

Study of Knowledge and Compliance at Muhammadiyah Autonomous Organization (ORTOM) on COVID-19 Prevention

Idham Choliq^{1*}, Mundakir², Dede Nasrullah³, Sukadiono⁴, Vika Ramadhana Fitriyani⁵

¹Departement of Community and Public health Nursing, Faculty of Health Science, Universitas Muhammadiyah Surabaya

²Departement of Mental health Nursing and Nursing Management, Faculty of Health Science, Universitas Muhammadiyah Surabaya

³Departement of Management, gerontology, public health, Faculty of Health Science, Universitas Muhammadiyah Surabaya

⁴Departement of Medicine, Universitas Muhammadiyah Surabaya

⁵Departement of Nursing, Universitas Muhammadiyah Surabaya

Corresponding author: Idham Choliq, Raya Sutorejo No.59, Dukuh Sutorejo, 60113, 031 3811966 ext. 123/ Fax 031 3813096, idhamcholiq@fik.um-surabaya.ac.id

DOI: <https://doi.org/10.30787/gaster.v20i1.784>

ARTICLE INFO

Keywords : *Compliance, COVID-19, Knowledge, Ortom Muhammadiyah,*

ABSTRACT

Introduction: *This study was conducted to determine the knowledge and compliance of the COVID-19 pandemic prevention among cadres of Ortom Muhammadiyah in Surabaya.*

Methods: *This study used a cross-sectional design with 315 respondents in the Muhammadiyah autonomous organization in Surabaya. The inclusion criteria in this study included cadres of Ortom Muhammadiyah living in Surabaya aged ≥ 18 .*

Result: *Overall from the analysis results, it was found that some respondents (64%) had good knowledge, (31%) had sufficient knowledge, and only (5%) had less knowledge. Whereas in compliance, it was found that most of the respondents (72%) had good compliance, (23%) had sufficient compliance, and only (5%) were less compliance.*

Conclusions: *The majority of Muhammadiyah residents in Surabaya have good knowledge and compliance. This shows that the involvement of organizations in relation to handling COVID-19 is very important, especially the Muhammadiyah organization through its various instruments conducting campaigns and efforts to prevent the spread of COVID-19 in the community.*

INTRODUCTION

During the coronavirus pandemic, the government has put in place countermeasures to prevent the virus. Common measures are self-isolation and quarantine (Smith *et al.*, 2020). Compliance with protective measures and self-isolation is needed as a way to stop a pandemic. That in epidemic situations, one's noncompliance tends to affect the health of others. (Kowalski *et al.*, 2020). As of August 16, 2020, the disease is spreading rapidly globally and has reached around 215 countries, causing 21,294,845 confirmed cases and 761,779 deaths (WHO, 2020). In Indonesia, this virus was first announced in early March to have been infected. Data as of July 12, 2020, Indonesia has ranked 26 with 75,699 people, total death of 3,606, and a cure rate of 35,638, while 36,455 people are currently being treated. East Java Province has the highest number of cases, with 16,658 people with a death rate of 1240 and a cure rate of 6606, while 8522 were treated. Based on the map of the distribution of East Java cases, Surabaya City ranks first, totaling 7209 people with 610 deaths and 3477 recovery rates. (infocovid19.jatimprov.go.id, 2020).

Meanwhile, efforts to reduce the rate of spread of the virus in the community include implementing health protocols, maintaining

distance, staying away from crowds, wearing masks, and washing hands frequently with soap (Bodas & Peleg, 2020; WHO, 2020; Mechessa *et al.*, 2020). Public knowledge about COVID-19 is very important for behavior change based on policies from health authorities. The importance of public education and certain community involvement in responding to the COVID-19 pandemic (Pascawati & Satoto, 2020)

The involvement of certain communities such as community organizations in this case the autonomous organization (ORTOM) Muhammadiyah which consists of the Muhammadiyah Student Association (IMM), Muhammadiyah Youth and Nasyiatul Aisyiyah (NA) in handling COVID-19 is very important (Nurmandi & *et al.*, 2020). Because of Muhammadiyah, their parent organization has appealed to all its citizens, including the involvement of ORTOM to be active in the response to COVID-19. Various policies were issued in response to this outbreak 1) Establishing Muhammadiyah COVID-19 Command Center (MCCC) 2) Postponing congress activities 3) Postponing national meetings 3) Prohibiting learning activities or face-to-face lectures 5) Creating programs in the Social and Economic Sector 6) Appealing to residents in the red zone to carry out sunnah

and fardu worship at home (Ibtimes.id, 2020; (Pimpinan Pusat Muhammadiyah, 2020)

ORTOM cadres obedience to the call of the board of Muhammadiyah Central (PPM) is very necessary. Therefore, we will examine the description of behavior and the level of obedience of Muhammadiyah members.

METHODS AND MATERIALS

This study used a cross-sectional design and was carried out on Muhammadiyah residents in Surabaya. This research was conducted on 1-30 September 2020. The inclusion criteria in this study included ORTOM Muhammadiyah cadres, domiciled in Surabaya, aged ≥ 18 , and able to understand Indonesian well. The population in this study were all cadres of the Muhammadiyah Ortom in Surabaya. The sample in this study were 315 where the respondents were selected through purposive sampling. Researchers distributed questionnaires available in google form at the right time. The questionnaire used consists of demographic and behavioral variables. Behavior consists of knowledge, attitudes and actions that are relevant to COVID-19. To measure knowledge on COVID-19, consisting of questions on the definition of Covid-19, signs and symptoms, modes of transmission, prevention and management *efforts*. This research was conducted by distributing

questionnaires in the form of google form to the selected sample. Data were entered into Microsoft Excel 2013 and analyzed in SPSS version 21. Descriptive analysis was used to demonstrate demographic, knowledge, and compliance characteristics. The ethical feasibility test of this research was obtained from the Health Research Ethics Committee of the Muhammadiyah University of Surabaya with letter number: 034 / KET / II.3 / AU / F / 2020.

RESULTS AND DISCUSSION

Demographic Characteristics

Characteristics of respondents seen in terms of gender, age, latest education and position in Muhammadiyah Surabaya City. From 315 respondents, it was found that most of the respondents (55%) were male, (50%) were <25 years old, (69%) had last high school education, and most (49%) IMM cadres involved in this study (table 1)

Table 1. Characteristics of respondents

No	Respondent	Sum (n)	Percentage (%)
1	Sex		
	a. Male	173	55
	b. Female	142	45
	Total	315	100
2	Age		
	<25	157	50

No	Respondent	Sum (n)	Percentage (%)
	26-35	87	28
	36-45	71	22
	Total	315	100
3	Education		
	Senior High School	155	49
	DIPLOMA	9	3
	Undergraduate	124	39
	Graduate	27	9
	Total	315	100
4	Position		
	IMM	155	49
	NA	55	18
	PM	105	33
	Total	315	100

Knowledge Assessment

Overall from the results of the distribution analysis, it was found that some respondents (64%) had good knowledge, (31%) had sufficient knowledge, and only (5%) had less knowledge. In the question item about knowledge 59% of respondents answered incorrectly that COVID-19 does not attack the respiratory system. The majority of respondents answered correctly about the transmission, signs and handling of COVID-19 (table 2).

No	Knowledge	True n (%)	False n (%)
1	COVID-19 is a contagious disease that does not attack the respiratory system	129 (41)	186 (59)
2	COVID-19 is not airborne	164 (52)	151 (48)
3	COVID-19 can be transmitted by not wearing a mask	302 (96)	13 (4)
4	Covid-19 transmission can occur because of keeping distance from people who are positive for COVID-19	306 (97)	9 (3)
5	Transmission of COVID-19 can occur through objects and surfaces contaminated by an infected person	290 (92)	25 (8)
6	Fever, feeling tired and dry cough are signs of COVID-19	299 (95)	16 (5)
7	Reactive Rapid test means positive for coronavirus	95 (30)	221 (70)
8	COVID-19 cannot heal on its own	129 (41)	186 (59)
9	People who confirm positive based on the PCR Swab test with no symptoms should be admitted to the hospital	123 (39)	192 (61)
10	People who are confirmed positive for COVID-19 with comorbidities (diabetes, asthma, and heart disease) should be treated at home	69 (22)	246 (78)

Adherence Assessment

Overall, the distribution analysis found that most of the respondents (72%) had good adherence, (23%) had sufficiently obedience, and only (5%) were less obedient. In the question item about compliance, 45% answered that they did not

always comply with information related to handling COVID-19 from the government. 87% carried out all the appeals from PP Muhammadiyah regarding the prevention of COVID-19. 92% of the obligatory prayers (Rawatib) at home according to Muhammadiyah's appeal. (table 3)

No	Adherence	YES n (%)	NO n (%)
1	Have you never used a mask when going out of the house?	47 (15)	268 (85)
2	Do you pray compulsory (Rawatib) at home according to PPM's appeal?	290 (92)	6 (2)
3	Do you still perform tarawih prayers in the mosque?	38 (12)	277 (88)
4	Do you still perform Eid prayer in the field/mosque?	38 (12)	277 (88)
5	Do you still perform Eid al-Adha prayers in the field/mosque?	60 (19)	255 (81)
6	Do you replace Friday prayers with midday prayers at home?	246 (78)	69 (22)
7	Do you always comply with information regarding handling COVID-19 from the government	176 (56)	139 (44)
8	Are you carrying out all the appeals from PP Muhammadiyah regarding the prevention of COVID-19?	274 (87)	41 (13)

DISCUSSION

Characteristics of respondents

Characteristics of respondents in this research sample were individual characteristics that include age, gender, and education. In this study, most of the age characteristics were teenagers (Table 1). At that age, there would be an increase in one's physical performance and skills as well as an increase in high curiosity. According to

Lawrence Green, age is a factor that can encourage the creation of a behavior (Yaslina, Murni, & et al, 2019).

In this study, the majority of the respondents were male. Gender is an enabling factor or a predisposing factor that influences a person's health behavior (A. Sari, et, al 2020). In this study, the education level of most of the respondents was secondary education (SMA). The level of education is

one of the factors that influence a person's knowledge and actions because knowledge will directly affect behavior (Dharmawati & Wirata, 2016).

Knowledge and compliance of Muhammadiyah autonomous organizations

This study describes the level of knowledge and compliance of Muhammadiyah autonomous organizations. The results of this study indicate that the level of knowledge of respondents only (5%) has less knowledge. Whereas for each question item, more than (92%) respondents stated that they knew about the transmission, signs, and handling of COVID-19.

The knowledge of the Indonesian people about Covid-19 is good. This is supported by research conducted by Yanti et al (2020) which found that 99% of Indonesians have good knowledge, 59% have a positive attitude and 93% have good behavior. to efforts to prevent Covid-19 in Indonesia, especially in carrying out social distancing. Yanti et al's research also add that this high level of knowledge is also supported by the level of education. It is hoped that the higher a person's education, the easier it will be to get access to information about a problem, in this case including health problems (Saputra, Albeth Wahyu, et all, 2020).

The results of the research on the perception of benefits. It was found that the majority of individuals have a very useful perception positive. This shows that almost all individuals are aware of the benefits they get if they carry out health protocols. It is also appropriate with the research of Jose, Regi, et al (2020) which states that the majority of individuals find it very easy to avoid coronavirus infection if they implement health protocols required by the government this will affect compliance in implementing health protocols

This result is higher than previous studies in the Mizan-Aman community in Southwest Ethiopia; only 85% knew about the main clinical symptoms of COVID-19, its transmission, and prevention (Mechessa *et al.*, 2020). Meanwhile, the level of compliance of respondents was found (72%) had good adherence, (23%) had sufficient compliance, and only (5%) were less obedient. In the question item about compliance, 45% answered that they did not always comply with information related to handling COVID-19 from the government. 87% carried out all the appeals from PP Muhammadiyah regarding the prevention of COVID-19. 92% of the obligatory prayers (Rawatib) at home according to Muhammadiyah's appeal.

According to Atiqoh & Devi (2020), there is a relationship between public knowledge and compliance with the use of masks as an effort to prevent Covid-19 disease, this is supported by Almi's statement (2020) which explains that confidence in a person's ability and ability to be able to carry out health protocols can be grown by looking at past health achievements; see the success of others, be firm with yourself and eliminate emotional attitudes and set goals (Afrianti, Novi 2020).

According to Notoatmodjo, a person's education regarding health will affect their health behavior, this is because with education it will be easier to gain knowledge and create disease prevention efforts. If the level of education and knowledge is good, then the behavior formed will also be good (Gannika & Sembiring, 2020). Based on this, to improve a person's healthy behavior, it is also necessary to increase health knowledge.

In this study, the majority of respondents were active in the Muhammadiyah Student Association. The social environment can provide knowledge or experience to someone either directly or indirectly which will also affect a person's process of receiving knowledge. The Muhammadiyah Student Association is a student organization where

they certainly get a lot of information about COVID-19 in the media or the surrounding environment.

Previous public health measures mentioned the need for social policies and moral obligations to increase adherence to health protocols (Webster *et al.*, 2020). Our research found that the level of obedience of Muhammadiyah members based on the rules made shows a high number of 72 obedient and 23% quite obedient while only 5% less obedient (table 3). In addition, non-compliance with social distancing may be higher in the context of groups without social safety nets (Nivette *et al.*, 2021)

Muhammadiyah, as one of the Islamic organizations in Indonesia, has a role to play in efforts to prevent COVID-19. Muhammadiyah emphasized especially on citizens to always remain vigilant and efforts to overcome various problems of the Covid-19 pandemic, both health, social and economic. Muhammadiyah even issued a rule so that its citizens should not pray at the mosque if they are in an unsafe place (red zone) to maintain distance and break the chain of spreading Covid-19 (Pimpinan Pusat Muhammadiyah, 2020)

The high level of knowledge and compliance of Muhammadiyah members

is based on the rules that have been made and by the Muhammadiyah. This policy is continuously disseminated through various means and media. So that it can affect the behavior and obedience of Muhammadiyah members. The level of education also indirectly affects the excellent conduct of Muhammadiyah residents, wherein in this study, 39% had a Bachelor's degree, and 9% had a Master's degree. It is possible that the respondents also had good prior knowledge about COVID-19, which was obtained from various media channels and sources, both internal to Muhammadiyah or others.

CONCLUSIONS AND SUGGESTIONS

This study explains that the Muhammadiyah's members in Surabaya are knowledgeable and compliant. This shows that the interaction of the community in its environment with handling COVID-19 is very important, especially the Muhammadiyah Ortom through its various instruments conducting campaigns and preventing the spread of COVID-19 in the community.

REFERENCES

Atiqoh & Devi. (2020). The relationship between public knowledge and compliance with using masks as an

effort to prevent Covid-19 disease in Ngronggah. *Jurnal INFOKES* vol 10 no 1 (2020).

Afrianti, Novi. (2020). Factors Affecting Community Compliance With The Covid-19 Health Protocol. *Jurnal Ilmiah Permas: Jurnal Ilmiah STIKES Kendal* Volume 11 No 1, Hal 113-124, Januari 2021

Almi. (2020). Analisis Penyebab Masyarakat tidak patuh pada protocol Covid-19.

Dharmawati, I., & Wirata, I. (2016). Hubungan Tingkat Pendidikan, Umur, Dan Masa Kerja Dengan Tingkat Pengetahuan Kesehatan Gigi Dan Mulut Pada Guru Penjaskes Sd Di Kecamatan Tampak Siring Gianyar. *Jurnal Kesehatan Gigi*, Vol. 4, hal. 1-5.

Cinthy Afro, Rahmafik, et al. Analysis Of Factors Affecting Health Protocols Compliance During Covid-19 Pandemic In East Java Community: Health Belief Model Approach. *Journal Of Community Mental Health And Public Policy (CMHP)* Oktober 2020: Vol. 3 No. 1 (1-10)

Gannikaa, L., & Sembiring, E. E. (2020). Tingkat Pengetahuan dan Perilaku Pencegahan Coronavirus Disease 2019

- (COVID-19) Pada Masyarakat Sulawesi Utara. *NERS: Jurnal Keperawatan*, 16(2), 83–89
- Ibtimes.id (2020) *Kebijakan Muhammadiyah Selama Masa Pandemi COVID-19*. Available at: <https://ibtimes.id/> (Accessed: 18 November 2020).
- Infocovid19.jatimprov.go.id (2020) *PETA SEBARAN COVID-19 JATIM*. Available at: <http://infocovid19.jatimprov.go.id/> (Accessed: 7 July 2020).
- Jose, Regi et al. (2020) . Public perception and preparedness for the pandemic COVID 19: A Health Belief Model approach. *Clinical Epidemiology and Global Health journal*.
- Kowalski, J. *et al.* (2020) ‘Adherence to safety and self-isolation guidelines, conspiracy and paranoia-like beliefs during COVID-19 pandemic in Poland - associations and moderators’, *Psychiatry Research*, 294(October). doi: 10.1016/j.psychres.2020.113540.
- Mechessa, D. F. *et al.* (2020) ‘Community’s Knowledge of COVID-19 and Its Associated Factors in Mizan-Aman Town,’ *International Journal of General Medicine*, 13(9), pp. 507–513.
- Nivette, A. *et al.* (2021) ‘Non-compliance with COVID-19-related public health measures among young adults in Switzerland: Insights from a longitudinal cohort study’, *Social Science and Medicine*. Elsevier Ltd, 268(August 2020), p. 113370. doi: 10.1016/j.socscimed.2020.113370.
- Nurmandi, A., & et al. (2020). Peran Lembaga Swadaya Masyarakat dalam Menangani Pandemi COVID-19 di Indonesia. <https://www.umy.ac.id/Peran-Lembaga-Swadaya-Masyarakat-Dalam-Menangani-Pandemi-Covid-19-Di-Indonesia.Html>.
- Pascawati, N. A., & Satoto, T. B. T. (2020). Public knowledge, attitudes and practices towards COVID-19. *International Journal of Public Health Science*, 9(4), 292–302. <https://doi.org/10.11591/ijphs.v9i4.20539>
- PIMPINAN PUSAT MUHAMMADIYAH (2020) ‘TUNTUNANDAN PANDUAN MENGHADAPI PANDEMI DAN DAMPAK COVID-19’, pp. 0–12.
- Saputra, Albeth Wahyu, et all (2020). Relationship Levels Of Knowledge About Covid-19 To Compliance With The Lockdow Program To Reduce

- The Spread Of Covid-19 In Indonesia Adventist Students. *Nutrix Jurnal* Vol 4 No 2
- Sari, A., Rachman, F., & Dkk. (2020). Perilaku Pencegahan Covid-19 Ditinjau dari Karakteristik Individu dan Sikap Masyarakat. *Journal of Chemical Information and Modeling*, Vol. 53, hal. 1689–1699.
- Smith, L. E. *et al.* (2020) ‘Factors associated with adherence to self-isolation and lockdown measures in the UK: a cross-sectional survey’, *Public Health*, 187, pp. 41–52. doi: 10.1016/j.puhe.2020.07.024.
- Yanti, *et al* (2020) Community Knowledge, Attitudes, And Behavior Towards Social Distancing Policy As Prevention Transmission Of Covid-19 In Indonesia, *JAKI (Jurnal Administrasi Kesehatan Indonesia) Volume 8* (2020).
- Yaslina, Y., Murni, L., & dkk. (2019). Hubungan Karakteristik Individu dan Dukungan Sosial Dengan Perilaku Pencegahan Stroke Pada Masyarakat Diwilayah Kerja Puskesmas Gulai Bancah. *Journal of Chemical Information and Modeling*, Vol. 53, hal. 1689–1699.
- Webster, R. K. *et al.* (2020) ‘How to improve adherence with quarantine: rapid review of the evidence’, *Public Health*. The Royal Society for Public Health, 182, pp. 163–169. doi: 10.1016/j.puhe.2020.03.007.
- WHO (2020) ‘Coronavirus disease 2019 (COVID-19) Situation Report – 94’, *World Health Organization*, 2019(March), p. 2633. doi: 10.1001/jama.2020.2633.