

Analysis of Factors associated with Nurses' Compliance on the Implementation of Hand Hygiene

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Abstract

Background: Nosocomial infections are a major problem facing in the hospitals and can be spread by hand contact. Hand hygiene is one of the easier and more effective ways to prevent the nosocomial infection. **Purpose:** To determine kind of factors associated with nurses' compliance in implementing hand hygiene at the inpatient installation in hospital. **Method:** It was an analytical descriptive study which collected the data through cross sectional design. The sample was 73 nurses taken by using proportional random sampling. **Results:** The result of the study showed that the nurses perceives high motivation (60,3%), high social support (56,2%), high knowledge (93,2%), complete facility (54,8%), good supervision (54,8% %), and nurse compliance (76.7%). There is no significant relationship between social supports, knowledge, facilities, and supervision factors with nurse compliance of hand hygiene implementation. However, there is a relationship between motivation factor and nurse compliance in implementing the hand hygiene. **Conclusion:** Therefore, it is recommended for the hospital to give rewards to the nurses who implement the hand hygiene properly and provide appropriate punishment for those who do not implement the hand hygiene properly.

Keywords: Compliance, Hand hygiene, Nurses

INTRODUCTION

Nosocomial infections are still a major concern in the health world today, especially in hospital services. This is due to nosocomial infections can increase morbidity and mortality significantly, increasing bacteria resistance to antimicrobials, prolong patient hospitalization days (Oregon Health Report, 2013). Cases of nosocomial infection showed a fairly high rate, high incidence of nosocomial infections indicates the low quality of health service quality.

According Soeroso (2000), patients with nosocomial infection by 9% with a variation between 3% -20% of hospitalized patients in hospitals throughout the world.

In developing countries, including Indonesia, the average prevalence of nosocomial infection is approximately 9.1% with a variation of 6.1% -16.0%. Research conducted by the department of

Health in 2004 the proportion of the data obtained in the incidence of nosocomial infection with a number of government hospitals 1,527 patients at risk of a number of 160 417 patients (0.95%), while for the private hospital with 991 patient patient number of the number of patients at risk 130 047 (0.76%). Armed to the hospital with a patient number 254 of 1672 the number of patients at risk (15.19%). (Sukriani, 2013).

According to Betty (2012) there are several ways to reduce the frequency of nosocomial infections by performing good hand washing and correct, asepsis, disinfection and sterilization, environmental sanitation. From some of these ways, the most effective way to reduce the frequency of nosocomial infections is by washing hands. Research conducted at Columbia Asia Hospital Medan reveals the hand washing can reduce 20% -40% incidence of nosocomial infections. (Rosita, 2008). According to

Sri (2010) in his research that the factors that affect adherence nurses on infection prevention measures are factors of knowledge, facility factors, motivational factors. According to Kohn Corrigan (2000) in his research that the factors that influence adherence to hand hygiene nurse is in social support and supervision.

Based on preliminary studies conducted by researchers in the department of Padang Dr.M.Djamil known cross-infection prevalence rate is 8.5% (Pandalin Dr Tim Dr.M.Djamil Padang,) This figure is above the standards set by the department of health. The efforts made by the department Dr.M.Djamil Padang in reducing the incidence of nosocomial infections is hand hygiene socialized since 2007, there has been the soup, but has not done well. 2013 Early socialization of hand hygiene increasingly encouraged as it will meet the 2012 version plus JCI accreditation (Joint Commission International) whose main focus patient safety goals (patient safety) is one of the objectives is the reduction of the risk of infection through hand washing. The high rates of nosocomial infection is closely related to the behavior of nurses adherence to hand hygiene correctly. Non-compliance is indicated by 40% of MRSA positive nurses in the department of internal medicine inpatient Dr.M.Djamil Padang.

The efforts made by the department Dr.M.Djamil Padang to reduce the incidence of MRSA is to create a culture of hand hygiene. Hospital Dr.M.Djamil Padang to evaluate hand hygiene by holding the exam. And the results showed that the highest rate of disease in comparison to the other room. This is supported by data obtained from the Hospital Quality Dr.M.Djamil Padang which states that the knowledge of health

professionals in the inpatient unit of the 100% hand hygiene. This means that nurses' knowledge about good hand hygiene. Therefore Disease can be a great learning process. From interviews and observations with PPIRS Padang Hospital Dr.M.Djamil the data obtained that level of hand hygiene compliance of nurses implementing inpatient unit HCU Disease by 30%, implement a hand hygiene before as much as 33.33%, carry out hand hygiene after 66, 67%. Inpatient unit IW Disease by 25%, implement a hand hygiene before as much as 20%, implement a hand hygiene after 80%. Inpatient unit IP Disease by 25%, implement a hand hygiene before as much as 0%, implementing hand hygiene after 100%. inpatient unit Flamboyan Internal Medicine Class 1 as much as 10%, implement a hand hygiene before as much as 0%, carry out hand hygiene after 100%. From the above data it can be concluded that the level of knowledge of nurses in the inpatient unit of the disease in hand hygiene is good but in practice there are nurses who do not comply in performing hand hygiene. Based on the above, the researcher is interested in conducting research on "Analysis of factors associated with adherence nurses in the application of hand hygiene in the hospital inpatient Dr.M.Djamil disease in Padang'.

METHOD

The research design used in this study was a descriptive cross sectional analytic approach. In this study population is the whole duty nurses in the inpatient department of Internal Medicine Dr.M.Djamil Padang as many as 90 people. Sampling used is proportional random sampling as many as 73 people.

RESULTS

Frequency Distribution Compliance Nurses In Space Application of Hand Hygiene (n=73)

Nursing compliance		
a. Obedient	56	76,7
b. Not obey	17	23,3
Total	73	100

From the table found the majority (76.7%) nurses in the department of internal medicine inpatient Dr.M.Djamil Padang

has a good level of compliance of nurses in the application of hand hygiene.

Distribution Relationship Motivation Factors, Social Support, Knowledge, Facilities, Compliance Supervision by Nurses In Space Application Hand Hygiene (n= 73)

	Nursing compliance				Total		P value
	Obedient		Not obey		f	%	
	f	%	f	%			
Motivation							
High	38	86	6	14	44	100	0,016
Low	18	62	11	38	29	100	
Social support							
High	34	82,9	7	26,8	41	100	0,595
Low	22	69	10	31	32	100	
Knowledge							
High	53	78	15	22	68	100	0,584
Low	3	60	2	40	5	100	
Facilities							
Complete	33	82,5	7	17,5	40	100	0,224
Not complete	23	69,6	10	48,5	30,4	100	
Supervision							
Good	32	80	8	20	40	100	0,918
Not good	24	72,7	9	27,3	33	100	

From the table it was found that of the 56 people who dutifully nurses in the application of hand hygiene are expressed more highly motivated (86%) compared with low motivation (62%). Statistical analysis showed $p < 0.05$, it can be concluded there is a significant relationship between motivation and adherence of nurses in the application of hand hygiene. From the 56 people who dutifully nurses in the application of hand hygiene more that states with high social support (82.9%) compared with low social support (69%).

Statistical analysis showed the value of $p > 0.05$, it can be concluded there is no significant relationship between social support and adherence of nurses in the application of hand hygiene. From the 56 people who dutifully nurses in the application of hand hygiene stating more high knowledge (78%) compared with that expressed low knowledge (60%). Statistical analysis showed the value of $p > 0.05$, it can be concluded there is no significant relationship between knowledge and compliance of nurses in the application

of hand hygiene. From the 56 people who dutifully nurses in the application of hand hygiene stating more complete facilities (82.5%) compared with stating the facility is not complete (69.6%). Statistical analysis showed the value of $p > 0.05$, it can be concluded there is no significant relationship between nursing facilities with compliance in the implementation of hand

DISCUSSION

Based on the research that has been described above can be seen that there is only one factor related to the compliance of nurses in the application of hand hygiene in the hospital inpatient disease in Padang Dr.M.Djamil the motivational factors associated with adherence nurses in the application of hand hygiene. Because the p value < 0.05 . This means that there is a significant relationship between motivational factors with adherence nurse.

This study is in line with other researchers, namely Ayu (2013) which says there is a relationship between motivation and adherence nurses carry out a six-step and five moments of hand washing. The results of this study, is directly proportional to the motivational theory and reality. As revealed by Siagian (2012) motivation is often interpreted as an encouragement. Every action taken by human beings always starts with motivation (intention). With the motivation of the officers will have high morale in carrying out the tasks assigned to him. Without motivation, an officer can not comply with the standards in work or even below the standard for what is the motive and motivation in the work not being met. Based on the theory proposed by Siagian (2012) motivation is evident in the department of internal medicine room Dr.M.Djamil Padang.

CONCLUSIONS

The majority of nurses aged 18-35 years, the majority of nurses female gender, the majority of educated vocational

hygiene. From the 56 people who dutifully nurses in the application of hand hygiene stating more good supervision (80%) compared to the states bad supervision (72.7%). Statistical analysis showed the value of $p > 0.05$, it can be concluded there is no significant relationship between compliance supervision by nurses in the application of hand hygiene.

nurses (nursing D3) and more than half of nurses with tenure < 10 years.

More than half of nurses have higher motivation, more than half of the nurses had high social support, the majority of nurses have a high knowledge, more than half of nurses perceive complete facilities, and more than half of nurses perceive good supervision.

Most of the nurses obedient in carrying out hand hygiene. There was no significant relationship between social support factors, knowledge and facilities, supervising the compliance of nurses in the application of hand hygiene, but there are relationships with adherence nurse motivating factor in the application of hand hygiene. There was no significant relationship between nurse characteristics including age, sex, education and years of service with the compliance of nurses in the application of hand hygiene.

REFERENCES

- Alex S. Nitisemito, 2003. Manajemen Personalia. Jakarta: Ghaha Indonesia.
- Arikunto. (2010). Metodologi penelitian kesehatan. Jakarta : Rineka Cipta.
- Ayu. (2013). Hubungan Motivasi Dengan Kepatuhan Perawat Dalam Melaksanakan Enam Langkah Lima Momen Cuci Tangan Di Ruang Intensif Rsup Sanglah. Tugas Akhir. PSIK FK Universitas Udayana Denpasar. Tidak dipublikasikan.
- Bahry, Noor. (2013). Pengaruh motivasi kerja dengan kinerja perawat pelaksana di unit rawat inap RS. Stella Maris Makassar. Tesis.

- Makasar. FKM Universitas Hasanudin. Tidak dipublikasikan.
- Betty, S. (2012). Infeksi Nosokomial. Yogyakarta: Nuamedika.
- Burns, Nancy & Grove, Susan K. (2008). The practice of nursing research : Conduct, critique, and utilization. (4th ed). Philadelphia : W.B. Saunders.
- Catur, Jayu. (2012). Gambaran tingkat kepatuhan perawat akan cuci tangan dalam terapi oksigen dan tingkat kejadian pneumonia periode tahun 2012 dan tahun 2013 di rsud dr. Rubini mempawah. Tesis. Untan Kalimantan Barat. diperoleh tanggal 30 Maret 2014. Cochrane, J (2003). Infection control audit of hand hygiene facilities. Journal of advanced nursing, 33(8): 8-20.
- Curtis, E., & O'Connell, R. (2011). Essential leadership skills for motivating and developing staff. Nursing Management,. Journal of advanced nursing, 18(5), 32-5.
- Dahlan, Sopiudin. (2013). Statistik Untuk Kedokteran dan Kesehatan. Jakarta: Salemba Medika.
- Darmadi. (2008). Infeksi Nosokomial Problematika dan Pengendaliannya. Jakarta: Salemba Medika.
- (Data tidak dipublikasikan). (2011). Rumah Sakit Umum Pusat Dr.M.Djamil Padang. Padang: Profil Rumah Sakit.
- (Data tidak dipublikasikan). (2013). Rumah Sakit Umum Pusat Dr.M.Djamil Padang. Padang: Bidang Keperawatan.
- Erna. (2010). Faktor-faktor yang mempengaruhi motivasi dalam melaksanakan standar asuhan keperawatan di RSJ Tampan. Tesis. Padang. Magister Manajemen Universitas Andalas. Tidak dipublikasikan.
- Haeriyanto, S dkk. (2007). Faktor-faktor yang berhubungan dengan motivasi perawat dalam melakukan dokumentasi keperawatan. FIK UI tidak dipublikasikan.
- Handoko, H dkk. (2000). Manajemen Personalia dan Sumber Daya Manusia. Edisi II. Yogyakarta: BPFE.
- Ilyas, Y. (2004). Perencanaan SDM Rumah Sakit. Teori, Metoda dan Formula. Edisi Revisi. Pusat Kajian Ekonomi Kesehatan FKM UI. Jakarta.
- Inayatur. (2005). Hubungan Pengetahuan Terhadap Perilaku Cuci Tangan Petugas Kesehatan di Bagian Ilmu Kesehatan Anak BLU RSUP Prof DR RD Kandou Manado. Skripsi. Manado: FK Universitas Sam Ratulangi Manado. Tidak dipublikasikan.
- JCI Patient Safety.SBAR: a shared mental model for improving communication between clinician.2006.32(3) 167-175
<http://www.jcipatientsafety.org/docViewer.aspx> diperoleh 27 Juni 2017.
- Kadek. (2013). Hubungan Tingkat Pengetahuan Dengan Perilaku Mencuci Tangan Petugas Kesehatan di Rumah Sakit Umum Daerah Bandung. Tesis. Bandung: PS IKM FK Universitas Udayana. Tidak dipublikasikan.
- Kohn, Corrigan dkk. (2000). Building A Safer Health System. Washington DC: National Academy Press.
- Kurniadi, A. (2013). Manajemen keperawatan dan prospektifnya. Jakarta: FIK UI.
- Linda Tietjen, Debora Bossemeyer, Noel McIntosh. (2004). Panduan Pencegahan Infeksi Untuk Fasilitas Pelayanan Kesehatan dengan Sumber Daya Terbatas.Yayasan Bina Pustaka, JNPKKR. Jakarta.
- Mathis. Robert L & Jhon H Jakson. (2006). Human Resource Management. Jakarta : Salemba Empat.
- Mehta, S., M.D., Hadley, S., Bosco, Joseph M.D. (2013). Impact of preoperative MRSA screening and decolonization

- on hospital-acquired MRSA burden. *Clinical Orthopaedics and Related Research. Journal of advanced nursing* 471(7), 2367-71.
- Notoatmojo, S. (2010). *Metedologi Penelitian Keehatan*. Jakarta : Rineka Cipta Sayuti. (2007).
- Nursalam. (2011). *Manajemen Keperawatan: Aplikasi dalam praktek keperawatan professional*. Jakarta : Salemba Medika.
- Perdalin. (2010). *Handout Pengendalian Infeksi Nosokomial*. Jakarta.
- Puspitasari. (2007). *Inspections of Hand Washing Supplies and Hand Sanitizer in Public School*. *Jurnal Manajemen Keperawatan*. Volume 1, no2 Oktober 2007: 100-125.
- Risma. (2008). *Hand hygiene compliance and nurse patient ratio descriptive studi*. *Jurnal Manajemen Keperawatan*. Volume 1, no 3 November 2008: 89-98.
- Rosita (2008). *Hubungan Karakteristik Perawat Dengan Tingkat Kepatuhan Perawat Melakukan Cuci Tangan di Rumah Sakit Columbia Asia Medan*. Skripsi. Universitas Darma Agung Medan. Tidak dipublikasikan.
- Siagian, Sondang. (2008). *Teori Motivasi dan Aplikasinya*. Jakarta: Rineka Cipta
- Sri, M. (2010). *Kepatuhan Hand Hygiene di Rumah Sakit Immanuel Bandung*. Tesis FIK UNPAD. Tidak dipublikasikan
- Stedman, S. (2012). *Workplace Hand Hygiene and Wellness: A Survey of Knowledge, Beliefs, and Practices*. *Journal of advanced nursing*, 60 (11): 477-485.
- Sukriani. (2013). *The related organization factor with implementation of universal precautions by nurse in inpatient unit of Rsup dr.wahidin sudirohusodo Makassar*. *Jurnal of advanced nursing*, 33(4): 356-379
- Tim Penyusun Bahan Akreditasi JCI. (2013). *Buku Panduan Keselamatan Pasien (Patient Safety)*. Jakarta
- Tousman. (2007). *Evaluation of a Hand Washing Program for 2nd-Graders*. *Journal of advanced nursing*, 46(5): 340-459
- Zakiah. (2012). *Hand hygiene: product preference and compliance*. *Journal of advanced nursing*, 17(8): 421-43.