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Maturity Level of Patient Safety Culture in Makassar City Hospital

Tingkat Maturitas Budaya Keselamatan Pasien di Rumah Sakit Kota Makassar

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ABSTRACT
The maturity of a patient safety culture is a step in developing a hospital patient safety culture. This research aims to determine the maturity level of patient safety culture in Makassar City hospitals. Furthermore, it is a quantitative study with a cross-sectional approach and was carried out at Public and Private Hospitals with the 2012 KARS Plenary level accreditation status in 2020. The purposive sampling method was used for the selection of the study locations and the selected hospital was the RSUD Haji Makassar, Hasanuddin University Hospital Makassar (belonging to the Ministry of Education and Culture), and Awal Bros Makassar Hospital (privately owned). The determination of the sample size was adjusted to the total number of employees of the hospital in which the research wasperformed, namely about 474 samples. The data collection tool contains a patient safety culture questionnaire based on the MaPSaF (Manchester Patient Safety Framework) instrument containing 5 levels of patient safety culture. The results showed that the maturity level of the patient safety culture in Makassar City hospital, the generative category was the largest choice, namely 391 respondents (82.5%) and the least in the reactive category was 1 respondent (0.2%). The three hospitals have maturity levels of patient safety in the generative category. It is hoped that the Makassar City hospital will be able to maintain the maturity of patient safety culture by paying attention to teamwork and responsibility by implementing a patient safety culture.

ABSTRAK
Maturitas atau kematangan budaya keselamatan pasien merupakan tahap perkembangan budaya keselamatan pasien di rumah sakit. Tujuan peneilitan ini adalah untuk mengetahui tingkat maturitas budaya keselamatan pasien di rumah sakit Kota Makassar. Jenis penelitian ini adalah penelitian kuantitatif dengan pendekatan secara cross sectional. Penelitian dilaksanakan di Rumah Sakit Pemerintah dan Swasta dengan status akreditasi tingkat Paripurna KARS 2012 di Kota Makassar pada tahun 2020. Pemilihan lokasi penelitian menggunakan purposive sampling dan rumah sakit yang terpilih adalah RSUD Haji Makassar, Rumah Sakit Universitas Hasanuddin Makassar (milik Kemendikbud), dan Rumah Sakit Awal Bros Makassar (milik swasta). Penentuan besar sampel disesuaikan dengan jumlah total karyawan pada rumah sakit yang menjadi lokasi penelitian yaitu sebanyak 474 sampel. Alat pengumpulan data menggunakan kuesioner budaya keselamatan pasien berdasarkan instrumen MaPSaF (Manchester Patient Safety Framework) yang terdapat 5 tingkatan budaya keselamatan pasien. Hasil penelitian menunjukkan bahwa tingkat maturitas budaya keselamatan pasien di rumah sakit Kota Makassar, kategori generatif menjadi pilihan terbanyak yaitu 391 responden (82,5%) dan yang paling sedikit pada kategori reaktif sebanyak 1 responden (0,2%). Ketiga rumah sakit yang menjadi tempat penelitian, memiliki tingkat maturitas keselamatan pasien yang berada pada kategori generatif. Diharapkan rumah sakit Kota Makassar mampu mempertahankan maturitas budaya keselamatan pasien dengan memperhatikan kerjasama tim dan tanggung jawab.

INTRODUCTION

Patient safety is one of the critical issues in hospitals that are always published and is becoming a national and international focus.[1] In addition, it is becoming a critical issue due to many medical errors that occur in many countries.[2]

Patients in Europe have an infection risk of 83.5%, which is evidenced by medical errors of 50-72.3%. Based on data collected from hospitals in different countries, it was reported that Adverse Events (AE) range from 3.2 to 16.6%. Patient Safety data on Near Miss (NM) and Adverse Events (AE) in Indonesia are rare, there is an increase in allegations of misconduct, which are not necessarily in accordance with the final evidence. The incidence of patient safety violations was 28.3% and it was committed by nurses. Based on the XII PERSI (The Indonesian Hospital Association) Congress (2012), the data on the incidence of falling patients was 14%, and to ensure patient safety, the incidence of falling patients should be 0%.[3]

To reduce the incidence of medical errors or Adverse Events (AE) related to patient safety issues, hospital management must establish a patient safety culture.[1] Patient safety is influenced by how the individual culture and systems run in the organization. Therefore, a personal/individual approach, as well as the management system, must be implemented within the organization. The safety culture in various industries is developing very rapidly. The rate of accidents in the working environment has decreased because it is supported by an awareness of the importance of safety value in the organization. However, in medical practice, patient safety programs are only promoted widely after external coercion.[4]

Efforts to implementing patient safety begin with the application of a patient safety culture.[5] By laying an emphasis, the result will be a better application of patient safety than just focusing on the programs.[6] The Institute of Medicine (IOM) recommends developing patient safety, which refers to patient safety culture to predict health opportunities by conducting analysis or surveys by measuring its maturity level in hospitals.[7] Maturity of patient safety culture is a developmental stage in patient safety culture.[8]

Based on MaPSaF (Manchester Patient Safety Framework) in the research by Ebrahimzadeh et al there are 5 levels of patient safety culture, namely pathological, reactive, bureaucratic, proactive, and generative.[9] Furthermore, pathological means that there is no system for the development of a patient safety culture. Reactive means that the system is still fragmented and developed as part of a regulation or accreditation request in response to an incident. Bureaucratic means that there is a systematic approach to patient safety, but its implementation is always divided and incident analysis is always limited to the situation in which the incident occurred. Proactive means that there is a comprehensive approach to patient safety culture, evidence-based interventions have been implemented. While generative means that the formation and maintenance of the patient safety culture is a central part of the organization's mission, the effectiveness of interventions is always evaluated, always learns from error and successful experiences, and takes important actions to improve the situation.

Previous research showed that the maturity level of patient safety culture at PKU Muhammadiyah Yogyakarta Hospital as a whole is at a proactive level (80%).[1] While in the study of Liana et al, it is known that the maturity of the patient safety culture in the UK is at a proactive level. The research used was a systematic literature review of 5 databases: PubMed, EBSCO, Proquest, Science Direct, and Scopus.[10] As for another study using the MapSaf instrument conducted by Xiao Ping et al, it is known that the hospital patient safety culture in China is largely bureaucratic.[11]

Due to the lack of research comparing three hospitals at once, which is not based on a systematic literature review, then by considering this and the importance of patient safety culture in hospitals as described, researchers are interested in conducting research on the maturity level of patient safety culture in hospitals Makassar city.

MATERIAL AND METHOD

This is quantitative research with a cross-sectional approach and was conducted at public and private hospitals with the accreditation status KARS (Hospital Accreditation Commission) 2012 in the plenary of the city of Makassar in 2020. Furthermore, purposive sampling was used for the selection of study locations, namely the selection of 1 hospital each owned by the provincial government, the Ministry of Education and Culture (Kemendikbud), and private hospitals. The hospitals selected were the Haji Hospital (RSUD) Makassar, Hasanuddin University Hospital Makassar (owned by the Ministry of Education and Culture), and Awal Bros Hospital Makassar (private).

The sample size determination was adjusted based on the total number of hospital staff in the research location. The target group was medical personnel, paramedics, and medical support at the hospital (doctors, nurses, pharmacists). A total of 474 samples were taken with a proportional random sampling method. The data were obtained using a patient safety culture questionnaire based on the MaPSaF instrument, which contains 5 levels of patient safety culture. The assessment of questionnaires uses Likert scale (1-4) to determine maturity level, where 1 is reactive, 2 is bureaucratic, 3 is proactive, and 4 is generative. The analysis used is descriptive statistical analysis, which is a method of analyzing data by describing the data that has been collected. Data processing includes the process of data reduction, data display, data transformation, data linking, data consolidation, data comparison, and data integration. The data were presented using a frequency distribution table accompanied by a narrative interpretation of the results table. The research protocol for the study was approved by the Ethics Committee, Faculty of Public Health, Universitas Hasanuddin, Indonesia with number 7396/UN4.14.1/TP.01.02/ 2021.

RESULTS

Based on the age group, the results showed that the highest proportion was between 26-34 years old with 314 respondents (66.2%), and the least was in the 18-25 years old with 12 respondents (2.5%). Based on gender, the majority of the respondents were women, namely 369 respondents (77.8%). The most recent education of respondents was a professional education for about 192 res-pondents (40.5%) and the least was Senior High School/equivalent for about 3 respondents (0.4%). The majority of respondents were civil servants/permanent workers for about 268 res-pondents (60.3%) and the least 182 respondents (35.4%) were non-civil servants/non-permanent workers. Most of the respondents' working period was four years for about 240 respondents (50.6%) (Table 1).

Based on the maturity level of patient safety culture in Makassar City hospital, the generative category was the largest choice for about 391 respondents (82.5%), and the least was in the reactive category with 1 respondent (0.2%). The three hospitals had maturity levels of patient safety in the generative category (Table 2).

DISCUSSION

Patient safety is an indicator that describes high-quality health services. In the context of the health care system, it includes efforts to prevent errors, learn from errors that occur, and build a safety culture that encompasses all components of the hospital and the patient. Therefore, building a patient safety culture is also part of the efforts to build organizational culture.[12]

The patient safety culture in Makassar City hospitals (Awal Bros, Unhas, and Haji Hospital) is included in the generative category. This is in line with the research by Law et al. that a generative culture is considered as the highest level of safety. Furthermore, safety management is an integral part of everything humans do, and a proactive culture is considered as a culture vigilant attitude of always thinking about patient safety issues.[13]

Research by Jabonete, et al showed significant differences in the perceptions of safety culture at the generative level.[14] As for another study using the MapSaf instrument which is inversely proportional to this study, conducted by Xiao Ping et al, it is known that the patient safety culture of hospitals in China is largely bureaucratic.[11] Work positions in general affect nurses perceptions of their safety culture. In addition, this is dominant for nurses handling managerial positions rather than the front-line nurses. Then, it is known that the team

cohesiveness described among the members of the health care team is different even though they work in the same unit.[14]

At the generative level, the hospital even motivates the officers to complete their training according to the needs and allocated resources for training the officers. Marquis and Haston stated that staff development programs through training and education are effective to increase nurses' productivity.[15] Adequate support in the form of professional training and knowledge development is an effort to create a positive work environment for nurses, and therefore safe care can be achieved.[16]

Table 1. Characteristics of Respondents

Characteristics	Hospital					
	Awal Bros		Unhas		Haji	
	n = 192	%	n = 179	%	n = 103	%
Age (Years)						
18-25	3	1,60	6	3,4	3	2,9
26-34	127	66,10	163	91,1	24	23,3
35-50	56	29,2	10	5,6	68	66,0
> 50	6	3,1	0	0,0	8	7,8
Gender						
Male	43	22,4	48	26,8	14	13,6
Female	149	77,6	131	73,2	89	86,4
Education						
Senior High School/Equivalent	1	0,5	1	0,6	0	0.0
Diploma/Equivalent	64	33,3	27	15,1	29	28,2
Bachelor	34	17,7	47	26,3	35	34,0
Professional Education	72	37,5	88	49,2	32	31,1
Master	7	3,6	15	8,4	5	4,9
Specialist 1	9	4,7	0	0.0	2	1,9
Specialist 2	3	1,6	0	0.0	0	0,0
Doctor (S3)	2	1,0	1	0.6	0	0,0
Working Period (Years)						
One	4	2,1	22	12,3	8	7,8
Two	28	14,6	96	53,6	20	19,4
Three	36	18,8	9	5,0	10	9,7
Four	124	64,6	52	29,1	64	62,1
Nine	0	0,0	0	0,0	1	1,0
Occupational status						
Civil Servant or Permanent Worker	167	87,0	30	16,8	89	86,4
Non Civil Servant or Non-Permanent Worker	24	12,5	145	81,0	13	12,6
Interns/Volunteers	0	0,0	4	2,2	1	1,0
Other	1	0,5	0	0,0	0	0,0

Source: Primary Data, 2020

Table 2. Distribution of Maturity Levels of Patient Safety Culture in Makassar City Hospital

Maturity Level	Hospital							
	Awal Bros		Unhas		Haji		Total	
	n = 192	%	n = 179	%	n = 103	%	n = 474	%
Reactive	0	0,0	0	0,0	1	1,0	1	0,2
Bureaucratic	0	0,0	3	1,7	4	3,9	7	1,5
Proactive	13	6,8	35	19,6	27	26,2	75	15,8
Generative	179	93,2	141	78,8	71	68,9	391	82,5

Source: Primary Data, 2020

Every staff wants to provide the best and safest way for patients according to the program implemented in the hospital.[17] Therefore, patient safety is actively promoted throughout the organization, staff/employees are involved in all safety issues and processes. Furthermore, it can not be denied that the patient and family are involved in the risk management system, and the actions taken are for the protection of the patient and not self-protection. The risk management is determined based on a risk assessment and the corresponding measures taken, as well as the manager's role in risk management.[18]

Some of the respondents who chose reactive only from RSUD Haji. While the bureaucrats from the Unhas Hospital and Awal Bros Hospital with a total of seven respondents. The second choice is the most with a proactive maturity level with a total of 75 respondents from each hospital studied. This is in line with the results of research from Astika, et al, which showed that the results were not in line with this study because the patient safety culture at PKU Muhammadiyah Yogyakarta Hospital as a whole was at a proactive level (80%).[1] Likewise, the research conducted at AM Parikesit Tenggarong Hospital is at the proactive level. Generally, in this maturity level of patient safety culture, a comprehensive approach and evidence-based interventions have been implemented. Several factors have also been identified to support the development of the patient safety culture. The keys include leaders/managers, direct supervisors, individual behavioral factors, reporting systems, rules, and procedures, as well as the subculture of the health care organization.[3]

The culture application in an organization cannot be separated from the active role of the superior, in this case, the supervisor or manager, in promoting accepted values by taking related actions that can support the process of establishing the desired values.[19]

The implication of this study is that the patient safety culture in each hospital can be different, and to measure the patient safety culture, several instruments can be used, one of which is MapSaf (Manchester Patient Safety Framework). The limitation of this research is the limited research time. It is hoped that further research will be able to use newer data analysis and the dimensional variables of the maturity level of patient safety culture are studied more broadly.

CONCLUSION AND RECOMMENDATION

The patient safety culture in Makassar City hospitals (Awal Bros, Unhas, and Haji) is included in the generative category. Furthermore, its formation and maintenance in the hospital is a central part of the organization's mission. The effectiveness of interventions is always evaluated, and always learning from error or successful experience, as well as taking meaningful actions to correct the situation. In addition, it is expected that the Makassar City hospital will be able to maintain the maturity of the patient safety culture by paying attention to teamwork and responsibility in implementing the culture.

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