The Relationship of Knowledge Level with Nurse Compliance in Implementation of Patient Identification in Medan Hospital

Roymond H. Simamora¹, Nurmaini ² and Cholina Trisa Siregar¹

¹Faculty of Nurses Universitas Sumatera Utara., Jl. Prof. Ma'as No.3 Kampus USU, Kota Medan, Indonesia ²Faculty Comunity of Health Universitas Sumatera Utara, Jl. Universitas No.32 Kampus USU,Kota Medan, Indonesia

Keywords: Knowledge, Compliance, Nurses, Identification of Patient.

Abstract:

Patient identification is part of the goal of implementing patient safety. Identifying patients correctly can reduce errors in the delivery of health services. The title of this research is part of the activity of developing patient identification protocols in the implementation of patient safety by nurses in inpatient rooms at Medan City Hospital. The purpose of this study was to determine the relationship of knowledge with nurses' compliance in the implementation of patient identification. Six houses, selected as research locations, Methods: Descriptive research. Data analysis used chi-square statistical test ($\alpha < 0.05$; CI = 95%). Sample 150 nurses. Results: 61.3% of categories of knowledge were not good and 38.7% were not good, there are still nurses who are not obedient. Observation results: protocol for identifying patients is not available at Nurse station, documents that have not been filled completely, there are patients who have not used identification bracelets, because they have not received recognition, there are nurses who do not mention the patient's name and date of birth, there are nurses still using the patient's room number as a marker. The nurse did not re-examine the patient's identity bracelet. The P value (p-value 0.015) showed there was a relationship of knowledge to nurses' compliance in the implementation of patient identification. Conclusion: there is a relationship between nurses' knowledge and compliance in the implementation of patient identification, Product Development can be continued. Suggestion: it is necessary to immediately prepare a Patient Identification Implementation Protocol, dissemination to nurses and health teams. Hospital Director's Policy, for implementation. Supervision and training are needed to oversee implementation. Daily reports of the entire room, to achieve health service indicators and to become a work cult.

1 INTRODUCTION

Patient Safety (patient safety) is something that is very better than patient care. Very helpful in patient care. Unsafe behavior, forgetfulness, lack of attention/motivation, carelessness, no abilities and abilities that do not care for and care for patients who are at risk of making mistakes and will cause injury to patients, namely Close to Miss or subsequent Adverse Events. Nurses must involve cognitive, affective and actions that encourage patients (El Jardali, 2016).

According to the Joint Commission International/JCI (2013), Patient identification is a system of identification of patients to distinguish between one patient and another so as to facilitate or facilitate the delivery of services to patients. The safety of service in the hospital, one of which starts from the accuracy of patient identification. The error

of identification of patients at the beginning of the service will have an impact on service errors in the next stage (WHO, 2009).

The patient identification process needs to be done from the time the patient enters the hospital, then the identity will always be confirmed in all processes in the hospital, such as before giving medication, blood or blood products or before taking blood and other specimens for examination. Before treatment and actions or procedures. This is done so that there will be no misidentification of patients who can later have fatal consequences if the patient receives medical procedures that are not in accordance with the patient's condition such as wrong medication, wrong blood taking and even wrong medical actions (Permenkes RI, 2017). The accuracy of patient identification is important, even related to patient safety. The mistake of being wrong about the identity of the patient is very fatal and severe. A

In Proceedings of the International Conference of Science, Technology, Engineering, Environmental and Ramification Researches (ICOSTEERR 2018) - Research in Industry 4.0, pages 760.765

collaborative process is needed to improve the identification process to reduce patient identification errors. To prevent misidentification of patients, nurses as health workers who are the longest and most often interact and meet with patients must be well-informed because every action taken must be based on knowledge. Knowledge is an important thing that must be fully owned by professional nurses to prevent the occurrence of Unexpected Events, Events Near Injury, Potential Injury Events (Anggraeni, 2014).

The World Health Organization (WHO) in 2004 collected hospital research figures in various countries: the United States, Britain, Denmark, and Australia, found an Unexpected Event with a range of 3.2-16.6%. These data make various countries trigger immediate research and develop patient safety systems. The Patient Safety Incident Report in Indonesia by province found that out of 145 incidents reported 55 cases (37.9%) occurred in the DKI Jakarta area.

Based on the type of 145 reported incidents, there were 69 cases (47.6%), 67 unexpected cases (46.2%), and 9 cases (6.2%). From the collection of hospital research figures in various countries, there was an almost complete incidence of injury with a range of 3.2-16.6%. Patient Safety data on the incidence of near injury and unexpected events in Indonesia are still rare, but on the other hand there is an increase in allegations of "practice malls" which are not necessarily in accordance with the final proof. Incidents of 28.3% patient safety violations were carried out by nurses.

Guesthi et al. (2016) found that the prevalence of patient safety in the Bekasi City General Hospital from September 2015 to March 2016 was found to be 12.1% Unrecognized Events, 42.3% Events Nearly Injured, 41.4% Potential Injury Events. From these data, the incidence of near injury is the most common occurrence, 42.3% of the incidence of near injury caused by the identification error of 63.5% of patients. Patient safety incident data in 2012 reported an analysis of the causes of 46% incidents related to misidentification, 36% due to ineffective communication resulting in medication errors, 18% because the procedure was not performed.

Joint Commission International/JCI (2012) showed that 13% surgical error and 68% of blood transfusions occur because of errors in the patient identification stage of 68% of errors in blood transfusion of 11 of them died. Based on the results of the preliminary study above, it is necessary to prepare the Patient Identification Protocol in Patient Safety Implementation Efforts by the Hospital Inpatient Nurses in Medan City, for this preparation

required data on the knowledge and knowledge of nurses in the implementation of patient identification.

2 METHOD

This type of observational analytic study with cross sectional survey design. The study was conducted at six hospitals in the city of Medan. Non probality sampling was taken with accidental sampling with a sample of 150 nurses who met the inclusion criteria. Collection of knowledge data using questionnaires, and for compliance using observation sheets. The analysis used is univariate analysis by calculating the frequency distribution of each variable studied and bivariate analysis to see the relationship between the two variables using chi-square test with a significant level (α) of 0.05 or 95% confidence level.

3 RESULT AND DISCUSSION

Obtained by the characteristics of the most respondents in the 30-39 year age group as much as 54.7%. gender of the most female gender 93.3% of people. the highest education level is D3 nursing as many as 73.3% of people. Respondents mostly worked for more than 3 years as many as 85.3% of people.

3.1 Knowledge of Nurses in Patient Identification Implementation

From the data collected, nurses' knowledge was obtained in the implementation of patient identification with 61.3% poor category and 38.7% in the good category. The percentage level of knowledge is the result of the data from the questionnaire distributed by the researcher with 20 questions. Based on the score given to each question in the questionnaire, the respondents' knowledge in the identification of patients was in the unfavorable category of 61.3%. The results of nurse knowledge research in the implementation of patient identification can be seen in the table below.

Table 1: Frequency Distribution and Percentage of Nurses Knowledge in Patient Identification Implementation in Medan City Hospital.

Characteristics	Frequency (f)	Percentage (%)
Not Good	92	61,3
Good	58	38,7
Total	150	100

3.2 Nurse Compliance in Patient Identification Implementation

Observations were made in the inpatient room, to see firsthand the implementation of patient identification activities carried out by nurses. Observations showed that there were nurses who were not compliant in the implementation of patient identification of 54.7%, this was evidenced by 39.3% of nurses who did not identify before taking action / procedure, there were 38.7% of nurses did not identify before drug administration, there were 40 , 2% nurses did not identify before giving blood transfusion/blood products, there were 39.3% nurses did not identify before taking blood/specimens.

Table 2: Frequency Distribution and Percentage of Nurse Compliance in Patient Identification Implementation in Medan City Hospital.

Characteristics	Frequency (f)	Percentage (%)
Disobedience	82	54.7
Obedience	68	45,3
Total	150	100

3.3 Relationship of Knowledge with Nurse's Compliance in the Implementation of Identification of Patients in Medan City Hospital

There is a relationship between knowledge and nurses' compliance in the implementation of patient identification in Medan City Hospital based on chi-square test obtained p-value 0.015 (α <0.05). With Prevalent ratio (PR) = 1.69 and CI = 1.16-2.48, it means that nurses with good knowledge have 1.69 times the chance of experiencing adherence to the implementation of patient identification in Medan City Hospital.

Patient identification is an effort or effort carried out in a health service as a process that is consistent, procedures that have policies or have been agreed upon, fully applied, followed and monitored to obtain data that will be used in improving the identification process and to differentiate one patient from others so as to facilitate or facilitate the provision of services to patients (Auatralian Commission on Safety and Quality of Health Care, 2017). Accuracy in identifying patients is an effort to reduce errors in taking action on patients (WHO, 2009). Every action taken by the nurse in the implementation of patient identification must be based on knowledge.

Nursalam (2011) states that knowledge is the result of "know", and this occurs after people sensing

a particular object. Sensing occurs through the five senses of man, namely: the senses of sight, hearing, smell, taste and touch. Knowledge is the main and important foundation for health workers in the implementation of health services. Nurses as health workers who have primary responsibility in nursing services and the implementation of holistic and comprehensive nursing care are required to have high knowledge in the nursing profession.

The variation in levels of knowledge is influenced by factors that influence the level of knowledge, namely age, education, length of work and sources of information. Based on the research respondents with age 55-59 years as much as 66.7%. As a person ages, there is also an increase in one's experience involving five senses that can influence knowlede. This is in accordance with the theory which says that the more age a person is, the level of maturity and strength of a person will be more mature in thinking. Increasing age of a person can affect the increased knowledge gained, but at certain ages or towards old age the ability to receive or remember a knowledge will decrease (Notoadmodjo, 2012). the most gender is female respondents as many as 93.3%. Respondents who had good knowledge with female gender were 38.6%. Basically women are usually more diligent than men, for example in attending a training or seminar so that women can have better knowledge and develop than men.

Berman (2009) states that individual variables namely gender can affect performance (quality of service). In line with the research conducted by Megawati (2005) states that nurses with female gender are better able to perform nursing services better than male nurses. the quality of nursing services is good so it is directly proportional to the knowledge that someone has. The results showed that more than half of the respondents had a D3 educational background of 73.3%. Respondents who have good knowledge are at Ners education level, namely 61.1%. Budiono (2014) states that education is an important factor in determining one's work ability. Therefore education is the first step to seeing one's ability. Notoatmodjo (2012) states that anotherthing that can influence knowledge is the level of education. The higher a person's knowledge, the better the knowledge possessed by the person.

But it needs to be emphasized that someone with low education does not mean absolute low knowledge because learning abilities can also influence knowledge, with good learning ability one will tend to get information more, both from other people and from the mass media. The more information obtained, the more knowledge is gained. Increased knowledge

is not necessarily obtained by formal education, but can also be obtained in non-formal education such as obtained from seminars or training and seeking information from mass media such as the internet, books, television. Knowledge can also be obtained from experience, especially nurses' work experience.

Based on the most working time, 85.3% of respondents had more than 3 years of work. Respondents who have good knowledge with a working period of more than 3 years are 42.2%. The longer the nurse works the more things can be learned through what is seen, heard and felt at work. This is supported by research conducted by Arumaningrum (2014) which states a positive correlation between the level of knowledge of nurses and work experience. Simamora (2012) states that work rotation has the benefit of expanding knowledge. This is in accordance with the opinion of Notoatmodjo (2012) which states that one's knowledge will change along with every thing that has been experienced by a person for many years and knowledge is obtained from one's own experience or someone else who involves what is experienced by the five senses. Based on the research above, it can be seen that the nurse with good knowledge will obey in implementing patient identification. This can happen because the nurse has obtained information. information is acquired knowledge.

Knowledge is the first stage that a person needs to form a compliance behavior. Good knowledge about when and how to carry out patient identification can help nurses to think critically so that they can identify patients in accordance with existing policies. Based on the results of the study, the majority of respondents did not comply with the implementation of patient identification. according to Milgram (2007), a person's compliance can be influenced by several factors, including (1) location status, where at the location of this research there is already an SPO related to the implementation of patient identification. (2) personal responsibility, where the respondent's responsibility related to identification is still less visible than the lack of respondent's compliance in the identification of patient identification. (3) legitimacy of authority figures, where as it is known that all employees in the hospital receive a policy related to patient identification. (4) Status of authority figures, where it is known that the policy is issued by the hospital. peer support, where peer or co-worker support is still lacking.

Of all the factors above it can be seen that the factors that influence nurses' disobedience in patient identification are personal responsibility and peer support. A good attitude can be realized if it is based

on responsibility for everything that has been chosen by all risks which is the highest attitude. An attitude is not necessarily automatically realized in an action (overt behavior). To realize an attitude to be a real action, a supporting factor or a possible condition is needed, including motivation (Notoatmojo, 2003). Nurses will be motivated in implementing a procedure when they are evaluated individually or according to fairness with respect that nurses receive in balance with something they do. Nurses who receive awards according to their role will increase the work motivation of nurses to be more inclined to carry out these procedures correctly and continuously (Nursalam, 2012).

Based on Chi-square test, it was obtained p-value 0.015 ($\alpha < 0.05$). Which means there is a relationship between the level of knowledge with nurses' compliance in the implementation of patient identification. With Prevalent ratio (PR) = 1.69 and CI = 1.16-2.48, it means that nurses with good knowledge have 1.69 times the chance of experiencing adherence to the implementation of patient identification. Factors that can influence compliance include the location status, where there is no SPO in the patient's identification procedure in the hospital that must be performed when giving action to the patient. Personal responsibility, where personal responsibility is still lacking in nurses seen from the many nurses who are not compliant in identifying patients.

Legitimacy of authority figures, where as it is known that all employees in hospitals both medical and non-medical accept the policies issued by the hospital, in this case especially nurses accept the existence of SPOs related to patient identification. And the last factor that can influence is peer support, where during the study researchers saw lack of support from fellow colleagues. This research is supported by research conducted by Widaningrum (2015) where the results of p = 0.001 where p > 0.05, which means there is a relationship between knowledge and nurse behavior. where nurse behavior that can be observed and can be directly measured is nurse compliance. In some cases, knowledge is sufficient to change one's compliance behavior, but not in some other cases. Not necessarily if someone has knowledge is guaranteed to change behavior, especially compliance.

4 CONCLUSIONS

Based on the results of the study on the correlation between the level of knowledge of nurses and the level of compliance of patients Identification in 6 Hospitals in Medan City, Development of Patient Identification Protocols in Patient Implementation Efforts by Nurses Inpatient Hospitals in Medan City can be supported by: many nurses who have less knowledge. Many nurses do not adhere to patient identification. There is a relationship between the level of knowledge and compliance with patient identification by nurses in the inpatient unit of Medan Hospital. Suggestion: The organization must do: SPO development Patient identification, socialization to all health care teams, implementation policy for patient identification, supervision and guidance, Group Forum discussions, Case Reflections, seminars, training, improving access to information to take patient safety efforts articles, informative poster to always remind, and apply a culture of patient safety in the nursing work environment.

ACKNOWLEDGEMENTS

The research was funded by the Directorate of Research and Community Service of the Directorate General for Research and Technology Research and Development of the Ministry of Research, Technology and Higher Education in accordance with the Funding Agreement for Research and Community Service for the fiscal year 2018.

REFERENCES

- Anggraini. 2014. Evaluasi Pelaksanaan Sistem Identifikasi Pasien di Insalasi Rawat Inap Rumah Sakit. Jurnal Kedokteran Brawijaya, vol. 28, 99-103. Retrieved Juni 20, 2018, From http:// jkb. ub.ac.id/ index. php/ jkb/article/download/529/406.pdf
- Anggarini., Mulyadi., & Hendro. 2012. Hubungan pengetahuan perawat dengan penerapan identify patient correctly di RSUP ratatotok buyat kabupaten minahasa tenggara. Diakses pada tanggal 20 Juni 2018, dari http:// media. neliti. com/ media/piblications/105324-ID-hubungan-perawat-dengan-pene.pdf.
- Arruum, D., Salbiah., & Manik, Murniati. 2015. Pengetahuan tenaga kesehatan dalam sasaran keselamatan pasien dirumah sakit sumatera utara. Idea nursing journal. Vol VI No.2 2015. Diakses pada tanggal 20 Juni 2018, dari http://www.urnal.unsyiah.ac.id/INJ/article/viewFile/6529/5349
- Berman, A., Shirlee, S., & Barbara, K. 2009. Clinical practice nursing teaching book, Ed. 5. Jakarta: EGC.
- Budiman & Riyanto A. 2013. Kapita Selekta Kuisioner Pengetahuan Dan Sikap Dalam Penelitian Kesehatan. Jakarta: Salemba Medika

- Budiono, S., Arief, A., & Tri, W. 2014. Implementation of patient management proram with risk of falling in the hospital. Journal of BrawijayaMedicine. Vol 28 (1). Collected on January 30, 2018, from http://jkb. ub. ac. id/index php / jkb / article / view.pdf.
- Cahyono, Suharjo B. 2008. Membangun Budaya Keselamatan Pasien Dalam Praktik Kedokteran. Yogyakarta: Kanisius
- El-Jardali, Fadi, Sheikh, Farheen, Garcia, NereoA., Jamal, Diana dan Abdo, Ayman. 2016. Patient Safety Cultur in a large Teaching hospital: in Riyadh: base assessment, comparative analysis and apportunities for improvement. darihttp:// www. ncbi. nlm. nih. gov/pmc/articles/PMC3975247/pdf/1472-6963-14 122.pdf
- Joint Commission International. 2017. Joint Commission International Accreditation Standards for Hospital (8thEd.). USA: Department of Publication Joint Commission Resource
- Joint Commission International. 2013. *Joint Commission International Accreditation Standards for Hospital* (5thEd.). USA: Department of Publication Joint Commission Resource
- Julia, R., Michael, K & Angelita, L. 2016. Hubungan perilaku dengan kemampuan perawat dalama melaksanakan keselamatan pasien (patient safety) diruang IGD. Journal Keperawatan, Vol. 4, suplemen No. 2. Retrieved Juni 20, 2018, From https:// media.neliti.om/media/publications/111324-ID-hubungan perilaku-dengan-kemampuan-perawat.pdf
- KARS. 2012. Instrumen Akreditasi Rumah Sakit Standar Akreditasi versi 2012. Jakarta.
- Megawati. 2005. Analisa pengaruh karakteristik individu terhadap kinerja perawat dirumah sakit Dr. Pringadi Medan tahun 2004. Tesis pasca sarjana Universitas sumatera utara.
- Notoatmodjo, S. 2012. *Metodologi penelitian kesehatan*. Jakarta: Rineka Cipta.
- Notoatmodjo, S. 2012. Promosi kesehatan dan ilmu perilaku. Jakarta : Rineka Cipta.
- Nursalam. 2016. Manajemen keperawatan: aplikasi dalam praktik keperawatan profesional, (Ed.3). Jakarta: SalembaMedikNursalam. 2012. Konsep dan Penerapan Metodologi Penelitian Ilmu Keperawatan, Jakarta: Salemba Medika Peraturan menteri kesehatan Republik Indonesia Nomor 11 Tahun 2017, penyelenggara keselamatan pasien, Jakarta.
- Polit & Beck, P. 2012. Essential of Nursing Research :methods, apraisal, and utilization (7thEd.). Philadephia: Lippincot Williams & Wilkins.
- Priyoto & Triwidya. 2014. *Kebutuhan dasar keselamatan pasien*. Yogyakarta: Graha Ilmu.
- Priyoto & Mega. 2017. *Kebutuhan dasar keselamatan manusia*, (Ed 2.). Yogyakarta: pustaka panasea
- Rivai,f., Sidin, A. I., Kartika, I. 2016. Faktor yang berhubungan dengan implementasi keselamata pasien.
- Jurnal kebijakan kesehatan Indonesia, vol 05, suplemen no. 04, 152-157. Retrieved Juni 20, 2018, From https://jurnal.ugm.ac.id/ jkki/ article/ download/ 30527/18411
- Roymond, H. Simamora. 2010. Komunikasi dalam

- keperawatan . Jember University press.
- Roymond, H. Simamora. 2012. Buku Ajar Manajemen Dalam Keperawatan. Penerbit Buku Kedokteran EGC.Jakarta
- Roymond, H. simamora. 2018. Keselamatan pasien melalui timbang terima pasien berbasis komunikasi efektif: SBAR. Usu Press.
- Setiadi. 2013. Konsep dan praktik penulisan riset keperawatan, (Ed.2.). Yogyakarta: Graha Ilmu
- SNARS. 2017. Standar Nasional Akreditasi Rumah Sakit, (Ed.1). Jakarta.
- Wawan & Dewi. 2011. Teori pengukuran pengetahuan, sikap dan perilaku manusia. Cetakan ke2. Yogyakarta:
- Nuhamedika. Widaningrum, D.D. 2015. Hubungan Pengetahuan dengan
 - perilaku Hand Hygiene Perawat di Bangsal Ar Royan RS PKU Muhammadiyah Yogyakarta Unit II. . Karya Tulis Ilmiah strata satu, Universitas Muhammadiyah Yogyakarta. Yogyakarta.
- World Health Organization & Joint Comission
 International. 2009. Communication during patient
 hand-overs. Retrieved Juni 22, 2018, from
 http://who. int/ patient safety/ solutions/ patient
 safety/PSSolution3.pdf.

