

Original Research Paper

## Analysis of factors related to compliance nurses in doing hand hygiene at Pertamina Bintang Amin Hospital Bandar Lampung

Hana Rizka Aulia<sup>1\*</sup>, Dhiny Easter Yanti<sup>2</sup>, Vera Yulyani<sup>3</sup>

Malahayati University, Indonesia

[hanarizka21@gmail.com](mailto:hanarizka21@gmail.com)

Submitted: May 6, 2022

Revised: July 16, 2022

Accepted: July 30, 2022

### Abstract

Non-compliance by health workers, especially nurses, with the practice of hand hygiene was often associated with the incidence of nosocomial infections in hospitals. Nosocomial infection cases at Pertamina Bintang Amin Hospital, namely issues of phlebitis, were as much as 0.2%. The nurse compliance rate of 86.25% was still far from the target of achieving 100%. The purpose of this study was to determine the analysis of factors related to hand hygiene compliance at Pertamina Bintang Amin Hospital, Bandar Lampung. This study used a cross-sectional method. Respondents in this study were 113 nurses at Pertamina Bintang Amin Hospital. Univariate and bivariate data were analyzed using the chi-square test at a 95% confidence level, and multivariate data were analyzed using logistic regression. This study's results indicated no correlation between knowledge, availability of facilities, and supervision of the headroom. There was a correlation between the variables of attitude and motivation. The motivational variable was the most dominant influence on adherence (odds ratio exp (B) 3.310). It was expected that the hospital needs to give awards to nurses who carry out hand hygiene compliance properly and provide sanctions for nurses who do not comply with hand hygiene properly.

**Keywords:** compliance; nurse; hand hygiene

### 1. Introduction

Hand hygiene is an effort to clean visible dirt and remove microorganisms temporarily living on hands using soap and running water (hand wash) or alcohol-based liquid (hand rub) in six steps (WHO, 2009). Although it is impossible to remove microorganisms permanently on the deep skin by washing hands, it can reduce the concentration of these harmful pathogens. In addition, hand washing can effectively remove temporary contaminants in the outermost skin tissue. WHO initiated the global patient safety challenge with clean care is safe care, namely formulating an innovative strategy for implementing hand washing steps with five-moment hand hygiene for health workers. Five-moment hand hygiene is five critical moments for health workers to wash their hands which are used to optimize hand hygiene by washing hands in the following situations: before contact with patients, before carrying out aseptic/clean/sterile procedures, after contact with patient body fluids, and after contact with patient objects and surroundings (WHO, 2006).

Awareness of the importance of hand washing in medical institutions has become a global concern. Medical care is the most vulnerable environment for the spread of various microorganisms. Health worker's activities are always in contact with body fluids, contaminated equipment, and direct contact with the patient's body. Therefore, it is very likely that health workers will contract the disease or become a medium for transmitting pathogens (Octaviani, 2020). Nurses have an essential role in providing health services to the community because, on average, nurses are exposed to patients for around 7-8 hours per day. Effective direct contact with patients is half an hour of work, about 4 hours (Situmorang et al., 2020).

Studies in the United States show that the compliance level of nurses doing hand washing is still around 50%, and in Australia, it is still about 65%. The average compliance of officers to wash their hands in Indonesia is only 20%-40% (Depkes RI, 2009). Likewise, with Cipto Mangunkusumo Hospital (RSCM), nurses' compliance in washing their hands is only around 60%. Promoting this hand-washing program can be challenging for the hospital infection control team (Kemenkes RI, 2011).

The hand washing compliance study results revealed that more than 20% of the nurses on duty had not thoroughly carried out the procedures for implementing hand hygiene properly and correctly. Hand washing assessment data was carried out by Rizka Amalia (2016), at RSUP Dr. Kariadi Semarang. As many as 60% of nurses did not comply with the implementation of hand washing. In the research by Karuru et al. (2016) at RSUP, Prof. Dr. RD Kandou Manado obtained data on the compliance level of nurses in carrying out hand hygiene of only 6.6%.

According to the research, it was found that the level of compliance with hand hygiene in RSUD Dr. Iskak Tulungagung is equal to 36%. With details, before contact with patients, the level of compliance is 48%. Before carrying out aseptic procedures, the level of compliance is 50%. After contact with the patient body fluids, the level of compliance is 25%. After touching patients, the level of compliance is 31%, whereas, after contact with objects and the patient environment, nurse compliance to wash their hands is 22%. Based on the results of an audit conducted by the infection prevention and control team regarding adherence to carrying out five moments of hand washing at RSUD Prof. Dr. W.Z. Johannes Kupang in January-September 2017, obtained before contact with patients, the compliance rate was 74.98%, after contact with the patient's body fluids the compliance rate was 95.14%, after touching the patient the compliance rate was 94.14%, while after contact with objects and the patient's environment the compliance was 89.93% (Pundar, 2019).

Every health service facility must carry out and organize patient safety by establishing a service system that implements patient safety standards, goals, and seven steps towards patient safety and is evaluated through hospital accreditation. The five moments of hand washing are one of the efforts to prevent and control infection in healthcare facilities. The implementation of hand hygiene has a considerable influence on patient safety in health services (Wijaya et al., 2018). Healthcare-Associated Infections (HAIs) are infections related to services in healthcare facilities that are strongly influenced by nurses' hand hygiene. One strategy to protect and reduce infections in hospitals is hand hygiene because the non-compliance of nurses doing hand hygiene can increase the rate of nosocomial infections (Ministry of Health of the Republic of Indonesia (Depkes RI, 2008).

Based on the incidence of nosocomial infections from several hospitals worldwide, approximately 1.4 million, or around 9% of hospitalized patients, have nosocomial disorders. The World Health Organization (WHO) researched nosocomial infections in 55 hospitals from 14 countries and found 8.7% of cases of nosocomial infections. The highest incidence rate is in the East Mediterranean, with as many as 11.8%, and Southeast Asia as many as 10% of cases (WHO, 2002). Meanwhile, the number of nosocomial events in Indonesia, based on research conducted in 11 hospitals in DKI Jakarta in 2004, around 9.8% of patients got an infection during hospitalization (Ibrahim H., 2019).

Niven (2000), stated that compliance was a term used to describe adherence to predetermined goals or the extent to which a person's behavior was by the provisions given by health professionals. This was because many factors were related to health workers' compliance with washing hands, such as gender, age, years of service, attitude, and supervision (Octaviani, 2020). Other factors include the facilities and motivation that influence nurses in carrying out nursing care according to standard hospital procedures. Nurses with high motivation and desire appear to meet the needs of applying hand hygiene. Motivation also influences nurses in nursing care through common operating systems at the hospital. Nurses with high motivation will pay more attention to implementing hand hygiene (Gea, 2018).

The implementation of hand washing has not been carried out with a maximum response, especially in developing countries. Failure to implement hand washing often arises due to limited funds

to provide hand washing facilities. But after there are funds to provide hand washing facilities, the next problem is the lack of adherence to hand washing procedures (Saragih & Rumapea, 2012).

Low nurse compliance contributes to a lack of knowledge, time, forgetfulness, skills, inconvenience, and training (Efstathiou et al., 2011). In the implementation of hand hygiene, supervision is one of the factors that can influence nurse compliance. Supervision is part of the movement in the management function, which plays a role in maintaining that all the wishes that have been programmed are carried out correctly and precisely. Nurses who receive supervision tend to be obedient compared to nurses who do not receive supervision (Jama, 2020).

Based on report data from the infection control and prevention team at Pertamina Bintang Amin Hospital in Bandar Lampung, it was found that phlebitis cases were 4.6% in 2018, these cases decreased in 2019 were 0.3% and in 2020 were 0.2%. In the UTI case, in 2018, it was 1.7%. In 2019 it was 0.5%, but it increased again in 2020 by 1.2%. There were no Ventilatory Acquired Pneumonia (VAP) cases in 2018 and 2019, but in 2020 there were 2.2% of VAP cases. Cases of Peripheral Blood Infection (IADP) and Surgical Wound Infection (ILO) in 2018 were 0.6% and 0.9%. In 2019 and 2020, there were no IADP and ILO cases (Pertamina Bintang Amin Hospital, 2021).

Based on adherence to hand hygiene, it is known that in 2018 it was 76.5%. In 2019 it was 56.4%, and in 2020 it was 86.25%. Percentage of hand wash/hand rub compliance based on five moments of hand hygiene in 2019, namely before contact with patients. The compliance rate was 75%. Before carrying out aseptic procedures, the compliance rate was 85%. After contact with the patient body fluids, the compliance rate was 100%. After touching the patient, the level of compliance was 85%, while after contact with objects and the patient's environment, the compliance rate was 85%. Meanwhile, in 2020, namely before contact with patients, the compliance rate was 75%. Before carrying out aseptic procedures, the compliance rate was 80%. After contact with the patient's body fluids, the compliance rate was 100%. After touching the patient, the compliance rate was 100%, while after contact with objects and the patient's environment, the compliance was 100% (Pertamina Bintang Amin Hospital, 2021).

Based on the background description above, the researcher was motivated and interested in analyzing factors related to nurse compliance in hand hygiene at Pertamina Bintang Amin Hospital, Bandar Lampung.

## 2. Research Methods

The design of this study uses a cross-sectional approach. This research was conducted at the Pertamina Bintang Amin Hospital in Bandar Lampung. The respondents in this study were 113 people. Ethical Due Diligence No. 2433/EC/KEP-UNMAL/II/2022 obtained from Malahayati University on March 28, 2022. This study used instruments in the form of questionnaires for knowledge, attitudes, motivation, and supervision of room heads, as well as observation sheets for the availability of facilities and compliance—univariate, bivariate data analysis using the chi-square test and multivariate using logistic regression. The confidence level used is 95%.

## 3. Results and Discussion

**Table 1.** Frequency distribution of knowledge, attitudes, motivation, availability of facilities, headroom supervision, and compliance

Variable	n	Percentage (%)
Knowledge		
Not good	43	38.1
Well	70	61.9
Attitude		

Variable	n	Percentage (%)
Does not support	42	37.2
Support	71	62.8
Motivation		
Low	30	26.5
high	83	73.5
Facility		
Does not support	85	75.2
Support	28	24.8
Room Supervision		
Bad	33	29.2
Well	80	70.8
Obedience		
Not obey	65	57.5
obey	48	42.5
<b>Total</b>	<b>113</b>	<b>100</b>

From table 1, most of the respondents with good knowledge were 70 people (61.9%), and supportive attitudes were 71 people (62.8%). High motivation were 83 people (73.5%), availability of facilities did not support as many as 85 people (75.2%), 80 people (70.8%) had good supervision from the head of the room, and 48 people (42.5%) did not comply.

**Table 2.** Relationship of knowledge, attitude, motivation, availability of facilities, headroom supervision with compliance

Variable	Obedience				Total		P Value
	Not obey		Obey		n	%	
Knowledge	N	%	N	%	n	%	0.764
Bad	26	60.5	17	39.5	43	38,1	
Well	39	55,7	31	44,3	70	61.9	
Attitude							0.004
Does not support	32	76,2	10	53.5	42	37,2	
Support	33	46.5	38	42.5	71	62,8	
Motivation							0.007
Low	24	80	6	20	30	26.5	
high	41	49,4	42	50,6	83	73.5	
Facility							0.475
Does not support	51	60	34	40	85	75,2	
Support	14	50	14	50	28	24,8	
Room Supervision							0.292
Bad	22	66,7	11	33,3	33	29,2	
Well	43	53,8	37	46,3	80	70,8	
<b>Total</b>					<b>113</b>	<b>100</b>	

Table 2 shows that out of 70 people with a good knowledge level, 39 respondents (55.7%) were disobedient in performing hand hygiene. Statistical test results obtained p value = 0.764. Meanwhile, the attitude variable shows that out of 71 people with a supportive attitude, 38 respondents (53.5%)

were obedient in doing hand hygiene. Statistical test results obtained p-value= 0.004. In the motivation variable, there were 83 people with high motivation. Forty-two respondents (50.6%) were obedient in doing hand hygiene. Statistical test results obtained p-value=0.007. The variable availability of facilities shows that out of 85 respondents with non-supportive facilities, 51 respondents (60%) were disobedient in performing hand hygiene. Statistical test results obtained p-value=0.475, and in the room head supervision variable, it was obtained from 80 people with good room head supervision. Forty-three respondents (53.8%) were disobedient in performing hand hygiene. Statistical test results obtained p-value=0.292.

**Table 3. Factors of nurse compliance in performing hand hygiene**

	B	Sig.	Exp(B)	95% CI for EXP(B)	
				Lower	Upper
Attitude	1.124	0.012	3.078	1.281	7.393
Motivation	1.197	0.022	3.310	1.188	9.224
Constant	-1.967	0.000	0.140		

Based on the results of the logistic regression test analysis, it was found that the more dominant factor was the motivational variable with a p-value=0.022 where the p-value <0.05, which means that the motivational variable has a significant effect on the compliance variable. Based on the results of this study, the odds ratio for the motivation variable was 3.310, which means that good motivation can increase compliance by three times compared to less motivation.

### 3.1 The correlation between knowledge and nurses' hand hygiene compliance

Knowledge of hand hygiene is one-factor influencing compliance with hand hygiene. The level of knowledge about hand hygiene is not only limited to the importance of its implementation but also includes indications and implementation techniques (Ananingsih & Rosa, 2016). Research by Pettit and Boyce (2011) stated that the factors contributing to the low compliance of health workers to perform hand hygiene are lack of education, high workload, and lack of role models. This requires not only one's awareness and knowledge but also the involvement of health and education institutions to support improving hand hygiene compliance. The theory of the health belief model by Rosenstock (1974), also says that a person's behavior is not necessarily based on knowledge, such as preventing certain diseases, maybe because someone feels threatened to get the disease and not because of their knowledge about the disease (Rosenstock, 1974).

This research is in line with Arifin (2019), research which states that there is no significant correlation between the level of knowledge and hand hygiene compliance, as evidenced by the statistical test p-value=0.288. The results of this study are also in line with research conducted by Ratnasari & Dulakhir (2016), which stated that there was no significant relationship between knowledge and hand hygiene compliance at the Anna Medika hospital in Bekasi and Syamsulastri's research (2017), also said that there was no correlation between knowledge and nurse adherence to hand hygiene (p-value=0.237).

In the researcher's opinion, based on the conditions at the time of observation and analysis of the results of the answer, respondents still ignore the "before" moment. This is related to the lack of knowledge of some respondents about the indication of the "before" moment. Most respondents know the sequence of five moments, while the sequence of steps is still incorrect. Most respondents knew about washing their hands before using their hands soon. Still, the observations also seemed to be

influenced by the respondents' busyness, so the respondents prioritized the patient's interests and ignored the "before" moment.

Based on the description above, it can be concluded that the study results showed no significant correlation between knowledge and nurses' compliance with hand hygiene.

### **3.2 The correlation between attitude and nurse's hand hygiene compliance**

There is a correlation between attitudes and nurse compliance because nurses who are aware of hand hygiene will feel it is their responsibility before and after providing services. Respondents with a positive/supportive attitude will feel that hand hygiene is essential, so they will always take these actions without coercion from anyone so that compliance will emerge. The knowledge and attitudes of nurses influence the incidence of nosocomial infections. Good knowledge will reduce the incidence of nosocomial diseases in hospitals. Likewise, the attitude is very decisive in the prevention of nosocomial infections. If an attitude and behavior are not based on knowledge and awareness, the attitude and behavior will not last long (Nurrahmani, 2018).

This research is in line with the results of Arifin's study (2019), which stated that there was a significant correlation between the level of knowledge and hand hygiene compliance. This research is in line with research conducted by Amalia (2016), which showed a significant correlation between attitudes and hand hygiene compliance at RSUP Dr. Kariadi Semarang and based on the results of Endiyono's research (2017), there was a correlation between attitude towards adherence to hand washing with  $p\text{-value}=0.003$ . Bloom's taxonomy stated that behavior was a function of predisposing factors, namely factors that existed within the individual in which there was an attitude of the individual. Respondents' attitudes could affect adherence to hand hygiene.

### **3.3 The correlation between motivation and nurse hand hygiene compliance**

The strong motivation of nurses and the implementation of hand hygiene with the non-adherent compliance level category are influenced by the education held by the nurse. At the same time, the influencing factors are a person's educational level (Sani & Pratiwi, 2017). Respondents with high motivation did not obey in washing their hands. This proves that a strong group of motivation does not guarantee that respondents have the ability. According to their level of motivation in carrying out the five moments of hand washing and six steps of washing hands, the respondents' knowledge and skills may still be inadequate to practice hand washing. Bloom's theory states that a person's knowledge consists of 6 domains: knowing, understanding, application, analysis, synthesis, and evaluation. Each level of knowledge shows individual abilities as proof of the respondent's knowledge domain about motivation to live healthily with solid values. It is also necessary to look at their behavior in implementing the five moments of hand washing and six steps of washing hands (Notoatmodjo, 2014).

A person's motivation is related to needs, including the place and atmosphere of the work environment, so the working nurse experiences a decrease in motivation which results in a reduction of the nurse's actions. Where the motivation is good, the act of washing hands is also well done; vice versa, the motivation is lacking, and the act of washing hands is also not done (Uno, 2014). According to Notoatmodjo, there are two methods to increase one's motivation, namely the direct method by providing material or non-directly to meet needs, for example, giving bonuses or prizes, and the natural process in the form of facilities or means to increase motivation in washing hands (Notoatmodjo, 2014).

This research is in line with Sani & Pratiwi (2017), results, which stated a significant correlation between motivation and adherence to carrying out the six correct hand-washing steps at RSI Klaten. The results of this study are also in line with research conducted by Gea (2018), which stated that there was an influence between motivation on nurse compliance ( $p\text{-value}=0.035$ ).



In the opinion of researchers, the highest non-compliance among nurses was not doing hand hygiene before contact with patients. Previously, nurses used a hand soon, so they felt their hands were clean and safe. In addition, there is also no reward given to nurses if they carry out hand hygiene compliance properly, and there is no punishment for those who do not adequately. Thus, the motivation of nurses to perform hand hygiene needs to be increased to be more obedient in performing hand hygiene to reduce nosocomial infection rates.

### **3.4 Facility relations with nurse hand hygiene compliance**

The results of this study indicate that the availability of hand hygiene facilities does not affect nurse adherence to hand hygiene. Whether or not nurses comply with hand hygiene is influenced by many factors, not only the availability of facilities. The availability of suitable facilities will affect nurses' interest in washing their hands so that nurses are aware and care about their health. This is proven if someone who makes good use of the availability of health facilities will have a better standard of health. This will make individuals feel responsible for their health and make good use of the availability of facilities. The availability of facilities is needed to support compliance behavior. Many factors can cause behavior. Factors that influence behavior include education, knowledge, attitudes, and availability of facilities (Notoatmodjo, 2014).

This research is in line with Gea (2018), which states that there is no significant correlation between the availability of facilities and hand hygiene compliance, as evidenced by the statistical test value  $p\text{-value}=0.663$ . The results of this study are also in line with research conducted by Nurrahmani (2018), which states that there is no significant correlation between the availability of facilities and hand hygiene compliance at Cut Meutia Langsa Hospital. This study contradicts Syamsulastri's research (2017), which states a correlation between the availability of facilities and nurses' adherence to hand hygiene ( $p\text{-value}=0.237$ ).

Although there was no significant correlation in this study, the availability of facilities can also affect nurse hand hygiene compliance. From the researchers' observations, the hospital has provided facilities to prevent the spread of nosocomial infections, such as sinks, antiseptic soap, and alcohol hand rubs. However, in some rooms, there is still a lack of adequate tissue or clean cloth for drying hands. Therefore, it is hoped that the hospital will pay more attention to the availability of hand-washing facilities.

### **3.5 The correlation between headroom supervision and nurse hand hygiene compliance**

Supervision is one factor that comes from outside the nurse. This is similar to the results of research by Rachmawati that the factors that are more significant to nurse hand hygiene compliance are individual factors contained within the nurse. These individual factors include knowledge, attitudes, and motivation (Rachmawati, 2018).

Suarli stated that the supervision carried out by the head of the room must be carried out objectively with the aim of coaching. The implementation of supervision is not only to supervise whether nurses carry out hand hygiene properly and correctly by supervision policies and procedures. They also make direct and periodic observations so that if problems are found, immediate assistance is immediately given (Suarli, 2010).

This research is in line with Nurrahmani (2018), research which states that there is no significant correlation between supervision and hand hygiene compliance, as evidenced by the statistical test value  $p\text{-value}=0.085$ . The results of this study are also in line with Octaviani (2020), research which states that there is no significant correlation between supervision and hand hygiene compliance at Hermina Galaxy Bekasi Hospital. This study contradicts Syamsulastri's research (2017), which states a correlation between supervision and nurse adherence to hand hygiene.

Based on the answers to the questionnaire results, respondents said that supervision was carried out by the headroom and had no impact on nurse compliance at Pertamina Bintang Amin Hospital. This is because supervision or supervision carried out in the room is not carried out routinely, causing respondents to be less compliant in carrying out hand hygiene. Even though in this study, supervision did not have a significant effect, it is better if supervision is carried out every day to increase nurse compliance in hand hygiene.

Supervision should also be carried out using the observation approach method because direct observation often creates various negative impacts, for example, fear and displeasure, or the impression of interfering with the smooth running of work, so it is highly recommended to make observations in an educative and supportive way, not to show power or authority. In addition, also in terms of awarding and reprimanding. So far, there has not been a sound reward system for obedient nurses carrying out hand hygiene properly and correctly and warnings or sanctions for those who do not comply with hand hygiene standards.

Supervision of the head of the room should always provide continuous information about hand hygiene to his subordinates so that hand hygiene can be appropriately applied. The application of hand hygiene is good because of the commitment of the hospital director and all nurses to carry out infection prevention and control programs, one of which is hand hygiene compliance.

### **3.6 The effect of motivation on nurse compliance**

Based on the study results, there was no significant effect between knowledge, supervision of the headroom, and availability of facilities on nurse hand hygiene compliance. By the theory that individual factors have more influence on nurse compliance, it is in line with the results of this study that the supervision of the head of the room and the availability of facilities has no significant effect (Rachmawati, 2018). Knowledge is included in the individual factor. In this study, the knowledge level of the majority was good, but most adherence to hand hygiene was disobedient. This may be due to other factors, such as negligence in hand hygiene, a large workload, or more concern with patients (Gea, 2018).

The most dominant factor in this study is the variable motivation. With good motivation, compliance can increase three times compared to less motivation. Carrying out hand hygiene is an obligation and an awareness of the health workers themselves without coercion from other parties. But in this study, the motivation to support compliance with obedience and non-adherence has a difference that is not too big. This is in line with research which states that there are respondents with high motivation who do not comply with washing their hands. This proves that a strong level of motivation is not a guarantee that respondents can carry out the five moments of hand washing and the six steps of washing hands. The respondents' knowledge and skills may still be inadequate to practice hand washing (Sani & Pratiwi, 2017). Maslow's hierarchy of needs theory views that individuals will be motivated to meet the most prioritized needs within a period. Needs related to security are a priority, and nurses have the assumption to protect themselves. This can motivate nurses regarding their interest and need for hand washing (Parwa et al., 2019).

Motivation is a psychological process that can explain a person's behavior. A person's motivation is related to needs, including the place and atmosphere of the work environment. The working nurse experiences a decrease in motivation which results in unsatisfactory work results and a reduction in the nurse's actions. To increase one's motivation, there are two methods, namely the direct method by providing material or non-material directly to meet needs, for example, by giving bonuses or prizes, and the indirect way in the form of facilities or suggestions to increase motivation in washing hands. High motivation will increase nurse compliance with hand hygiene (Notoatmodjo, 2014).



In the opinion of the researchers, the conditions at the research site were indeed the majority of the respondents. Most were in the early adult group because they still had a muscular physique, high spirits, and the ability to remember and absorb. When given new knowledge or skills, it was easier for them to master them. Based on the level of education, respondents have a higher level of education. As a nurse with a higher education level, you will usually be more motivated because you already have broader insights. This is in line with the theory that internal factors that affect motivation include personal maturity or one's age and level of education (Sayuti, 2006).

#### 4. Conclusion

Frequency distribution the number of nurses at Pertamina Bintang Amin Hospital Bandar Lampung who were not compliant in carrying out hand hygiene was 65 people (57.5%), the number of nurses with a good level of knowledge was 70 (61.9%), the number of nurses with a supportive attitude was 71 (62.8%), the number of nurses with high motivation was 83 (73.5%), the number of nurses with non-supportive facilities was 85 people (75.2%), the number of nurses with a good head of room supervision was 80 (70.8%). There is no correlation between knowledge, supervision of the headroom, and availability of facilities with nurse compliance in carrying out *hand hygiene* at the Pertamina Bintang Amin Hospital in Bandar Lampung.

There is a correlation between attitude and motivation and nurse compliance in hand hygiene at the Pertamina Bintang Amin Hospital in Bandar Lampung. The most dominant factor related to nurse compliance in performing hand hygiene at the Pertamina Bintang Amin Hospital in Bandar Lampung is motivation.

#### References

- Amalia, (2016). Faktor – faktor yang berhubungan dengan tingkat kepatuhan tenaga kesehatan melakukan cuci tangan (studi kasus di instalasi rawat inap Rajawali RSUP Dr. Kariadi Semarang). *Jurnal Kesehatan Masyarakat-JKM ejournal*, 4(3), 1083-1088.
- Ananingsih & Rosa, (2016). Kepatuhan 5 momen *hand hygiene* pada petugas di Laboratorium Klinik Cito Yogyakarta. *Jurnal Medicoeticolegal dan Manajemen Rumah Sakit*, 5(1), 16-24.
- Arifin, (2019). Faktor-faktor yang berhubungan dengan kepatuhan *hand hygiene* mahasiswa profesi ners di ruangan rawat inap. *JOM-FKP*, 6(1), 100-113.
- Depkes RI, (2009). *Kebersihan tangan mempengaruhi keselamatan pasien*. Jakarta: Badan Litbangkes Kemenkes RI.
- Endiyono, (2017). Hubungan pengetahuan dan sikap mahasiswa terhadap kepatuhan melakukan cuci tangan dengan metode *hand wash* di IGD RSUD Dr. R. Goeteng Taroenadibrata Purbalingga. *Journal-ummgl*, 445-450.
- Gea, I A Y. (2018). Faktor kepatuhan perawat dalam penerapan *hand hygiene* di instalasi rawat inap RSUD Gunung Sitoli. *Medan : Jurnal Kesehatan Global*, 1(3), 102.
- Karuru, C.P., Mogi, T.I., Sengkey, L. (2016). Gambaran kepatuhan tenaga kesehatan dalam menerapkan *hand hygiene* di rawat inap RSUP PROF. Dr. R D. Kandou Manado. *e-CliniC*, 4(1), <https://doi.org/10.35790/ecl.v4i1.10942>.
- Kementerian Kesehatan Republik Indonesia.(2011). Standar akreditasi rumah sakit. Jakarta: Kementerian Kesehatan RI.
- Notoatmodjo, (2014). *Ilmu perilaku kesehatan*. Jakarta: Rineka Cipta.
- Octaviani,(2020). Analisis faktor yang berhubungan dengan kepatuhan mencuci tangan pada tenaga kesehatan di RS Hermina Galaxy Bekasi. *Jurnal Kedokteran dan Kesehatan*, 16(1), pp: 12-19.
- PERMENKES RI, (2008). Permenkes nomor 129 tahun 2008 *tentang standar pelayanan minimal rumah sakit*.

- PERMENKES RI, (2017). Permenkes nomor 27 tahun 2017 tentang pedoman pencegahan dan pengendalian infeksi di fasilitas pelayanan kesehatan.
- Pundar, Y. (2019). Analisis faktor-faktor yang mempengaruhi kepatuhan perawat melakukan hand hygiene sesuai SPO di Ruang Kelimutu dan Cempaka RSUD Prof. Dr. W. Z. Johannes Kupang. *CHMK Nursing Scientific Journal*, 3(2), 138-144.
- Rachmawati, (2018). Pengaruh faktor individu terhadap kepatuhan perawat dalam melaksanakan hand hygiene. *Jurnal Ilmu Keperawatan*, 6(1), pp: 40-46.
- Ratnasari dan Dulakhir, (2016). Faktor-faktor yang berhubungan dengan kepatuhan perawat ruang rawat inap dalam pelaksanaan hand hygiene di Rumah Sakit Anna Medika Kota Bekasi. *Jurnal Ilmiah Kesehatan*, 8(2), pp: 30-34.
- Rosenstock, (1974). Construct validation of the health belief model. *Health Education Monographs*.
- Sabarulin, (2013). Faktor yang mempengaruhi kinerja perawat dalam mendokumentasikan asuhan keperawatan di Rumah Sakit Woodar Palu. *Jurnal AKK*, 2(3), pp: 29-34.
- Sani dan Pratiwi, (2017). Hubungan motivasi perawat dengan tingkat kepatuhan melakukan cuci tangan. *Profesi*, 14(2), pp: 11-18.
- Situmorang, C.K., Widjasena, B., Wahyuni, Ida. (2020). Hubungan antara durasi dan postur tubuh penggunaan komputer terhadap keluhan neck pain pada tenaga kependidikan Fakultas Kesehatan Masyarakat Universitas Diponegoro. *Jurnal Kesehatan Masyarakat*, 8(5), <https://doi.org/10.14710/jkm.v8i5.27949>.
- WHO. (2006). World Hand Hygiene Day. World Health Organization.
- WHO. (2009). *WHO guidelines on hand hygiene in health care. [serial online]* [disitasi tanggal 18 Desember 2019]. Diakses dari URL: <http://apps.who.int/iris/bitstream/10665/251730/1/9789241549929-eng.pdf>.
- Wijaya, Dodi., Damayanti, Nyoman Anita. (2018). Healthy nurses for a quality health care service: a literature review. *Indian Journal of Public Health Research & Development*, 9(11), pp. 81-85.