

The Effect Of The Supply Of Personal Protective Equipment, Implementation Of Health Protocol, And Patient Honesty On The Safety Of Health Personnel In The Er And Infantry Room Of Pure Teguh Hospital

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Abstract

Many health workers in the world have been exposed and some have even died from COVID-19, which is currently a global pandemic. This is thought to be influenced by the personal protective equipment used by health workers, the implementation of health protocols carried out by health workers, and the honesty of patients in conveying their complaints, contact, and travel history. This study aims to determine the effect of the supply of personal protective equipment, implementation of health protocols, and patient honesty on the safety of health workers in the emergency department and inpatient rooms at Murni Teguh Hospital. This type of research is quantitative. The research sample was 100 health workers working in the emergency room and the inpatient room at Murni Teguh Hospital. The results of the chi-square test showed that there was a significant relationship between PPE supply ($p=0.000$), implementation of health protocols ($p=0.003$), and patient honesty ($p=0.000$) on the safety of emergency room health workers and inpatient rooms at Murni Teguh Hospital. The most influential variable is the supply of personal protective equipment (Sig.0.000). It is recommended that hospitals continue to maintain a supply of personal protective equipment to support the safety of health workers in hospitals. Health workers are expected to increase awareness of the use of personal protective equipment and the implementation of health protocols.

Keywords: Supply of personal protective equipment, Implementation of Health Protocols, Honesty of Patients, Safety of Health Workers.

I. INTRODUCTION

Health care facilities are one of the workplaces that have a very high risk of occupational health and safety for human resources who work, patients, patient companions, visitors, and the community around the health facility environment (Widowati, 2018). The Emergency Room is the main entrance for patients who need immediate medical attention. Health workers in hospital emergency departments must perform triage and provide initial treatment when patients arrive at the hospital (Minister of Health, 2018). In the health facility environment, it is necessary to pay attention to the protection of health workers in the form of personal protective equipment, implementation of health protocols and patients are expected to be able to provide honest health information statements so that the risk of exposure to health workers can be reduced (Pakpahan and Litawati, 2021). The form of patient honesty in conveying information about the symptoms experienced is useful for reducing the occurrence of anxiety and transmission to health workers. Patient honesty acts as a source and provisional diagnosis related to risk factors for health workers in dealing with patients. In addition, the patient's honesty in conveying information must be detailed and truthful in order to avoid attempts to hide information about the patient's health condition that is at risk of endangering health workers (Seeger, 2020).

Transmission of disease outbreaks starts from the habit of not wearing personal protective equipment and not complying with the implementation of health protocols. The availability of personal protective equipment needs to be a concern for health facilities in order to achieve occupational safety and health for health workers. However, in the midst of a pandemic situation, a lot of personal protective equipment is needed to meet the needs of the medical personnel on duty. On the other hand, the supply of personal protective equipment has not yet been confirmed to meet the needs during a pandemic outbreak (IDI Executive Committee, 2020). According to the results of an initial survey conducted at the Murni Teguh

hospital, it was found that the personal protective equipment provided by the hospital was limited and there was still negligence in the implementation of health protocols by workers, both medical and non-medical personnel, as well as many patients and their families, who are not honest with health workers about the symptoms, felt medication history, or contact history. Based on the initial observations that have been made, researchers feel the need to conduct research as an effort to minimize the risk of health workers contracting the disease. So, the researcher raised the research title "The Influence of the Supply of Personal Protective Equipment, Implementation of Health Protocols, and Patient Honesty on the Safety of Health Workers in the Emergency Room and Inpatient Room at Murni Teguh Hospital".

II. LITERATURE REVIEW

2.1. Hospital

Hospital is a health service institution that provides complete individual health services that provide inpatient, outpatient, and emergency services. Classification of hospitals based on their shape is divided into three, namely static hospitals, mobile hospitals, and field hospitals. While the classification of hospitals based on the type of service is divided into two, namely general hospitals and special hospitals (Minister of Health, 2020).

2.2. Emergency Room (ER)

The emergency is a clinical condition that requires immediate medical action to save life and prevent disability. Emergency services are defined as medical actions required by emergency patients in an immediate manner to save lives and prevent disability. The emergency Room is a service unit in a hospital that provides initial treatment (for patients who come directly to the hospital) or follow-up (for patients who are referred from other health care facilities), suffering from illness or injury that can threaten their survival. The ER functions to receive, stabilize and manage patients who need immediate emergency treatment, both in daily conditions and in disasters (Minister of Health, 2018). The IGD's general responsibilities are to provide emergency services that aim to treat acute conditions or save lives and/or patient disabilities, receive referral patients who require further/definitive treatment from other health care facilities, and refer emergency cases if the hospital are unable to perform further services (Minister of Health RI, 2018).

2.3. Personal Protective Equipment

Personal protective equipment (PPE) is a tool designed with the hope of being a barrier to the penetration of substances, solid, liquid, or air particles so that the wearer can avoid injury and the spread of infection or disease. With proper use, personal protective equipment is expected to act as a barrier between infectious materials (eg. bacteria and viruses) and the skin, mouth, nose, or eyes (mucous membranes) of health workers (Pakpahan and Litawati, 2021). According to the Task Force for the Acceleration of Handling COVID-19 (2020), the recommended personal protective equipment is a mask (three-ply, N95, and reusable facepiece respirator), eye protection (goggles), face shield, apron, robe, gloves, headgear, shoe covers, coveralls, and boots.

2.4. The Health Protocol

The health protocol is one way that can be done by every individual to avoid the transmission of disease, especially the COVID-19 infection which is becoming a pandemic at this time. Everyone must have the self-awareness to keep implementing health protocols in their daily activities. The Health Protocol that has been enforced by the government is known as the 5 M, namely (a) washing hands; (b) wearing a mask; (c) keeping your distance; (d) staying away from crowds; and (e) reduced mobility.

2.5. Patient Honesty

In the therapeutic engagement agreement, there is a principle of trust where the patient must honestly tell all his health problems related to his complaint without anything to be hidden so that a relationship is formed between both parties. The Vice President accompanied by the Head of the National Disaster Management Agency (BNPB) said that the need for openness and honesty of patients can save lives and stop the transmission of the virus, especially among health workers. Patient information about contact history,

health status, and travel is very influential on patient management. Effective media communication during the Covid-19 pandemic requires five keys, namely credible sources of information, honesty and openness of information, aimed at persuading people to take actions that reduce the danger of contracting, compiled based on the opinions of experts, not amateurs, and consistent (Seeger, 2020).

2.6. Health Workers' Safety

Work safety is the safety of workers related to work tools, materials and processing processes, workplaces and their environment, and ways of doing work. Health workers who work in health care facilities are a group that is very at risk of potential dangers of infectious diseases, accidents (explosion, fire, and other sources of injury), radiation, hazardous chemicals, anesthetic gases, psychosocial and ergonomic disorders. (Widowati, 2018).

III. METHODS

This study uses a quantitative approach, where the study uses statistical analysis that emphasizes hypothesis testing. The data used is measurable data that will produce conclusions to be generalized. The design used for this study is a correlation to analyze the effect of PPE supply, health protocols, and patient honesty on the safety of health workers in the emergency department and inpatient treatment at Murni Teguh Hospital, Medan. The variables used to obtain the results consisted of independent (independent) namely PPE supply (X1), Health Protocol (X2), and Patient Honesty (X3), and the dependent variable, namely Emergency Health Workers Safety (Y). The study was conducted in the Emergency Room and Inpatient at Murni Teguh Hospital in January 2022. The population in this study were all health workers who served in the Emergency Room and Inpatient Hospital at Murni Teguh, amounting to 100 people with a sampling technique using total sampling. Methods of data collection are done by questionnaires and documentation studies. The questions on the questionnaire were tested first with validity and reliability tests. Validity testing was carried out at the Royal Prima Hospital with a total of 30 respondents. The test results of all questions show that the correlation number obtained is greater than the critical number ($r\text{-count} > r\text{-table}$), then the instrument is said to be valid. The questionnaire is said to be reliable if Cronbach's alpha > 0.60 and unreliable if it is equal to or below 0.60. The results of the data test show that all variables have Cronbach's alpha > 0.60 so it can be said to be reliable. Methods of processing and analyzing data were univariate, bivariate, and multivariate analyses.

IV. ANALYZE AND RESULT

Murni Teguh Hospital is one of the private hospitals in Medan City accredited B, located on Jl. Jawa No. 2 Medan. The number of employees at Murni Teguh Hospital is 1060 people, of which 708 people are health workers.

4.1. Univariate Analysis

4.1.1. Characteristics of Health Workers in the Emergency Room and Inpatient Room at Murni Teguh Hospital

Based on the results of the study, it is known that the majority of the age of health workers in the Emergency Room and Inpatient General Hospital Murni Teguh is 25-35 years old, namely 65 people (65%), and the minority age of health workers is > 35 years, which is 10 people (10%). Most of the health workers are female, as many as 70 people (70%), and 30 people (30%) are male. In the emergency room and inpatient rooms, as many as 75 people (75%) work as nurses, and the rest work as doctors. The frequency distribution of the tenure of health workers shows that the majority of the tenure of health workers in the emergency room and inpatient care at the Murni Teguh General Hospital is 1-3 years, namely 53 people (53%), then > 3 years as many as 39 people (39%), and 8 people (8%). The results showed that the majority of health workers in the ER and Inpatient General Hospital Murni Teguh did not have a history of covid, namely 74 people (74%), and a minority of health workers had a history of covid, which was 26 people (26%).

4.1.2. Supply of Personal Protective Equipment in the Emergency Room and Inpatient Room at Murni Teguh Hospital

Table 1. Frequency Distribution of Personal Protective Equipment Supply

PPE Supply	Frequency	Percentage
Safety	72	72%
Not safety	28	28%
Total Amount	100	100%

Table 1 shows that the majority of the supply of personal protective equipment in the Emergency Room and Inpatient Room at Murni Teguh Hospital is in the security category, which is 72 people (72%), and the supply of personal protective equipment in the Emergency Room and Inpatient Room at Pure Hospital is in the no category. safety of as many as 28 people (28%).

4.1.3. Implementation of Health Protocols in the Emergency Room and Inpatient Room at Murni Teguh Hospital

Table 2. Distribution of Health Protocol Implementation Frequency

Health Protocol	Frequency	Percentage
Good	83	83%
Bad	17	17%
Total Amount	100	100%

In table 2 it can be seen that the implementation of health protocols in the ER and Inpatient Room at Murni Teguh Hospital is considered to be in a good category, namely, 83 people (83%), while 17 people (17%) consider it bad.

4.1.4. Honesty of Patients in the Emergency Room and Inpatient Room at Murni Teguh Hospital

Tables 3. Patient Honesty Frequency Distribution

Patient Honesty	Frequency	Percentage
Honest	65	65%
Not Honest	35	35%
Total Amount	100	100%

Based on the results of the study, there were 65 people (65%), who were honest in the ER and the Inpatient Room at Murni Teguh Hospital (65%), and 35 people (35%).

4.1.5. Safety of Health Workers in the Emergency Room and Inpatient Room at Murni Teguh Hospital

Tables 4. Distribution of Health Workers' Safety Frequency

Health Workers Safety	Frequency	Percentage
No risk	62	62%
At-risk	38	38%
Total Amount	100	100%

Table 4 shows that as many as 62 people (62%) said the safety of health workers in the Emergency Room and Inpatient Room at Murni Teguh Hospital was in the no-risk category, while 38 people (38%) said they were at risk.

4.2. Bivariate Analysis

4.2.1. The Effect of the Supply of Personal Protective Equipment on the Safety of Health Workers in the Emergency Room and Inpatient Room at Murni Teguh Hospital

Tables 5. The Influence of the Supply of Personal Protective Equipment on the Safety of Health Workers

PPE Supply	Health Workers Safety				Total Amount		P-value
	No risk		At-risk		n	%	
	n	%	n	%			

Safety	54	75	18	25	72	100	0.000
Not safety	8	28,6	20	71,4	28	100	

Based on the results of the study, it is known that the majority of health workers who supply PPE in the safety category have safety in the non-risk category, namely 54 people (75%), and the minority has safety in the risk category as many as 18 people (25%). The majority of health workers who supply PPE in the unsafe category have safety in the risk category of as many as 20 people (71.4%), and the minority have safety in the non-risk category as many as 8 people (28.6%). The results of the Fisher's Exact Test obtained a value of $p = 0.000$ ($p < 0.05$), it is concluded that there is a significant effect between the supply of PPE on the safety of health workers in the Emergency Room and Inpatient Room at Murni Teguh General Hospital.

4.2.2. The Effect of Health Protocol Implementation on the Safety of Health Workers in the Emergency Room and Inpatient Room at Murni Teguh Hospital

Table 6. Effect of Health Protocol Implementation on Health Workers' Safety

Health Protocol Implementation	Health Workers Safety				Total Amount		P-value
	No risk		At risk		n	%	
	n	%	n	%			
Good	57	68,7	26	31,3	83	100	0.003
Bad	5	29,4	12	70,6	17	100	

In table 6, it can be seen that health workers who carry out health protocols in the good category have safety in the non-risk category as many as 57 people (68.7%), and those who have safety in the risk category are as many as 26 people (31.3%). Health workers who carry out health protocols in the poor category have safety in the risk category as many as 12 people (70.6%), and those who have safety in the non-risk category as many as 5 people (29.4%). The results of the Fisher's Exact Test obtained a value of $p = 0.003$ ($p < 0.05$), it was concluded that there was a significant effect between health protocols on the safety of health workers in the Emergency Room and Inpatient Room at Murni Teguh General Hospital, Medan.

4.2.3. The Effect of Patient Honesty on the Safety of Health Workers in the Emergency Room and Inpatient Room at Murni Teguh Hospital

Table 7. The Effect of Patient Honesty on Health Workers' Safety

Patient Honesty	Health Workers Safety				Total Amount		P-value
	No risk		At-risk		n	%	
	n	%	n	%			
Honest	49	75,4	16	24,6	65	100	0.000
Not honest	13	37,2	22	62,8	35	100	

Based on the results of the study, it was found that the honest patients in the no-risk category were 49 people (75.4%) and in the risky category as many as 16 people (24.6%). The majority of dishonest patients were in the risk category as many as 22 people (62.8%), and the minority was in the non-risk category as many as 13 people (37.2%). The results of the Fisher's Exact Test obtained a value of $p = 0.000$ ($p < 0.05$), it was concluded that there was a significant effect between patient honesty on the safety of health workers in the Emergency Room and Inpatient Room at Murni Teguh General Hospital, Medan.

4.3. Multivariate Analysis

4.3.1. The Influence of the Supply of Personal Protective Equipment, Implementation of Health Protocols, Patient Honesty on the Safety of Health Workers in the Emergency Room and Inpatient Room at Murni Teguh Hospital

Based on the results of the normality test in table 8, it is known that the safety of health workers has a significance value > 0.05 , which is 0.747. So it can be concluded that the data is normally distributed.

Table 8. One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		100
Normal Parameters ^{a,b}	Mean	,0000000
	Std. Deviation	,98882254
Most Extreme Differences	Absolute	,063
	Positive	,063
	Negative	-,074
Kolmogorov-Smirnov Z		,810
Asymp. Sig. (2-tailed)		,747

a. Test distribution is Normal

In this study, the ANOVA test was used to determine the effect of the supply of personal protective equipment, implementation of health protocols, and patient honesty on the safety of health workers in the emergency room and inpatient room at Murni Teguh Hospital.

Table 9. ANOVA Test Results

Model	T	Sig.	Is there any influence
PPE Supply	4,386	,000	There is influence
Health Protocol	2,914	,004	There is influence
Honesty	3,480	,001	There is influence

Based on the t-test at a significance level of 0.05 on the variable supply of personal protective equipment, implementation of health protocols, and patient honesty towards the safety of health workers, the results obtained that the variable supply of personal protective equipment is the variable that has the most influence on the safety of health workers in the emergency department and Inpatient Room at Murni Teguh Hospital (Sig.0.000), the second is the patient honesty variable (Sig.0.001) and the third is the implementation of health protocols (Sig.0.004).

V. CONCLUSION

Based on the results of the research that has been done, it can be concluded as follows:

1. There is a significant effect between the supply of PPE on the safety of health workers.
2. There is a significant effect between the implementation of health protocols on the safety of health workers.
3. There is a significant effect of patient honesty on the safety of health workers.
4. The supply of PPE is the variable that has the most influence on the safety of health workers in the Emergency Room and Inpatient Room at Murni Teguh Hospital.

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