



Fall risk prevention: The related factors of nurses practice at general local hospital in Indonesia[☆]



Lilis Suryani^{a,*}, Agni Laili Perdani^b, Regidor Ill Dioso^c, Lee Siew Hoon^c

^a Department of Nursing Management, STIKes Kharisma Karawang-Indonesia 41315, Indonesia

^b Department of Pediatric Nursing, STIKep PPNI Jawa Barat, Indonesia

^c Faculty of Nursing, Lincoln University College, Malaysia

Received 25 September 2019; accepted 11 November 2019

KEYWORDS

Practice;
Fall risk;
Prevention;
Nurses

Abstract

Objective: This study aimed was to describe related factors of nurse practice in preventing fall risk in an inpatient ward at X General Local Hospital.

Method: A descriptive, analytical quantitative with a cross-sectional approach was used in this study. The total of 95 nurses agreed to participate by using random sampling. Data collection using a structured questionnaire and observational form. The statistical model with a chi-square analysis was used in this study.

Results: The result showed a correlation between knowledge and nurse practice with OR 3.257 (1.375–7.715; $p=0.012$), attitude and nurse practice with OR 4.286 (1.775–10.345; $p=0.002$) training and nurse practicewith OR value 5.455 (2.233–13.322; $p=0.000$).

Conclusions: Local authority in the hospital must apply patient safety standards to reduce injury rates, both nurses and patients. Nurses need to follow the current trend of nursing science focusing on patient safety.

© 2020 Elsevier España, S.L.U. All rights reserved.

Introduction

Every hospital must perform standard for patient safety to prevent and decrease unnecessary incidents.^{1,2} Through

execute, six standards is a way to improve the system and to reduce the risk of falling is one of the crucial part.² An approach was developed because there was a significant number of falling cases that caused injury for hospitalised patients.²

The reported incidence of patients falling in US hospitals ranged from 700,000 to 1,000,000 every year.³ In Indonesia, data showed that rates of falling patients included in the top three hospital medical incidents and ranked second after medicine error up to 34 cases or 14%.⁴ By this data proved that this event is still very high and far from accreditation targets with or 0% case.⁵

[☆] Peer-review under responsibility of the scientific committee of the 3rd International Conference on Healthcare and Allied Sciences (2019). Full-text and the content of it is under responsibility of authors of the article.

* Corresponding author.

E-mail address: lilis.suryanifa@gmail.com (L. Suryani).

The role of nurses as a service provider will give a massive effect to implement patient safety.^{6,7} The previous study described that nurse practice have great contribution in this programme.⁸ Several factors influenced including nurse practice are predisposing factors, enabling factors, and driving factors.⁹ Moreover, knowledge, facilities, supporting education and supervision are affected nurses to achieve the goal of prevention fall risk.¹⁰

The result from a preliminary study conducted in the inpatient room of RSUD X in February 2018, the results of interviews with nurses who have experienced 2 patients falling in the past year, identified that 6 out of 10 nurses had poor knowledge related to preventing fall for patients. Although four nurses had good knowledge but missed regarding documentation and assessment. Negative attitude showed by nurses with indifferent and inaccurate to prevent fall risk related to inadequate facilities such as there is no handle in patients bathroom, patients bed without bell and coloured signs. One nurse said that family patient regularly plays with those signs; therefore, a nurse keeps in the storage room. Education or training for healthcare professionals also still minimum about patient safety. From the last one year, two patients had been recorded fall and without injury in the bathroom in this hospital. By description above this study aimed was to describe related factors of nurse practice in preventing fall risk in an inpatient ward at X General Local Hospital.

Methods

A descriptive and analytical quantitative with a cross-sectional approach was used in this study. This research conducted in one month from February to March 2018. The total population of this study is 206 and inclusion criteria were all nurses work in the inpatient room at one of a general hospital in Indonesia. By using simple random sampling, a total of 95 nurses agreed to participate in this study. An instrument used in this study is a structured self-report questionnaire to measure knowledge, attitudes, training and observational about behaviour form filled by the researcher. The statistical model using a chi-square analysis.

Results

Demographic characteristics

This study described demographic characteristics including age, gender and level of education. Nurses participated in this study aged <40 years, with the proportion of 47 (49.4%) women and 48 (50.6%) men. More than a half of nurses with the total of 59 (62.1%) respondents graduated from Diploma III of Nursing/Midwifery, and 36 (37.9%) from Bachelor of Nursing/Diploma IV of Midwifery.

Nurses knowledge, attitude, training and practice towards the prevention of fall risk

Based on the result from [Table 1](#), more than half of nurses had poor knowledge (54.7%), negative attitude (53.7%) and poor practice (56.8%). Data described in [Table 2](#) showed that

Table 1 Frequency distribution of knowledge, attitude, training and practice among nurses.

Variables	Prevention of risk fall <i>n</i> (%)
<i>Knowledge</i>	
Poor	52 (54.7)
Good	43 (45.3)
<i>Attitude</i>	
Negative	51 (53.7)
Positive	44 (46.3)
<i>Training</i>	
Yes	47 (49.5)
No	48 (50.5)
<i>Practice</i>	
Poor	41 (43.2)
Good	54 (56.8)

Towards the prevention of fall risk (*n* = 95).

from 95 respondents with both poor knowledge and practice were 29 respondents (55.8%). The total of respondents with good knowledge and practice was 31 (72.1%). A statistically significant result obtained $p = 0.012$; therefore, there was a relationship between knowledge and practice of nurses in preventing fall risk among patients.

Nurses with poor attitude as well as a practice were 30 (58.8%), and both good attitude and practice were 33 (75.0%). From statistical analysis $p = 0.002$; thus, there is a significant relationship between attitude and practice of nurses in preventing the fall risk of falling for the patient ([Table 2](#)). Based on the analysis results, showed that nurse who never takes part in education training and poor practice were 30 respondents (62.5%). Respondents who received training and good practice were 36 (76.6%). Statistical test results obtained $p = 0.000$; therefore, the conclusion is there is a significant relationship between training and practice to prevent fall risk.

Discussion

This study result similar to previous research from¹¹ with the same hospital characteristics conducted in Indonesia. A significant relationship between nurses knowledge and practice in preventing fall risk because knowledge is the result of "knowing" and this happens after someone senses a certain object. This knowledge is the dominant thing that is very important for the formation of one's actions, from the experience of several studies it turns out that actions not based on good knowledge will not produce good results. Practice-based on knowledge will be more lasting and not only based on knowledge.¹² The better person knowledge will have a good impact on the prevention of patients falling in the Hospital.¹³

Nurses with good knowledge tend to affect their practice to applied patient safety standard to prevent fall risk. In this study, two factors contributed to good knowledge are education training and age of nurses. Nurses in inpatient ward aged <40 years categorised as young nurses and influenced their knowledge about patient safety.

Table 2 The relationship between practice with knowledge, attitude and training among nurses towards the prevention of fall risk ($n = 95$).

Variables	Practice		OR	95%CI	<i>p</i> -Value
	Poor	Good			
<i>Knowledge</i>					
Poor	29 (55.8)	23 (44.2)	3.257	1.375–7.715	0.012
Good	12 (27.9)	31 (72.1)			
<i>Attitude</i>					
Negative	30 (58.8)	21 (41.2)	4.286	1.775–10.345	0.002
Positive	11 (25.0)	33 (75.0)			
<i>Training</i>					
Yes	11 (23.4)	36 (76.6)	5.455	2.233–13.322	0.000
No	30 (62.5)	18 (37.5)			

This study showed a significant relationship between attitude and practice of nurses in the prevention of fall risk and similar to the previous study from.¹⁴ Attitude is a reaction or response of someone who closed to a stimulus or object. Attitude is not yet an action or activity but is a predisposition to action or practice.¹² Nurses' attitude in supporting the implementation of patient safety is prioritised to ensure patient safety.¹⁵ A good nurse attitude will also have a good effect on practice because strengthen by complete facilities in the Inpatient Ward to support patient safety, especially in the prevention of fall risk.¹⁶ Besides that, good knowledge and practice will have a good effect on nurses attitudes.¹⁷

This study showed that education training had a significant relationship with nurses practice and supported by.¹¹ Training can be used as a strategy specifically for behaviour change by leading to the acquisition of skills.^{18,19} The participation of the training by nurses influences the prevention of falling patients because the training does not only provide the prevention of falling patient material, but nurses can observe directly how good fall patient prevention practices as practised by nurse trainers.¹¹ The participation of nurses in training will also have a good effect on practice. Nurses in this study already involved in training and showed good practice. This evidence proves that training influences nurses practice in preventing the risk of falling patients.

Conflict of interest

The authors declare no conflict of interest.

References

- MOH 2015. Indonesia Health Profile. Available from: <https://www.kemkes.go.id/resources/download/pusdatin/profil-kesehatan-indonesia/indonesian%20health%20profile%202015.pdf>.
- WHO 2007. Patient Safety Solutions Preamble May 2007. Joint Commission International. Available from: <https://www.jointcommissioninternational.org/assets/3/7/PreambleandSolutionsENGLISH.pdf>.
- Hughes RG. Patient safety and quality: an evidence-based handbook for nurses: US; 2008.
- The republic of Indonesia health system review, Asia Pacific observatory on health system and policies, 2017. 7.
- Aprillia S. Faktor-faktor yang mempengaruhi perawat dalam IPSPG (Internasional Patient Safety Goals) pada akreditasi JCI; Indonesia; 2011.
- Ramli S, Praptona R, Priyadi K. Pedoman praktis manajemen risiko dalam perspektif K3: OHS risk management. Jakarta: Indonesia; 2010.
- Phelan EA, Aerts S, Dowler D, Eckstrom E, Casey C. Adoption of evidence-based fall prevention practices in primary care for older adults with a history of falls U.S. Natl Lib Med. 2016;8:190.
- Reid S, Carlin J, Reddihough D. Developmental medicine and child neurology. Wiley Online Lib. 2012;54:867–8.
- Silahkan Anda klik link tentang Koleksi Teori Lawrence Green Dalam Notoatmodjo.
- Lusardi M, Fritz S, Middleton A, Allison L, Wingood M, Phillips E, et al. Systematic reviews determining risk of falls in community dwelling older adults. PubMed. 2017;40:1–36.
- Nugraheni M, Widjasena B, Kurniawan B, Ekawati E. Faktor-faktor yang berhubungan dengan pencegahan jatuh pada pasien risiko jatuh oleh perawat di ruang nusa indah rsud tugurejo semarang. Jurnal Kesehatan Masyarakat. 2017;5:121–30.
- Notoatmodjo S, Promosi Kesehatan di Sekolah, Indonesia; 2012.
- King B, Pecanac K, Krupp A, Liebrezeit D, Mahoney J. Impact of fall prevention on nurses and care of fall risk patients. PubMed. 2018;58:331–40.
- Selleya C, Bawelle J, Hamel R. Hubungan pengetahuan dan sikap perawat dengan pelaksanaan keselamatan pasien (patient safety) di ruang rawat inap rsud liun kendage tahuna. ejournal keperawatan. 2013;1:1–7.
- Aprillia S. Faktor-faktor yang mempengaruhi perawat dalam IPSPG (Internasional Patient Safety Goals) pada akreditasi JCI; Indonesia; 2011.
- Matarese M, Ivziku D, Bartolozzi F, Piredda M, De Marinis M. Systematic review of fall risk screening tools for older patients in acute hospitals U.S. Natl Lib Med. 2015;71:1198–209.
- Callis N. Falls prevention: Identification of predictive fall risk factors U.S. Natl Lib Med. 2015;29:53–8.
- Cahyono, Suharjo B. Membangun budaya keselamatan pasien. Yogyakarta: Kanisius; 2008.
- Eckstrom E, Parker E, Lambert G, Winkler G, Dowler D, Casey C. Implementing steady in academic primary care to address older adult fall risk. Gerontol Soc India. 2017;1:1–9.