 (coronavirus disease 2019) is a contagious infection currently affecting people worldwide, including in Indonesia. The spread of this virus is extremely rapid, and the number of deaths continues to rise. Compliance with the health protocol is one method of preventing the spread of COVID-19. The purpose of this study is to determine the relationship between generation-Z (gen-Z) knowledge and attitudes toward the use of masks, keeping distance, and washing hands as a means of preventing COVID-19 in religious activities at houses of worship in Palembang. **Method:** The observational analytic cross-sectional research design with the study's population consists of generation Z members who participate in religious activities in places of worship. The cluster random sampling method yielded 147 respondents. The data collected are primary data obtained directly from the research subjects via a questionnaire and secondary data obtained from the Palembang City Ministry of Religion. They were using the Pearson chi-square test to analyze descriptive data. **Results:** According to the findings, 79 people (53.7%) out of 147 respondents have good knowledge, while 75 people have a good attitude (51%). The results obtained a statistically significant p-value of 0.05, indicating a relationship between gene Z knowledge and attitude and adherence to the use of masks, keeping distance, and washing hands. **Conclusion:** There is a significant relationship between knowledge and attitudes toward COVID-19 infection prevention in Generation Z who participate in religious activities in Palembang City.

1. Introduction

Coronavirus Disease 2019 (COVID-19) is an infectious disease caused by the Coronavirus 2 Severe Acute Respiratory Syndrome (SARS-CoV-2). According to a December 31, 2019 report from the WHO China Country Office, this new type of coronavirus was first identified in cases of severe pneumonia in Wuhan City.[1] The number of COVID-19 patients continued to rise daily, and the virus spread rapidly to countries all over the world in a relatively short period. According to the World Health Organization (WHO), COVID-19 has spread to 200 countries, resulting in 1,133,758 cases and 62,785 deaths; it was declared a pandemic on March 12, 2020, after reaching 1,133,758 cases and 62,785 deaths.[2,3]

There are 120,176,364 COVID-19 cases and 2,659,578 deaths worldwide until March 16, 2021, according to the development of COVID-19 cases. Meanwhile, according to data from the task force for the expedited handling of COVID-19, the number of positive cases in Indonesia has reached 1,425,044 people, with 38,573 souls lost, while the number of cases in South Sumatra continues to rise, particularly

in the city of Palembang. In the city of Palembang, there were 8,356 cases of COVID-19 sufferers, 365 people died, and they are still in the orange zone status.[4,5]

SARS-CoV-2 is primarily transmitted from person to person via respiratory droplets, typically released when an infected person coughs or sneezes. According to epidemiological data, droplets emitted when talking, coughing, or sneezing are the most common modes of transmission.[6] Prolonged contact with an infected person increases exposure to symptomatic individuals (e.g., cough) and increases the risk of transmission, whereas exposure to asymptomatic individuals reduces the risk of transmission. Aerosols, which are tiny droplets that remain suspended in the air, can also be used for transmission.[6,7]

The government's standard recommendations for preventing the spread of infection include regular hand washing with soap and clean water, using cough and sneezing etiquette, avoiding direct contact with livestock and wild animals, and using masks to prevent COVID-19 transmission.[8]

Everything in the current new normal era has shifted, including religious activities in places of worship worldwide. Generation Z, born between 1995 and 2010 and between the ages of 10 and 25, engages in various outside the home. People participating in these activities must still wear masks, keep a safe distance from other participants, and wash their hands to prevent the spread of COVID-19. Many people, however, have not implemented the COVID-19 prevention health protocol. Various factors influence people's compliance with disease control and prevention efforts, including their knowledge and motivation, their perception and belief in disease control and prevention efforts, environmental variables, the quality of health instructions, and their ability to access available resources.[9] According to Sari, Sholihah, and Atiqoh (2020), there is a link between public awareness of COVID-19 disease and compliance with the use of masks in disease prevention.[10] According to the findings of Wiranti, Ayun, and Wulan's (2020) study, 55.3 percent of the community possessed superior knowledge of health protocols.[11]

Based on the above description and the usual worship activities, the researcher seeks to understand the relationship between Gen Z knowledge, attitudes, and compliance with the use of masks, keeping a distance, and washing hands as an effort to prevent COVID-19 in religious activities at houses of worship in Palembang.

2. Methods

This study employs an observational analytic study with a cross-sectional research design, which was carried out at the Palembang City Houses of Worship, specifically the Sultan Mahmud Badaruddin II Grand Mosque, Sukur Grand Mosque, Siloam Christian Church, and Catholic Church of the Sacred Heart. The research sample consists of Generation Z who engage in religious activities in houses of worship in Palembang that meet the inclusion criteria, which are Houses of Worship registered with the Ministry of Religion of Palembang, respondents who are domiciled in Palembang City, respondents who were born between 1995 and 2010, and respondents who came to the House of Worship to engage in religious activities. One hundred forty-seven people were sampled using the cluster random sampling method. Data was collected using a questionnaire administered via the Google Forms application, which included 39 questions divided into ten questions for knowledge, five questions for attitude, and 24 questions for compliance. Primary data was gathered through a structured interview method and the COVID-19 prevention protocol, while secondary data was obtained from the Palembang Ministry of Religion. Tables were used in univariate data analysis to describe the distribution of frequencies and percentages of research variables. Using the SPSS application, conduct a bivariate analysis using the chi-square statistical test. The ethics committee of the Faculty of Medicine, Muhammadiyah University of Palembang, with the number 31/EC/KBHKI/FK-UMP/XI/2020, also approved this research.

3. Result

The study seeks to ascertain the relationship between knowledge, attitude, compliance with the use of masks, keeping distance, and washing hands in gen

Z or generation Z as a means of preventing the spread of Coronavirus disease 2019 in religious activities in Palembang's places of worship.

Table 1. Distribution of knowledge, attitudes, and Gen Z regarding COVID-19

Variable	Category	Frequency (n)	Percentage (%)
Knowledge of COVID-19	Good	79	53.7
	Bad	68	46.3
Attitude toward COVID-19	Good	75	51
	Bad	72	49
Mask Use	Obey	83	56.5
	Disobey	64	43.5
Compliance keep a safe distance	Obey	72	49
	Disobey	75	51
Wash Compliance Hand	Obey	68	46.3
	Disobey	79	53.7

Table 1 shows the frequency distribution of Generation Z knowledge of COVID-19, with 79 respondents (53.7 %) having good knowledge and 68 (46.3 %) having poor knowledge. At the house of worship in Palembang, 75 respondents (51.0 %) had a good attitude, while 72 (49.0 %) had a negative attitude. At the house of worship in Palembang, the behavior frequency distribution of generation Z about COVID-19 found that 116 (78.9 %) had bad behavior, while 31 (21.1 %) had good behavior. In terms of frequency distribution compliance, 83 (56.5 %) of respondents were compliant with the use of masks, while 64 (43.5 %) were non-compliant. 72 (49%) were obedient, while 75 (51%) were disobedient. Handwashing compliance was 68 (46.3%) obedient, with 79 (53.7%) respondents failing to comply.

Table 2 shows the findings of an analysis of the relationship between generation Z's knowledge of COVID-19 and the use of masks, keeping a distance, and washing hands at houses of worship in Palembang.

Table 2. The relationship between generation Z knowledge of COVID-19

Variable	Knowledge Good		Knowledge Bad	
	Obey	Disobey	Obey	Disobey
Use of Mask	55	24	28	40
Maintain distance	48	31	24	44
Wash Hand	47	32	21	47

According to the Chi-Square statistical test results, there is a significant relationship between knowledge generation Z about COVID-19 and compliance with the use of masks, keeping social distance, and washing hands.

Table 3. The relationship between generation Z attitudes toward COVID-19 and compliance health protocol

Variable	Good attitude		Bad Attitude	
	Obey	Disobey	Obey	Disobey
Use of Mask	51	24	32	40
Keep a safe distance	46	29	26	46
Hand washing	43	32	25	47

Table 3 shows the analysis findings, which show a significant relationship between attitudes of Generation Z and compliance with the use of masks, keeping a safe distance, and washing hands.

4. Discussion

According to Table 1, the distribution of the frequency of knowledge of Generation Z regarding COVID-19 in houses of worship in Palembang, respondents have a good knowledge of 79. (53.7 %). The findings of this study are consistent with the findings of Sari, Sholihah, and Atiqoh (2020), who researched the entire community of RT 03/RW 08 Ngronggah with a total sample of 62 respondents, indicating that the majority of respondents are people who have good knowledge about COVID-19 disease compared to community respondents.[10] According to Notoatmodjo (2014), knowledge is the result of knowing, which occurs after people sense a specific object. The human five senses, namely sight, hearing, smell, taste, and touch, are used to sense. The majority of human knowledge is obtained through the eyes and ears.[9]

The frequency distribution of Generation Z attitudes toward COVID-19 in houses of worship in Palembang, from 147 respondents, the majority had a positive attitude of 75 (51.0%). Ferdous et al. (2020) researched Bangladesh with a sample of 2,068 respondents ranging in age from 16 to 64 years and discovered that 62.3 percent of respondents have a positive attitude toward COVID-19.[12] An attitude is a person's closed response to a specific stimulus or object that includes opinion and emotion factors (happy-not happy, agree-disagree, good-bad, and so on).[9]

According to the findings of a study on religious activities conducted at the Palembang City House of Worship, the level of compliance of Generation Z for masks was mainly in the obedient category, with 83 (56.5 %) respondents. The findings of this study are consistent with the findings of Sari, Sholihah, and Atiqoh (2020), who discovered that the majority of people in Ngronggah obeyed using masks, namely 46 respondents (74.19 %), and a small portion of the community did not comply, namely 16 respondents (25.81 %).[10] According to Sinuraya et al. (2018), when people wear masks, the community exhibits positive behavior. Many factors influence adherence, including knowledge, motivation, perception, belief in disease control and prevention efforts, environmental variables, quality of health instructions, and access to available resources.[13] The environment also impacts

compliance; sometimes, the environment does not encourage a person to behave healthily. Vigorous health promotion can result in mask compliance, as well as behavioral changes.[14] The use of masks is critical in the fight against the COVID-19 pandemic. Masks can protect the wearer from infectious particles or act as a source control device, limiting the spread of droplets released into the air by the wearer.[15]

According to the findings of this study, the category of non-compliance had the highest number of non-compliance, namely 75 (51%) respondents for the Z generation of compliance variable. According to Sukawana and Sukarja (2020) findings in the Mawang Kelod Indigenous village community, Ubud District, 83.3 percent of respondents did not keep their distance according to the COVID-19 prevention protocol, which is less than 1 meter.[16] To break the chain of the spread of the COVID-19 virus, it is necessary to maintain a distance, at least one to two meters, to prevent the virus from spreading.[17]

Because hands are an effective intermediary for transmitting COVID-19, washing hands is one of the most important protocols for preventing COVID-19 transmission. This expectation is at odds with the findings of this study. According to the study's findings, 68 (46.3%) of respondents washed their hands when they arrived at the observed location. The findings of this study are consistent with data submitted by the Ministry of Health of the Republic of Indonesia (2021), which states that only about 46 percent of Indonesians are self-aware of the importance of washing their hands.[18] The purpose of hand washing is to remove microorganisms that adhere to the hands and clean hands to prevent cross-infection. Handwashing with soap can remove dirt from the hands and kill germs that cause disease. Hand washing can be done with water and soap or with alcohol-based ingredients, where the active ingredient is 62 to 71 percent ethanol, which can reduce the virus's effectiveness.[19] Alcohol or soap and water can be used to clean your hands. If hands do not appear to be dirty, wash them with alcohol; if hands are visibly dirty, use soap and water.[20]

The COVID-19 virus attaches to the body, particularly the hands that touch objects infected with COVID-19 via droplets. COVID-19 is transmitted 75% of the time through objects contaminated with the virus from saliva splashes.[21] Hand washing is an effective way to prevent the spread of germs and cross-infection. Hand washing properly can reduce the risk of transmitting COVID-19 by around 35%.[22] The low rate of handwashing is most likely due to respondents underestimating the importance of handwashing.

Relationship between knowledge of COVID-19 and compliance with mask use, keeping a safe distance, and washing hands

Table 2 shows a statistically significant (p 0.05) relationship between generation Z's knowledge of COVID-19 and compliance with mask use (p =0.001), maintaining a safe distance (p=0.002), and handwashing (p=0.002). According to Mariz's (2020) research, there is a significant relationship between Palembang residents' knowledge of COVID 19 and mask use (p = 0.001), handwashing compliance (p = 0.004), and physical distancing compliance (p = 0.003).(23) Individual experience or the experience of others is used to gain knowledge. Knowledge leads to the acquisition of additional information through the use of common sense. When confronted with a problem, individuals who have information will be able to determine how to react and make decisions.[9]

Generation Z must understand the importance of mask compliance. Masks are suggested as a potential tool for combating the COVID-19 pandemic. By cutting off droplet transmission lines, personal protection with a mask prevents pathogens from entering the respiratory tract. A cloth mask, an example of a non-medical mask, or also known as a community mask, is a homemade or commercial face-covering made of cloth that can be used.[24]

Implementing a social distancing strategy should be recommended as a means of mitigating the COVID-19 pandemic around the world. Epidemiological studies using various models have shown that social distance can reduce respiratory infections in diseases like influenza. A study conducted by (Chu et al., 2020) on 172 studies on COVID-19, SARS, and MERS found that a physical contact distance of at least 1 meter was associated with a decrease in infection, and a distance

of 2 meters was associated with a more significant decrease in the likelihood of infection.[25] Because droplets produced by coughing and sneezing are the primary source of influenza transmission, keeping a safe distance can reduce the risk of person-to-person transmission, which can occur at a distance of 3–6 feet.[26]

Holding objects contaminated with the COVID-19 virus is one of the COVID-19 transmissions. Handwashing with soap is effective in killing the COVID-19 virus. Soap should be used when washing hands because the COVID-19 virus has a capsule as a protector that will be destroyed if exposed to soap. A study of 172 people in 16 countries discovered evidence that diligently washing hands and maintaining cleanliness can prevent the transmission of COVID-19, even if it cannot completely protect against COVID-19.[22]

Knowledge is a central domain in the development of one's actions.[9] Acceptance of new behavior will be more long-lasting if it is based on knowledge, whereas the behavior will be short-lived if not based on knowledge.[27] Knowledge is vital in determining complete behavior because it forms beliefs and perceives reality, provides a foundation for decision-making and determines behavior toward specific objects, all of which influence a person's behavior. Providing comprehensive health education has the potential to increase knowledge while also influencing individual behavior.[28]

Relationship between COVID-19 Attitude and Compliance with Mask Use, Keeping Safe Distance, and Washing

Based on the chi-square analysis, the study results in Table 3 revealed a significant (p0.05) relationship (p=0.004) between attitudes about COVID-19 and handwashing compliance (p=0.004), keeping a distance (p=0.002), and washing hands (p=0.002). The findings of this study are consistent with the findings of Aini and Purwasari (2021), who discovered a link between attitudes and behavior.[29] Attitude is crucial because it influences behavior and actions, though attitudes are not always manifested in behavior and actions.[30] Although an attitude can lead to action, that is not always the case because other factors influence the development of action or overt behavior. One factor that influences this is a person's tendency to plan ahead of time before acting, also known as "a proclivity to act.".[9] According to Azwar S (2013), the attitude structure comprises three mutually supportive components: cognitive components, affective components, and behavioral/conative components. These attitudes' components greatly aid in the formation of a person's attitude in everyday life. However, a person's attitude is influenced by various factors, including personal experience, the influence of others deemed essential, culture, mass media, educational and religious institutions, and emotional factors.[31]

The government has promoted a wide range of efforts to prevent the spread of this virus, including mask operations to ensure that people follow health protocols, one of which is the use of masks when leaving the house, socializing social distancing, which is defined as social restrictions that are further tightened by physical distancing or maintaining physical distance from other people. Physical distancing or maintaining physical distance from other people, in specific, loosens the grip on these social constraints even more. Every member of the community emphasized the importance of handwashing with soap and hand sanitizer and the need for public handwashing stations. As a result, it may be possible to influence social behavior.[32] When it comes to forming attitudes, one factor that influences a person's attitude is trust.[33] A person will be obedient to the COVID-19 health protocol if they believe these measures effectively reduce COVID-19 spread.

Despite the statistically significant relationship, this research is a type of quantitative research in which the results are dependent on the respondents' responses to a given instrument, making an in-depth understanding of respondents' knowledge impossible. Furthermore, the researcher's use of non-probability accidental sampling methods is a weakness in this study.

5. Conclusions

According to this study, Generation Z members who participate in religious activities at Palembang City houses of worship have good knowledge and attitudes,

and they have implemented a health protocol to prevent the COVID-19 disease, which includes the use of masks, social distancing, and handwashing during religious activities at the Palembang City house of worship. Future research will likely pay more attention to the socioeconomic factors that influence a person's willingness to comply with and adhere to health protocols.

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