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Manager Role in Health Protocol Compliance for Health Officers

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ABSTRACT
Absences and losing health officers during the war against Covid-19 is a big loss for hospitals especially for those in the front line. In the hospital, nurses are the ones who will face and has direct contact with the Covid-19 patients so that they have a big risk of exposure than other officers. The compliance in applicating of health protocol has been believed as a way to prevent the spreading of Covid-19 among others. In terms of supervision, the manager has the task to observe the officers so that no transmission of Covid-19 in the hospital, especially between officers. This study aims to evaluate the association between manager roles in supervising officer compliance while applicating health protocol inside and outside hospitals in Padang City, Indonesia. he method which is used in this research was a survey of 119 nurses in RS X Padang City with a cross-sectional design. Stratified random sampling has been chosen to collect the respondent. Hypothesis testing was performed using a structural equation model. This study results in the Interpersonal role being affected by the Figure role, Leadership role and Liaison role. Meanwhile, the Informational role in Manager has important dimensions such as the Monitor role, disseminator role, spokesman role, and the Decisional role was built from the entrepreneur role, disturbance handler role, resource allocation role and negotiator role. The three of the roles (Interpersonal role, Informational role and Decisional role) has a big impact on the Compliance of the Health Officer while applicating health protocol in and outside the hospital.
Conclusion: These results show officers compliance is strongly affected by manager role even though there are other factors that can also be a moderating factor that is not shown in this study.

Keywords: *Compliance Health Officer, Health Protocol, Manager Role*

1. INTRODUCTION

COVID-19 was announced by WHO as a pandemic in March 2020, since the increasing number of cases occurred almost all over the world[1,2]. 123 million people have been infected and more than 2.7 million deaths globally over March 2021[3]. In preventing the spread of COVID-19 in Indonesia, the government has set guidelines for preventing the transmission of covid-19, this movement is known as 5M which contains Health protocols in dealing with COVID-19[4]. This protocol is expected to be a guideline in carrying out the daily life of the community[5]. Medical personnel are the last line of defense in an effort to handle the spread of the corona virus, in terms of protecting themselves from exposure to the corona virus, medical personnel should maintain their behavior and be an example in compliance with the application of health protocols[3,6,7]. In carrying out their duties, medical personnel have been equipped with Personal Protective Equipment (PPE), but with more PPE there is no guarantee that medical personnel will not be exposed to the corona virus[8,9]. The loss of medical personnel due to exposure to this virus is a huge loss for hospitals and the government[10,11].

2. METHODS

The objective of the study was to investigate the manager role in health protocol compliance for health workers, especially for nurses. This study take place in a public hospital in Padang city, Indonesia which was pointed to as referral hospital while pandemic covid-19. The following hypotheses were tested:

H1. Manager interpersonal role has a positive influence on officer compliance

H2. Manager informational role has a positive influence on officer compliance
H3. Manager decisional role has a positive influence on officer compliance

imple random sampling had used in collecting samples and in total 119 nurses has participated. The data were analysed using SmartPLS 3.3.3. Firstly, the data were tested to determine factor loadings and cross loadings. Using Cronbach's alpha, composite reliabilities and average variances were then extracted. Furthermore, the data were tested using structural models to evaluate the coefficient of determination (R2). The last step, Hypotheses was confirmed through the partial least square structural equation model (PLS-SEM). In essence, SEMs are statistical models of linear relationships among latent (unobserved) and manifest (observed) variables. Their purpose is to estimate the coefficients in a set of structural equations[12].

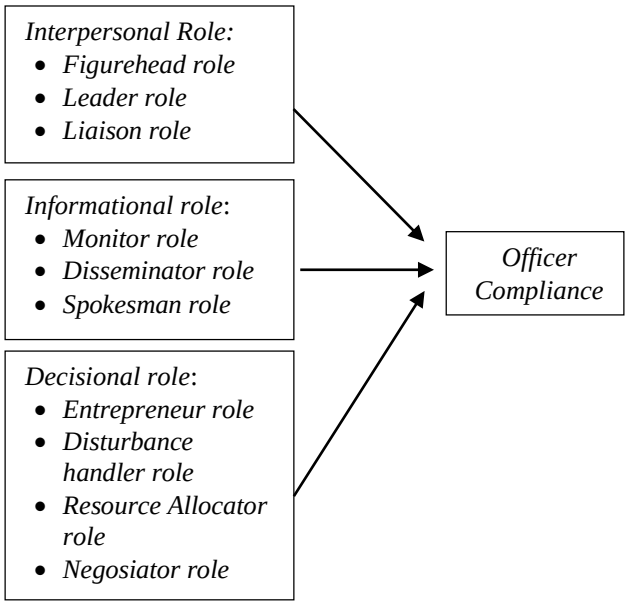

Figure 1. The Research Model

Figure 1 presents the conceptual framework tested in this study. The dimension of the manager role contains interpersonal role, informational role, decisional role directly tested to officer compliance. Item in each variable consists of several indicators. In total there are 48 indicators, table 1 will give the details.
The model used in this study was described in Figure 2.

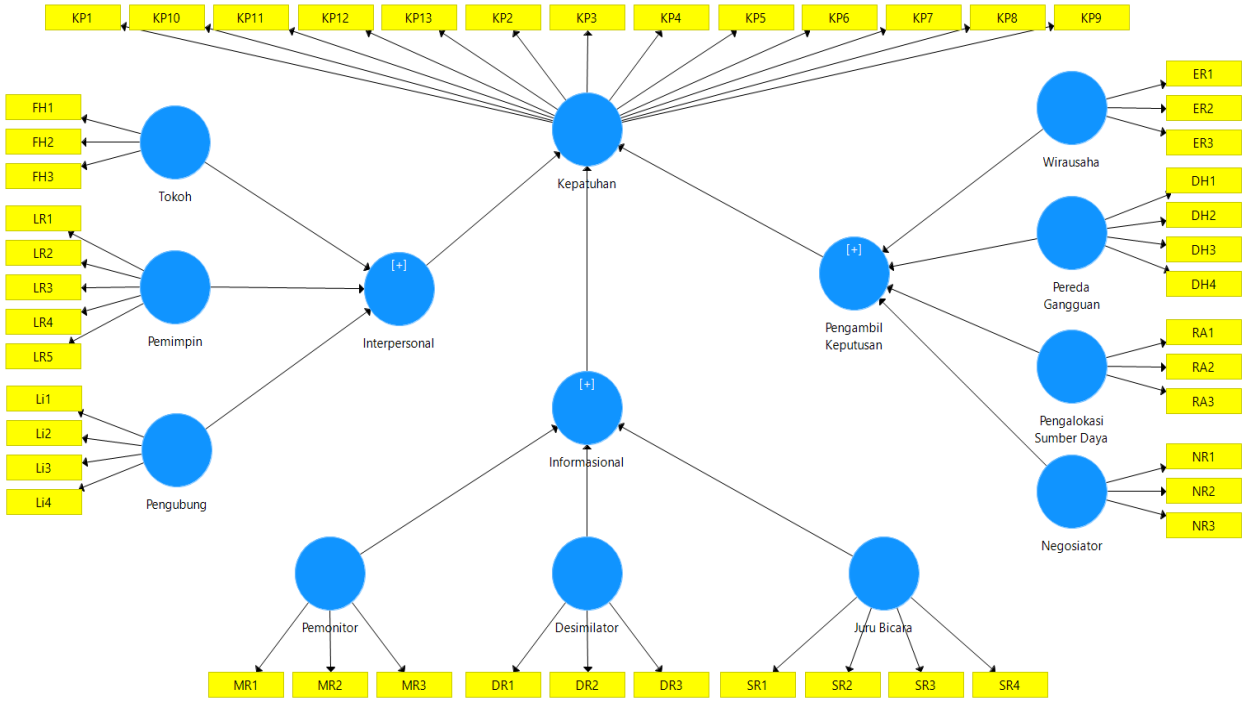

Figure 2. Structural Equation Model

Table 1. Indicators for Each Variables

Variable	Indicator
Interpersonal Role	
Leader Role	3 item
Liaison Role	4 Item
Figurehead Role	5 Item
Informational Role	
Spokes person Role	4 Item
Disseminator Role	3 Item
Monitor Role	3 Item
Decisional Role	
Negotiator Role	3 Item
Resource Allocator Role	3 Item
Disturbance Handler Role	4 Item
Entrepreneur Role	3 Item
Officer compliance in Health Protocol	**13 Item**
Total	**48 item**

Measurement of the Outer Model: The aim of this measurement was to evaluate a validity and reliability instrument. Validity was examined by noting the convergent validity and discriminant validity of a construct. Convergent validity was supported if the outer loading value was more than 0,7. If this was the case, the indicator represented the construct; if not, it was eliminated[12]. In Table 2, we found that some indicators had an outer loading value of below 0,7 (FH3, NR1, KP7, KP9) and these were therefore eliminated.

Discriminant validity represents the extent to which the construct is empirically distinct from other constructs; in other words, the construct measures what it is intended to measure. In this variable has been tested and show discriminant validity for each variable has higher score than the other constructs.

Table 2. Convergent Validity – Outer Loading Value

Construct		Indicator	Initial Model	Modification
Interpersonal Role	Leader Role	FH1	0,877	0,881
		FH2	0,862	0,865
		FH3	**0,206**	**Exclude**
	Figure-head Role	LR1	0,771	0,771
		LR2	0,832	0,832
		LR3	0,884	0,884
		LR4	0,898	0,898
		LR5	0,862	0,862
	Liaison Role	Li1	0,936	0,936
		Li2	0,927	0,927
		Li3	0,962	0,962
		Li4	0,831	0,831
Informational Role	Monitor Role	MR1	0,847	0,848
		MR2	0,885	0,885
		MR3	0,759	0,758
	Disseminator Role	DR1	0,918	0,919
		DR2	0,852	0,852
		DR3	0,914	0,914
	Spokes-person Role	SR1	0,790	0,790
		SR2	0,938	0,938
		SR3	0,921	0,921
		SR4	0,881	0,881
Decisional Role	Entrepreneur Role	ER1	0,783	0,782
		ER2	0,756	0,758
		ER3	0,837	0,837
	Distur-bance Handler Role	DH1	0,847	0,919
		DH2	0,901	0,852
		DH3	0,904	0,914
		DH4	0,857	0,919
	Resour-ce Alloca-tor Role	RA1	0,899	0,899
		RA2	0,873	0,874
		RA3	0,857	0,856
	Negotiator Role	**NR1**	**0,664**	**Exclude**
		NR2	0,892	0,931
		NR3	0,846	0,925
Officer compliance in Health Protocol		KP1	0,820	0,830
		KP2	0,860	0,875
		KP3	0,911	0,917
		KP4	0,795	0,807
		KP5	0,769	0,786
		KP6	0,793	0,790
		KP7	**0,650**	**Exclude**
		KP8	0,774	0,764
		KP9	**0,700**	**Exclude**
		KP10	0,840	0,840
		KP11	0,727	0,710
		KP12	0,763	0,767
		KP13	0,785	0,799

The reliability analysis demonstrated value based on Cronbach's alpha and composite reliability. Composite reliability is used to examine indicators in internal measurements of consistency. Essentially, it is used to address any deficiencies arising from Cronbach's alpha and reliability tests. Composite reliability, which prioritizes indicators based on individual reliability, is in line with the PLS-SEM algorithm calculations; these calculations do not assume all indicator values are the same in the population. All the Cronbach's alpha and composite reliability values in Table 3 were above 0,6 which indicates that all the constructs used in this study have good reliability[12]. Therefore, we can conclude that the instrument used in the study met the full set of criteria for validity and reliability.

Measurement of the Inner Model: This measurement observed the model's prediction accuracy, and other external variables were added. The variables measured were Interpersonal role, Informational role, Decisional role and Officer Compliance. Accuracy in relation to each construct has 99,9% affected by their own indicators. Meanwhile, purchase intention variable 76,8% were affected by Interpersonal role, Informational role, Decisional role and the rest factors was not associated with this study.

Table 3. Reliability Test

Konstruk	*Cronbach's Alpha*	*Composite Reliability*
Interpersonal Role	0,936	0,945
Leader Role	0,690	0,866
Figurehead Role	0,904	0,929
Liaison Role	0,934	0,954
Informational Role	0,927	0,938
Monitor Role	0,776	0,870
Disseminator Role	0,876	0,924
Spokes-person Role	0,905	0,935
Decisional Role	0,704	0,835
Entrepreneur Role	0,901	0,931
Disturbance Handler Role	0,849	0,909
Resource Allocator Role	0,839	0,926
Negotiator Role	0,923	0,934
Officer compliance in Health Protocol	0,947	0,954

Table 4. Coefficient of Determination (R2)

Variable	R-*square*
Interpersonal Role	0,9999
Informational Role	0,9996
Decisional Role	0,9995
Officer Compliance	0,7680

Hypothesis testing: Hypothesis testing in table 5 is seen from t-statistical value of PLS bootstrapping results. The t-statistic value is solved by the t-table value with a significant level (α) 5% then the hypothesis is accepted.

Table 5. Hypothesis Tested

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	Decision
***Interpersonal Role*-> Officer Compliance**	0,360	0,361	0,039	9,124	Supported
***Informasional Role* -> Officer Compliance**	0,720	0,721	0,043	16,913	Supported
***Decisional Role* -> Officer Compliance**	-0,070	-0,072	0,023	3,031	Supported

3. DISCUSSION

This research, shows that the manager's role is formed from the role as an interpersonal role, information role and the decisional role. Based on the results of the T-Statistic Test, the informational role has a stronger influence than the other two variables. The results of the p-value show that the three variables show a significant value to the compliance of officers in carrying out the health protocol.

In line with Alemania's research, the role of interpersonal and decision makers has a significant relationship with officer compliance in the implementation of infection prevention and control at Dr. RSUP. M. Djamil, however, has nothing to do with the manager's role as an interpersonal role. This occurred when the officer doing a good job but there are no sanctions if the officer makes negligence[10,14].

Testing hypothesis 1 shows the influence of interpersonal role has significant value with officer compliance in implementing health protocols behaviour. This is revealed based on the statistical calculations that have been carried out so that the T-Statistics value is 9.124 which is greater than the T-Table value (1.96). A good correlation between

managers and subordinates can provide job satisfaction which leads to compliance with the directions given by the manager[14]. According to Alemania's 2018 research, interpersonal roles have a strong relationship with the compliance of officers in carrying out Infection Prevention and Control in Hospitals (IPCH) even though the manager's influence does not affect it[13,15].

Testing hypothesis 3 shows the influence of the decision-making roles performed by managers on the compliance in implementing health protocols behaviour. This shows a T-statistical value of 3,031 which is greater than the T-Table value (1.96). The role of managers in decision making is good because managers are required to be able to make good decisions not only for their subordinates but for organizational effectiveness[14]. A significant relationship is also shown in Alemanian research between the influence of the decision-making role and the compliance of IPCLN officers in carrying out infection prevention and control (p=0.000). However, it is good that the role of the manager is not accompanied by management support with the availability of facilities that support officer compliance with the regulations that have been applied[13].

4. CONCLUSIONS

In manager roles; interpersonal roles, informational roles, decisional roles are considered have a significant relationship with officer compliance in health protocol in x Padang public hospital. In this study, each indicator has a strong connection with the managerial role construct in almost 99,9% for each. Meanwhile, 24% of others factor in officer compliance to follow health protocol not mentioned in this study.

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