

The Relationship between Organizational Culture and Patient Safety Culture in Hospitals in Aceh Province

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Abstract

Background: A lack of patient safety culture among nurses can lead to unexpected events for patients as recipients of nursing services. Organizational culture is believed to be related to a good patient safety culture among nurses. The research aims to identify the relationship between organizational culture and the implementation of patient safety culture in hospitals in Aceh Province.

Methods: This study used a cross-sectional research design. Data analysis was performed using the person product moment test. The number of samples was as many as 219 nurses (total sampling).

Results: The study showed that there was a relationship between organizational culture and the culture of patient safety ($p = .000$, $r^2 = .659$).

Conclusion: High organizational culture will increase the culture of patient safety by nurses in hospital wards.

Keywords: Organization, Culture, Safety, Patient

Background

Among the key components of maintaining healthcare delivery is the patient safety culture, which is increasingly vital on a global scale¹. According to the World Health Organization (WHO), approximately 10% of patients are harmed during medical care and more than 3 million deaths occur annually because of substandard care. As many as four out of 100 deaths in low- and middle-income

countries are due to substandard health services².

More than half of harm (one in every 20 patients) is preventable, and half of it is derived from medications³. Hodkinson and Tyler⁴ suggest that common adverse events which can lead to patient harm encompass medication errors, unsafe surgical procedures, healthcare-related infections, diagnostic errors, patient falls, pressure ulcers, patient misidentification, unsafe blood transfusion, and venous thromboembolism.

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In Indonesia, data on unexpected events during hospitalization on a national scale remain unknown. According to the Indonesian Ministry of Health (2018), 189 Patient Safety Incidents (PSI) were recorded out of 289 reports in 2015, 588 PSI of 668 reports in 2016, and 1647 PSI reports were received in 2017⁵. On a provincial scale, the highest proportion of PSI was reported in Jakarta (37.9%), followed by Central Java (15.9%), Yogyakarta (13.8%), East Java (11.7%), Aceh (10.7%), South Sumatra (6.9%), West Java (2.8%), Bali (1.4%), and South Sulawesi 0.7%⁶.

As a public health service facility, hospitals are responsible for maintaining high service standards in order to meet community expectations, especially regarding patient safety. Therefore, a hospital care system that offers a safer environment for patient care is known as patient safety. Preventing and reducing patient safety incidents in health services constitutes one of the primary goals of implementing a patient safety system in hospitals. Hospitals, employees, and patients in particular will suffer from safety incidents when occurring to patients as health service users. This might consequently result in reduced public trust in healthcare services⁵.

A key element affecting patient safety and culture is the work environment, especially for nurses. According to recent research, nurses' work environments hazard patient safety; also, their high workload and low job satisfaction result in lowered standards of care and service delivery⁷.

Abuosi and Akologo⁸, in a study on determinants of patient safety culture among health care providers, find that significant predictors of overall patient safety culture include interunit teamwork ($\beta = 126$, $p = .04$), organizational learning ($\beta = .112$, $p = .05$), and management support for patient safety

Gunawan and Hariyati⁹ have conducted a study to summarize the implementation of patient safety culture in nursing practice in hospitals. The findings exhibit three categories, which are: strengths, weaknesses, and predictors of patient safety culture in nursing practice. The strengths include four dimensions: (1) teamwork within units; (2) organizational learning and continuous improvement; (3) hospital administration's commitment to patient safety; and (4) frequency of

reported events. Contrarily, the weaknesses cover: (1) assumptions on overall patient safety; (2) handover and transfer; (3) transparent communication; (4) staffing; (5) nonpunitive response to errors; and (6) collaboration across entire hospital departments.

Tanjung and Girsang¹⁰ in their qualitative research reveal several obstacles faced in implementing the patient safety program, one of which is ineffective communication owing to instruction providers failing to reconfirm their instructions given to executive nurses. Moreover, officers cannot recall the location of drugs to be wary of, and some even neglect to wash their hands. Also, collaboration and communication between staff and patient families are found to be ineffective to prevent the risk of falls. The most basic thing to be immediately addressed is the adequacy of human resources so that a lower workload can optimize the performance of officers in implementing a patient safety culture. Additionally, increasing understanding can be done by providing continuous education and training to health workers. The most fundamental issue that needs to be immediately resolved is human resources adequacy for this will minimize the workload and maximize officers' performance in establishing the culture of patient safety. Further, health personnel can be continuously educated and trained to increase their understanding.

Furthermore, research conducted by Setyowati⁵ explores the factors affecting the implementation of patient safety culture by nurses. The results indicate that 60.5% of nurses have good patient safety knowledge; 57.5% of them are highly motivated to implement the patient safety culture; and 51.2% claim they have implemented the patient safety culture. Additionally, the analyses denote a significant relationship between nurses' knowledge, desire to protect patients, and leader behavior and the implementation of patient safety culture ($p < .05$).

Lee and Huang¹¹ conducted longitudinal research on the implementation of patient safety culture by nurses. It is shown that nurses with different demographic variables have different perceptions of patient safety from year to year. Supervisors/managers are discovered as the most vital variable to influence patient safety culture.

Afework and Tamene¹² investigate the status and factors affecting patient safety culture. The research aims to explore the healthcare professionals' perception and attitude associated with patient safety, leadership commitment to patient safety, staff education and training, communication between healthcare professionals, patient engagement and reporting, and learning from adverse events. The findings exhibit that the overall positive patient safety culture response rate is 37%. Teamwork within hospital units is the highest (75.3%), whereas frequency of event reporting is the lowest (20.7%). Moreover, several factors affecting patient safety culture, particularly at organizational and individual level, include poor attitude of health professionals, poor documentation practice and poor cooperation by clients, lack of continuous training and education, lack of standard operating procedure, staff shortages, and high work load.

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Telaumbanua and Dachi¹³ examined the aspects influencing patient safety culture and found that the availability of facilities, length of service ($p=.048$), cooperation between units ($p = .000$), open communication ($p = .022$), and cooperation within units ($p = .002$) affect the patient safety culture. Cooperation within departments is the most essential aspect influencing patient safety culture in hospitals.

Data on patient safety culture in the form of patient safety incidents in a hospital in Aceh Province have not been found to date. However, a few studies regarding the implementation of patient safety have been carried out there. Mentari¹⁵, through her research at one of the hospitals in Aceh, mentions that there is a relationship between nurses' knowledge about patient safety and medication administration errors ($p = .048$).

Referring to previous studies, it is known that several factors are associated with the implementation of patient safety culture in hospitals by nurses. The present researchers classify these factors into patient safety culture and patient safety regulations. Thus, they constitute the research variables.

Aim of the study

The study aims to identify the relationship between organizational culture and the implementation of patient safety culture in hospitals in Aceh Province.

Methods

A quantitative study was employed with a cross-sectional study approach. All the 219 nurses enrolled in the inpatient rooms were selected as the sample (total sampling). The instruments utilized include the Organizational Culture Assessment Instrument (OCAI) for measuring organizational culture, and the Hospital Survey on Patient Safety for patient safety culture. The data analysis were conducted using the Pearson correlation

Results

Table 1 shows that of 219 nurses on duty at a public regional hospital in Aceh Province, the mean age is 39.10 years old ($SD = 5.545$), the mean length of service is 7.94 years ($SD = 5.142$), the majority are female (68.5%), acquired the latest education of a diploma in nursing (49.3%), hold the Government Employee with Agreements status (49.3%), and have been involved in patient safety training (82.2%).

Table 1: Respondent Characteristics

No	Demographics	Frequency	Percentage(%)
Age: Mean =39.10; SD = 5.545			
Length of service: Mean = 7.94; SD = 5.142			
Sex			
1	Male	69	31.5
2	Female	150	68.5
Latest Education			
1	Nursing profession	86	39.3
2	Bachelor-nursing	25	11.4
3	Diploma-nursing	108	49.3
Employment status			
1	Civil Servants	25	11.4
2	Government Employees with Agreements (PPPK)	108	49.3
3	Contract personnel	86	39.3
Involvement in Patient Safety Training			
1	Yes	180	82.2
2	No	39	17.8

Table 2 describes that the nurses enrolled at this hospital embed organizational culture with a mean score of 5.01 (SD = 2,952), and patient safety culture 144.76 (SD = 26.016).

Table 2: Description of Organizational Culture and Patient Safety Culture among Nurses

No	Variable	Mean	Standard Deviation	Min.	Max.
1	Organizational culture	5.05	2.952	0	10
2	Patient safety culture	144.76	26.016	88	176

The partial relationship between organizational culture and patient safety culture was analyzed using the Pearson Product Moment test to determine the strength of the relationship between the variables. The results of the test are presented in Table 3.

Table 3: Partial Relationship of Organizational Culture with Patient Safety Culture

No	Variable	r ²	P-value
1	Organizational culture	0.659	0.000

Table 3 shows a partial relationship between organizational culture and patient safety culture. There is a positive (p =.000) and strong (r² =.66) relationship between organizational culture and patient safety culture.

Discussion

Organizational culture refers to the collection of beliefs, values, and methods of interaction that establish the environment of an organization. It encompasses basic values of an organization. Also, it reflects the organization's hopes and philosophy as well as experiences gained by the staff and leaders, which often determine the group's future direction¹⁶.

Accordingly, the findings of this study (Table 3) indicate a relationship between organizational culture and patient safety culture. It is shown that there is a positive (p =.000) and strong (r² = 0.66) relationship between organizational culture and patient safety culture. This represents that nurses enrolled at the Aceh hospital possess good integrity, performance, professionalism, and teamwork regarding the implementation of patient safety culture.

The results align with Iriviranty and Ayuningtyas¹⁷ suggesting that teamwork within units is the strongest dimension of patient safety culture (91.7%), while staffing and non-punitive responses to errors remain the weakest (22.7%). Besides, clan culture is found to be the dominant type of organizational culture in the hospital being studied. This culture has become a guide for changes in health care organizations, especially in developing a patient safety culture. It can be concluded that health service providers tend to have a positive attitude towards patient safety culture in hospitals. Therefore, action plans are designed through consensus decision-making and are considered effective in articulating patient safety within the hospital's vision and mission.

Aulia and Arbianti¹⁸, through their study on the evaluation of organizational culture as a measure to improve patient safety, discover that clan culture has the highest mean score for any type of organizational culture, with current and expected means of 26.51 and 28.67, respectively. Clan culture has the same characteristics as a family, which can possibly be handled cooperatively. The characteristics include organizational learning, communication and feedback on errors, growth of human resources, and the use of non-punitive responses when errors occur. Organizational culture constitutes an ultimate tool to achieve goals and fulfill patient safety in hospitals.

Another study conducted by Hariyanti and Setyawan¹⁹ shows that organizational culture plays a crucial and significant role in encouraging the expansion of nursing services. The research strongly suggests that teamwork in care units is the most important aspect of patient safety culture in hospitals. On the other hand, aspects requiring improvement include staffing, handover and transition. The development of nursing services is significantly and positively influenced by a strong safety culture.

Key elements of organizational culture related to a safety culture include primarily effective leadership, good teamwork, a culture of learning, as well as fairness and encouraging patient-centered care. A broader aspect of a systems approach is needed to improve quality and safety with particular reference to clinical governance, human factors and ergonomic principles and methods²¹.

An important metric for assessing the quality of medical services is patient safety. Regarding patient safety, an organization's culture, vision, mission, goals, and leadership style undoubtedly influence nurses' behavior. However, research conducted by Sinurat and Simanullang²¹ shows different results. It is found that nurses' organizational culture influences hospital service standards; and nurses can use organizational performance culture to reflect their own professional identity. More than 50% of them express a lack of organizational culture; and more than 50% demonstrate substandard behavior in implementing patient safety. Based on the Spearman's correlation test, there is no clear relationship between corporate culture and nurses' implementation of patient safety practices. Through the head nurse or team leader, hospital administration can offer coaching in the areas of socialization, training, guidance, and supervision.

Further, Tan and Pang²² state that an organizational culture in which healthcare professionals strive to implement a strong patient safety management system requires firm leadership that prioritizes safety above financial and operational goals; promotes identification, communication, and resolution of patient safety issues; and provide appropriate resources, structure, and accountability to maintain an effective patient safety system. This requires establishing organizational strategies and joint development of professional educational frameworks to enhance patient safety capabilities and capacities.

Moreover, regarding the nursing theory suggested by Imogene King, the organizational culture of nurses in hospitals is reflected in nurses-patients, nurses-other health teams, and nurses-colleagues interactions. These relationships will form a communication pattern which enables transactions in fulfilling patient safety needs. A relevant study was conducted by Noviyanti and Ahsan²³ discovering that there is a significant relationship between nurse communication satisfaction with the quality of patient safety culture. Further, the higher the level of nurse communication satisfaction, the better the quality of the patient safety culture being implemented ($r = 0.338$).

Based on the results of the present study, it can be concluded that the patient safety culture implemented by nurses in hospitals in Aceh Province will grow and develop if an excellent organizational culture is created. This requires high leadership support and reliable organizational management strategies.

Conclusion

The conclusion that can be drawn from the results of this study is that patient safety culture can be implemented effectively by nurses when there is a good organizational culture, such as effective leadership and the implementation of monitoring and supervision functions.

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