

FACTORS RELATED TO HEALTH PERSONNEL'S COMPLIANCE IN THE IMPLEMENTATION OF HAND HYGIENE IN HOSPITAL

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ABSTRAK

Selain keadaan ditengah Pandemi COVID-19, fasilitas pelayanan kesehatan juga rentan menularkan infeksi, yaitu infeksi nosokomial. Virus COVID-19 dan juga infeksi nosokomial dapat dicegah dengan memperhatikan kebersihan diri, terutama kebersihan tangan. Penelitian ini bertujuan untuk mengetahui faktor-faktor yang mempengaruhi kepatuhan tenaga kesehatan di RSUD Kota Serang dalam menerapkan *Hand Hygiene*. Metode yang digunakan dalam penelitian ini menggunakan desain *cross sectional* dengan analitik observasional. Sampel penelitian sebanyak 105 responden yang ditentukan menggunakan teknik *purpovise sampling* dengan analisa data uji chi square untuk data bivariat dan distribusi frekuensi untuk data univariat. Teknik pengumpulan data menggunakan online kuesioner yang terdiri dari variabel kepatuhan, pengetahuan, motivasi, sikap, supervisi, dan ketersediaan fasilitas. Hasil penelitian menunjukkan bahwa sebagian besar responden patuh dalam menerapkan *Hand Hygiene*, memiliki pengetahuan yang baik, sikap yang mendukung, motivasi yang tinggi, supervisi yang baik, dan ketersediaan fasilitas yang memadai. Hasil bivariat menunjukkan adanya pengaruh positif antara supervisi dengan kepatuhan tenaga kesehatan dalam menerapkan *Hand Hygiene* di RSUD Kota Serang dengan $p \text{ value} = 0,019 > \alpha 0,05$. Artinya terdapat pengaruh antara supervisi dengan kepatuhan tenaga kesehatan dalam menerapkan *Hand Hygiene* di RSUD Kota Serang. Sehingga disarankan agar terus meningkatkan seupervisi agar kepatuhan tersebut tetap berjalan dengan baik.

Kata kunci : Kepatuhan, *Hand Hygiene*, Tenaga Kesehatan, Covid-19.

ABSTRACT

In addition to the situation amid the COVID-19 pandemic, health care facilities are also vulnerable to transmitting infections, namely nosocomial infections. The COVID-19 virus as well as nosocomial infections can be prevented by paying attention to personal hygiene, especially Hand Hygiene. This study aims to determine the factors that influence the compliance of health workers in Serang City Hospital in applying Hand Hygiene. The method used in this study used a cross sectional design with observational analysis. The research sample was 105 respondents who were determined using purposive sampling technique with chi square test data analysis for bivariate data and frequency distribution for univariate data. The data collection technique used an online questionnaire consisting of variables of compliance, knowledge, motivation, attitude, supervision, and availability of facilities. The results showed that most of the respondents were obedient in applying Hand Hygiene, had good knowledge, supportive attitude, high motivation, good supervision, and the availability of adequate facilities. The results of the bivariate show that there is a positive influence between supervision and the compliance of health workers in implementing Hand Hygiene in Serang City Hospital with $p \text{ value} = 0.019 > \alpha 0.05$. This means that there is an influence between supervision and compliance by health workers in implementing Hand Hygiene in Serang City Hospital. So it is recommended to continue to improve supervision so that compliance continues to run well.

Keywords : Compliance, Hand Hygiene, Health Workers, Covid-19.

BACKGROUND

The COVID-19 pandemic, which is still ongoing today, has created a new habit in the community to continue to maintain personal hygiene. COVID-19 or Corona virus disease 2019 (COVID-19) is an acute respiratory infection that causes Severe Acute Respiratory

Syndrome Coronavirus 2 (SARS-CoV2) (Kemenkes-RI., 2020) . The COVID-19 pandemic has made health care facilities such a place that is vulnerable to the development of the COVID-19 virus, so there are a lot of preventive measures that have become STANDARD OPERATING PROCEDURE, especially for health workers in handling patients so as not to transmit the COVID-19 virus. Based on WHO research, COVID-19 can be transmitted in various ways such as direct contact, droplet, airborne, fomite and urine and feces (WHO, 2020) . In addition to the situation amid the COVID-19 pandemic, health care facilities are also susceptible to transmitting infections which is nosocomial infections. The COVID-19 virus as well as nosocomial infections can be prevented by paying attention to personal hygiene, especially hand hygiene. Cleaning the hand area is a method that is carried out with the aim of sterilizing the palms of hands using ordinary cleansers or antimicrobial soap and water (Global Handwashing Partnership, 2018) .

Several preliminary studies also show that the compliance of health workers also has a major influence on the transmission of infections in hospitals. Anna's research as stated in (Purnawati, 2018) shows that a study at 11 hospitals in Jakarta in 2004 showed 9.8% of hospitalized patients had nosocomial infections. Abraham, (2019) shows that nosocomial infections have an incidence rate of 2-12% if on average 5% of all patients hospitalized with a total mortality rate of 1-3% of all hospitalized cases. in the hospital. Nosocomial infections are quite dangerous for patients because they increase morbidity and mortality rates and prolong patient recovery also affect the quality of hospital services (Darmadi, 2013) .

Hidayah and Ramadhani's research (2019) showed the consistency of medical assistants (56.05%), birth attendants (53.37%), and specialists (49.33%). Judging from the consistency per sign before contact with the patient (55.81%), before the aseptic strategy (56.41%), after exposure to the patient's body fluids in danger (70.11%), after contact with the patient (53.16%) and when in the patient's environment (27.27) %. The final result shows that the most obedient hand hygiene consistency is the nurse. Consistency of hand cleaning is most important after exposure to patient body fluids. Research belonging to Nurrahmani et al (2019) shows that the nurse's compliance factor in implementing Hand Hygiene is based on attitude. The more positive the attitude of the nurse, the chance of compliance is 45.681 times compared to the negative attitude. This study aims to determine the factors that influence the compliance of health workers in Serang City Hospital in applying Hand Hygiene.

METHOD

This study uses a quantitative descriptive design. By using purposive sampling technique. The sample size is 105 which are the health workers who meet the criteria. Data collection techniques using a questionnaire with variables of compliance, knowledge, attitude, motivation, supervision, availability of facilities. This research was conducted at the Serang City Hospital in July – September. In collecting the data, the researcher used an online questionnaire. Data analysis was carried out by tabulating data and testing hypotheses with a significance level of 0.05. The statistical test used is Chi Square analysis.

RESULT

Univariate Analysis

Table 1. Frequency Distribution of Compliance of Health Workers at Hospital

Category	F	%
Disobedient	6	5.7
Obedient	99	94.3
Total	105	100.0

Based on the data presented, it is shown that most of the respondents are obedient in applying Hand Hygiene, as many as 99 respondents with a percentage of 94.3% .

Table 2. Frequency Distribution of Health Workers Knowledge in Applying Hand Hygiene at Hospital

Category	F	%
poor	22	21.0
good	83	79.0
Total	105	100.0

Based on the data presented, it is shown that most of the respondents have good knowledge about the application of Hand Hygiene in Hospital as many as 83 respondents with percentage of 79.0%.

Table 3. Frequency Distribution of Respondents' Attitudes in Applying Hand Hygiene at Hospital

Category	F	%
Not Supportive	37	35.2
Supportive	68	64.8
Total	105	100.0

Based on the data presented, it is showed that most of the respondents have a supportive attitude in applying *Hand Hygiene* in Hospital as many as 68 respondents ts with percentage of 64.8% .

Table 4. Frequency Distribution of Respondents' Motivation in Applying Hand Hygiene at Hospital

Category	F	%
Low	47	44.8
High	58	55.8
Total	105	100.0

Based on the data presented, it is shown that most of the respondents have high motivation in applying Hand Hygiene in Hospital, as many as 58 respondents with percentage of 55.8%.

Table 5. Frequency Distribution of Supervision in Applying Hand Hygiene at Hospital

Category	F	%
poor	40	38.1
good	65	61.9
Total	105	100.0

Based on the data presented, it is showed that most of the respondents answered that the supervision or supervision related to the implementation of Hand Hygiene in Hospital was good, as many as 65 respondents with a percentage of 61.9%.

Table 6. Frequency Distribution of Facility Availability in Applying Hand Hygiene at Hospital

Category	F	%
Not Available	13	12.4
Available	92	87.6
Total	105	100.0

Based on the data presented, it can be seen that most of the respondents said that the availability of facilities in implementing Hand Hygiene in Hospital was available , as many as 92 respondents with a percentage of 87.6%.

Bivariate Analysis

Bivariate analysis was used to determine the factors that related to compliance of health workers in applying Hand Hygiene. Bivariate analysis in this study used the chi square test with a value of $\alpha = 0.05$. The test results are presented in the form of a table as follows:

Table 7. The Relationship of Respondents' Knowledge with Hand Hygiene Compliance at Hospital

Knowledge	<i>Compliance of Hand Hygiene</i>				Total	p value	
	Disobedient		Obedient				
	N	%	N	%	N		%
poor	0	0.0%	22	100.0%	22	100%	0.194
good	6	7.2%	77	92.8%	83	100%	
Total	6	5.7%	99	94.3%	105	100%	

Based on the data presented, it can be seen as many as 0 health workers who have poor knowledge and are not obedient in applying Hand Hygiene. A total of 22 health workers who have poor knowledge and are obedient in applying Hand Hygiene with a percentage of 22.2%. A total of 6 health workers who have good knowledge and are not obedient in applying Hand Hygiene with a percentage of 7.2%. A total of 77 health workers with good knowledge and obedient in implementing Hand Hygiene with a percentage of 92.8%. The results of the chi square test show the results of $0.194 > 0.05$, which means that there is no relation between knowledge of health workers with compliance in implementing Hand Hygiene at Hospital .

Table 8. The Relationship of Respondents' Attitudes with Hand Hygiene Compliance at Hospital

Attitudes	<i>Compliance of Hand Hygiene</i>				Total	p value	
	Disobedient		Obedient				
	N	%	N	%	N		%
Not Supportive	2	5.4%	3 5	94.6%	37	100%	0.920
Supportive	4	5.9%	6 4	64.6%	83	100%	
Total	6	5.7%	9 9	94.3%	105	100%	

Based on the data, it can be seen that as many as 2 respondents have attitudes that do not support and do not comply in applying Hand Hygiene at Hospital with a percentage of 5.4%. A total of 35 respondents have an attitude that is not supportive but obedient in applying Hand Hygiene with a percentage of 94.6%. As many as 4 respondents have a supportive but not obedient attitude in applying Hand Hygiene with a percentage of 5.9% and as many as 64 respondents have a supportive and obedient attitude in implementing Hand Hygiene at Hospital with a percentage of 64.6%. The results of the chi square test obtained ap value of $0.920 > 0.05$, which means that there is no relation between attitude and compliance with applying Hand Hygiene by health workers at Hospital.

Table 9. The Relationship of Motivation with Respondents' Compliance in Implementing Hand Hygiene at Hospital

Motivation	<i>Compliance of Hand Hygiene</i>		Total	p value
	Disobedient	Obedient		

	N	%	N	%	N	%	
Low	3	6.4%	44	93.6%	47	100%	
High	3	5.2%	55	94.8%	58	100%	0.790
Total	6	5.7%	99	94.3%	105	100%	

Based on the data, it can be seen that as many as 3 respondents who have high motivation but are not obedient in applying hand hygiene with a percentage of 5.2%. A total of 55 respondents have high motivation and are obedient in applying Hand Hygiene with a percentage of 94.8%. A total of 3 respondents have low motivation and are not obedient in applying Hand Hygiene with a percentage of 6.4%. A total of 44 respondents with low motivation and disobedience in applying Hand Hygiene with a percentage of 93.6%. The results of the chi square test showed p value = 0,790 > 0.05, which means that there is no influence between motivation and compliance of health workers in implementing Hand Hygiene at Hospital .

Table 10. The Relationship between Supervision to Respondent Compliance in Implementing Hand Hygiene at Hospital

Supervision	<i>Compliance of Hand Hygiene</i>				Total	p value	
	Disobedient		Obedient				
	N	%	N	%	N		%
poor	5	12.5%	35	87.5%	40	100%	
good	1	1.5%	64	98.5%	65	100%	0.019
Total	6	5.7%	99	94.3%	105	100%	

Based on the data, it is known that as many as 5 respondents said that supervision was poor and did not comply in implementing Hand Hygiene with a percentage of 12.5%. A total of 35 respondents said that supervision was poor but obedient in implementing Hand Hygiene with a percentage of 87.5%. As many as 1 respondent said the supervision was good but did not comply in implementing Hand Hygiene. A total of 64 respondents said that the supervision was good and obedient in implementing hand hygiene at Hospital. The results of the chi square test obtained p value = 0.019 < 0.05, meaning that there is a relation between supervision and the compliance of health workers in applying hand hygiene at Hospital.

Table 11. Relationship of Facility Availability to Respondents Compliance in Applying Hand Hygiene at Hospital

Facility Availability	<i>Compliance of Hand Hygiene</i>				Total	p value
	Disobedient		Obedient			
	N	%	N	%	N	

Not Available	2	15.4%	11	84.6%	13	100%	
Available	4	4.3%	88	95.7%	92	100%	0.109
Total	6	5.7%	99	94.3%	105	100%	

Based on the data presented, it is showed that 2 respondents said that the availability of facilities was not available and did not comply in implementing Hand Hygiene with a percentage of 15.4%. A total of 11 respondents said the availability of facilities was available and obedient in implementing Hand Hygiene with a percentage of 84.6%. As many as 4 respondents said the availability of facilities was available but did not comply in implementing Hand Hygiene with a percentage of 4.3%. A total of 88 respondents said the availability of facilities was available and compliance in implementing Hand Hygiene with a percentage of 95.7%. The results of the chi square test show the results of $p\text{ value} = 0,109 > 0.05$, which means that there is no effect between the availability of facilities and the compliance of health workers in implementing Hand Hygiene at Hospital.

DISCUSSION

The results of the chi square test of the knowledge variable showed the results of $0.194 > 0.05$, which means that there is no influence of knowledge of health workers on compliance in implementing Hand Hygiene in RSUD Kota Serang in 2021.

These results are in line with the results of research conducted by Sangi in the inpatient ward of the Lirung Health Center, Lirung District, Talaud Regency in 2014 showing that there is no very strong significant relationship between knowledge and hand washing with a $p\text{-value}$ of 0.430. The low compliance of nurses in implementing Hand Hygiene, one of which is through hand washing is caused by a number of things, such as lack of education, high workload, lack of firmness on violations of Hand Hygiene rules, and so on. Therefore, adherence to Hand Hygiene is not only based on knowledge, but the hospital management must be active to support in increasing compliance with Hand Hygiene (Sangi, 2015).

The results of the chi square test of the attitude variable obtained $p\text{ value}$ of $0.920 > 0.05$, meaning that there was no influence between attitude and adherence to applying Hand Hygiene by health workers at Serang City Hospital. The results of this study are also in line with the results of research conducted by (Rahmawati, 2017) at RSUD Ibnu Sina Gresik in 2014 which showed there was no relationship between nurses' attitudes and hand hygiene compliance. In contrast to the theory conveyed by Notoatmodjo, that attitude is a reaction or response that is still closed from a person to a stimulus or object. Attitudes clearly show the connotation of a suitability of reactions to certain stimuli which in everyday life are emotional reactions to social stimuli (Notoatmodjo, 2012).

The results of the chi square test of motivational variables showed $p\text{ value} = 0,790 > 0.05$, which means that there is no influence between motivation and the compliance of health workers in implementing Hand Hygiene in RSUD Kota Serang. This study is in line with the results of research conducted by (Gea et al., 2018) which showed that there was no relationship between motivation and hand hygiene compliance with $p\text{-value} = 0.085$. Motivation can also be interpreted as an impulse from within the individual that makes individuals perform certain exercises to achieve a goal, which can be considered is the exercise or explanation behind the activity (Notoatmodjo, 2017).

The results of the chi square test of the supervision variable obtained $p\text{ value} = 0.019 < 0.05$, meaning that there is an influence between supervision and the compliance of health

workers in implementing hand hygiene in Serang City Hospital. This study is in line with the results of research conducted by (Syamsulastrri, 2017) which showed that there was a significant relationship between supervision at Ade Muhammad Djoen Sintang Hospital and Hand Hygiene compliance with p -value = 0.001. Kron stated that supervision is planning, directing, guiding, teaching, observing, Encouraging, improving, trusting, evaluating continuously on every nurse patiently, fairly and wisely (Kamalia et al., 2020) So it can be concluded that if a group or Individuals say that the supervision is going well, meaning that the group supervisor is doing the right direction for the group they are guiding.

The results of the chi-square test for the variable availability of facilities show the results of p value = 0, 109 > 0.05, meaning that there is no effect between the availability of facilities and the compliance of health workers in implementing Hand Hygiene in RSUD Serang City in 2021. According to (Kemenkes-RI., 2016) , the facilities needed and must be available in Hand Hygiene include running water, cleaning soap, antiseptic liquid. So if a hospital is able to provide these facilities, it will make it easier for health workers to carry out hand hygiene. However, this study did not show any influence between the available facilities and the compliance of health workers in implementing Hand Hygiene, so it can be indicated that the compliance will not appear if it is not driven by the individual's personal.

CONCLUSION

Based on the result, it can be concluded that mostly respondent comply with Hand hygiene with a percentages of 94,3%, 79,0% respondent have good knowledge about hand hygiene, 60% respondent having a supportive attitude in implementing hand hygiene, 61% respondent stated that the supervision about hand hygiene was good, and 87,6% respondent stated that hand hygiene facility is available. The results of chi square test showed there is no relation between attitude and compliance, motivation and compliance, the availability of facilities and the compliance of health workers in implementing Hand hygiene. Therefore, chi square test result showed there is a relation between supervision and the compliance of health workers in implementing hand hygiene at Hospital.

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