Management Factors for COVID-19 Confirmed Patients in Public Hospitals

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Article Information

Abstract

Introduction: *The management of patients confirmed positive for COVID-19 is a guideline for actions in handling people who are confirmed positive for COVID-19 through SWAB PCR examination according to their severity.* ***Objective:*** *The purpose of the study was to determine the management factors of COVID-19 confirmed patients at Merauke District Hospital.* ***Method:*** *Quantitative research with cross-sectional design. The research location is at the Regional General Hospital of Merauke Regency.* ***Result and Discussion:*** *The results of the study were that women were the most dominant (87.6%) in carrying out the management of COVID-19 confirmed patients with early adulthood age of 26-35 years (73.4%) and had a new working period of <6 years (37.2%). The ability of human resources in the Merauke District General Hospital is mostly (61%) in the good category and excessive workload (71.4%). The management facilities for COVID-19 confirmed patients at the Merauke Regency General Hospital met the guideline requirements (72.4%).* ***Conclusion:*** *The test results of the study showed that there was a relationship between facilities (p = 0.033; PR:2,970) with the management of patients confirmed with COVID-19. However, there was no relationship between the ability of health human resources (p = 0.763; PR:1.168), and workload (p=0.149; PR:2,116) with the management of patients confirmed with COVID-19 at the Merauke Regional General Hospital.*
Keywords: Governance; Facilities; COVID-19; Merauke Regional Hospital;

Introduction

COVID-19 is a disease that has presented serious challenges to global health since it was first identified in 2019. This virus, caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), has the ability to cause varying degrees of disruption of the respiratory system, ranging from mild symptoms to severe lung infections, even leading to death. The existence of this virus does not look at age or condition, so children, adults, the elderly, pregnant women, and nursing mothers are all susceptible to this infection (Kemenkes RI, 2020).

At the end of 2019, Wuhan, Hubei Province, China, became the epicenter of the spread of a mysterious disease with pneumonia symptoms of unknown cause. As it turned out, these cases were eventually identified as new diseases caused by a new type of coronavirus, known as COVID-19. The rapid global spread and significant impact on public health led the World Health Organization (WHO) on March 11, 2020, to declare COVID-19 a pandemic (Kemenkes RI, 2020).

The development of the COVID-19 epidemic cannot be ignored, and as of August 15, 2022, more than 585 million confirmed cases of COVID-19 have been recorded worldwide, with the death toll reaching more than 6.4 million cases. Southeast Asia, as one of the affected regions, reported more than 59 million confirmed cases. Indonesia, as one of the countries in Southeast Asia, ranks second with more than 6.2 million confirmed cases and more than 157 thousand deaths (WHO, 2022).

However, more than just global figures, it is also important to understand the situation at regional and local levels. Papua Province, in Indonesia, is one of the regions facing serious challenges in handling COVID-19. With more than 49,000 confirmed cases and a death rate of 580 cases per 100,000 population, Papua has the fourth highest incidence rate in Indonesia. Merauke district, as part of Papua Province, recorded a high mortality rate, especially compared to other regions in the province (COVID-19 Task Force, 2022).

The Regional General Hospital (RSUD) of Merauke Regency is a referral hospital for handling COVID-19 in the region and is also the first hospital to confirm a case of COVID-19 in Papua Province. This hospital has a crucial role in dealing with this pandemic. However, obstacles such as the limited number of medical personnel, limited personal protective equipment, and limited facilities for the treatment of COVID-19 patients, have affected efforts to handle the pandemic at Merauke Regional Hospital (RSUD Merauke, 2021).

This situation shows that the handling of COVID-19 at Merauke Regional Hospital needs more in-depth attention. Therefore, this study aims to identify factors that affect the management of COVID-19 confirmed patients at Merauke District Hospital. A better understanding of these factors will hopefully enable the development of more effective strategies to reduce COVID-19 mortality in the region

Method

Research Design is *cross-sectional* analytics. Conducted in September 2022. Located at Merauke Regional General Hospital. With a population of all medical personnel who treat COVID-19 patients amounting to 140 people. Samples were taken randomly with *a simple random sampling* technique totaling 105 medical personnel consisting of doctors, nurses and midwives. The study used questionnaire measuring instruments and analysis tests using *the chi-square test.*

Result and Discussion
Result

Table 1

Frequency Distribution of Respondents Based on Gender, Age, Length of Work, Education, and Work of Medical Personnel Management of COVID-19 Confirmed Patients at Merauke Regional Hospital in 2022

No	Variable	Frequency (n=105)	Percentage (100%)
1	**Gender**		
	Man	13	12.4
	Woman	92	87.6
2	**Age**		
	26-35 years	77	73.4
	36-45 years	14	13.3
	46-55 years	14	13.3
3	**Length of Work**		
	<6 years	39	37.2
	6-10 years	35	33.3
	>10 years	31	29.5
4	**Recent Education**		
	DIII	69	65.7
	DIV	3	2.9
	S1	25	23.8
	S2	8	7.6
5	**Work**		
	Doctor	4	3.8
	Specialist	8	7.6
	Nurse	87	82.9
	Midwife	6	5.7

Based on the table above, it shows that of the 105 respondents of medical personnel managing COVID-19 confirmed patients at Merauke Regional Hospital, the most were 92 women (87.6%). The highest number of respondents for medical personnel managing patients confirmed with COVID-19 at Merauke Regional Hospital was 77 people (73.3%) aged 26-35 years. The working period of the respondents of medical personnel managing patients confirmed with COVID-19 at Merauke Regional Hospital had the most 39 years of work experience <6 years (37.2%). The last education of the most respondents had the last education Diploma III (DIII) as many as 69 people (65.7%). The most respondents' jobs have a nursing profession of 87 people (82.9%).

Table 2
Distribution of Respondent Frequency Based on Management of COVID-19 Positive
Confirmed Patients, Human Resources Ability, Workload, and Facilities by Medical
Personnel Management of Patients Confirmed Positive for COVID-19 at Merauke
Regional Hospital in 2022

No	Variable	Frequency (n=105)	Percentage (100%)
1	**Management of Patients Confirmed Positive for COVID-19**		
	Done	86	81.9
	Not Done	19	18.1
2	**HR capabilities**		
	Good	64	61.0
	Not Good	41	39.0
3	**Workload**		
	Not Exceeding	30	28.6
	Exceed	75	71.4
4	**Facilities**		
	Qualify	76	72.4
	Not eligible	29	27.6

Based on the table above, it is stated that the management of COVID-19 confirmed patients at Merauke Regional Hospital was mostly carried out by 86 respondents (81.9%). In the ability of Health Human Resources, medical personnel managing patients confirmed with COVID-19 at Merauke Regional Hospital were categorized as good as 64 respondents (61%). The Workload Variable of medical personnel managing patients confirmed with COVID-19 at Merauke Regional Hospital answered that it exceeded the workload by 75 respondents (71.4%). In the management facilities, the most COVID-19 confirmed patients at Merauke Regional Hospital met the requirements of 76 respondents (72.4%).

Bivariate Analysis

Test Results *chi-square* states that the factor that has a relationship with the management of COVID-19 confirmed patients is Facilities (*p-value* 0.033) meanwhile, the factor that has no relationship is HR Capability (*p-value* 0.763), and Workload (*p-value* 0.149)

Table 3
Results of bivariate analysis using chi-square test of management factors for patients
confirmed with COVID-19 at Merauke Regional Hospital

No	Variable	Management of COVID-19 Confirmed Patients				Total		P-*Value*	PR 95% Cl
		Done		Not Done					
		n	%	n	%	n	%		
1	HR capabilities								
	Good	53	82.8	11	17.2	64	100	0.763	1.168 (0.426-3.204)
	Not Good	33	80.5	8	19.5	41	100		
2	Workload								
	Not Exceeding	22	73.3	8	26.7	30	100	0.149	2.116 (0.754-5.935)
	Exceed	64	85.3	11	14.7	75	100		
3	Facilities								
	Qualify	66	86.8	10	13.2	76	100	0.033	2.970 (1.060-8.321)
	Not Eligible	20	69.0	9	31.0	29	100		

The results of data analysis showed that of the 105 respondents, the majority had good health human resources (SDMK) capabilities (64 respondents) and the management of COVID-19 confirmed patients was carried out by 82.8%, while respondents who had poor human resources (41 respondents) had almost the same level of management, namely 80.5%. However, statistical analysis with the Chi-Square test showed that there was no significant relationship between HR ability and the management of COVID-19 patients ($p = 0.763 > \alpha = 0.05$).

Similarly, the workload variable, although most respondents had workloads that exceeded capacity (85.3%) and the majority of them successfully carried out the management of COVID-19 patients, the results of the Chi-Square test showed no significant relationship ($p = 0.149 > \alpha = 0.05$). However, for the variable of COVID-19 patient management facilities, the majority of respondents stated that the facilities met the requirements (86.8%) successfully carried out COVID-19 patient management, and the Chi-Square test results showed a significant relationship ($p = 0.033 < 0.05$) between facilities and COVID-19 patient management

Discussion

The majority of respondents were women (87.6%), while men only accounted for 12.4% of the total 105 respondents. This reflects the dominance of women in the management of COVID-19 patients at Merauke Regional Hospital. In research Rizki &; Lubis, (2013), indicating that women have a higher commitment to their organization than men. Gender also has a positive influence on a person's organizational commitment (Saputra, 2015). Most respondents (73.4%) are in the age range of 26-35 years, which is considered the ideal age for COVID-19 patient management tasks due to a combination of experience and good physical condition. The age of respondents can affect the success

of COVID-19 patient management. A person's age is generally an indicator in every decision making that refers to every experience with more or more age, so in receiving an instruction and in carrying out a procedure will be more responsible and experienced (Ningsih & Marlina, 2020).

The majority of respondents have a higher education (Diploma III), as much as 65.7%, while only a few have a Diploma IV education (2.9%). However, the lack of public understanding about COVID-19 can be a factor causing the high mortality rate in Merauke Regency. Education level can affect the performance of health workers. On research conducted by Kumajas, (2008), stating that there is a significant relationship between education level and the performance of inpatients at Datoe Binangkang Hospital.

Respondents were divided into three categories of length of work, with the majority (37.2%) having less than 6 years of work experience, and 29.5% having more than 10 years of work experience. Length of work can affect performance in the management of COVID-19 patients. The length of work can also affect a person's performance in performing their duties Wulandari et al., (2016). Similarly, the management of patients confirmed with COVID-19 at Merauke Regional Hospital.

The majority of respondents have a nursing education background (82.9%), while some are general practitioners (3.8%). This profession is in accordance with the guidelines for the management of COVID-19 patients who require medical personnel such as general practitioners, specialists, nurses, and midwives. According to the guidelines for the management of patients confirmed with COVID-19, the minimum medical personnel needed in handling patients confirmed positive for COVID-19 at hospitals are general practitioners, specialists, nurses, and midwives (Burhan dkk, 2022).

Most respondents (81.9%) reported that the management of COVID-19 confirmed patients has been carried out well, while 18.1% reported that the management has not been carried out. This shows that there is room for improvement in efforts to manage COVID-19 patients at Merauke Regional Hospital. According to Abaleke et al., (2021), the need for the readiness of facilities and resources of health workers who are able to maintain and improve their health degrees both for themselves and in their environment, especially COVID-19 referral hospitals.

Overall, the results of this univariate analysis provide an overview of the characteristics of respondents and the management conditions of COVID-19 patients at Merauke Regional Hospital. These findings can be used as a basis for identifying potential improvements in health services and management of medical personnel at the hospital.

The results showed that most respondents had good abilities in managing patients confirmed with COVID-19, while some others had poor abilities. However, the results of Chi-Square analysis showed that there was no significant relationship between the ability of medical personnel's health human resources in the management of COVID-19 confirmed patients with a value of $p = 0.763 > \alpha = 0.05$. This means that the ability of health human resources is not considered a significant risk factor in the management of COVID-19 confirmed patients. The results of this study also show that obstacles related to the handling of patients confirmed positive for COVID-19 at Merauke Regional

Hospital are not too influenced by the ability of medical personnel, because they already have adequate management guidelines. However, other obstacles such as the availability of tools for SWAB-PCR and the arrival of patients with severe symptoms have made handling difficult. This research is in line with research Kiting et al., (2017) which also found no relationship between human resources and the performance of non-communicable disease posbindu cadres. However, these results differ from studies conducted by Fatimah &; Sembiring, (2022) which found a significant relationship between HR and the work productivity of implementing nurses.

The results showed that most medical personnel worked beyond the workload considered normal, while some did not exceed the workload. However, the results of Chi-Square analysis showed that workload was not considered a significant risk factor in the management of COVID-19 confirmed patients, with a value of $p = 0.149 > \alpha = 0.05$. Even though medical personnel at Merauke Regional Hospital work more than 40 hours a week, they can still handle patients confirmed positive for COVID-19 well. Previous research conducted by Tristan and Kusni, 2014, showing that there is a significant influence of perceived work bean on performance, so that the hypothesis carried out can be accepted. This study is not in line with research conducted by researchers because there is no significant relationship between workload and management. This research is also not in line with the research conducted Efendi et al., (2021), there is a relationship between workload and work stress of the nurse implementing the central surgical installation of Dr. M. Djamil Padang Hospital in 2020 with a value of $p<0.05$, namely $p = 0.001$.

The results showed that most respondents stated that the facilities at Merauke Regional Hospital were eligible for the management of COVID-19 confirmed patients. However, there are also some who consider the facilities unqualified, even though patient management is still carried out. The results of Chi-Square analysis showed a significant relationship between facilities and the management of COVID-19 confirmed patients, with a value of $p = 0.033 < \alpha = 0.05$. This means that facilities are considered a significant risk factor in the management of COVID-19 confirmed patients

Research observations show that most of the facilities for managing COVID-19 confirmed patients at Merauke Regional Hospital are adequate, although there are still some shortcomings such as oxygen processors that are not yet available. This research is in line with research conducted by Nuriati et al., (2021) There is a relationship between the availability of adequate facilities and facilities with employee compliance in implementing health protocols at work (p value $= 0.000 < \alpha = 0.005$).

Conclusion

The conclusion of this study is that the majority of respondents are women between the ages of 26-35 years, have a diploma education, and have a working period of less than 6 years, and most are nurses. The majority of health human resources (SDMK) capabilities are good, but there is no significant relationship between SDMK and the management of COVID-19 patients.

The majority workload exceeded capacity, but there was no significant relationship between workload and COVID-19 patient management. The COVID-19 patient management facility at Merauke Regional Hospital is eligible, and there is a significant relationship between the facility and the management of COVID-19 patients. The proposed suggestion is the need to increase supervision and maintenance of health facilities to support the management of COVID-19 patients at Merauke Regional Hospital. Further research with samples of patients confirmed positive for COVID-19 is also needed. People also need to increase their knowledge about COVID-19 and seek medical help immediately if they experience symptoms of the disease

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