



CASE REPORT

CHARACTERISTICS OF HOSPITAL EMPLOYEES CONFIRMED COVID-19 IN HAJI GENERAL HOSPITAL SURABAYA

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Abstract

Objectives : The study aimed to determine the profile and characteristics of hospital employees who were confirmed to have COVID-19 at Haji General Hospital Surabaya

Methods : The study is an observational analytic with retrospective cross-sectional design using medical records data at Haji General Hospital Surabaya. The total sample of this study was 73 respondents. Data was collected using a total sampling technique and data from a google form questionnaire filled out by respondents.

Results : 56 confirmed COVID-19 medical personnel (76.7%) while 17 non-medical personnel (23.3%). Most of the respondents were in the age group 30-39, namely 24 people (32.88%), the sex most exposed to COVID-19 was women, namely 56 (76.7%). The most comorbid disease was hypertension 8 people (10.96%), while 43 people (58.9%). Health protocols that are always carried out are the use of surgical masks as many as 60 people (82.2%), keeping a distance from co-workers as many as 34 people (46.6%), frequent washing of hands 52 people (71.2%), AC in the work room ON 47 people (64.4%) , and the behavior of always using personal prayer tools 55 people (75.3%). Health protocols that are sometimes carried out mostly include the use of N95 masks or surgical masks + N95 as many as 36 people (49.3%) and the use of faceshields as many as 36 people (49.3%).

Conclusions : In this study the most medical personnel confirmed COVID-19, the most age range was 30-39 years, most patients did not have comorbidities, the most health protocols that were always carried out were wearing surgical masks, keeping a distance frequently washing hands, using personal prayer tools.

Keywords: characteristics, hospital employees, covid 19

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1 | INTRODUCTION

Coronavirus Disease 2019 (COVID-19) is an infectious disease caused by Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) which attacks the respiratory system. (1) SARS-CoV-2 is a new type of coronavirus that has never been previously identified in humans. This virus was first discovered in Wuhan, China. According to WHO (2020), globally this virus has infected 35 million people as of October 7, 2020. The SARS-CoV-2 virus is sensitive to heat because this virus is a single strain of RNA. The host or host of this virus is thought to come from animals, especially bats. (2) The number of deaths reached 1 million people. The typical symptoms of COVID-19 are shortness of breath, cough, fever, while additional symptoms are fatigue, anosmia, hypogeusia, sore throat, anorexia, myalgia, sputum production, diarrhea, vomiting, nausea, hemoptysis, abdominal pain. (3)

The first case of COVID-19 was discovered in China. There are 28 countries recorded including America, Thailand, Hong Kong, France, Malaysia, Singapore, Japan, Australia and others. (4) The spread of the COVID 19 virus has spread in various countries including Indonesia. The Indonesian government's COVID-19 Task Force on September 1, 2020 reported 174,796 confirmed cases of COVID-19, the highest in Asia with 7,417 deaths (CFR 4.24%) spread across 34 provinces. (5) The rapid development of COVID-19 cases affects health services because health workers are at the forefront of caring for patients. Deaths of medical personnel due to COVID-19, especially doctors and nurses, are increasing. The latest data shows that around 101 medical colleagues (as of 31 August 2020) died due to COVID-19. Guidelines for handling covid 19 already exist and have been socialized, but there are still many confirmed cases of health workers, and the incidence of mortality of health workers due to Covid 19 continues to increase.

The incident of health workers confirmed by Covid 19 greatly affected the performance of hospitals as an industry engaged in the health sector. Confirmed health workers must self-isolate or even because of

the condition of health workers so they need to be hospitalized in the Covid 19 isolation room. This will greatly affect the arrangement of the duties of other health workers. Even some inpatient rooms were forced to close due to a lack of health personnel which will affect the performance and income of the hospital. The impact on the community is very significant, with the reduction in hospital beds, causing delays in patients with indications for hospital admission. As a result of this situation, the morbidity and mortality rates will increase.

Therefore, it is necessary to examine the distribution of health workers who have been confirmed to have Covid 19 even though they have implemented guidelines for handling COVID-19 as basic data for better prevention and handling of COVID-19.

2 | METHODS

This research is analytic observational with cross sectional study approach. Sampling was done by consecutive sampling. The sample in this study were health workers at the Haji General Hospital who were confirmed positive for COVID-19. The total sample of this study was 73 respondents. The research was conducted at Haji General Hospital Surabaya. The data taken comes from secondary data, namely from medical records of RSU Haji Surabaya and data from the PPI Committee of RSU Haji Surabaya. This research was conducted from February to March 2021. The general characteristic data in the assessment data collection sheet is arranged in the form of a table, the data is tabulated and statistically processed.

Supplementary information The online version of this article (<https://doi.org/xx.xxx/xxx.xx>) contains supplementary material, which is available to authorized users.

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3 | RESULTS

Based on the characteristics of respondents who were confirmed positive for COVID-19, 56 medical personnel (76.7%) were found, while non-medical personnel were 17 people (23.3%). The most age distribution in respondents was the age group 30-39, namely 24 people (32.88%) while the sex most exposed to COVID-19 was women, namely 56 (76.7%). Table 1

Based on the characteristics of respondents based on blood type and history of comorbidities, it was found that the most confirmed blood group for COVID-19 was blood type O as many as 24 people (26.03%). The most confirmed disease history of COVID-19 is hypertension as many as 8 people (10.96%), people who do not have comorbidities as many as 43 people (58.9%), while others as many as 8 people (10.96%) are obese, pregnant, and a history of allergies .

Based on the distribution of health protocols carried out by hospital employees related to behavior that is always carried out is the use of surgical masks as many as 60 people (82.2%), keeping a distance from co-workers as many as 34 people (46.6%), frequently washing hands 52 people (71.2%), air conditioning 47 people (64.4%), and the behavior of always using personal prayer tools 55 people (75.3%). Health protocols that are sometimes carried out mostly include the use of N95 masks or surgical masks + N95 as many as 36 people (49.3%) and the use of faceshields as many as 36 people (49.3%).

4 | DISCUSSION

From the results of this study, it was found that more medical personnel were confirmed to be COVID-19 than non-medical personnel. This is because medical personnel interact more frequently and have close contact with patients at the hospital. Health workers are at the forefront of handling COVID-19 positive patients. This is what makes them a vulnerable group for infection, because health workers who treat COVID-19 patients are at risk of being infected with Covid 19. Therefore, hospital employees in which there are Health workers must be able to do prevention and self-protection while on duty to care for

patients or during direct contact with patients.

From the results of this study, it was found that the most confirmed ages for COVID-19 were 30-39 years old and 40-49 years old. According to other studies, older adults, cardiovascular disease, diabetes, chronic respiratory disease, and hypertension are associated with increased exposure to COVID-19. (6) According to research in New Delhi, infection with the COVID-19 virus is dominated by young adults. This may be due to limited travel by the very young and elderly and may not be related to the vulnerability of the population. Majority (61.9%) of patients had a history of international travel. (7) (8)

Based on the results of this study on comorbidities, most of the hospital employees did not have comorbidities but the patients who had the most comorbidities were hypertension. This is also supported by another study which explained that a meta-analysis of eight studies including 46,248 patients with laboratory-confirmed COVID-19 showed that those with the most severe disease were more likely to have hypertension (odds ratio 2.36 (95% confidence interval 1.46 to 3.83)), respiratory disease (2.46 (1.76 to 3.44)), and cardiovascular disease (3.42 (1.88 to 6.22)). (9)

From the results of this study, the most health protocols that are always carried out are the use of surgical masks, keep a distance, wash hands frequently, use personal prayer tools. The health protocols that are sometimes carried out are mostly the use of N95 masks or surgical masks + N95 and the use of face shields. From this, hospital employees who are confirmed to have COVID-19 have carried out health protocols while working at the Surabaya Hajj Hospital. It is possible that the actual source of transmission is outside the hospital, for example transmission through travel clusters and clusters of family or close friends. According to other studies, social representations form something organized that groups various types of elements such as judgments, attitudes, information, or emotions. This is a practical way of thinking that translates the appropriation of objects by social groups as a guide to action. Therefore, it is necessary to analyze the social representation of Covid-19 in the community. (10)

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TABLE 1: Characteristics of Respondents by Age and Gender

Variable	n	%
Age		
20-29	10	13.70
30-39	24	32.88
40-49	20	27.39
50-59	19	26.03
Total	73	100%
Gender		
Male	17	23.3
Female	56	76.7
Total	73	100%

TABLE 2: Characteristics of Respondents by Blood Type and Comorbid History

Variable	n	%
Blood type		
A	11	13.70
B	31	32.88
AB	6	27.39
O	24	26.03
Total	73	100%
comorbid		
Hypertension	8	10.96
Diabetes Mellitus	5	6.85
Heart diseases	5	6.85
Lung Diseases	4	5.48
Etc	8	10.96
No comorbid	43	58.9
Total	73	100%

TABLE 3: Health Protocols that have been carried out

	Always		Often		Rarely		Never	
	n	%	n	%	n	%	n	%
Surgical Mask	60	82.2	7	9.6	5	6.8	1	1.4
N95 Mask	13	17.8	14	19.2	36	49.3	10	13.7
Surgical Mask + N95	13	17.8	14	19.2	34	46.6	12	16.4
Using of Faceshield	16	21.9	18	24.7	36	49.3	3	4.1
Keeping distance with workmate	34	46.6	26	35.6	13	17.8	0	0
No eat together	27	37	24	32.9	20	27.4	2	2.7
Washing the hands	52	71.2	15	20.5	6	8.2	0	0
AC in office ON	47	64.4	9	12.3	13	17.8	4	5.48
Regulating air circulation (opened windows etc)	32	43.8	22	30.1	13	17.8	6	8.2
Using a personal prayer tool	55	75.3	10	13.7	8	10.9	0	0

Factors that influence health workers in providing health services are internal factors and external factors. Internal factors are factors that come from within a person that can affect a person's personality, someone's performance or someone's view. In this study, internal factors that can affect the health picture of health workers related to the confirmation of the Covid 19 virus are age, gender, comorbidities. Meanwhile, external factors that can affect the health picture of medical personnel related to the confirmation of the Covid 19 virus are the source of exposure, risk factors and the initial status of medical personnel.

In this study, the most medical personnel were confirmed to be COVID-19, the most age range was 30-39 years, most patients did not have comorbidities, the most health protocols that were always carried out were wearing surgical masks, keeping a distance frequently, washing hands, and using personal prayer tools. The health protocols that are sometimes carried out are mostly the use of N95 masks or surgical masks + N95 and the use of face shields.

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Disclosure of Interest

The authors report no conflicts of interest, and no relevant financial and non-financial competing interest for this study. The authors are responsible for the content and writing of this article.

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