Research Article

Community Compliance with Health Regulations during the COVID-19 Pandemic

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Abstract

Aim: This study aimed to describe of community compliance in implementing health regulations during the COVID-19 pandemic in the Panyileukan subdistrict, Bandung, West Java, Indonesia.

Method: The study was quantitative descriptive research. The study population was residents who live Panyileukan District (N=242). The sampling technique used was purposive sampling (n=77). Data were collected using the modified self-report questionnaire regarding adherence in implementing health protocol which were valid and reliable. Data were analyzed using descriptive statistics and presented in frequency distribution tables and diagrams.

Results: The results show that more than half of the respondents (56%) complied with the health regulations. The indicators show that 55.8% wore masks, 53.2% washed hands, 62.3% maintained social distance, and 54.5% increased their immune systems. Regarding the response dimensions, 63.6 % of respondents believed in the regulations, 55.8% accepted the regulation, and 51.9% applied the regulations.

Conclusions: Most people in the Panyileukan subdistrict adhered to the health protocols. Local governments and health workers could continue facilitating, motivating, and monitoring compliance.

Keywords:
Community, Compliance, COVID-19, Health Regulations

INTRODUCTION

The coronavirus or SARS-COV-2 is spread through coughing, sneezing, and physical contact (1). Since the World Health Organization (WHO) declared COVID-19 a pandemic, the impact on all aspects of life has been global and massive, including health, education, and the economy (2). In addition, the negative impact on health that can occur is the infection of the virus so that roles and lifestyle patterns change, while from mental health there are symptoms of anxiety, depression, stress, and post-traumatic stress disorder (3).

The Ministry of Health of the Republic of Indonesia have provided information and guidance regarding the COVID-19 disease and implemented various measures such as inspections, large-scale social restrictions (PSBB), community activity restriction, and vaccination (4). The regulations aim to ensure the health of individuals and communities and protect them from the virus in private and public spaces (4). These include washing hands, wearing masks, maintaining a minimum distance of one meter, and boosting the immune system (5).

The spread of the COVID-19 disease will not be finished if the community does not implement the rules that the government has urged to implement health protocols. Compliance with health regulations is a critical success factor in COVID-19

transmission prevention. Attitudes and actions to prevent COVID-19 are crucial to prevent new cases (6). Non-compliance from the public will likely result in an increasing number of cases and losses (7)

Actions follow obedience dimensions, i.e., trusting, accepting, and doing (8,9). Lawrence Green maintains that predisposing, enabling, and driving factors influence compliance (10). This study aims to obtain an overview of community compliance in implementing health regulations during the COVID-19 pandemic in Panyileukan District, Bandung, West Java, Indonesia.

METHODS

Study Design
This research used was a descriptive quantitative study.

Population, Sample, and Sampling
The population of this research is residents who live in RT. 02/RW. 02 Panyileukan District, Bandung totalling 242 people. The purposive sampling technique resulted in a total of 77 people. The inclusion criteria were residing in Panyileukan and aged between 12 and 55. In this research, we did not collect data on respondents aged <12 years and >55 years. This is because it is related to the respondent's cognitive abilities, where age <12 years is considered to still not be able to interpret a research question and age >55 years is also associated with a decrease in cognitive level.

Instrument
The instrument was a questionnaire asking about compliance with the implementation of health regulations during the pandemic. This questionnaire consists of statements about individual behaviour in applying health protocols, i.e., wearing masks, washing hands, maintaining social distancing, and boosting the immune system. Blass's theory about compliance dimensions, i.e., believing, accepting, and doing, were included in the investigation, as well as the demographic data, namely age,

gender, education level, and access to COVID-19 information (11). Each item statement uses a Likert scale with positive answers: never (score 1), rarely (score 2), sometimes (score 3), often (score 4), and always (score 5), and for negative statements the opposite applies. The validity and reliability of the instrument were tested, resulting in 34 valid statements (r count 0.638-0.916 > r table 0.632 with a significance of 5%) and a reliability test of 0.93.

Data Collection
The data were collected using online questionnaires, i.e., Google form, and direct interviews assisted by community leaders for residents with difficulty filling out questionnaires online. The respondents were given a consent form. Additionally, they were briefed about the research purpose and benefits, their rights (autonomy) as the research subject, and the data collection procedures. After the briefing, they were allowed to decide whether to participate or not. The respondents were also informed that their confidentiality would be protected. The data were collected from May to August 2021. Direct data collection was carried out by adhering to the health protocols.

Data Analysis
Data analysis used in this study was univariate analysis. The form of this analysis is presented in the form of a frequency distribution and a diagram to illustrate community compliance in implementing health protocols. The data obtained in the study were tested for normality using the Kolmogorov-Smirnov with a result of 0.2, which means that the data in this study were normally distributed so that the calculation of the measurement results used the average/mean value. The value of each statement item is calculated by the total score of each respondent, then the average score of all respondents is calculated. Respondents who have scores above the average (≥ 137) can be classified as compliant and scores below the average (< 137) include respondents who can be

classified as non-compliant. In addition, for the categorization of each compliance indicator used the mean score, namely, using a mask (34.7), washing hands (34.2), keeping distance (33.4), and increasing body resistance (34.6). Then, the categorization for compliance dimensions also used the mean scores namely, believing (31), accepting (27.1), and doing (70.5).

Ethical Clearance
This research has passed the ethical test by the Research Ethics Commission of the University of Padjadjaran with number 379/UN6.KEP/EC/2021.

RESULTS

Data collection in this study consisted of 77 respondents which are described in the following tables and diagrams.

Table 1. Demographic Characteristics of Respondents (n=77)

| Characteristic	Frequency(f)	Percentage (%)
Gender		
Men	37	48.1
Women	40	51.9
Age*		
12-16 years	4	5.2
17-25 years	17	22.1
26-35 years	34	44.2
36-45 years	8	10.4
46-55 years	14	18.2
Education		
Elementary School	4	5.2
Senior High School	22	28.6
Diploma	5	6.5
Bachelor's degree	38	49.4
Master's Degree	7	9.1
Doctoral Degree	1	1.3

*Note: Age classification based on the Ministry of Health's classification in 2020

Based on table 1 show that more than half of the respondents were female (51.9%), and the remaining were male (48.1%). Most were in early adulthood (44.2%), while a small number were in early adolescence (5.2%), and most graduated with a bachelor's degree (49.4%).
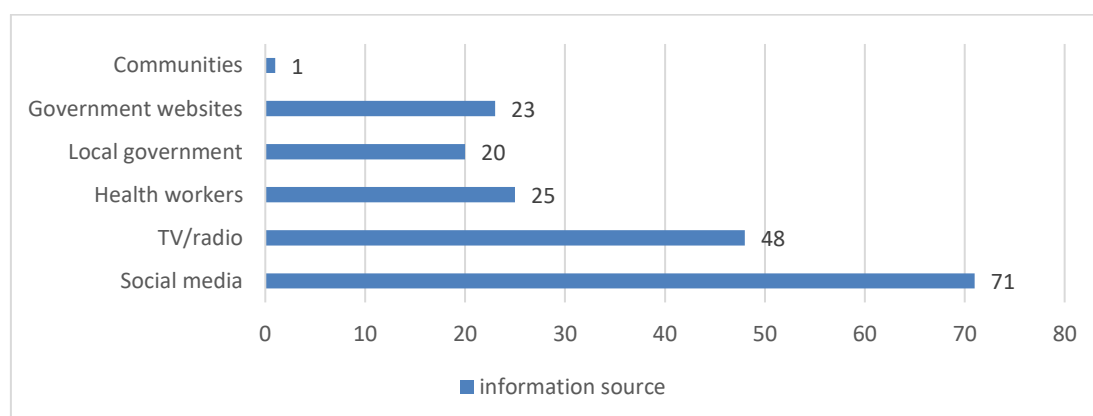

Figure 1. Sources of Public Information about the COVID-19 Pandemic

Figure 1 shows that the respondents' sources of information about COVID-19 are mostly from social media (71 respondents), followed by TV/Radio (48 respondents), health workers (25 respondents), local government officials (20 respondents), government websites (23 respondents), and community (1 respondent).
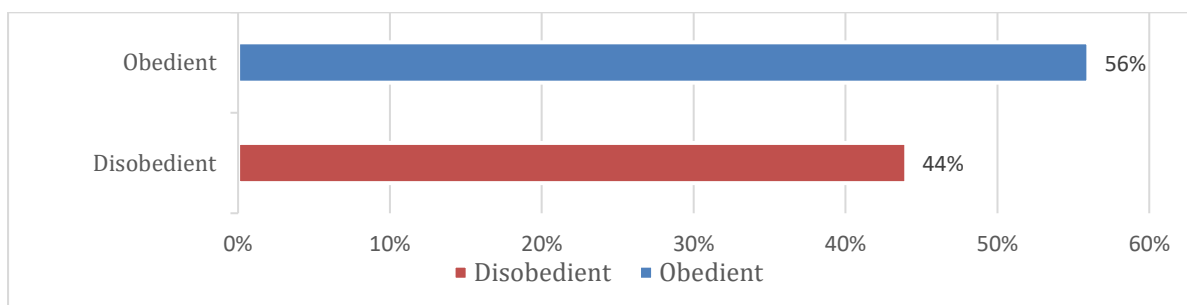

Figure 2. Community Compliance in the Implementation of COVID-19 Health Regulations (n=77)

Figure 2 shows that more than half of the respondents complied with the health protocols (56%), while the remaining 44% did not comply.
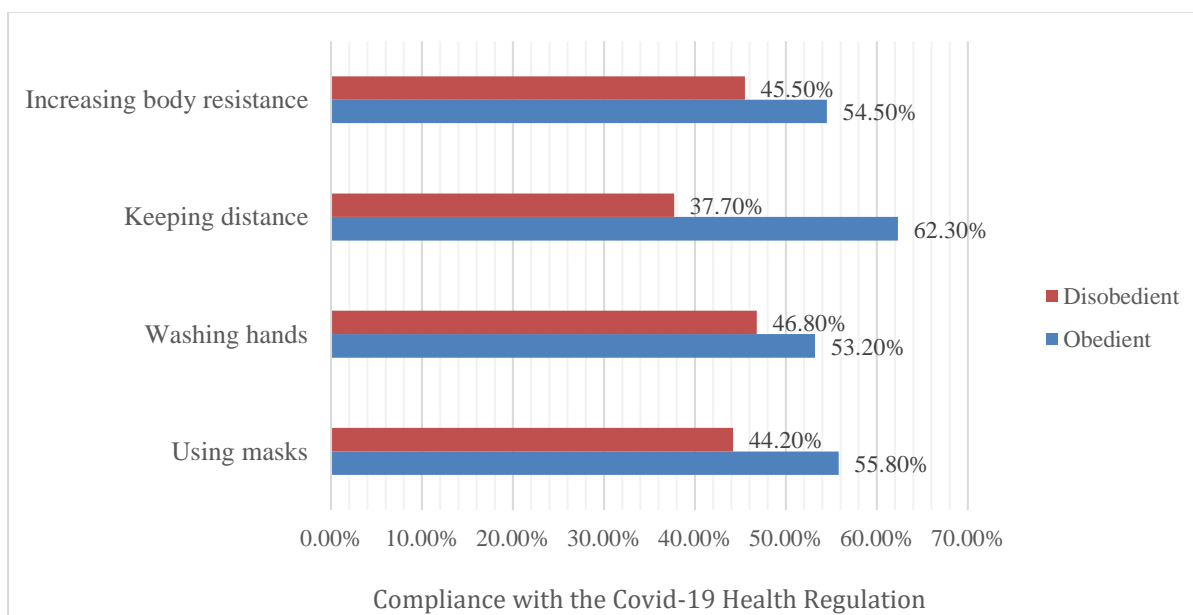
Figure 3. Compliance with the Covid-19 Health Regulation (n=77).

Based on figure 3, it shows that the regulations were wearing masks, washing hands, maintaining distance, and boosting the immune system. More than half of the respondents implemented the regulations: 55.8% wore masks, 53.2% washed hands, 62.3% maintained distance, and 54.5% increased their immune systems.
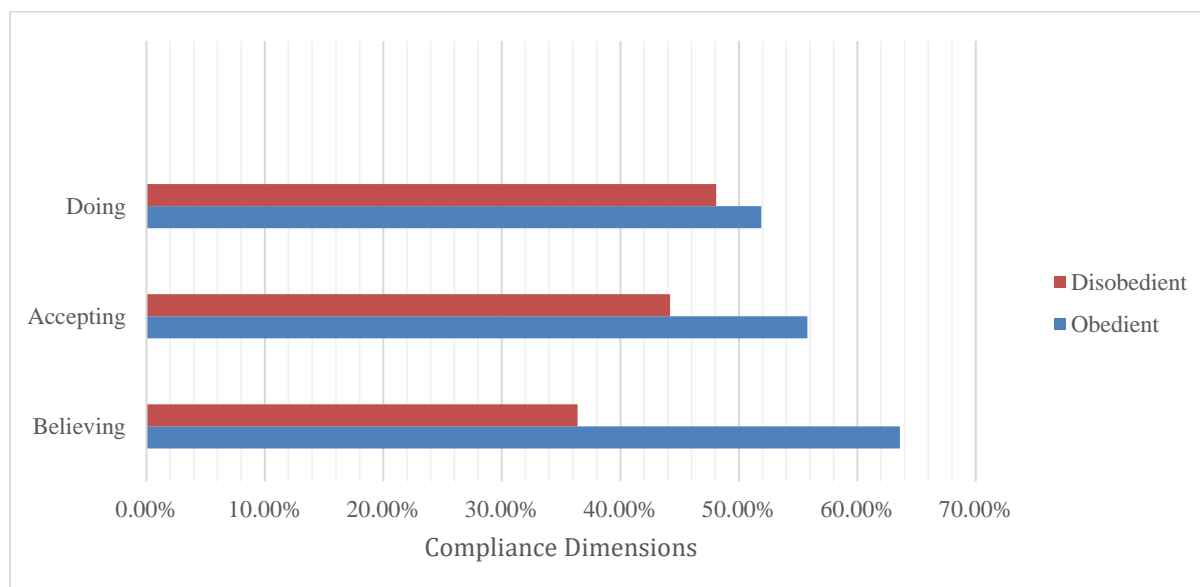
Figure 4. Compliance Dimensions

Based on figure 4, it shows that the compliance dimensions are believing, accepting, and doing. Most respondents, 63.6%, believed, 55.8% accepted, and 51.9% did the actions to comply with the regulations. Since half of the respondents fulfilled all the dimensions of compliance, it can be concluded that the community had a compliance value.

DISCUSSION

The compliance of residents in the Panyileukan subdistrict, Bandung, was moderate at 56%. This aligns with the research by Tusianti regarding community behaviour during the COVID-19 pandemic, stating that more than half of the respondents implemented the health regulations well (12) . Many respondents still did not comply with the regulations, which may be caused by internal or external factors. Internal factors may include personality, beliefs, knowledge, attitudes, age, and gender. External factors may include the environment, local customs and culture, the availability of health facilities, and the support of others (13,14).

In this study, the public mainly retrieved information about the COVID-19 pandemic from social media because it was easy, affordable, and flexible. Therefore, social media is important in providing the right information and influencing public knowledge about COVID-19 (15). According to Zhong et al (2021) believes that doctors and nurses are the most trusted sources of information about COVID-19, but access to this information is difficult (16). In this case, health professionals and the government can use social media and television to provide accurate COVID-19 information, rectify false news, and provide health education to the public (12,13,15).

The implementation of health regulations, as observed in this study, is in accordance with the Decree of the Minister of Health of the Republic of Indonesia (4). Globally, WHO also recommended wearing masks since the beginning of the pandemic to increase personal protection and avoid transmission (17). These results align with a survey from the Ministry of Health's research and development agency, stating that during the pandemic, people complied with the mandatory mask-wearing (18). In the implementation, it is important to monitor the correct use of masks, the production, the reuse of masks, and sanitation (19).

Most Panyileukan residents (53.2%) washed their hands before and after doing activities. These results align with Dwipayanti's research, stating that many people consider hand-washing an effective action in preventing COVID-19 disease (9). Positive perceptions and attitudes toward hand washing can affect the surrounding environment because people need to set a good and correct example for others in washing hands (9).

This study found that most Panyileukan people (62.3%) adhered to the physical distancing requirements. The results of the national BalitbangKes survey show that people already have the awareness to keep their distance and reduce mobility and travel frequency during the COVID-19 pandemic emergency (18). Most of the population minimises mobility by communicating with family/friends online and doing activities at home (20).

The immune system needs to be optimised to reduce the risk of infection with COVID-19. More than half of Panyileukan residents (54.5%) improved their immune system by maintaining a healthy diet, doing physical activities, getting enough rest, and taking vitamins. Nutrients play an important role in increasing the immune response (21). Therefore, community leaders need to monitor the citizens' health conditions and provide counselling about self-quarantine and guidelines for healthy diets (22).

The compliance dimensions show that more than half of the respondents (63.6%) believed, accepted, and followed the health regulations during the COVID-19 pandemic. Almutairi et al (2020) maintains that trust and confidence lead to a decrease in positive cases (15). Trust leads to compliance and mediates sociopsychological characteristics and adherence to health regulations (24).

Acceptance is rooted in trust or social norms in society (25). In this study, the value of the believing dimension was 55.8%, where more than half of the respondents accepted the COVID-19 health regulations, which resulted in decreasing number of positive cases. In line with the research by Gollwitzer et al (2021), acceptance of quarantine regulations depends on the individual's feelings and thoughts regarding the mutual benefits and morality of the regulation (26). People were willing to sacrifice their interests for the common good, namely preventing the spread of COVID-19. The behaviour will move in a conscious state when it is believed and accepted (27–29).

CONCLUSION

The compliance of the Panyileukan community in implementing health regulations was good but could have been improved because there were still people who did not comply. Compliance can be influenced by internal and external factors. Social media is a source of information that is widely used by the public and can be utilised by the government and health workers in providing accurate COVID-19 information. The compliance of the Panyileukan community has fulfilled all compliance dimensions. This could help prevent and reduce cases of COVID-19 infection.

Conflict of interest
The authors declare that this study contains no actual or potential conflicts of interes.

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