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The Influence of Knowledge and Leadership on Clinical Risk Management with Patient Safety Culture as an Intervening Variable at PMI Hospital

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ABSTRACT

The lack of the leadership function in monitoring and evaluation, the limited training on patient safety is suspected to have resulted in a low safety culture and clinical risk management. This study aims to determine the influence of transformational leadership, patient safety knowledge and culture on clinical risk management at PMI Hospital. Design of a cross-sectional study, 138 nurses in August 2024. Simple random sampling technique, the independent variable is knowledge about patient safety goals and transformational leadership; the dependent variable of clinical risk management, and the intervening variable of patient safety culture. Descriptive analysis shows that PMI Hospital has nurses who have high knowledge of patient safety targets, with a charismatic leadership style, and a communicative patient safety culture. The results show that knowledge of patient safety goals, transformational leadership, and patient safety culture simultaneously and partially have a significant effect on clinical risk management so that high knowledge, charismatic leadership, and communicative patient safety culture are proven to encourage improvements in clinical risk management at PMI Hospital.

Keywords: risk management, patient safety, leadership, knowledge

1. Background

Over the past two decades, patient safety has become a central concern for healthcare organizations globally. Clinical risks can never be completely eliminated (Vincent, 2006), while the risk of patient death due to preventable medical accidents is very high in developing countries. (World Health Organization, 2014). The main locus of patient safety is in the microsystem, namely the environment where services take place, the spearhead where patient and nurse interactions occur, where safety failures occur and patients are harmed. Nurses as a whole at all levels and areas of practice have a great responsibility in reducing and if possible preventing the occurrence and impact of adverse events in the context where they work. (Vincent, 2010)

One way to address this challenge is the establishment of a clinical risk management system (Briner et al., 2013), because accreditation and clinical governance alone are not enough in building clinical risk management, what is needed is quality improvement and safe practice through the integration of effective clinical risk management into organizational processes. (Farokhzadian et al., 2014). The Indonesian Red Cross Hospital has been fully accredited for the umpteenth time in 2022, but in the initial assessment of clinical risk management at the PMI Hospital, there was no incident reporting system in the form of a book, an incident report form in the form of an online/web-based system, an incident report form in the patient's medical record, and a weekly incident reporting review. There was no weekly assessment of incident reporting activities, while 16 incidents were obtained from 2022 hospital quality committee report. The patient safety culture at the Indonesian Red Cross Hospital has not been achieved in terms of the expectations and actions of managers who support patient safety, feedback and communication regarding errors and non-punitive responses, there are still several quality indicators that have not been achieved in 2022, namely non-compliance of medical service officers with several actions related to patient safety goals, including identification compliance, hand washing compliance, compliance with efforts to prevent the risk of injury due to patient falls.

² The purpose of this study was to analyze the influence of nurses' knowledge of patient safety goals and transformational leadership style on clinical risk management with patient safety culture as an intervening variable in the inpatient unit of the Hospital. Indonesian Red Cross.

2. Research Method

This research was conducted with Cross-sectional study design²¹, in August 2024. Participants were registered nurses in the inpatient unit of PMI Hospital. This research protocol has been approved by the Ethics Committee Esa Unggul University and Indonesian Red Cross Hospital and written consent was obtained from all research participants.

a. Data collection

Based on the analysis result of 138 respondents surveyed, most of the nurses have age limit more than 25 to 35 years (n = 138, 48%). Also, most of them have experience more than 10 to 15 years in the same hospital (n = 138, 36%) indicating that they have sufficient experience and time to provide care to patients and work in the same environment. The sample survey is considered appropriate to generate responses about the constructs being studied. Statistics show that among the nurses, who responded to the questionnaire survey 79% were female. The nurses 86% have D3 education as the basic qualification to work in the hospital.

⁴ We included only registered nurses because this study addressed a high-level nursing work domain that typically involves only registered nurses. Nurses with less than one year of clinical experience were considered too inexperienced to provide relevant information about research-related variables.

⁴ Potential participants were approached by the principal investigator or by the research facilitator at their institution and the purpose of the study was explained. Those who met the inclusion criteria agreed to participate.

b. Measuring instrument

The questionnaire ascertained information on nurse demographics (gender, age, nursing education, and nursing experience), (b) clinical risk management, (c) patient safety culture, (d) knowledge of patient safety goals, and (e) transformational leadership.

Two tools were used for clinical risk management data collection, namely a structured observation checklist and a questionnaire. These checklists were developed by researchers based on literature (Farokhzadian, 2014), includes 25 items to observe the current program and measurements to develop CRM systems, such as incident reporting, and various other aspects of CRM (Table 4). This checklist is based on "yes" or "no" answers; no value answers are used, so validation is not necessary.

¹ The questionnaire was adopted from Zaboli, 2011 Department of Health Service Management at Baqiyatallah University in Tehran, The questionnaire consisted of 45 items divided into six sections, namely

1) knowledge, understanding and recognition of staff towards CRM (eight questions); 2) CRM implementation status (seven questions); 3) policies and procedures (seven questions); 4) evaluation of CRM training status (eight questions); 5) CRM position in the hospital (six questions); and 6) monitoring, analysis, evaluation and risk control status (nine questions). The questionnaire was developed based on a 5-point Likert scale. A total of 43 questionnaires were valid (r coefficient > 0.3601, n=30). Its reliability was assessed using Cronbach's alpha coefficient ($\alpha = 0.983$).

Patient safety was measured using sops version 2.0 (AHRQ, 2021). This instrument

consists of 10 subscales and 32 items. The 10 instruments consist of (a) teamwork, (b) staffing and work rhythm, (c) organizational learning, (d) error response, (e) support from superiors and clinical leaders, (f) error communication (g) openness of communication, (h) incident reporting, (i) management support, (j) hand-off and information exchange. 21 valid statements were obtained (coefficient $r > 0.3601$, $n = 30$) and were reliable. with Cronbach's alpha ($\alpha = 0.770$).

Transformational leadership questionnaire was developed by researchers based on literature (Avolio & Bass, 2004). It consists of 37 items. The 4 parts of the instrument are positive responses of transformational leadership such as (a) idealizer influence, (b) inspirational motivation, (c) intellectual stimulation, (d) individual consideration. 34 valid questionnaires were obtained (r coefficient > 0.3081 , $n = 39$). Reliability was assessed using Cronbach's alpha coefficient ($\alpha = 0.935$).

The patient safety target knowledge questionnaire was developed by researchers based on literature (Anderson & Krathwohl, 2001). It consists of 4 subscales and 18 items. The 4 parts of the instrument are factual, conceptual, procedural, and metacognitive knowledge. 14 items out of 34 questionnaires were valid (r coefficient > 0.3081 , $n = 39$). Its reliability was assessed using Cronbach's

alpha coefficient ($\alpha = 0.806$).

c. Statistical Analysis

Data were analyzed using IBM SPSS version

18. Pearson correlation was calculated for the relationship between the main factors. Regression analysis helps to provide an estimate of the relationship between variables and the impact of independent variables on the outcome variables in a population. Therefore, regression analysis is used for the variables of interest. Descriptive statistical analysis on the variables of transformational leadership style and clinical risk management was carried out through the three box method analysis (Ferdinand, 2014) to determine the condition of each research instrument, the following quality ranges were formed which were divided into three quality interval ranges with the following calculations:

Index value:
 $\{(F1 \times 1) + (F2 \times 2) + (F3 \times 3) + (F4 \times 4)\} / 4$

Information :

$F =$ Frequency of respondents who answered question items (1,2,3,4)

Upper limit = $138 \times 4 / 4 = 138$ Lower limit = $138 \times 1 / 4 = 34.5$

Analytical statistics were conducted to study the causal relationship between variables and test hypothesis systematically in this study, the analysis tools used were path analysis using independent sample t-test and analysis of variance (ANOVA).

3. Results

3.1 Respondent Characteristics

Based on the analysis result of 138 respondents surveyed, most of the nurses have age limit more than 25 to 35 years ($n = 138$, 48%). Also, most of them have experience more than 10 to 15 years in the same hospital ($n = 138$, 36%) indicating that they have sufficient experience and time to provide care to patients and work in the same environment. The sample survey is considered appropriate to generate responses about the constructs being studied. Statistics show that among the nurses, who responded to the questionnaire survey 79% were female. The nurses 86% have D3 education as the basic qualification to work in the hospital.

Table 1. Respondent Characteristics

Category	Amount	Percentage
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Man	30	21%
Woman	108	79%
Amount	138	100%
Respondents by Age		
Category	Amount	Percentage
< 25 Years	30	21%
>25–35 Years	66	48%
>35 Years	42	31%
Amount	138	100%
Respondents Based on Last Education		
Category	Amount	Percentage
D3	118	86%
S1	20	14%
Amount	138	100%
Respondents Based on Work Period		
Category	Amount	Percentage
15 years	39	28%
>5 – 10 Years	26	19%
Respondents Based on Work Period		
>10–15 Years	50	36%
>15 Years	23	17%
Amount	138	100%

3.2. Observation Data

Table 2 describes the CRM program in the Indonesian Red Cross Hospital. Based on the 2017 McKinsey risk management model, the level of clinical risk management is at an early stage (11 of the 25 clinical risk management indicator items are not yet available).

Table 2. Clinical Risk Management Assessment of PMI Hospital Bogor 2023

No	Indicator	There is	There isn't any
1	Risk management committee and team	√	
2	Quality improvement committees, teams and offices	√	
3	Patient safety committee and team	√	
4	Patient safety staff and officers	√	
5	Risk Manager	√	

6	Educational program & cultural development (Educational program & culture building)		√
7	Management of patient complaints	√	
8	Nosocomial infection control program	√	
9	Adverse drug reactions (ADRs) reporting system		√
10	Safety action plan (safety action plan)		√
11	Forms of blood and blood product complications	√	
12	Licensing and accreditation body	√	
13	Incident reporting form	√	
14	Incident reporting is not a book		√
15	Online and web-based reporting forms		√
16	Incident report form inpatient file		√
17	Patient safety information system (PSIS)		√
18	Patient safety reporting system (PSRS)		√
19	Review incident reports weekly		√
20	Sentinel event root cause analysis	√	
21	Failure mode and effects analysis (FMEA)		√
22	Administrative medical cart		√
23	Drug packaging labeling	√	
24	Individual drug distribution system	√	
25	Electronic system for medication requests	√	

3.3 Descriptive statistics

Descriptive statistical analysis using the three box method on the Clinical Risk Management variable. The results of the analysis per indicator, the highest index is at M 2 with an index of 124.25, a high category that is in the dimension of risk management knowledge level, while the lowest is in the knowledge level dimension on indicator M1 (Every patient with long bed rest often has decubitus ulcers.) with an index of 86.20 with a moderate category. The results of the analysis per dimension, the highest is in the risk management position dimension with an average index of 114.3 in the high category and the lowest dimension is the status of organizing and the status of risk management teaching with an average index of 103.7 are in the medium category.. Overall, the clinical risk management variable is in the high category because it has an average index of 107.12

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Descriptive statistical analysis using the three box method on the patient safety culture variable. The results of the analysis per indicator, the highest index is in indicator C6 (staff

will remind if they find their superiors taking actions that can be risky to patient safety) with an index of 106.75 with a high category which is in the dimension of openness of communication while the lowest is in indicator A11 (staff in this room work longer in meeting the quality standards of service to patients.) the dimension of staff arrangement & work rhythm with an index of 68.25 with a low category The results of the analysis per dimension, the highest is in the dimension of openness of communication with an average index of 104.50 with a high category and the lowest dimension is in Handsoff & information exchange with an average index of 97.38 with a medium category. Overall, the patient safety culture variable is in the medium category because it has an average index of 93.20.

Descriptive statistical analysis using the three box method on the knowledge variable The results of the analysis per indicator, the highest index is in indicator P17 (index 128.5) in the high category in the conceptual knowledge dimension while the lowest is in indicator P9 (index 73) in the medium category in the procedural knowledge dimension. The results of the analysis per dimension, the highest is in the conceptual knowledge dimension (average index 116.5) with a high category while the lowest dimension is in the procedural knowledge dimension (average index 89.35. with a medium category. Overall, the knowledge variable about patient safety targets is in the high category with an average index of 104.4.

Descriptive statistical analysis using the three box method on transformational leadership variables, The results of the analysis per indicator, the highest index is in indicator K11 with an index of 111.50 (high category). inspirational motivation dimension while the lowest is in indicators K28 & K35 with an index of 77 (medium category). individual consideration dimension. The results of the analysis per dimension, the highest is in the ideal influence/charisma dimension with an index of 104.63 (high category). and the lowest dimension is in the dimension intellectual influence with an index of 95.61 (moderate category). Overall, the transformational leadership style variable falls into the moderate category with an average index of 78.94.

3.4 Testing the hypothesized model

The results of the heteroscedasticity test showed that the leadership and culture variables did not show symptoms of heteroscedasticity (Sig >0.05) while knowledge showed symptoms of heteroscedasticity Sig 0.015 (<0.05), so the respondent data was reduced, and respondents no.

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Constant	5.035	5.351		-.941	.348
leadership	.026	.039	.057	.675	.501
knowledge	.468	.189	.208	2.475	.015
culture	.029	.059	.041	.486	.627

Table 3. Results of Heteroscedasticity Test 1 a. Dependent Variable: management

Source: Primary Data, processed with SPSS 18

The results of the heteroscedasticity test show that all variables do not show symptoms of heteroscedasticity with a sig. value >0.05 . This means that there is no correlation between the size of the data and the residual so that if the data is enlarged it will not cause the residual (error) to be even greater, so the path analysis model is suitable for use.

a. Dependent Variable: management

3.5. Path Analysis Test

Path analysis was conducted using the multiple regression method through the SPSS version 18 program to see the influence of independent 55 and 126 were selected.

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	56,923	8,104		7,024	,000
leadership	-.067	.059	-.097	1,143	,255
knowledge	.309	.294	.090	1,052	,295
Culture	.118	.089	.114	1,337	,183

Table 4. Results of Heteroscedasticity Test 2 variables on dependent variables.

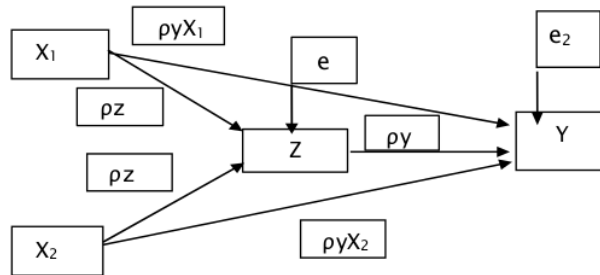


Figure 4.3 Path Diagram Model of Variables X1, X2, Z and Y

A. Testing the Relationship Between Variables

Before conducting path analysis, the author first conducted a correlation analysis to determine the nature of the relationship between each variable studied. The probability value

is less than 0.05 (Sig. < 0.05) indicating that the correlation between variables is significant and the relationship between variables is directly proportional, meaning that an increase in one variable will be followed by an increase in another variable. While determining the closeness of the relationship uses criteria based on:

$0.00 \leq \rho < 0.25$: Very small relationship(negligible)

$0.25 \leq \rho < 0.50$: Quite strong relationship

$0.50 \leq \rho < 0.75$: Strong relationship

$0.75 \leq \rho < 1$: Very strong relationship

Based on all the correlation tests and significance tests conducted, the results of the correlation analysis between variables can be summarized as follows.

Table 5. Summary of Correlation Analysis Result

	<i>coeffi cient of correl ation i</i>	<i>Sig.</i>	<i>Nature of Relatio nship</i>
<i>X1 with X2</i>	<i>.378**</i>	<i>.000</i>	<i>Strong, Positive and Significa nt Enough</i>
<i>X1 with Z</i>	<i>.498**</i>	<i>.000</i>	<i>Strong, Positive and Significa nt Enough</i>
<i>X2 with Z</i>	<i>.367**</i>	<i>.000</i>	<i>Strong, Positive and Significa nt Enough</i>
<i>X1 with Y</i>	<i>.495**</i>	<i>.000</i>	<i>Strong, Positive and Significa nt Enough</i>
<i>X2 with Y</i>	<i>.432**</i>	<i>.000</i>	<i>Strong, Positive and Significa nt Enough</i>
<i>Z with Y</i>	<i>.603**</i>	<i>.000</i>	<i>Strong, Positive and Significa nt (X1) and</i>

Source: Data Processing Results, 2024

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 B. The Influence of Knowledge (X1) and Transformational Leadership (X2) on Patient Safety Culture (Z)

Structural Path Analysis Equation 1 ($Z = \rho zX1 + \rho zX2 + \varepsilon1$)

Table 6 Structural Path Analysis Coefficients 1

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Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error			
(Constant)	67.083	7.422		9.039	.000
Pengetahuan	.637	.119	.420	5.339	.000
Kepemimpinan	.292	.110	.208	2.647	.009

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 a. Dependent Variable: Culture Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.534	.285	.275	7.241

a. Predictors: (Constant), Leadership, Knowledge From the table of coefficients of structural pathanalysis 1 above, we get:

a. Standardized β (X1-Z); $\rho zX1 = 0.420$ b. Standardized β (X2-Z); $\rho zX2 = 0.208$

c. Residual coefficient ($\varepsilon1$) = $1 - R^2 = 1 - 0.285 = 0.715$ So the equation of structural path 1 is:

$$Z = \rho zX1 + \rho zX2 + \varepsilon1$$

$$\text{Safety culture} = .420 \text{ Knowledge} + .208 \text{ Leadership} + .715$$

The model summary table above obtained one path analysis model with a determination coefficient value (Adjusted R Square) of 0.275. This shows that by using the path analysis model obtained, the nurse's knowledge variable about patient safety targets (X1) and transformational leadership style (X2) have an influence on changes in the patient safety culture variable.

(Z) . The Influence of Knowledge (X1), Transformational Leadership Style (X2) and Patient Safety Culture (Z) on Clinical Risk Management (Y)

C. Structural Path Analysis Equation 2 ($Y = \rho yX1 + \rho yX2 + \rho yZ + \varepsilon2$)

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 Table 7. Structural Path Analysis Coefficients 2

a. Dependent Variable: MRK Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.668	.446	.434	11,533

a. Predictors: (Constant), Culture, Leadership, Knowledge

From the table of coefficients of the structural pathanalysis 2 above, we get:

- Standardized β (X1-Y); $\rho_{yX1} = 0.208$
- Standardized β (X2-Y); $\rho_{yX2} = 0.197$
- Standardized β (Z-Y); $\rho_{yZ} = 0.427$
- Residual coefficient (e^2) = $1 - R^2 = 1 - 0.446 = 0.554$

So the equation of the 2 structural paths is:

$$Y = \rho_{yX1} + \rho_{yX2} + \rho_{yZ} + e^2 \text{ Clinical risk management} = 0.208 \text{ Knowledge} + 0.197 \text{ Leadership} + 0.427 \text{ Culture} + e^2$$

The summary model table above obtained one path analysis model with a determination coefficient value (Adjusted RSquare) of 0.446. This shows that by using the path analysis model obtained where the nurse's knowledge variable about patient safety targets (X1), transformational leadership style (X2), and patient safety culture (Z) have an influence on changes in the Clinical Risk

Model	Unstand St ardized Coeffici ents		and a rdize d Coeff i cients Beta	t	Sig.
	B	Std. Error			
(Consta nt)	- 11,139	14,976		-.744	.458
Knowle dge	.569	.209	.208	2,721	.007
Leaders hip	.498	.180	.197	2,763	.007
Culture	.770	.137	.427	5.618	.000

Management variable (Y) of 0.446.

The effect of error on equations 1 and 2 is as follows: $Pe1 = 1 - R2 = 1 - 0.285 = 0.715$; $Pe2 = 1 -$

$R2 = 1 - 0.446 = 0.554$

$Rm2 = 1 - (Pe1)^2 - (Pe2)^2 = 1 - (0.715)^2 - (0.446)^2 = 1 - (0.511 + 0.198) = 0.890$

The validity examination of the model through the total determination coefficient ($Rm2$) shows a value of 0.89. So, the total data diversity that can be explained by the model is 0.89.

Influence Calculation

The Influence of Nurses' Knowledge of Patient Safety Goals (X1) on Clinical Risk Management (Y)

a. Direct Effect: $PL(X1-Y) = \rho_{yX1} = 0.208$, sig 0.007

b. Indirect Influence:

$PTL(X1-Y) = (\rho_{zX1}) \times (\rho_{yZ}) = 0.420 \times 0.427 = 0.18$

c. Total Effect $(X1-Y) = PL(X1-Y) + PTL(X1-Y) = 0.208 + 0.18 = 0.388$

The Influence of Transformational Leadership Style (X2) on Clinical Risk Management (Y)

a. Direct Effect: $PL(X2-Y) = \rho_{yX2} = 0.197$, sig 0.007

b. Indirect Influence:

$PTL(X2-Y) = (\rho_{zX2}) \times (\rho_{yZ}) = 0.208 \times 0.427 = 0.089$

c. Total Effect $(X2-Y) = PL(X2-Y) + PTL(X2-Y) = 0.197 + 0.089 = 0.286$

4. Discussion

4.1 significant influence of Nurses' Knowledge of Patient Safety Goals (X1), Transformational Leadership Style (X2) and Patient Safety Culture (Z) simultaneously on Clinical Risk Management (Y)

Clinical Risk Management (Y) is influenced by knowledge of patient safety targets (X1) and transformational leadership (X2) and patient safety culture (Z) simultaneously and significantly.

The results of the analysis concluded that knowledge of patient safety targets, transformational leadership style, and patient safety culture simultaneously had a significant effect on clinical risk management. In this study, it can be interpreted that simultaneously high nurse knowledge of patient safety targets, charismatic transformational leadership in the inpatient ward, and communicative patient safety culture influenced a change in clinical risk management.

Several studies have shown the influence of safety culture and decision-making capacity have a direct effect on patient safety and transformational leadership style can build a nursing work environment that promotes professional nursing practice thereby encouraging better patient outcomes Tangatarova, S., & Gao, Y. (2021). Also as reported in the study by Okafor et al (2015), lack of attention from owners or management, burdensome reporting processes and fear of responsibility and shame are factors causing low incident reporting. So from this study it can be concluded that leadership and reporting systems which are elements that build patient safety culture have an effect on hospital clinical risk management. From the study of Okafor et al, 2015 also stated that the frequency of error reporting can be increased dramatically by using a web-based reporting system, which is easy to use, voluntary, non-punitive system, transparent and conducts incident reviews transparently and decentralized. In this case, there is no reporting system and web-based incident reporting form which is one of the elements that builds clinical risk management at PMI Hospital.

⁵ The results of the descriptive analysis of clinical risk management¹⁵ at PMI Hospital show that nurses have understood risk management. An understanding of the organization of clinical risk management has also been formed, but an understanding of the position of clinical risk management and supervision¹⁵² the evaluation, assessment and control of risk in the hospital has not yet been fully formed. The position of risk management that assesses the importance of regulations, guidelines and budget allocations that support clinical risk management activities is necessary in building the maturity of clinical risk management, including the existence of supervisory activities in the evaluation, assessment and control of risks in hospitals. Based on the division of the three phases of the evolution of the risk management model/risk management model by McKinsey, 2017, the level of clinical risk management maturity of PMI Hospital is still in the initial phase, namely the phase of building basic elements, especially regarding preparing basic infrastructure.

¹⁹ 4.2. The Influence of Nurse Knowledge on Objectives Patient Safety (X1) Against Patient Safety Culture (Z)

The results of the analysis concluded that knowledge of patient safety targets has a significant influence on patient safety culture.¹³

This is in line with the study of The German Coalition for Patient Safety, 2017 which states²⁴ that a safety culture can be developed and built from a constant learning process. The Institute of Medicine of the National Academies, 2004 also stated that a safety culture requires organizational understanding and knowledge and skills as an important foundation for safe practice. And at the individual level Van der Schaaf (1992) stated that organizational learning can be improved through¹¹ staff education and learning. A study by Bahrami MA, 2014 in Iran also proved that a patient safety culture at the organizational level can be built and developed from a constant learning process and this can be achieved through education and learning at the individual or staff level.⁵

In this study, the results of the descriptive analysis showed that nurses have known and understood the patient safety targets, this is the result of the implementation of education and training on patient safety targets which are carried out every year at PMI Hospital. So that nurses' knowledge of high patient safety targets influences the achievement of a communicative safety culture in the inpatient service environment of PMI Hospital.

³ ³⁶ The Influence of Patient Safety Culture (Z) on Clinical Risk Management (Y)

⁴⁰ The results of the analysis concluded that patient safety culture has a significant influence on clinical risk management.

This is in line with ¹⁵ study of The German Patient Safety Coalition, 2017 stating that one of the requirements of a clinical risk management system in a hospital is to build a positive safety culture. A study by Olii et al, 2019 in the journal of maritime²³ public health revealed that accreditation is one of five factors identified as influencing the implementation of clinical risk management. And PMI Hospital is known to have the status of a fully accredited hospital. However, there is a study by Farokhzadian et al, 2014 which revealed that accreditation and clinical governance are not enough in building clinical risk management, and this is in line with the results of research by Yasmi and Thabrany, 2015 which stated that the patient safety culture at Karya Bhakti Pratiwi Hospital Bogor was proven to be lacking even though the hospital¹¹ been accredited.

So that a communicative patient safety culture influences the increase in the level of clinical risk management establishment of PMI Hospital which is still at the basic level or in the initial/formation phase.

4.4 The Influence of Nurses' Knowledge of Patient Safety Objectives (X1) on Management Clinical Risk (Y)

¹⁰ The results of the analysis concluded that nurses' knowledge of patient safety targets has a

significant influence on clinical risk management. This is in line with a study by Leotsakos A et al., 2014 in the journal of multidisciplinary healthcare, which states that it is very important to build patient safety education for healthcare professionals to gain an understanding of the risks in service. The results of a study by Adibi et al, 2012 in the journal of diabetes and metabolic disorders, stated that the establishment of an effective clinical risk management system requires adequate staff education. Saud et al, 2021 in the journal of health, education and literacy stated that the continuing education factor is one of the key factors in the implementation of risk management, especially medical records. A study by Olli et al, 2019 in the journal of maritime public health stated that staff education is one of the factors that has been successfully identified and has a positive tendency towards the implementation of clinical risk management.

Knowledge of high patient safety targets can improve the status of clinical risk management in PMI hospitals that are at the basic level or in the initial/establishment phase of clinical risk management.

5.5 The Influence of Transformational Leadership Style (X2) on Patient Safety Culture (Z)
The results of the analysis concluded that transformational leadership style has a significant influence on clinical risk management.

This is in line with a study by Yalinda et al, 2013 in the journal of nursing management which found that there was an influence of the leadership style of the head of the room on the implementation of patient safety culture. A study by Bahrami et al, 2014 revealed that there was a factor causing the weakness of patient safety culture in teaching hospitals, namely the lack of integrated policies due to policy-making factors and managerial initiative in the system. A study by Habibi et al, 2017 in the Iranian Red Crescent Medical Journal stated that the largest dimension of the problem of patient safety culture in Iran compared to Turkey and the United States was at the managerial level. Rizki D. et al, 2022 in the journal of accounting and business economic applications found that interprofessional collaboration and transformational leadership had a positive and significant effect on work motivation and patient safety. Mistry, et al, 2020 in the Indian Journal of Forensic Medicine and Toxicology stated that there was a very strong relationship between transformational leadership and patient safety. Seljemo et al, 2020 in BMC Health Services Research, stated that transformational leadership style is an important factor in efforts to create and maintain a good patient safety culture in nursing homes. With charismatic transformational leadership at PMI Hospital, a high level of patient safety culture will be built in the hospital.

4.6 The Influence of Transformational Leadership Style (X2) on Management

5 Clinical Risk (Y)

The results of the analysis concluded that transformational leadership style has a significant influence on clinical risk management. This is in line with a study by Olli et al, 2019 in the maritime public health journal stating that leadership is one of the factors that has been successfully identified and has a positive tendency towards the implementation of clinical risk management. Dehnavieh et al, 2013 in International Journal of Hospital Research, revealed that inefficient leadership is one of the factors that affects the establishment of hospital clinical risk management. Okafor et al (2015) revealed that the lack of attention from owners or management is one of the factors causing low incident reporting so that from this study it can be concluded that leadership is related to hospital clinical risk management, especially those related to the reporting system.

Through charismatic leadership, it will build and increase the level of clinical risk management stability at PMI Hospital from the basic/non- implementative level to the implementative level.

Conclusion

Based on the entire series of analysis results and discussions, the following conclusions can be drawn:

1. Knowledge of patient safety targets, transformational leadership style, and patient safety culture simultaneously have a significant influence on clinical risk management so that increasing knowledge of patient safety targets, fulfilling transformational leadership style, and forming a patient safety culture simultaneously will encourage an increase in the level of clinical risk management stability at PMI Bogor Hospital.
2. Knowledge of patient safety targets has a significant influence on patient safety culture, so that increasing nurses' knowledge of patient safety targets will encourage the formation and strengthening of a patient safety culture at PMI Bogor Hospital.
3. Patient safety culture is influential and significant towards clinical risk management so that by ensuring the formation of a patient safety culture it will be able to encourage changes in the level of maturity of clinical risk management at PMI Bogor Hospital.
4. Nurses' knowledge of patient safety targets has a significant influence on clinical risk management, so that by increasing nurses' knowledge of patient safety targets, they will be able to build clinical risk management at PMI Bogor Hospital.
5. Transformational leadership style has a significant influence on clinical risk management so that transformational leadership will be able to increase the level of clinical risk management at PMI Bogor Hospital.
6. Transformational leadership style has an influence and is significant to clinical risk management. So with transformational leadership, it will strengthen the patient safety culture of PMI Bogor Hospital.

Reference

- Aarons G. 2006. *Transformational and Transactional Leadership: Associations With Attitudes Toward Evidence-Based Practice*. *Psychiatric Services (Washington, DC)* 57(8):1162-9. DOI:10.1176/appi.ps.57.8.1162. accessed on September 10, 2023.
- ACHS. 2013. *Risk Management & Quality Improvement*. *Risk Management & Quality Improvement Handbook*. Retrieved September 3, 2023
- Adibi H., Khalesi N., Ravaghi H., Jafari M., 2012. *Development of an Effective Risk Management System in Teaching Hospitals*. *Diabetes Journal & Metabolic Disorders* 11(1):15 DOI:10.1186/2251-6581-11-15. Accessed on January 7, 2023.
- Aiken, L. H., Clarke, S. P., Sloane, D. M., Sochalski, J., & Silber, J. H. (2002). *Hospital Nurse Staffing and Patient Mortality, Nurse Burnout, and Job Dissatisfaction*. *Congregation* 288(16), 1987-1993. <https://doi.org/10.1001>. Accessed January 2, 2024.
- All Moza. 2008. *Nursing Perceptions of Patient Safety at Hamad Medical Company in the State of Qatar*. Doctor of Philosophy Dissertation School of Nursing, Indiana University. Retrieved on September 10, 2023.
- Anderson, LW, & Krathwohl, DR 2010. *Foundational Framework for Learning, Teaching and Assessment: Bloom's Taxonomy of Education Revision*. Yogyakarta: Pustaka Pelajar. Accessed on September 10, 2023.
- Baker, GR, Norton, PG, Flintoft, V., Blais, R., Brown, A., Cox, J., ...; Majumdar, SR (2004). *Canadian Adverse Events Study: Incidence of adverse events among hospital patients in Canada*. *Canadian Medical Association Journal*, 170(11), 1678-1686. Retrieved January 2, 2004. 2024.
- Bass MB 1990. *From Transactional to Transformational Leadership: Learning to Share the Vision*. https://www.academia.edu/65192616/From_transactional_to_transformational_leadership_learning_to_share_the_vision. Accessed on 27 August 2023.

- Bahrami M., Chalak M., Montazerifaraj R., Tafti A. 2014. Iranian Nurses Perception of Patient Safety Culture. 2014. <https://www.academia.edu/61621922>. Accessed on August 27, 2023.
- Bates MJ, 2006. Basic Forms of Information. *Journal of the American Society for Information Science and Technology*, 57(8):1033–1045, 2006 https://www.academia.edu/16753393/Fundamental_forms_of_information. Accessed on September 3, 2023
- Bienassis K., Kristensen S., Burtscher M., Brownwood I., Klazinga N. 2020. Culture as medicine: Assessment of Patient Safety Culture in Organizations. *Economic Cooperation and Development of OECD Countries*. <https://dx.doi.org/10.1787/6ee1aeae-en>. Accessed on 27 August 2023.
- Boamah, S.A., Laschinger, H.K.S., Wong, C., & Clarke, S. (2018). The effects of transformational leadership on job satisfaction and safety outcomes. *Nursing Outlook*, 66(2), 180-189. <https://doi.org/10.1016/j.outlook.2017.10.004>. Accessed January 1, 2024.
- Briner, M., Kessler, O., Pfeiffer, Y., Wehner, T. & Manser, T. 2010. Assessing Hospital Clinical Risk Management: Development of a Monitoring Instrument. *BMC Health Services Research*, 10, 1- 11. <http://www.biomedcentral.com/1472-6963/10/337>. Accessed on 27th August 2023.
- Briner, M., Manser, T. & Kessler, O. 2013. Clinical Risk Management in Hospitals: Strategy, Central Coordination and Dialogue as Key Enablers. *Journal of Clinical Practice Evaluation*, 19, 363- 369. *Evaluation Practice Clinical* 19(2) DOI:10.1111/j.1365-2753.2012.01836.x. Accessed on date August 27, 2023.
- Burton I. 2021. Transformational leadership philosophy may be the optimal approach to improving outcomes in health care and physiotherapy settings: A narrative review. DOI:10.31236/osf.io/vcjdz. Accessed on the 10th September 2023. Cahyawening P., Intiasari A, Budi Aji B. (2018). Indonesian Public Health Journal, Vol 10 Number 2 July 2018, Pages 134-143. Implementation of risk management clinical at IGDRSUD Banyumas. <http://jos.unsoed.ac.id/index.php/kemasindo/article/view/1234/966>. Accessed on August 27, 2023.
- CIHI, CI f. Hai (2016). Measuring Patient Harm in Canadian Hospitals. 49. Measuring Patient Loss in Canadian Hospitals (cihi.ca). Accessed on January 1, 2024. That's CS2012. Managing and Leading Change through Transformational Leadership: Insights into Success https://www.researchgate.net/publication/320516417_Managing_and_Leading_Change_through_Transformational_Leadership_Insights_into_Success_Code. Accessed on September 10, 2023 Davenport TH and Prusak L. 1998. Work Knowledge: How Organizations Manage What They Know. http://www.acm.org/ubiquity/book/t_davenport_1.html DOI:10.1145/348772.348775. Accessed on August 27, 2023,
- Dehnavieh, R., Ebrahimipour, H., Jafari Zadeh, M., Dianat, M., Noori Hekmat, S. & Mehroolhassani, MH 2013. Clinical Governance: Challenges of implementation in Iran. *International Journal of Hospital Research* 2013, 2(1):1- 10 www.ijhr.iuims.ac.ir. Accessed on January 7, 2023
- Djasri H. 2023. Measuring and Evaluating Patient Safety Culture. Indonesian Health Service Quality Network (IHQN). www.mutupejasakesehatan.net. Accessed on June 1, 2023 El Leithy NS, Ashour HMA 2021. Clinical Risk Management of Healthcare Organizations as Perceived by Nursing Staff. *Egyptian Journal of Health Care*, 2021 EJVH vol. 12 no. DOI:10.21608/ejhc.2021.163263
- Farokhzadian, J., Nayeri, ND & Borhani, F. 2015. Clinical Risk Assessment Management Systems in Hospitals: A Quality Improvement Approach. *Global Journal of Health Sciences* 7(5) DOI:10.5539/gjhs.v7n5p294. Accessed on January 7, 2023

- Habibi M, Fesharaki MG, Samadinia H, Mohamadian M., and Anvari S. 2013. Patient Safety Culture and Factors Affecting It in Tehran Hospitals in 2013. *Iranian Red Crescent Medical Journal*. 2017. DOI:10.5812/ircmj.30874. Accessed on September 3, 2023
- Hardani, English: Andriani H., Ustiawati J., Utami E., Istiqomah R., Fardani R., Sukmana D., Aulia N. 2020. *Qualitative and Quantitative Research Methods*. CV Pustakainthe Yogyakarta Science Group.
- Hurriyati, Ratih (2005), *Marketing Mix and Consumer Loyalty*, Bandung Alfabeta
- Idris, Haerawati. 2017. *Dimensions of Patient Safety Culture*. In *Journal of Public Health Sciences*. [On line]. Vol. 8 (1). Available: www.jikm.unsri.ac.id. Accessed on January 7, 2023
- Ilyas, Yaslis. 2011. *Performance, Theory, Assessment and Training*. Jakarta. BP FKUMUI
- Jafree SR, Zakar R, Zakar MZ, Fischer F. 2016. Nurses' Perceptions of Organizational Culture and Its Relation with Error Reporting Culture: Case of Public Sector Hospitals in Pakistan. *Service Research BMC Health* 15(1):3 DOI:10.1186/s12913-015-1252-y. Accessed on September 3, 2023.
- Yusuf, RH and JN Linda. 1981. *Group Effectiveness in Organizations*. University of Michigan: Scott Foresman.
- Jus'at I. 2019. *Data Processing: Health and Nutrition Research*. Jakarta: Salemba Medical
- MINISTRY OF HEALTH. 2014. *Regulation of the Minister of Health of the Republic of Indonesia Number 56 2014 on Hospital Classification and Licensing*. In: INDONESIA, KKR (ed.).
- Decision of the Central Board of the Indonesian Cross. 2014. *Regulation of the Indonesian Red Cross Headquarters Personnel Number 020 A/Kep/Pp. Pmi/I/2014 Regarding the Personnel Regulations of the Indonesian Red Cross Headquarters*.
- Keraj AS and Dua M. *Science as a Philosophical Review*. 2001. Kanisius Publisher, Yogyakarta. <https://www.scribd.com/doc/286672745/Ilmu-Pengetahuan-A-Philosophical-Review>. Accessed September 3, 2023.
- Khan A., & Tidman, DMM 2021. *Transformational Impact and Laissez-Fair Leadership in Health*. *International Journal of Medical Sciences and Clinical Discovery*, 8(09), 5605–5609. <https://doi.org/10.18535/ijmsci/v8i09.04>. Accessed on September 3, 2023.
- Kianto A, Hussinki H., Ritala P., Vanhala M. 2017. *Intellectual capital, knowledge management practices and corporate performance*. *Journal of Intellectual Capital* 18(1):00-00 DOI:10.1108/JIC-11-2016- 0116. Accessed on 3 September 2023
- Kondakar VG 2007. *Organizational Behavior*. New Age International Publisher Kusuma C. COSO Enterprise Risk Management (ERM) – Integrated Framework (Summary of business plan). Downloaded from <https://crmsindonesia.org/publications/comparison-coso-erm-integrated-framework-with-iso-31000-2009-risk-management-principles-and-guidelines/>
- Leotsakos A., Ardolino A., Cheung R., Hao Zheng H., Barraclough B., Walton M. 2014. *Educating Future Leaders in Patient Safety*. *Journal of Multidisciplinary Health Care* 7(default):381- 8. DOI:10.2147/JMDH.S53792. Accessed September 3, 2023.
- Lestari W. and Sianturi SR 2022. *Analysis of Knowledge, Length of Service and Education with Nurse Compliance in Implementing SOP for Patients at Risk of Falling*. *MPPKI Media Publication of Indonesian Health Promotion* Vol. 5. <https://journal.unismuhpalu.ac.id/index.php/MPPKI/article/view/2504/2383>. Accessed on

- September 3, 2023. Manggarini CA, Patiro SPS, Siswanto DJ, Budiyananti H. 2020. *Leadership in Public Service*. PohonCahaya Publisher. Yogyakarta. First printing.
- Mathis, Robert L and John H. Jackson, 2012. *Human Resource Management. Book 1*, Translated by: Jimmy Sadeli and Bayu. Prawira Hie, Salemba Empat. Jakarta.
- McElhinney J, Heffernan O. *Using Clinical Risk Management as a Means of Improving Patient Safety: The Irish Experience*. *Int J Health Care Qual Assur Inc Leadersh Health Care*. 2003;16(2-3):90 .DOI:10.1108/09526860310465609. Accessed June 12, 2023.
- Mistry MV, Seeta Devi A., Suji M., & Yadav, P. 2020. *Impact of Transformational Leadership in Patient Safety & Outcomes– A Systematic Review*. *Indian Journal of Forensic Medicine and Toxicology*, 14(4), 3797– 3800. <https://doi.org/10.37506/ijfnt.v14i4.12221> . Accessed September 3, 2023.
- Narimawati Umi. 2006. *Human Resource Management Research Example Application & Calculations*, Jakarta: Agung Media.
- Needleman, J. & Hassmiller, S. 2009. *The Role of Nurses in Hospital Improvement Quality and Efficiency: Real World Results*. Health Affairs.
- Nivalinda D, Hartini I., Santoso A., 2013. *The Influence of Nurses' Motivation and Behavioral Style Head of Room Leadership Towards Implementation of Safety Culture Patients by Nurses at Government Hospitals in Semarang*. *Journal of Nursing Management Vol 1, No 2 (2013)*. <https://jurnal.unimus.ac.id/index.php/JMK/article/view/1010>. Accessed January 7, 2023.
- Northouse PG 2013. *Leadership: Theory and Practice*. Sage Publications, Inc. Sixth edition, 2013. https://www.academia.edu/30456341/Book_Leadership_Theory_and_Practice. Accessed on September 10, 2023.
- Notoatmodjo S. 2018. *Health Promotion and Health Behavior*. PT. Jakarta. Okafor NG, Doshi PB, Miller SK, McCarthy JJ, Hoot NR, Darger BF,
- Benitez RC, Chathampally YG 2015. *A Voluntary Medical Incident Reporting Tool to Improve Physician Reporting of Medical Errors in the Emergency Department*. *JEM West*. 2015;16(7):1073–1078. <https://doi.org/10.5811/westjem.2015.8.27390>. Accessed on 7 January 2023.
- Olii D., Clark, J. & Lancaster, J. 2010. *Health Care Accreditation as a Predictor of Clinical and Organizational Performance: A Blind, Randomized, Stratified Study*. *Quality and Safety in Health Care*, 19, 14-21. Retrieved on 7 January 2023.
- Olii, MW, Rivai F., Sukri Palutturi S. 2019. *Implementation of Risk Management Clinical and Influencing Factors in Hospitals in Makassar City*. *Journal of Maritime Public Health* 2(1). DOI:10.30597/jkmm.v2i1.10063. Accessed on January 7, 2023. Pizzi, LT, Howell, J. B., Deshmukh, A., Cohen, H., & Nash, D. B. (2004). *Clinical information management systems: new data technologies for inpatient pharmacy*. *American Journal of Health-System Pharmacy*, 61(1), 76-80. Retrieved on January 1, 2024.
- Prochaska JO, Diclemente CC 1982. *Transtheoretical Therapy: Toward a more Integrative Change Model*. *Psychotherapy: Theory, Research, & Practice*, 19(3) 276-288. <https://doi.org/10.1037/h0088437>. Accessed on June 12, 2023.
- Prokešová R. 2020. *Implementation of Clinical Risk Management in Hospitals*. *Journal of Nursing and Social Sciences related to Health and Disease*. <http://kont.zsfjcu.cz> DOI:10.32725/cont.2020.010. Accessed on 7 January 2023.
- Rizkia D., Andri J. Girsang A., Kusumapradja R., Hilmy MR, Pamungkas R., Dewi S. 2022. *The Effect of Interprofessional Collaboration and Transformational Leadership on Patient Safety with Work Motivation as an Intervening Variable*. *Esa Unggul University. Research: Journal of Application of Accounting Economics and Business*. 4, 2 (September 2022), 039-053.

- DOI:<https://doi.org/10.37641/research.v4i2.156> .Accessed September 3, 2023.
- Robbins, P.Stephen. (2006). *Organizational Behavior*. Tenth Edition. Translated by: Drs. Erlangga, Jakarta.
- Rozita Davoodi, Azadeh Soltanifar, Shaghayegh Rahmani, Golnaz Sabouri, Mahboubeh Asadi, Maryam Zare Hoseini & Afsaneh Takkiri, FK 2014. *Clinical Governance: Establishment Efficacy in Mashhad Hospitals*. *Journal Patient Safety & Quality Improvement*, 2, 48-52.
- Saud NP, Pujilestari A, Handayani L. 2021. *Implementation of the Level of Maturity of Medical Record Risk Management at Gorontalo City Hospital*. *Journal of Health, Education and Literacy (J-Healt)*. <https://ojs.unsulbar.ac.id/index.php/j-healt/> .Accessed on January 7, 2023.
- Seljemo, C., Viksveen, P., & Ree, E. 2020. *The Role of Transformational Leadership, Job Demands and Job Resources for Patient Safety Culture in Norwegian Nursing Homes: A Cross-Sectional Study*. *BMC Health Services Research*, 20(1), 799. <https://doi.org/10.1186/s12913-020-05671-y>. Accessed on 7 January 2023.
- Scully, M. 2005. *Clinical Risk Management Guidelines for Western Australia Health Systems Information Series No. 8*. East Perth, Western Australia: Department of Health, Western Australian Government.
- Sheikhtaheri, A., Sadoughi, F., Ahmadi, M. & Moghaddasi, H. 2013. *Patient safety information system framework for Iranian hospitals: lessons learned from Australia, UK and America*. *International Journal medical informatics*, 82, 335-344.
- Siyoto Sandu, Sodik MA (2015). *The basis of research methodology*. Yogyakarta: Literacy Media Publishing.
- Sugiyono. 2017. *Educational research methods using quantitative and qualitative approaches. and Research and Development*. Bandung: Alfabeta.
- Tambajong MGK, Pramono D, Utarini A. 2022. *Linguistic Adaptation of Hospital Survey Questionnaire on Patient Safety Culture to Indonesian Version*. *Hospital Accreditation Journal*, 2022 Vol 04, Issue 1, pp 17 - 27
- Tangatarova, S., & Gao, Y. 2021. *Transformational Leadership and Patient Safety in Hospitals: The Role of Safety Culture, Decision-Making Capacity, and Locus of Control*. *International Journal of Business and Social Science Research*. *International Journal of Business and Social Science Research*, 10(2), 106– 122. DOI:10.20525/ijrbs.v10i2.1084 Accessed on June 1, 2023.
- Australian/New Zealand Standards. 2004. *Risk Management Handbook Companion Guide to AS/NZS 4360:2004*. Australia
- European Network for Patient Safety (EUNetPaS). 2010. *Patient Use of Safety Culture Instruments and Recommendations*. https://webgate.ec.europa.eu/chafea_pdb/assets/files/pdb/2007109/200710_9_eunetpas-report-use-of-psi-and-recommandations-april-8-2010.pdf
- German Coalition for Patient Safety. *Recommendation: Active requirements Clinical Risk Management System in Hospitals*. *Aksisbindung Patientensicherheit—APS.2017*. <https://www.aps-ev.de/wp-content/uploads/2017/03/Clinical-Risk-Management-System-1.pdf>. Accessed June 1, 2023.
- Vincent, C. 2011. *Patient safety*, John Wiley & Sons. Webb, v., Stark, M., Cutts, A., Tait, S., Randle, J. & Green, G. 2010. *A learning model for health service delivery through clinical governance*. *Journal of medicine forensics and law*, 17, 368-373
- WHO 2014. *10 facts about patient safety*. World Health Organization.
- Winardi, J. 2004. *Motivation and Motivation in Management*. Raja Grafindo mighty: Jakarta
- Yasmi Y., Thabrany H. 2015. *Factors Related to Culture Patient Safety at Karya Bhakti*

Pratiwi Hospital Bogor in 2015. Indonesian Journal of Hospital Administration/February 2018. <https://journal.fkm.ui.ac.id/arsip/article/view/2563/781>. Accessed on 1 June 2023.

Yousapronpaiboon, K. & Johnson, WC 2013. Comparison of Service Quality Between Private and Public Hospitals in Thailand. International Journal of Business and Social Sciences, 4. https://ijbssnet.com/journals/Vol_4_No_11_September_2013/18.pdf . Accessed on June 1, 2023.

Come on, Gary. 2010. Leadership in Organizations. Fifth Edition. Jakarta: PT Index.

Yusuf Y, Irwan A. 2020. The Influence of Nurse Leadership Style on Patient Safety Incident Reporting Culture. British Journal of Health Management. <https://doi.org/10.12968/bjhc.2020.0083> . Accessed on June 1, 2023.

Zaboli, R., Karamali, M., Salem, M. & Rafati, H. 2011. Risk Management assessment in selected wards of hospitals in Tehran. Journal Iranian Military Medicine, 12, 197-20

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