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FACTORS INFLUENCING HAND HYGIENE COMPLIANCE IN HYGIENE STAFF AT GRHASIA YOGYAKARTA HOSPITAL

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Abstract

Hospitals are health facilities that provide outpatient and inpatient services to patients. In addition, hospitals can be a source of infection transmission for staff, patients, and other visitors. To prevent nosocomial infections in health workers, hospitals have the responsibility to protect all health workers, one of the efforts is to implement hand hygiene practices. Hand hygiene compliance in hospital settings in particular is influenced by several factors, including predisposing, enabling, and reinforcing elements, as well as support from management and the chief hygienist. The purpose of this study was to determine the relationship between predisposing, enabling, and reinforcing factors. The method used was quantitative correlation with a cross-sectional approach. The population of this study were 36 janitors, with a sample size of 36 respondents who were still active as janitors at Grhasia Hospital. Sample selection using the Total sampling method, using an analysis system carried out using Chi-Square. From the results of the bivariate test, there were the results of the highest number of respondents with early adult age as much as 63.9%. Gender 97.2% p-value 1000. Tenure is 80.6% p-value 0.163. Education as much as 97.2% p-value 1000. Good knowledge as much as 75% p-value 0.255. Positive attitude 58.3% p-value 0.626. Complete facilities 86.1% p-value 0.466. Motivation 58.3% p-value 1000. so that with these results there is a relationship between age, gender, tenure, education, attitude, facilities and motivation with an α value <0.05. While the results of the multivariate test obtained the results Age, tenure and attitude have a great opportunity to increase hand hygiene compliance in janitors. Hand hygiene compliance in janitors can be influenced by the age of janitors, length of service and positive attitudes in janitors.

Keywords: Compliance, Hand Hygiene, Medical Personnel, Hospitals.

INTRODUCTION

Law No. 44 of 2009 concerning hospitals states that hospitals are required to prioritize patient safety through comprehensive improvements to systems, management and human resources (HR) through the hospital accreditation system.(Kusumawardhani, Kismanto, and Widyastuti 2023). A hospital is an organization that operates in the health sector to meet the health service needs of the community in a region. A hospital is a health service institution that provides comprehensive individual health services and provides inpatient, outpatient, and emergency services. Hospital patient safety is a priority of a system where hospitals make

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patient care safer by preventing injuries caused by errors in carrying out an action or not taking the action that should be taken.(Oliviany 2023).

Health begins with cleanliness of oneself and the environment. Efforts that can be made to maintain health include washing hands to prevent the spread of contamination that causes disease because hand hygiene is one of the breakers of the chain of disease transmission, the implementation of hand washing is a procedure that must be carried out by every officer involved in health services.(Aini, Idris, and Zulkarnain 2022).

Hand hygiene is an important thing in life, especially in daily activities. Hands are the part that is very often contaminated with parasites, especially Enterobius vermicularis, so that hands are the first intermediary for the entry of Enterobius vermicularis parasites into the human body. The simplest way to prevent this from happening is to maintain hand hygiene. Research that has been conducted on children shows that around 33% of children are reported to have worm eggs on their nails, therefore hand hygiene is important to avoid pinworm infection.(Sopyan, Andriane, and Nur 2023).

Based on research conducted by (Ratnawati and Sianturi 2018) at Prof. Dr. RD Kandou Manado General Hospital, data shows that the level of compliance of health workers in carrying out the 6 steps of hand washing is 5.2%, while non-compliance reaches 94.8%. However, in nurses themselves, the level of compliance in carrying out the 6 steps of hand washing is only 6.6%.

Failure to properly clean hands and maintain hand hygiene is considered a major cause of nosocomial infections.(Handayani, Suarjana, and Listyowati 2019). Many factors are related to hand washing behavior in cleaning staff. According to(Nurahmani 2018), analysis of factors affecting hand hygiene in medical personnel for infection prevention in hospitals are internal factors including individual characteristics. This study takes into account various factors such as demographic variables (gender, age, occupation, length of service, education level), psychosocial factors (attitudes towards disease, work stress, fear, and risk perception), knowledge factors, motivational factors, and awareness factors. External factors include organizational management factors, facilities, workplaces, and hand washing materials that affect the skin.(Serly Agustina and Murtiningsih 2024)

For medical personnel, it is an important responsibility to prevent the transmission of infection in the hospital environment. The spread of nosocomial infectious diseases that are most easily affected are hospital employees such as nurses, due to various interactions with patients. Not only is there a lot of interaction between nurses and patients, but hand hygiene compliance is often less than optimal.(Hello, Theresia, and Rahayu 2023).

Compliance with hand hygiene by medical personnel often does not reach optimal levels.(Amelia et al. 2020), although this practice is considered the most effective and simple step to reduce the spread of infection. Previous studies have shown that there is significant variation in this compliance among medical personnel in different hospitals.

There are various factors that influence compliance with hand hygiene, including awareness of the importance of this practice, the availability of supporting facilities (such as sinks and hand sanitizers), the time available to perform this procedure, and the organizational culture in the hospital.(Ardiyati, Suwarni, and Ridha 2021).

Based on the results of a preliminary study conducted on March 22, 2024 at Grhasia Hospital, Yogyakarta, researchers obtained information that the various problems described

above made researchers interested in conducting research related to factors that can influence hand hygiene compliance in cleaning staff at Grhasia Hospital, based on knowledge, attitudes, availability of facilities, distance of hand washing places, and motivation. Facilities and infrastructure, SOPs that are not implemented, and high workloads, so the author also wants to know whether by looking at these factors it can be linked to compliance with cleaning staff in carrying out hand hygiene at Grhasia Hospital, Yogyakarta.

METHOD

This study used a quantitative correlational design with a cross-sectional approach. Analytical survey is a way to approach research with the aim of exploring the dynamics of correlation between phenomena and risk factors with related effect factors (Notoatmodjo, 2018). Cross-sectional study design to collect data simultaneously at a certain time. So, this research was conducted by means of a survey using a questionnaire sheet and direct interviews as supporting data. The study population was all active cleaning staff at Grhasia Hospital Yogyakarta, totaling 36 people. The total sampling method was used to obtain samples.

The research was conducted for about one month with a time span between October and November 2024. The initial stage was conducting a preliminary study and the researcher surveyed and searched for data and obtained information about the process and procedures when conducting research at the Hospital. Then the author conducted a few interviews with the facilitator and the head of the cleaning staff in the Sembodro room regarding the cleaning staff, as well as the main problems related to hand hygiene at the Hospital. The research materials used in this study were primary data using questionnaires obtained directly from respondents, namely cleaning staff related to hand washing in the Grhasia Hospital Yogyakarta environment. After that, data analysis and compiling the final thesis report.

Instruments and Data Collection, data were collected using a structured questionnaire covering demographic variables, knowledge, attitudes, availability of facilities, and motivation. Hand hygiene compliance was measured through direct observation according to the hospital's standard operating procedure (SOP). Data were analyzed using the Chi-Square test to identify relationships between variables and multivariate analysis to determine the dominant factors influencing compliance.

RESULTS

1. Univariate Analysis
   a. Respondent Characteristics

   Respondent characteristics are profiles of research objects that can be factors of an event in research. Related to the characteristics of respondents in this study can be seen in the following table.

Table.1 Distribution of Respondent Characteristics

Characteristics	Frequency	Percentage (%)
Age		
Early Adulthood≤40 years	23	63.9
Older Adulthood≥40 years	13	36.1
Gender		
Male	35	97.2
Female	1	2.8
Years of service		
New (≤3 Years)	7	19.4
Old (≥ 3 Years)	29	80.6
Education		
Senior High School	35	97.2
D3 Vocational School	1	2.8

SPSS primary data (2024)

Based on Table 1. Shows that the characteristics of the respondents The age of early adult respondents under 40 years old is 23 people or 63.9%, and respondents in old age are 13 people or 36.1%. Male gender is 35 people or 97.2%, and female gender is 1 person or 2.8%. So that gender and length of service can have a major influence on the level of hand hygiene compliance, related to male gender tends to have a high level of compliance in carrying out hand hygiene compliance. while length of service or work experience can make a major contribution to increasing hand hygiene compliance, while respondents with a work period of more than three years or already experienced have a deeper understanding of hand hygiene and can provide examples for new employees.

Meanwhile, the majority of cleaners have a work period of less than 3 years or are categorized as New as many as 7 people or 19.4%, while the Old category is 29 people or 80.6%. Respondent characteristics of cleaners working at Grhasia Hospital Yogyakarta based on high school/vocational high school education level are 35 people or 97.2%, and 1 person or 2.8% has a DIII education. So that adequate age and education level can provide good information and can contribute significantly because older age tends to increase discipline and experience, while higher education strengthens access to health information.

   b. Frequency Distribution

   Based on the frequency distribution, it is a data arrangement that has been classified based on certain criteria. One of the purposes of frequency distribution is to facilitate

presentation, reading, and understanding. The frequency distribution for this study is presented in the table below.

Table. 2 Frequency Distribution of Respondent Variables

Numb.	Variable	Frequency	Percentage %.
1.	**Knowledge**		
	Good	27	75
	Not Good	9	25
2.	**Sikap**		
	Positif	21	58.3
	Negatif	15	41.7
3.	**Ketersediaan Fasilitas**		
	Lengkap	31	86.1
	Tidak Lengkap	5	13.9
4.	**Motivation**		
	Termotivasi	21	58.3
	Tidak Termotivasi	15	41.7

SPSS primary data (2024)

Based on Table 2 above, it states that the level of knowledge of cleaning staff who stated Good was 27 people or 75%. By showing good knowledge, this shows that they have sufficient and adequate understanding of hand hygiene so that they are more compliant with hand hygiene. While cleaning staff who have a Positive attitude are 21 people or 58.3%. By showing a positive attitude towards hand hygiene, this is an important indication in supporting good health behavior. This positive attitude reflects their awareness and concern for the importance of maintaining hand hygiene. While the majority of cleaning staff who stated the availability of Complete Facilities were 31 people or 86.1%. With adequate facilities, it ensures that respondents can easily access the means to implement the desired behavior and respondents are more compliant with hand hygiene. Motivated cleaning staff are 21 people or 58.3%. Motivated respondents get a good understanding and care more about hand hygiene. because they have support from the environment such as friends or fellow coworkers. Having good knowledge and a positive attitude can have a positive impact on hand hygiene compliance, and can provide significant information and examples related to the information to be conveyed.

c. Observation of Hand Hygiene Compliance Distribution

Observation is a method of data collection carried out directly at the research location. The results of observations and hand hygiene compliance questionnaires for cleaning staff can be seen in the following figure.

Table 3. Distribution of hand hygiene compliance

No	Kepatuhan	Frekuensi	Persentase%
1.	**Patuh**	32	88.9
2.	**Tidak Patuh**	4	11.1
	Total	**100**	**100**

SPSS primary data (2024)

From the results of table 3. the majority of cleaners who were declared compliant with hand hygiene were 32 people or 88.9%, while cleaners who did not comply with hand hygiene were 4 people or 11.1%. From these results, it reflects good efforts from respondents and hospital institutions in supporting compliance with hand hygiene, this does not rule out the possibility that there are respondents who do not comply with hand hygiene, this shows that routine supervision is needed to ensure that respondents need to hold routine training and ensure the availability of adequate facilities such as soap, hand sanitizers, and tissues are available in strategic places.

2. Bivariate Analysis

Before conducting bivariate analysis, the first step that must be taken is to assess the normality of the data distribution. Data normality can be evaluated using the Kilmogorov-Smirnov Test. The results of the normality test are presented in the normality test table.

Table 4. Normality Test

Variabel	*Kilmogorov - Smirnov*		
	Statistic	df	Sig
Pengetahuan	0,465	36	0,000
Sikap	0,381	36	0,000
Ketersediaan Fasilitas	0,515	36	0,000
Motivasi	0,381	36	0,000

SPSS primary data (2024)

According to (Li Harlyan, 2013), the Normality Test with the Kilmogorov-Smirnov Test method shows that a distribution is said to be normal if its significance value is greater than 0.05. Based on the normality test table 5. shows that the distribution of data on the variables of knowledge, attitude, availability of facilities and motivation is not normal, as evidenced by its significance value of less than 0.05 or 5%. This study aims to determine the relationship between hand hygiene compliance in cleaning staff. The relationship or influence between the independent variables and the dependent variables is assessed using the Fisher exact test. The results of the Fisher exact test can be seen in table 5.

a. Analysis of Respondent Characteristics Using the Fisher Exact Test.

Table 5. Results of Fisher's exact test for types of Age, Gender, Length of Service, Education and Hand Hygiene Compliance

Karakteristik	Kepatuhan				Total	%	P-*Value*	PR (CI 95%)
	Tidak Patuh	%	Patuh	%				
Umur								
Dewasa Awal ≤40 tahun	3	8.3	20	55.6	23	63.9	1000	1.800 (0.168-
Dewasa Lanjut≥40tahun	1	2.8	12	33.3	13	36.1		19.325)
Jenis kelamin								
Laki – Laki	4	11.1	31	86.1	35	97.2	1000	1.032
Perempuan			1	2.8	1	2.8		(0.970-
								1.099)
Masa kerja								
Baru (≤3 tahun)	2	5.6	5	13.9	7	19.4	0.163	5.400
Lama (≥3Tahun)	2	5.6	27	75.0	29	80.6		(0.610-
								47.766)
Pendidikan								
SMA	4	11.1	31	86.1	35	97.2	1000	1.032
DIII			1	2.8	1	2.8		(0.970-
								1.099)

SPSS primary data (2024)

Based on Table 5 above, it shows that the majority of respondents who comply with hand hygiene are included in the Early Adult category, which is 20 people or around 55.6%, while early adult respondents still have cleaning staff who do not comply with hand hygiene as many as 3 people or 2.8%, thus the p-value of 1000 from the fisher exact test, while based on the significant value of more than ≥ 0.05 and based on the test results, namely 1000 greater than 0.05, Ho is accepted, this shows that it is normally distributed. Based on these data, it shows that there is no significant relationship between age and hand hygiene compliance. Meanwhile, from Gender, it shows that respondents who have a high level of compliance with hand hygiene in cleaning staff, in this category the highest level of compliance is male, which is 31 people or 86.1% while women are 1 person or 2.8% showing compliance with hand hygiene. As for male cleaning staff who do not comply with hand hygiene as many as 4 people or 11.1%. Thus, it can be seen from the results of the p-value for male respondents of 1000 greater than 0.05, then the results of the Fisher exact test can confirm that there is no significant relationship between gender and hand hygiene compliance.

Meanwhile, long-term work periods or more than 3 years who stated compliance with hand hygiene amounted to 27 people or 75.0% with a significant value of 0.163 ≥ 0.05 in the results of the Fisher exact test. This shows that there is no relationship between length of service and hand hygiene compliance, based on the test results which are greater than 0.05 then Ho is accepted. From the results obtained related to the Risk Prevalence (PR) test = 5,400, it means that cleaners who have a new work period are 5,400 times more at risk of not complying with hand hygiene.

Cleaning staff with educational background category, with the majority having high school/vocational high school education, namely 31 people or 86.1% with a p-value of 1000 from the results of the Fisher exact test, this shows that there is no relationship between education level and hand hygiene compliance.

b. Analysis of Compliance Factors Using Fisher Exact Test.

Table 6. Results of Tests on Knowledge, Attitude, Availability of Facilities and Motivation and hand hygiene compliance

Faktor-Faktor	Kepatuhan				Total	%	P-*Value*	PR (CI 95%)
	Tidak Patuh	%	Patuh	%				
Pengetahuan								
Baik	2	5.6	25	69.4	27	75.0	0.255	3.571.(0.424 - 30.102)
Tidak Baik	2	5.6	7	19.4	9	25.0		
Sikap								
Positif	3	8.3	18	50.0	21	58.3	0.626	0.429.(0.40-4.578)
Negatif	1	2.8	14	38.9	15	41.7		
Fasilitas								
Lengkap	3	8.3	28	77.8	34	86.1	0.466	2.333.(0.193-28.253)
Tidak Lengkap	1	2.8	4	11.1	5	13.9		
Motivasi								
Termotivasi	2	5.6	19	52.8	21	58.3	1000	1.462 (0.182-11.735)
TidakTermotivasi	2	5.6	13	36.1	15	41.7		

SPSS primary data (2024)

From the results of the table above that have been studied by researchers and have conducted a fisher exact test related to the hand hygiene compliance factor based on the variable level of knowledge in respondents, there are 25 respondents or 69.4%, respondents who have a good level of knowledge and are said to be compliant with hand hygiene. From the results of the fisher exact test, a P-value of 0.255 is greater than 0.05, so that the results indicate that there is no significant relationship between knowledge and hand hygiene compliance in cleaning staff. From the explanation above, the odd ratio value of 3.571 is greater, which means that cleaning staff who have good knowledge will be more compliant with hand hygiene compliance. In terms of the attitude of cleaning staff who are categorized as positive and compliant with hand hygiene, there are 18 people or 50.0%, it can be seen from the P-value of 0.626 with a fisher exact result greater than 0.05. So that the results of the fisher exact test can prove that there is no relationship between attitude and hand hygiene compliance.

Viewed from the variables above related to the Availability of Facilities, by showing the Availability of complete Facilities and compliance with hand hygiene as many as 28 people or 77.8%, and with the results of the P-value of 0.466 from the results of the fisher exact so that the results of the test can be concluded that there is no relationship between the Availability of facilities and compliance with hand hygiene.

Viewed from the Motivation variable related to the results of respondents who are motivated and comply with hand hygiene as many as 19 people or 52.8%, and the p-value of 1000 or greater than 0.05 in the results of the fisher exact test, so that the results have been obtained there is no significant relationship between motivation and compliance with hand hygiene in cleaning officers.

DISCUSSION

a. The Relationship Between Knowledge and Hand Hygiene Compliance

The results of this study indicate that the characteristics of respondents at Grhasia Hospital Yogyakarta are mostly male cleaners, namely 35 people or around 97.2%. This often occurs in all government and private hospitals. In terms of age, the cleaners at Grhasia Hospital Yogyakarta, who are in the early adult stage, namely under 40 years old or younger (especially between the ages of 25 and 40 years), number 23 people or 63.9%. From the age group between 25 and 40 years, they are classified as productive age, marked by a high level of productivity (Ukkas, 2017). Ages that are in the category of advanced adults between the ages of over 40 years can often be considered more reliable and often trusted because of the level of maturity in thinking patterns and leadership (Sukaesih, 2017). However, it should be noted that maturity of thinking does not necessarily guarantee compliance with regulations, compliance with regulations is influenced by several factors such as motivation in oneself (Fajar, 2018). This is because the Hospital has set requirements and criteria during the employee recruitment process that applicants must be under 35 years of age at the time of application.

This can be seen from the characteristics of respondents in terms of Gender, that the duties of a cleaner in a Hospital often require great energy and physical strength, cleaning difficult and inaccessible areas and requiring strong energy and physique, this can be seen from the work environment because there are still many patients who are very lacking in maintaining cleanliness, therefore, men are more often considered suitable for the job, this is because it is supported by the strong male physique.

Judging from the characteristics of the respondents' Work Period, it shows that there are 7 respondents or around 19.4% with less than 3 years of work experience who have a level of compliance in carrying out hand hygiene, while there are 29 respondents or around 80.6% who have more than 3 years of work experience and have a level of compliance with hand hygiene. Work period is usually associated with the duration or length of work period. Workers who have worked for a long time tend to increase a person's experience and ability in completing tasks (Dewi, 2020) and also increase the possibility of participating in training programs offered at the Hospital. In terms of education, most respondents have a high school/vocational high school education, with a total of 35 people or around 97.5%, respondents with high school/vocational high school education showed compliance in carrying out hand hygiene as many as 35 people or around 97.5%. In addition, there was 1 respondent or around 2.8% with a D3 education level and showed compliance with hand hygiene. A person's level of education can significantly affect the breadth of their knowledge and ability to find or absorb new information. The education in question includes formal and informal learning experiences (Harmaini, 2019).

Based on the results of the study conducted by researchers at the Grhasia Hospital in Yogyakarta, the hypothesis was rejected. From the results of the study, there were 25 cleaners or around 69.4% who had a good level of knowledge and were compliant in carrying out hand hygiene, and there were 2 cleaners or around 5.6% who were good but did not comply with hand hygiene. The results of the study showed a p-value of 0.255 (≥ 0.05). Thus, it can be concluded that there is no relationship between knowledge and compliance with hand hygiene in cleaners. With these results, it can be further improved regarding the knowledge of cleaners regarding hand hygiene, from the results of the test, other factors that can be linked to compliance with hand hygiene can be retested. This study is in line with research conducted by Kenedy (2022), which also showed that there was no relationship between knowledge and compliance with hand hygiene in cleaners.

Knowledge is the result of understanding something that is realized into reality, thus eliminating doubts in a person regarding compliance with infection prevention measures (Risnah et al., 2022). The level of knowledge possessed by an individual can be influenced by the extent to which a cleaning staff is related to information regarding the prevention and transmission of diseases, especially nosocomial infections, which can be seen from the level of compliance with hand washing (Sukmowati, 2023). Cleaning staff have a good understanding of infection prevention and control which will have a significant impact on hand hygiene behavior (Fadly Wira, 2021).

One of the factors that influences the knowledge of cleaning staff includes the age and length of work experience of the cleaning staff, thus increasing exposure to information about the importance of washing hands according to good SOPs in preventing the transmission of disease to the staff themselves, and can prevent the transmission of diseases, especially nosocomial infections while in the hospital environment. In this case, to improve the knowledge of cleaning staff in hospitals, the hospital is expected to always hold training related to hand hygiene and provide information regarding the importance of washing hands after taking action (Pipit Muliyah, 2020).

b. The Relationship Between Attitude and Hand Hygiene Compliance

From the results of the research conducted by the researcher, the results of the hypothesis were rejected, this shows that the results of respondents who have a positive attitude show a higher level of compliance in carrying out hand hygiene compliance, there are 18 respondents or around 50.0% who have complied with hand hygiene. Conversely, there are 14 respondents or around 38.9% who have negative attitudes but are still compliant in carrying out hand hygiene. With a p-value of 0.626 or greater than 0.05, in this case it can be seen that there is still 1 respondent or around 2.8% who have a negative attitude and are not compliant with hand hygiene. related to this, it can be expected that to further improve compliance with hand hygiene, so that compliance with hand hygiene can be increased again.

Related to these results, it shows that there is no significant relationship between attitudes and hand hygiene compliance in cleaning staff. This study is in line with that conducted by Yunita Sari Thirayo (2021) who reported that there was no significant relationship between attitudes and hand hygiene compliance (p value 0.156). According to Notoatmojo (2007), attitude is an individual's mental response that can direct someone towards positive and real results or towards potentially negative consequences for themselves (Sudarta, 2022). The

attitude of a cleaner reflects the individual's perspective on a particular object and shows a tendency to act in accordance with that object (Sudarmo et al., 2017). A positive attitude in cleaners is manifested as a strong belief in hand hygiene to prevent the spread of disease and can prevent the occurrence of diseases, especially nosocomial infections. Conversely, cleaners who show negative attitudes are often characterized by a lack of confidence in hand hygiene, which leads to non-compliance in doing so.

Lack of knowledge and attitudes of cleaners can have a significant impact on compliance with hand hygiene compliance, thereby reducing the effectiveness of preventing and controlling the spread of infectious diseases and the spread of diseases, especially nosocomial infections in hospitals, which can ultimately lead to a decrease in the level of cleanliness in the hospital environment (Trismiyana et al., 2021). The results of the study showed that there were still 3 respondents who had an attitude of not complying with hand hygiene properly. This is contrary to the theory that someone who has a positive attitude will always be obedient. On the basis of this non-compliance is caused by a lack of awareness of oneself and the environment regarding the risk of disease transmission inherent in their work environment.

Sigmund Freud argued that awareness includes aspects of the individual's soul that include knowledge and understanding based on the information obtained (Widhiarni et al., 2017). So, it can be concluded that awareness in carrying out hand hygiene is awareness of oneself that motivates individuals to comply with regulations related to hand hygiene compliance for the cleaning staff themselves. This action is very important to implement in order to prevent the transmission of infectious diseases and can improve cleanliness, comfort and quality of hospital services.

c. The Relationship Between Availability of Facilities and Hand Hygiene Compliance

The results of the study conducted by researchers at Grhasia Hospital Yogyakarta, related to the availability of hand hygiene facilities showed that as many as 28 respondents or around 77.8% stated that they had complete facilities and remained compliant in carrying out hand hygiene, Based on the results of the fisher exact test and obtained a p-value of 0.466, but there were 3 respondents or around 8.3% said that the facilities were complete but did not comply with hand hygiene, this can be concluded that there is no significant relationship between the availability of facilities and compliance with hand hygiene in cleaning staff at the Hospital, but in this case there were still 4 respondents or around 11.1% stating that the facilities were complete but did not comply with hand hygiene. In this case, it is expected that the

Hospital needs to improve the completeness of hand hygiene in the hospital environment and can provide direction and motivation to cleaning staff to continue to improve compliance with hand hygiene, because if this is not done, it will have a negative impact on the cleaning staff themselves, including family members at home and especially in the Hospital environment. So that it can be given an understanding that carrying out hand hygiene is very important to comply with. This study is in line with research conducted by Sinaga (2015) which also found that the availability of hand hygiene facilities has nothing to do with the compliance of cleaning staff in carrying out hand hygiene.

Research conducted by Dewi et al. (2022) shows that the availability of facilities has a significant relationship with the compliance of cleaning staff in carrying out hand hygiene, as evidenced by a p-value of 0.000. Notoatmojo (2017) stated that the availability of complete

and easily accessible hand hygiene facilities will encourage positive behavior of cleaning staff so that compliance in hand hygiene is also influenced by the knowledge and attitudes of cleaning staff (Nurkhasanah et al., 2014). Completeness, availability, hand hygiene facilities can increase the compliance of cleaning staff in carrying out hand hygiene, therefore hand hygiene facilities must be complete and easily accessible (Pabebang et al., 2021).

The results of interviews and observations at the research location conducted by researchers, showed that each room did not have hand washing facilities, the patient's room was only equipped with bathroom and bed facilities, this made it difficult for cleaners who wanted to clean themselves after cleaning the patient's room, but they have a special place if after finishing actions such as cleaning dirt such as defecation and urination of patients because each ward only has one place to wash hands, The availability of facilities and ease of access to hand washing places are very important factors in preventing the spread of disease to medical or non-medical personnel, especially cleaners in hospitals, this can be applied so that it can increase the prevention of disease transmission, especially nosocomial infections, especially in cleaners.

d. The Relationship Between Motivation and Hand Hygiene Compliance

The results of the study conducted by researchers related to respondent motivation showed that there were 19 respondents or 52.8% who showed that respondents were very motivated and compliant with SOPs while performing hand hygiene, but there were still 2 respondents or around 5.6% of respondents who were motivated but did not comply with hand hygiene. After conducting the Fisher exact test, a p-value of 1000 or greater than 0.05 was obtained. Thus, it can be concluded that there is no significant relationship between motivation and hand hygiene compliance in cleaning staff. Based on this, there are still 13 respondents or around 36.1% of respondents who are not motivated but still comply with hand hygiene, and there are 2 respondents or 5.6% who are not motivated and do not comply with hand hygiene. This study is in line with previous research conducted by Margareta Hesti Rahayu (2016), showing that there is no significant relationship between motivation and hand hygiene compliance in cleaning staff with a p-value of 0.148. However, on the contrary, research conducted by Indragiri et al. (2020), showed that there is a relationship between motivation and hand hygiene compliance with a p-value of 0.049. On the other hand,

Motivation is a force that has three main functions: as a driving force that encourages individuals to act, directs behavior to achieve certain goals, and increases the effort expended to achieve those goals. In addition, motivation can be understood as a stimulus that triggers a person's desire and willingness to work. Every form of motivation is aimed at achieving certain goals (Hasibuan, 2013).

Based on the results of a study conducted by Elim Rantepao in North Toraja Regency in 2021 regarding the relationship between nurse motivation and compliance with hand hygiene practices in the Internal and Surgical Units of the Regional General Hospital, it can be concluded as follows: high nurse motivation was found in 30 respondents (75.0%) and as many as 23 respondents (57.5%) showed compliance with the hand cleaning protocol. Cleaning staff tend to do hand hygiene because of strong motivation which is influenced by various factors, including their beliefs. Highly motivated cleaners feel obligated to comply with established

procedures in the hospital, especially regarding hand hygiene, because they understand that these actions are important to protect themselves and prevent the spread of disease.

Compliance with hand hygiene in cleaners can also be influenced by fellow cleaners, so it requires high motivation from the head of the cleaners and the hospital environment itself. This supervision has a significant impact on attitudes and norms related to compliance in carrying out proper hand hygiene according to the provisions and SOPs applied (Aini & Purwasari, 2020).

In this study, the researcher emphasized that there was no relationship between the variables studied related to compliance in carrying out hand hygiene in cleaners. This can be influenced by a positive attitude in the cleaners themselves which then influences their behavior to comply with Hospital policies. In addition, a significant factor that encourages compliance with hand hygiene is supervision that is carried out periodically by superiors or fellow coworkers in implementing strict SOPs applied in the Hospital. The implementation of routine supervisory actions can help maintain a positive attitude in cleaners in efforts to prevent and control infections in the Hospital environment. Compliance is a form of intelligence in behavior based on knowledge, which is manifested through compliance with the provisions set by the Hospital institution. This can look for other variables that can affect hand hygiene such as workload, environment, social and culture and other significant variables. Compliance with the rules must be based on Islamic values to achieve goodness in the world and the hereafter. Allah always reminds us to be careful in trying, as stated in the verses of the Qur'an.

QS. Al - Baqarah (2): 222. Indeed, Allah loves those who repent and loves those who purify themselves." This verse confirms that Allah loves those who maintain cleanliness (both physically and spiritually). Allah prefers those who do good deeds. Furthermore, the verse emphasizes the importance of performing hand hygiene before carrying out risky actions or tasks to prevent the spread of disease.

CONCLUSION

The results of the Fisher exact test showed that there was no relationship between the knowledge of cleaners and hand hygiene practices, which could be caused by several factors. This may indicate that although knowledge about hand hygiene exists, consistent and effective implementation is influenced by other factors such as inadequate habits, facilities, or supervision. Therefore, to improve hand hygiene, ongoing training, supervision, and provision of adequate facilities are needed, not just focusing on increasing knowledge. The results show that there is no relationship between knowledge of cleaners and hand hygiene compliance at Grhasia Hospital, Yogyakarta.

The results of the Fisher exact test showed that there was no relationship between the attitude of cleaners and hand hygiene practices, which could be caused by a mismatch between attitude and action. Although a positive attitude towards hand hygiene exists, other factors such as lack of facilities, established habits, or the influence of an unsupportive work environment can prevent cleaners from implementing this attitude in their daily behavior. Therefore, greater efforts are needed to create a supportive work environment, provide adequate facilities, and involve ongoing training and supervision. From these results, there is no relationship between the attitude of cleaners and hand hygiene compliance at Grhasia Hospital, Yogyakarta.

From the results of the Fisher exact test related to the absence of a relationship between the availability of facilities and hand hygiene, it may be caused by a mismatch between the existing facilities and how they are used. Although facilities are available, if the facilities are not sufficiently supportive or are not used properly, there is no significant relationship between the availability of facilities and hand hygiene behavior. Therefore, there needs to be more attention to facility maintenance, equal distribution of facilities in strategic locations, and consistent supervision to ensure that facilities are used correctly and effectively. These results indicate that there is no relationship between the Availability of Facilities for cleaning staff and hand hygiene compliance at Grhasia Hospital, Yogyakarta.

The results of the Fisher exact test indicate that there is no relationship between the motivation of cleaning staff and hand hygiene, which may be caused by the fact that motivation alone is not enough to encourage behavioral change. Although officers have good motivation, other factors such as supervision, adequate facilities, and hospital policies may have a greater influence on the implementation of hand hygiene. Therefore, there needs to be a comprehensive approach, including strengthening motivation with awards, adequate facilities, and proper supervision. Related to the results of the test, it shows that there is no relationship between Motivation in cleaning staff and hand hygiene compliance at Grhasia Hospital, Yogyakarta.

The most influential factor in the variable is Length of Service, which has the opportunity and provides a large influence in increasing hand hygiene compliance among cleaning staff.

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