

Research Article

Influence Analysis in Leadership, Climate Teamwork, and Work Satisfaction on Patient Safety Culture of Nurses in Andi Makkasau Hospital Parepare City

Nurul Hidayah Nur^{1*}, Syahrir A. Pasinringi¹ and Masyitha Muis²¹Department of Hospital Management, Faculty of Public Health, Hasanuddin University, Indonesia²Department of Occupational Health and Safety, Faculty of Public Health, Hasanuddin University, Indonesia*Corresponding Author
Nurul Hidayah Nur

Abstract: Patient safety is the most important global issue in which many patient claims for medical errors occur in patients. This research aims to analyze the influence of leadership, teamwork climate, and job satisfaction on patient safety culture in nurses at Andi Makkasau Regional Hospital, Parepare City. The research design used an analytic observational design with a cross-sectional study approach carried out at Andi Makkasau Hospital in Parepare City with 94 nurse respondents as a sample, and then the data were analyzed using a linear regression test. The results showed that there was an influence of leadership on patient safety culture ($p = 0.018$). There is an influence of teamwork climate on patient safety culture ($p = 0.006$). There is an influence of job satisfaction on patient safety culture ($p = 0,000$). It is hoped that the hospital can create a good work environment to improve the patient safety culture.

Keywords: Leadership, teamwork climate, job satisfaction, patient safety culture.

INTRODUCTION

Patient safety arises and develops along with the increasing number of patient safety incidents (Raleigh, 2008). Errors that occur in the process of medical care will result in injuries to patients which can be unexpected events (Institute of Medicine, 1999). According to the Regulation of the Minister of Health of the Republic of Indonesia Number 11 Year 2017 Regarding Patient Safety. The patient safety program guarantees patient safety at the hospital through preventing the occurrence of incident when providing health services. Patient safety is also one indicator that influences hospital quality (Sammer, 2010).

In an effort to minimize the occurrence of patient safety incidents, hospital management needs to create a culture of patient safety. Patient safety culture is the main foundation in the direction of patient safety. The culture of patient safety will significantly reduce the incidence, so that hospital accountability in the eyes of patients and the community will improve and ultimately hospital performance will also increase (Sorra & Nieva, 2004).

Implementation of a good patient safety culture, will produce benefits for patients and hospitals as a provider of health services (Budihardjo, 2008). Patient safety culture will increase awareness to prevent errors, and report if there are errors and can reduce financial expenses caused by patient safety incidents (Carthey & Clarke, 2010).

Besides being influenced by the implementation of a patient safety program, a patient safety culture can also be influenced by several factors. WHO in Human Factors in Patient Safety: A Review of Topics and Tools in (2009) suggested several factors that influence patient safety culture. WHO developed four categories of factors that are strongly related to patient safety culture. Individual factor categories consist of situation alertness, decision making, stress, and fatigue. The category of teamwork factors consists of teamwork and supervision. The categories of organizational and management factors consist of safety culture, managerial leadership, and communication. Categories of environmental factors consist for the work environment and danger. Safety culture reflects the attitudes, values and priorities of management and

Quick Response Code



Journal homepage:

<http://www.easpublisher.com/easjnm/>

Article History

Received: 15.10.2019

Accepted: 29.10.2019

Published: 11.11.2019

Copyright © 2019: This is an open-access article distributed under the terms of the Creative Commons Attribution license which permits unrestricted use, distribution, and reproduction in any medium for non commercial use (NonCommercial, or CC-BY-NC) provided the original author and source are credited.

employees and their impact on the development, implementation, performance, supervision and enforcement of safety and health in the workplace.

National Reporting and Learning System in 2015 that in the last six months reported 825,416 incidents. The report increased 6% from reported incidents in the previous year. From the report, 0.22% of incidents caused death (NHS England, 2015). The first study on patient safety in Indonesia was conducted in 15 hospitals with 4500 medical records. The results show the patient safety incident rates ranged from 8.0% -98.2% for misdiagnosis and 4.1% 91.6% for medication errors (KKPRS, 2011).

Andi Makkasau Regional General Hospital is a hospital that has a vision of "Becoming an International Center for Excellence in Health Care and Education". Based on preliminary surveys that have been carried out at Andi Makkasau Regional Hospital in assessing safety culture, it is concluded that the achievement of Andi Makkasau Regional Hospital in Parepare City has an average value of 52.3%. It can be seen that the majority of patient safety culture is at the level of bureaucratic maturity (41-60%) indicating that the level of the system is still well ordered, but its implementation is still segmental in nature. Development strategies that support the achievement of a patient safety culture are still needed. One strategy for developing a safety culture is to involve staff from planning and developing a patient safety culture (Fleming, 2005). To find out the influence of organizations on patient safety culture, a study was conducted to analyze the influence of leadership, teamwork climate and job satisfaction on patient safety culture in nurses at Andi Makkasau Regional Hospital in Parepare 2019.

RESULTS

Table 1. Distribution based on the characteristics of nurse respondents at the Andi Makkasau Regional Hospital in Parepare 2019

Characteristics Variable	Frequency	
	N	%
Age		
16-25	12	12,8
26-35	63	67
36-45	17	18,1
46-55	2	2,1
Gender		
Male	21	22,3
Female	73	77,7
Length of work		
< 1 years	17	18,1

METHODOLOGY

Research Design

This type of research is a quantitative study, with an analytic observational design, using a cross sectional study approach. This research was conducted at Andi Makkasau Hospital, Parepare City.

Population and Sample

The population in this study were all nurses in the RSUD Andi Makkasau totaling 94 people. The sample of this study was 94 people. The sampling technique in this study is total sampling, namely the technique of determining the sample by taking all members of the population as respondents.

Data Collection

The instrument used in data collection was a questionnaire, regarding the independent variables consisting of questionnaires about respondents' identities, questionnaires about leadership, climate teamwork, and job satisfaction while the dependent variable was patient safety culture.

The measurement used in the data processing is to use a Likert scale, where respondents state the level of agreement or disagreement regarding various objects of behavior, objects, or events (Sugiyono, 2006).

Data Analysis

The data analysis technique used is multiple linear regression analysis. Univariate analysis was carried out to get an overview of the research problem by describing each variable used in the study and the characteristics of the respondents. Bivariate analysis was carried out to see the magnitude of influence between the independent variables namely leadership, teamwork climate, and job satisfaction and the dependent variable namely patient safety culture. Multivariate analysis is used to see the magnitude of significant influence together.

1-5 years	32	34
> 5 years	45	47,9
Last education		
3-year diploma	19	20,2
Bachelor degree	73	77,7
Master's degree	2	2,1

In table 1 most respondents in the age range 26-35 years by 67%. From the sex characteristics, most respondents are female sex with male respondents distribution at 22.3% and women at 77.7%. Based on

the length of work of the respondents, the most is >5 years at 47.9%. Based on the education level of respondents, the most respondents were with a Bachelor Degree education of 77.7%.

Table 2. Effect of leadership on patient safety culture in nurses at Andi Makkasau Regional Hospital, Parepare City

Patient safety culture	Leadership						P	R
	N Not good	%	N Good	%	Σ	%		
Strong	2	2,3	13	13,6	15	15,9	0,024	0,179
Moderate	10	11,6	62	65	72	76,6		
Weak	3	3,6	4	3,9	7	7,5		
Total	15	17,5	79	82,5	94	100		

Table 3. Effect of teamwork climate on patient safety culture in nurses at Andi Makkasau Regional Hospital, Parepare City

Patient safety culture	Teamwork climate						P	R
	N Not good	%	N Good	%	Σ	%		
Strong	2	2,3	13	13,6	15	15,9	0,008	0,212
Moderate	14	17,3	59	57,4	73	74,7		
Weak	3	3,8	3	3,8	6	7,6		
Total	19	23,4	75	76,6	94	100		

Table 4. Effect of job satisfaction on patient safety culture in nurses at Andi Makkasau Regional Hospital, Parepare City

Patient safety culture	Job satisfaction						P	R
	N Less satisfied	%	N Satisfied	%	Σ	%		
Strong	7	7,4	8	8,5	15	15,9	0,016	0,191
Moderate	18	19,1	56	57,6	74	76,7		
Weak	0	0	7	7,4	7	7,4		
Total	25	26,5	69	73,5	94	100		

Table 2 shows that the results of multiple linear regression tests where the leadership variable influences patient safety culture (p value = 0.024 < 0.05). Table 3 shows the results of the linear regression in which the teamwork climate variable influences

patient safety culture (p value = 0.008 < 0.05). And in table 4 the results of linear regression are known where job satisfaction variables affect patient safety culture (p value = 0.016 < 0.05).

Table 5. Effect of leadership dimensions, teamwork climate, and job satisfaction on patient safety culture in nurses at Andi Makkasau Regional Hospital, Parepare City

No	Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
	(Constant)	,413	,287		1,436	,153
1	Leadership	-,016	,007	-,161	-2,401	,018
2	Teamwork climate	,176	,063	,189	2,802	,006
3	Job satisfaction	,279	,069	,269	4,054	,000

Significant with <0,05

In Table 5 it is known that the results of the linear regression test together on the leadership

variables, teamwork climate and job satisfaction on patient safety culture. In nurses the linear regression

coefficient values for each independent variable have a p value found that there is a significant influence between leadership on culture patient safety for nurses at Andi Makkasau Regional Hospital ($p = 0.018$ $\alpha = 0.05$), there was a significant influence between teamwork climate and patient safety culture for nurses in Andi Makkasau Regional Hospital ($p = 0.006 < \alpha = 0.05$), and there was a significant influence between satisfaction work on patient safety culture for nurses at Andi Makkasau Regional Hospital ($p = 0,000$ $\alpha = 0.05$).

DISCUSSION

In this study it was found that there is an influence of leadership on nurses on patient safety culture, namely strict sanctions for mistakes made by employees related to the application of patient safety and for follow-up plans that provide rewards to staff who have worked according to procedures in order to build competition for staff to work more optimally.

Leadership is an activity influencing others to work hard with full ability for group / organizational goals (Gillies, 2000). Direction is one of the domains in assessing leadership towards the maturity of a patient safety culture. Mentoring is a strategy that can be used to direct and motivate nurses. Directing (Directing) is a management function in providing guidance and influencing others (Sexton *et al.*, 2006).

The results of this study are consistent with Widyastuti's (2012) study where the head of the room as the coordinator of activities needs to create cooperation that is in harmony with one another and support each other, for that reason, it must demonstrate the organizational principles described above, for example, the unity of command, each staff has one direct reason. In addition the head of the room needs to delegate activities in the implementation of patient safety to the team leader, except for the main task, the head of the room must do. In addition, the head of the room must delegate to the right person, listen to the advice of the person delegated and the recipient of the delegation must be held accountable. The head of the room divides activities to create a good working atmosphere. In carrying out their duties, the head of the room must choose the right and responsible person by means of open communication, dialogue, meetings or meetings, recording and reporting, standardization of the applicable forms (El-Jardali *et al.*, 2011).

In this study it was found that there was an influence of climate teamwork on nurses on patient safety culture, where the highest agreement was that disputes could be resolved in a timely manner.

Collaboration is the first indicator of a patient safety culture. The form of teamwork is not only in the

form of mutual assistance work when faced with a very large number of tasks and requires completion as soon as possible, but can be in the form of division of tasks based on small groups or teams in one unit. The involvement of many professions can cause or risk injury if it is not done with proper communication and coordination (Nursalam, 2013). So it can also be said that patient safety is a team effort, the most effective team has the same goals in working and the ineffective teamwork creates various opportunities for errors (Cooper, 2003).

In line with the results of related research conducted by Alsaleh *et al.*, (2018) on the analysis of factors related to patient safety culture in implementing nurses in the inpatient room of Arifin Achmad Regional Hospital of Riau Province that the work team (p value 0.017) is related to patient safety culture. According to Al-Khasawneh & Moh research (2013) based on the results of the study found the fact that the work teams that support most (57.8%) have a good patient safety culture while respondents who feel their work team is less supportive (90.7%) have a patient safety culture that is less well. Based on the results of bivariate analysis, the work team has a significant relationship with patient safety culture (p value 0.0005) and the odds ratio value 13.34 means that the work team that supports is 13 times more likely to create patient safety culture.

Based on the results of hypothesis testing, it was found that there is an effect of job satisfaction on nurses on patient safety culture, the hospital is a good place to work, has a sense of pride and enthusiasm for working in a hospital.

The results are in accordance with research conducted by Rigobello *et al.*, (2012), most operating room staff were also satisfied with job satisfaction. The results of good job satisfaction are related to the results of teamwork climate and safety climate which are also perceived well. Research conducted by Sandrawati (2013) for job satisfaction shows 72.9% of operating room staff are satisfied. Job satisfaction assessments include a pleasant work environment, pride in work, a sense of brotherhood, high regard for morals, and enjoyment of work. Robbins & Judge (2006) states the impact of job satisfaction on employee performance. Employees who are satisfied with their work are more likely to talk about positive things about their organization, help others, and do their work performance beyond normal estimates.

Based on the results of multivariate analysis, the results of the linear regression coefficient for independent variables each have a p value found that there is a significant influence between leadership on

patient safety culture in Andi Makkasau Hospital ($p = 0.018 < \alpha = 0.05$), there is a significant influence between teamwork climate on patient safety culture in Andi Makkasau Regional Hospital ($p = 0.006 < \alpha = 0.05$) and there is a significant influence between job satisfaction on patient safety culture in Andi Makkasau Regional Hospital ($p = 0,000 > \alpha = 0.05$).

After a linear regression test conducted together with leadership, teamwork climate, and job satisfaction in the climate of patient safety to patient safety culture at the Andi Makkasau Regional Hospital, Parepare City, the variable $p = 0.05$ is obtained, namely job satisfaction with $p = 0,000$ which can be concluded that the dimension of job satisfaction has the most influence on patient safety culture compared to other variables.

This can be seen from the responses of respondents stating that medical staff and nurses who feel proud of working in the hospital besides having high enthusiasm to provide the best results in carrying out services to patients, the capabilities also come from knowledge and experience in accordance with their knowledge so that they are able provide good health services and avoid patient safety incidents.

This is in line with the theory of Mathis & Jackson (2001) which states that someone who has confidence in self-assessment and self-ability to perform tasks is able to create skills according to expertise in doing a job let alone high-risk work.

The quality of the hospital can also be seen from the small number of patient safety incidents that occurred in the hospital, for this reason every hospital needs to implement a patient safety culture. The application of safety culture can be done with the Hospital Survey on Patient Safety Culture measuring patient safety culture from the perspective of hospital staff. This survey can measure patient safety culture for all hospital staff (AHRQ, 2016).

CONCLUSION

Leadership dimensions in the climate of patient safety affect the culture of patient safety. This means that the culture of patient safety is influenced by freedom of opinion and a conducive working atmosphere in Andi Makkasau Regional Hospital, Parepare City. Dimensions of climate teamwork on patient safety climate significantly influence patient safety culture. This means that the culture of patient safety is influenced by disputes being resolved appropriately because conflicts that arise can reduce individual perceptions of teamwork, which can disrupt the service process and lead to the possibility of incidents in the RSUD Andi Makkasau City of

Parepare. The dimension of job satisfaction on patient safety climate has a significant influence on patient safety culture. This means that the hospital is a good place to work where job satisfaction is one of the factors that can affect work performance at the Andi Makkasau Regional Hospital, Parepare City.

REFERENCES

1. AHRQ. (2016). Hospital Survei on Patient Survey Culture. User's guide. Agency for Healthcare Research and Quality. Available from: <https://www.ahrq.gov/sites/default/files/wysiwyg/professionals/quality-patient-safety/patientsafetyculture/hospital/userguide/hospcult.pdf>
2. Al-Khasawneh, A. L., & Moh, S. (2013). The relationship between job stress and nurses performance in the Jordanian hospitals: a case study in King Abdullah the Founder Hospital. *Asian Journal of Business Management*, 5(2), 267-275.
3. Alsaleh, F. M., Abahussain, E. A., Altabaa, H. H., Al-Bazzaz, M. F., & Almandil, N. B. (2018). Assessment of patient safety culture: a nationwide survey of community pharmacists in Kuwait. *BMC health services research*, 18(1), 884.
4. Budihardjo, A. (2008). Pentingnya safety Culture di rumah sakit. *Integritas Jurnal Manajemen Bisnis*, 1(1).
5. Carthey, J., & Clarke, J. (2010). *Patient safety first implementing human factors in healthcare how to guide*. Patient Safety First.
6. Cooper, C., & Clarke, S. (2003). *Managing the risk of workplace stress: Health and safety hazards*. London: Routledge.
7. El-Jardali, F., Dimassi, H., Jamal, D., Jaafar, M., & Hemadeh, N. (2011). Predictors and outcomes of patient safety culture in hospitals. *BMC health services research*, 11(1), 45.
8. Gillies, D. A. (2000). *Manajemen keperawatan, suatu pendekatan system edisi kedua* (Dika Sukaman dan Widya Sukaman penerjemah). Philadelphia: WB Saunders Company.
9. Institute of Medicine. (1999). *To Err Is Human: Building a safer of Health System*. Kohn, L.T., Corrigan, J.M Donalson, M.S(Ed). Washington DC: National Academy Press.
10. KKPRS. (2011). *Pedoman Pelaporan Insiden Keselamatan Pasien*. Jakarta: Komite Keselamatan Pasien Rumah Sakit.
11. Mathis, R. L., & Jackson, J. H. (2001). *Manajemen sumber daya manusia, buku satu. Diterjemahkan oleh Jimmy Sadeli dan Bayu PH, Jakarta: Salemba Empat*.

12. Nursalam. (2013). *Konsep Penerapan Metode Penelitian Ilmu Keperawatan*. Jakarta: Salemba Medika.
13. Raleigh, V. S., Cooper, J., Bremner, S. A., & Scobie, S. (2008). Patient safety indicators for England from hospital administrative data: case-control analysis and comparison with US data. *Bmj. BMJ (Clinical Research Ed.)*, 337(2).
14. Rigobello, M. C. G., Carvalho, R. E. F. L. D., Cassiani, S. H. D. B., Galon, T., Capucho, H. C., & Deus, N. N. D. (2012). The climate of patient safety: perception of nursing professionals. *Acta Paulista de Enfermagem*, 25(5), 728-735.
15. Robbins, S. P., & Judge, T. A. (2006). Perilaku organisasi. *Edisi kesepuluh*. Jakarta: PT Indeks Kelompok Gramedia.
16. Sammer, C. E., Lykens, K., Singh, K. P., Mains, D. A., & Lackan, N. A. (2010). What is patient safety culture? *A review of the literature. Journal of Nursing Scholarship*, 42(2), 156-165.
17. Sandrawati, J. (2013). Rekomendasi untuk meningkatkan kepatuhan penerapan surgical safety checklist di kamar bedah. *Buletin penelitaan Sistem Kesehatan*, 17(1).
18. Sexton, J. B., Helmreich, R. L., Neilands, T. B., Rowan, K., Vella, K., Boyden, J., & Thomas, E. J. (2006). The Safety Attitudes Questionnaire: psychometric properties, benchmarking data, and emerging research. *BMC health services research*, 6(1), 44.
19. Sorra, J. S., & Nieva, V. F. (2004). Hospital Survey on Patient Safety Culture (Agency for Healthcare Research and Quality Publication No. 04-0041). *Rockville, MD: Agency for Healthcare Research and Quality*.
20. Sugiyono.(2006). *Statistika untuk penelitian*. Bandung: Alfabeta.
21. WHO. (2009). Human Factor in Patient Safety: Reviews on topics and tool. Available from: https://www.who.int/patientsafety/research/method_s_measures/human_factors/human_factors_review.pdf
22. Widyastuti, D. U. (2012). Pengembangan Sistem Informasi Indikator Keselamatan Pasien untuk Mendukung Monitoring Mutu Pelayanan Keperawatan di Rumah Sakit Haji Surabaya. Thesis. Postgraduate Program, Masters in Public Health. Diponegoro University.