

**THE CORRELATION BETWEEN THE NURSE'S KNOWLEDGE, ATTITUDE, AND
THE IMPLEMENTATION OF PATIENT SAFETY
IN THE IN-PATIENT WARD OF RUMAH SAKIT ISLAM SURABAYA**

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ABSTRACT

The implementation of patient safety in the hospital is not optimally done yet. One of the examples is that some nurses do not wrap the patients' wrist with available wristbands for safety. The success of nursing care is supported by the knowledge and attitude possessed by the nurses. This study was purposed to analyze the correlation between the nurse's knowledge, attitude, and the implementation of patient safety in the in-patient ward of Rumah Sakit Islam Surabaya (Surabaya Islamic General Hospital).

This analytical observational study was done using cross sectional approach. The population involved the nurses who were on duty in Mina, Multazam, Shofa, and Marwa in-patient ward of the above stated hospital, totaling 39 people in which 36 respondents were chosen as the samples by using proportional stratified random sampling technique. The independent variable was the nurse's knowledge and attitude, whereas the dependent variable was the implementation of patient safety. The instruments used in this study were questionnaire sheets used to measure the knowledge and attitude, whereas observation sheets were used to measure the implementation of patient safety. The data were analyzed using Chi-square statistic test with the significance level of $\alpha = 0.05$.

The results of this study done to 36 respondents showed that nearly all of them (91.7%) had a high level of knowledge; most of them (52.8%) had a positive attitude; and most (66.7%) implemented patient safety well. Moreover, the analysis using Chi-square statistic test resulted in $p = 0.031$ illustrating the correlation between the nurse's knowledge and the implementation of patient safety. Whilst, another result showed that $p = 0.018$ showing the correlation between the nurse's attitude and the implementation of patient safety.

In conclusion, the higher the nurses possess the knowledge and the more positive attitude they had, the better they implement patient safety. Therefore, the hospital management needs to carry out periodic trainings for the implementation of patient safety to increase the knowledge and attitude of the nurses in Rumah Sakit Islam Surabaya.

Key words: knowledge, attitude, implementation of patient safety.

INTRODUCTION

Patient safety is one of the primary issues in healthcare. It is a situation in which patients are free from any unexpected injuries or free from any possible potential injuries. Patient safety in the hospital is a system in which the hospital makes their patients safer.

Today, health services are very complex. If the care givers are less careful when doing their jobs, they will potentially cause mistreatments. The data showing adverse events and near misses in Indonesia are not clearly reported yet. However, medical malpractice accusation, which is not supported by evidences, is increasing. Nurses are accused to be responsible for 28.3% of the malpractice

incidence dealing with patient safety. Hence, they must be aware of their roles so that they can actively participate in providing patient safety well.

Based on the results of interview with some nurses in the in-patient ward of Rumah Sakit Islam Surabaya, the hospital management has socialized patient safety and directly reported the incidence involving patient safety to the Committee of Patient Safety (KKPRS) since September 2015. However, the writer did not obtain any data about patient safety, except the nurse's obedience in performing hand hygiene because they correlate with the privacy of the hospital. Hand hygiene is the fifth element of patient safety purposed to decrease the risks of infections in healthcare. The results of evaluation dealing with the nurse's obedience in maintaining hand hygiene are as follows: 70.3% in December 2015, 71% in January, and 79% in February. Other data obtained from observation show that some nurses do not wrap the patients' wrist with available wristbands or stickers for patients with allergies and risks for falling down.

The factors affecting the implementation of patient safety in the hospital are leadership, individual qualities, culture, infrastructure and environment. Leadership must be considered as the important element to set the direction of an organization, provide good services, develop culture, and maintain the effectiveness of an organization. Each individual is affected by the two factors, namely the knowledge and attitude. The knowledge and attitude possessed by the nurses are different so that the implementation of patient safety is also different.

The program of patient safety is expected to prevent injuries resulted from mistakes in implementing an action or not doing any appropriate actions in purpose, and aimed to increase the hospital responsibility for the services provided for the patients.

The high level of knowledge possessed by the nurses about patient safety will give them an opportunity to early detect and analyze the mistakes as well as to solve the problems totally. Besides the knowledge, the nurse's attitude and behaviors about patient safety are also highly needed to minimize any incidence that potentially harms the patient's safety.

Based on the previous studies, the results of interview and observation, and the problems described above, the writer was interested in conducting a study on the correlation between the nurse's knowledge, attitude, and the implementation of patient safety in the in-patient ward of Rumah Sakit Islam Surabaya.

METHODS

This analytical observational study was done using cross sectional approach. The population involved the nurses who were on duty in Mina, Multazam, Shofa, and Marwa in-patient ward of the above-stated hospital, totaling 39 people in which 36 respondents were chosen as the samples by using proportional stratified random sampling technique. This study was conducted on May 18th – June 2nd, 2016. The independent variables were the nurse's knowledge and attitude, whereas the dependent variable was the implementation of patient safety. The instruments used in this study were questionnaire sheets used to measure the knowledge and attitude, whereas observation sheets were used to measure the implementation of patient safety. The steps of processing the data were done by editing, scoring, coding, processing, cleaning, and tabulating. Finally, the data were analyzed using Chi-square statistic test with the significance level of $\alpha = 0.05$.

RESULTS

- a. The characteristic of the respondents based on age

Table 1. The frequency distribution of the respondents based on age in Mina, Multazam, Shofa, and Marwa in-patient ward - RS Islam Surabaya in May 2016

Characteristic	Mean	Median	Std .Dev	Age Min - Age Max
Age	35.03	36.50	9.473	21 - 53

Source: primary data in May 2016

Table 1 illustrates that of 36 respondents, the average age is 35.03 years, median = 36.50 years with standard deviation = 9.473. The lowest age is 21 years, whereas the highest age is 53 years.

- b. The characteristic of the respondents based on sex

Table 2. The frequency distribution of the respondents based on sex in Mina, Multazam, Shofa, and Marwa in-patient ward - RS Islam Surabaya in May 2016

Sex Clasification	Frequency (f)	Percentage (%)
Female	32	88.9
Male	4	11.1
Total	36	100

Source: primary data in May 2016

Table 2 describes that among 36 respondents, nearly all of them (88.9%) are females.

- c. The characteristic of the respondents based on level of education

Table 3. The frequency distribution of the respondents based on level of education in Mina, Multazam, Shofa, and Marwa in-patient ward - RS Islam Surabaya in May 2016

Level of Education	Frequency (f)	Percentage (%)
Nursing School (SPK)	5	13.9
Diploma III Nursing (D3)	27	75
Nursing Profession Program (Nurs)	4	11.9
Total	36	100

Source: primary data in May 2016

Table 3 shows that of 36 respondents, most of them (75%) graduated from Diploma 3 Nursing.

- d. The characteristic of the respondents based on length of service

Table 4. The frequency distribution of the respondents based on length of service in Mina, Multazam, Shofa, and Marwa in-patient ward - RS Islam Surabaya in May 2016

Characteristic	Mean	Median	Std .Dev	Min - Max
Length of Servis	10.89	9.00	8.678	1 - 28

Source: primary data in May 2016

Table 4 shows that of 36 respondents, the average length of service of the respondents is 10.89 years; median = 9.00 years with standard deviation = 8.678. The minimum length of service is 1 year, whereas the maximum length of service is 28 years.

e. The characteristic of the respondents based on collected information

Tabel 5. The frequency distribution of the respondents based on collected information in Mina, Multazam, Shofa, and Marwa in-patient ward - RS Islam Surabaya in May 2016

Classification of Information	Frequency (f)	Percentage (%)
Conference/Training	10	27.8
Hospital Socialization	25	69.4
Electronic media/Internet	1	2.8
Total	36	100

Source: primary data in May 2016

Table 5 illustrates that among 36 respondents, most of them (69.4%) collected information from the hospital socialization program.

f. The characteristic of the respondents based on knowledge

Tabel 6. The frequency distribution of the respondents based on knowledge in Mina, Multazam, Shofa, and Marwa in-patient ward - RS Islam Surabaya in May 2016

Classification of Knowledge	Frequency (f)	Percentage (%)
High	33	91.7
Intermediate	3	8.3
Low	0	0
Total	36	100

Source: primary data in May 2016

Table 6 describes that of 36 respondents, nearly all of the respondents (91.7%) having duty in Mina, Multazam, Shofa, and Marwa in-patient ward - RS Islam Surabaya had a high level of knowledge about patient safety.

g. The characteristic of the respondents based on attitude

Tabel 7. The frequency distribution of the respondents based on attitude in Mina, Multazam, Shofa, and Marwa in-patient ward - RS Islam Surabaya in May 2016

Classification of Attitude	Frequency (f)	Percentage (%)
Positif	19	52.8
Negatif	17	47.2
Total	36	100

Source: primary data in May 2016

Table 7 shows that of 36 respondents, most of the respondents (52.8%) having duty in Mina, Multazam, Shofa, and Marwa in-patient ward - RS Islam Surabaya had a positive attitude about patient safety.

h. The characteristic of the respondents based on implementation of patient safety

Table 8. The frequency distribution of the respondents based on implementation of patient safety in Mina, Multazam, Shofa, and Marwa in-patient ward - RS Islam Surabaya in May 2016

Classification of implementation	Frequency (f)	Percentage (%)
Positif	24	66.7
Negatif	12	33.3
Total	36	100

Source: primary data in May 2016

Table 8 shows that of 36 respondents, most of the respondents (66.7%) having duty in Mina, Multazam, Shofa, and Marwa in-patient ward - RS Islam Surabaya implemented patient safety well.

i. Cross tabulation of the correlation between the nurse's knowledge and the implementation of patient safety in Mina, Multazam, Shofa, and Marwa in-patient ward - RS Islam Surabaya

Table 9. Cross tabulation of the correlation between the nurse's knowledge and the implementation of patient safety in Mina, Multazam, Shofa, and Marwa in-patient ward - RS Islam Surabaya in May 2016

Nurse's Knowledge	Implementation Of Patient Safety				Total	
	Bad		Good		f	%
	f	%	f	%		
High	9	27.3	24	72.7	33	100
Intermediate	3	100	0	0	3	100
tal	12	33.3	24	66.7	36	100

Source: primary data in May 2016

Table 9 shown above illustrates that of 33 respondents, those possessing a high level of knowledge (72.7%) implemented patient safety well. Whilst, among 3 respondents having an intermediate level of knowledge (100%), implemented patient safety badly.

j. Cross tabulation of the correlation between the nurse's attitude and the implementation of patient safety in Mina, Multazam, Shofa, and Marwa in-patient ward - RS Islam Surabaya

Table 10. Cross tabulation of the correlation between the nurse's attitude and the implementation of patient safety in Mina, Multazam, Shofa, and Marwa in-patient ward - RS Islam Surabaya in May 2016

Nurse's Attitude	Implementation Of Patient Safety				Total	
	Bad		Good		f	%
	f	%	f	%		
Positif	3	18.3	16	84.2	19	100
Negatif	9	52.9	8	47.1	17	100
tal	12	33.3	24	66.7	36	100

Source: primary data in May 2016

Table 10 shown above illustrates that of 19 respondents found with a positive attitude, nearly all (84.2%) implemented patient safety well, whereas among 17 respondents having a negative attitude, most (52.9%) implemented patient safety badly.

DISCUSSION

According to table 6, among 36 respondents, nearly all (91.7%) had a high level of knowledge about the implementation of patient safety. The high level of knowledge possessed by the respondents can be affected by the information obtained by them. Table 5 shows that of 36 respondents, most of them (69.4%) obtained the information from the socialization program provided by the hospital.

Other factors affecting the knowledge are the level of knowledge, interest, experiences, age, and culture/environment. Table 1 shows that of 36 respondents, the average age of the respondents is 35.03 years in which the lowest age is 21 years, whereas the highest age is 53 years. Age affects the comprehension and mindset of an individual. When an individual reaches maturity, their ability to comprehend things and mindset develop better

According to table 3, of 36 respondents, most of them (75%) graduated from Diploma 3 Nursing Program. Education is the basic effort to build personality and ability inside and outside school that will last forever.

Table 4 shows that among 36 respondents, the average length of service experienced by the respondents is 10.89 years, in which the minimum length of service is 1 year and the maximum length of service is 28 years. The nurse's experiences can be measured by counting the length of service given by the nurses. From the length of service, we can find out the knowledge, especially about patient safety which is obtained by the nurses during work.

Other result shown table 6 describes that of 36 respondents, few of

them (8.3%) had sufficient knowledge about patient safety. It possibly happens because the information obtained by the respondents from the hospital is still incomplete or their comprehension about patient safety is not too good. Moreover, other result shows that nearly half of the respondents (27.8%) obtained information about patient safety from seminars or trainings, whereas only few (2.8%) received it from electronic media or internet.

Based on table 7, of 36 respondents, most (52.8%) had a positive attitude toward the implementation of patient safety. The positive attitude shown by the nurses is the attitude that supports the prevention from the transmission of diseases. Washing hands is one of the easy and effective way to prevent the transmission of infections. Besides, the use of personal protective equipment, such as hand gloves and facemasks, is also effective to prevent the risks of having contacts with pathogen.

Attitude is not manifested automatically in actions. To manifest the attitude into real actions, an individual needs supporting factors or condition, such as personal experiences, important influences from others, culture, mass media, educational institutions, religious institutions, and emotional factors.

The nurses' experiences in implementing patient safety repeatedly will affect their soul deeply, and eventually will create a positive attitude toward the implementation of patient safety.

A leader is also an influential position for the creation of the employees' attitude. A leader or a senior having many experiences in implementing patient safety can also affect other nurses' attitude toward patient safety. A leader must promote patient safety as the core of

participation in the nursing activities provided for the patients. A leader as an educator should give examples on how to give a positive attitude toward patient safety program applied in the hospital so that other nurses will take them as good examples to build and implant the positive attitude inside them.

Other result also shows that nearly half of the respondents (47.2%) had a negative attitude toward patient safety.

According to table 8, of 36 respondents, most of the respondents (66.7%) possessed good behaviors in implementing patient safety. Good behaviors in the implementation of patient safety are highly recommended for all nursing cares done to patients. Good implementation of patient safety can prevent patients from any unexpected incidence caused by mistakes in doing actions or not doing necessary actions. Therefore, the implementation of patient safety is closely related to the incidence dealing with patient safety.

The nurses manifested the implementation of patient safety by washing their hands before and after doing interventions to their patients, wearing hand gloves while doing nursing care, and using disposable needle when giving injections. In addition, the nurses also performed allergy testing to patients who were detected to have risks of allergies to certain medicines during assessment.

The nurses also provided education to the patient's family by encouraging them to use hand scrubs or wash their hands before and after doing interactions with the patients. They also suggested the patient's family to wear facemask while visiting the patients diagnosed with respiratory diseases. Furthermore, the hospital management provided the guidelines of washing hands available in both nursing station and patient's wards. The management also provided the evacuation route for unexpected incidence, such as a disaster.

Other result obtained from the observation shows that some nurses had bad behaviors inappropriate with the correct procedure of safety patient, such as not giving a red wristband to the patients with allergies and a yellow wristband to the patients with the risks of falling down. Other nurses did not inform the family of the patients about how to prevent the patients from falling down by raising the bedside rails. Moreover, some others did not know about high-alert medicines and the correct procedure to keep them.

The recapitulation result shows that 9 respondents with a high level of knowledge still implemented patient safety badly. The general data shows that 9 respondents are 24-44 years; 6 respondents graduated from Diploma 3 Nursing, and 3 respondents have followed nursing profession program (Ners). The respondents have been working for 1-20 years. 7 respondents obtained information about patient safety from the hospital socialization; 1 respondent received it from seminars; and 1 respondent received it from electronic media. It can be assumed that the general data support the nine respondents' knowledge about patient safety.

The bad implementation of safety patient happened because the respondents got accustomed to do the procedure inappropriately. Age can also be the causal factor. A senior usually delegates his minor duties to the juniors or the students during apprenticeship program, such as putting a wristband on patients with allergies and risks of falling down.

The knowledge possessed by an individual supports the significant steps to implement patient safety. On the other hand, behaviors without knowledge and awareness influence the implementation of patient safety which finally affects the patient's health level.

The lack of knowledge about patient safety will result in bad implementation of patient safety. If an individual has a high level of knowledge,

he/she will think several times about the effects and benefits before doing actions. Therefore, knowledge is one of highly important factors for creating behaviors.

Another result of recapitulation shows that 3 respondents had a positive attitude even though they implemented patient safety inappropriately. The general data about the three respondents shows that they are 21-33 years. 2 respondents graduated from Diploma 3 Nursing, whereas 1 respondent graduated from nursing profession program (Ners). 1 respondent has been working for 10 years, whereas 2 respondents have been working for 1 year. 2 respondents received information about patient safety from seminars, whereas 1 respondent from hospital socialization program. The data conclude that the nurses having a positive attitude still implemented patient safety inappropriately because they lacked of experiences in implementing patient safety in the hospital so that they acted normally even though they did not perform patient safety according to the correct procedure.

Another result shows that 8 respondents having a negative attitude performed patient safety well. Based on the general data, they are 25-53 years old. 7 people graduated from Diploma 3 Nursing, whereas 1 respondent graduated from nursing school. They have been working for 2-28 years. 6 respondents received information about patient safety from hospital socialization program, whereas 2 respondents received it from seminars. In conclusion, the nurses having a long length of service shows a normal (unremarkable) attitude toward patient safety, yet they performed patient safety well.

CONCLUSION

1. Nearly all of the on-duty nurses in Mina, Multazam, Shofa, and Marwa in-patient ward of Rumah Sakit Islam Surabaya have a high level of knowledge about patient safety.

2. Most of the on-duty nurses in Mina, Multazam, Shofa, and Marwa in-patient ward - Rumah Sakit Islam Surabaya have a positive attitude toward patient safety.
3. Most of the on-duty nurses in Mina, Multazam, Shofa, and Marwa in-patient ward - Rumah Sakit Islam Surabaya have good behaviors in implementing patient safety.
4. There is a correlation between the nurse's knowledge and the implementation of patient safety in the in-patient wards of Rumah Sakit Islam Surabaya. The high level of knowledge possessed by the nurses makes the implementation of patient safety better.
5. There is a correlation between the nurse's attitude and the implementation of patient safety in the in-patient wards of Rumah Sakit Islam Surabaya. The positive attitude toward patient safety possessed by the nurses makes the implementation of patient safety better.

Hence, periodic and continuous trainings on the implementation of patient safety should be provided for all nurses to increase their understanding and attitude. Besides, monitoring on the implementation of patient safety in each ward is also needed

REFERENCES

1. Bawelle, Cintya Selleya. (2013). *Hubungan Pengetahuan Dan Sikap Perawat Dengan Pelaksanaa Keselamatan Pasien Di Ruang Rawat Inap RSUD Liun Kendage Tahuna. E-Journal Keperawatan*. Manado.
2. Cahyono, Agung. (2015). *Hubungan Karakteristik Dan Tingkat Pengetahuan Perawat Terhadap Pengelolaan Keselamatan Pasien Rumah Sakit*. Jurnal Imiah. Jakarta. Tanggal 01 Maret 2016. Pukul 06.27 WIB.
3. Depkes RI. (2008). *Panduan Nasional Keselamatan Pasien Rumah Sakit (Patient*

- Safety*). Jakarta. Tanggal 02 Februari 2016. Pukul 06.47 WIB.
4. Pujilestari, Agustina. (2013). *Gambaran Budaya Keselamatan Pasien Oleh Perawat Dalam Melaksanakan Pelayanan Di Instalasi Rawat Inap RSUP DR. Wahidin Sudirohusodo Tahun 2013*. Jurnal Kesehatan. Makassar. Tanggal 31 Januari 2016. Pukul 10.56 WIB.
 5. Riyanto, Agus. Budiman. (2013). *Kapita Selekta Kuesioner Pengetahuan Dan Sikap Dalam Penelitian Kesehatan*. Jakarta : Medika Salemba.
 6. Sedyaningsih, Endang Rahayu. (2011). *Peraturan Menteri Kesehatan Republik Indonesia Nomor 1691/MENKES/PER/VII/2011 Tentang Keselamatan Pasien Rumah Sakit*. Jakarta. Tanggal 02 Februari 2016. Pukul 06.47 WIB..
 7. Sutoto. *Sasaran Keselamatan Pasien (SKP)*. Tanggal 10 Maret 2016. Pukul 07.29 WIB.

