



Analysis of Organizational Factors on Patient Safety Culture at The Nganjuk General District Hospital

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ARTICLE INFO

Article history:

Received 11 December 2021

Accepted 21 April 2022

Published 10 June 2022

Keyword:

Patient safety culture
Organisational factors
Hospital

ABSTRACT

This study aimed to analyse the influence of organisational factors on patient safety culture at the Nganjuk General District Hospital. This was an analytical study with a cross-sectional design conducted from February 15 to March 14, 2020. Primary data were collected using a questionnaire distributed to 276 staff from 22 work units that provided direct services to patients. Secondary data were obtained from the profile and the Quality and Patient Safety Improvement Report of the Nganjuk General District Hospital in 2019. A cross-tabulation table was employed to analyse the influence of independent and dependent variables on patient safety culture with a percentage difference of >20%. The results showed that the majority of respondents were women (68.8%), had an associate degree III or equivalent education (57.6%), and had received training on patient safety (97.8%). The results of the cross-tabulation showed that organisational factors influenced patient safety culture at the Hospital. It is recommended that the Hospital pay attention to aspects that may affect patient safety culture since several work units still have a poor implementation of patient safety culture.

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Kata kunci:

Budaya keselamatan pasien
Faktor organisasi
Rumah sakit

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DOI: 10.30604/jika.v7i2.966

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ABSTRAK

Tujuan penelitian ini adalah menganalisis pengaruh faktor organisasi terhadap budaya keselamatan di Rumah Sakit Umum Daerah Nganjuk. Penelitian ini merupakan penelitian analitik dengan rancang bangun cross sectional pada 15 Februari – 14 Maret 2020. Data primer dikumpulkan dengan panduan kuisioner pada 276 staf dari 22 unit kerja yang memberikan pelayanan langsung kepada pasien. Data sekunder diperoleh dari profil RSUD Nganjuk dan laporan Komite PMKP RSUD Nganjuk tahun 2019. Analisis pengaruh menggunakan tabel tabulasi silang (*cross tabulation*) dengan selisih persentase >20% antara variabel independen dan dependen. Hasil penelitian didapatkan bahwa mayoritas responden adalah perempuan (68,8%), memiliki pendidikan D3/ sederajat (57,6%), dan telah mendapatkan pelatihan tentang keselamatan pasien (97,8%). Hasil tabulasi silang menunjukkan adanya pengaruh antara faktor organisasi terhadap budaya keselamatan pasien di RSUD Nganjuk. Disarankan RSUD Nganjuk kembali memperhatikan aspek-aspek yang dapat mempengaruhi budaya keselamatan pasien, mengingat masih terdapat beberapa unit kerja yang memiliki penilaian kurang terkait dengan aspek yang mempengaruhi budaya keselamatan pasien.

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INTRODUCTION

In Indonesia, based on patient safety incidence data published by *Komite Keselamatan Pasien Rumah Sakit* (KKPRS) or Hospital Patient Safety Committee in 2012, it is stated that there were 114 reports on patient safety incidents in 2009, 103 in 2010, and 34 in the first quarter of 2011. The data showed 11.23% patient safety incidents occurred in the Nursing Unit, 6.17% in the Pharmacy Unit, and 4.12% by doctors. Such incidents will increase the treatment cost, reduce patients' trust, and lower patients' or health workers' satisfaction (Institute of Medicine, 2000).

The Nganjuk General District Hospital is one of the health service institutions in Nganjuk Regency. As a health service institution, Nganjuk General District Hospital always strives to improve the quality of its services by paying attention to patient safety through monitoring.

The 2018 Quality and Patient Safety Improvement Report of Nganjuk General District Hospital showed the number of patient safety incidents from 2016 to 2018. There were 26,154 visits in 2016, 22,449 in 2017, and 19,334 in 2018. The percentage incidence rate is obtained by calculating the number of incidents divided by the number of patient visits in a certain period. The incidence of *kondisi potensial cedera* (KPC) or potential injury and *kejadian nyaris cedera* (KNC) or near injury decreased, *kejadian tidak cedera* (KTC) or non-injury and *kejadian tidak diharapkan* (KTD) or unexpected events increased in trend difference, while sentinel cases were always valued at 0. The data of KPC, KNC, and KTC likely fluctuated from 2016 to 2018, while KTD had the largest increase from 2016 to 2018. KTD cases occurred in blood transfusion reactions such as febrile, chill, urticaria, and dyspnea despite no specific data on reactions being recorded. An analysis of this incidence shows that the reactions occurred due to factors from the patients (The 2018 Quality and Patient Improvement Report of the Nganjuk General District Hospital).

In addition, there were also KPC cases found in seven units in 2018 (the Emergency Room, Wijaya Kusuma Room, Kemuning Room, Hemodialysis Unit, Maternity Unit, and Laboratory Installation). The Emergency Room had the most cases (12) including wrong patient identification. KNC cases occurred in 16 units, with the most cases (39) found in the Pharmacy Installation including wrong patient identification. KTC cases occurred in eight units, with the most cases (5) found in the Intensive Care Unit (ICU) including phlebitis. KTD cases occurred in 15 units with the most cases (12) found in the Kemuning Room including blood transfusion reactions. Meanwhile, there were no sentinel cases found in 2018 according to the Quality and Patient Improvement Report of the Nganjuk General District Hospital.

Patient safety incidents can be prevented or reduced by knowing the factors that contribute to the occurrences (Bardan, 2017). According to the 2015 National Guidelines for Hospital Patient Safety, it is stated that the main goal of the patient safety implementation is to reduce the number of KTD cases in hospitals. The increase in KTD cases indicates an increase in unsafe patient services. Therefore, the implementation of patient safety at the Nganjuk General District Hospital still requires further evaluation.

According to the Minister of Health Regulation Number 11 of 2017 regarding Patient Safety, building a safety culture is the first step in providing safe services to patients. Patient safety culture encourages hospitals to implement patient safety programs to prevent patient safety incidents (Bardan, 2017). Hospitals that implement a good safety culture will support the safety of patients, staff, and visitors.

According to the 2018 Quality and Patient Improvement Report of the Nganjuk General District Hospital, the patient safety culture at the Hospital was still in the moderate category, where the implementation of service delivery had prioritized patient safety, but had not reflected the main principles of patient safety. The implementation of service delivery was still not optimal at the individual or unit level. The setbacks were related to the staffing process in work units with high workloads and the culture of open communication among the staff. Despite being in the moderate category, the incident reporting culture was still reported as low. Based on an interview conducted on June 21, 2019, some staff stated that they were still reluctant to report all patient safety incidents due to lack of communication and openness, fear of blaming culture, impacted careers, insecure authority, and superiors' instructions. The openness to reporting errors in implementing patient safety culture was still considered low (58%) and indicated that the staff was still reluctant to be open to errors as an evaluation material.

It is said that organizational factors can greatly influence patient safety culture in hospitals because they are directly related to service managerial processes (Lee and Yang, 2013). Organizational factors are internal factors that include organizational commitment, leadership, communication, teamwork, supervision, and conflict management that can affect values and norms adopted in the organization, for example, patient safety culture (Lee and Yang, 2013; Ayudyawardani, 2012); Suryatin, 2018). Organizational factors were likely to cause an increase in KTD cases by 166.7% at the Hospital in 2018. The arising cases were likely due to a lack of monitoring, evaluation, and communication, and these could have been minimized by monitoring patient safety through supervision. To always meet consumer expectations and comply with applicable standards, safety culture must be implemented under supervision. Supervision remains significant, and its implementation depends on the head of the unit.

Following the background, this study aims to analyze the effect of organizational factor variables which include supervision, leadership, communication, teamwork, commitment, conflict management, and patient safety culture on patient safety incidents at the Nganjuk General District Hospital.

METHOD

Population Characteristics and Research Design

The population in this study were all work units (22) that provide direct services to patients at the Nganjuk General District Hospital (Outpatient Installation, Orchid Room, Nusa Indah Room, Bougenvil Room, Sedudo Room, Alamanda Room, Lotus Room, Puspa Indah Room, Wijaya Kusuma Room, Soka Room, Dahlia Room, Kemuning Room, Emergency Room, Operating Room, Hemodialysis Unit, Maternity Unit, Laboratory Installation, Radiology Installation, Oncology Service Unit, Pharmacy Installation, Intensive Care Unit (ICU), and Nutrition Installation. This study was analytic research using a cross-sectional design.

Sample collection procedure

The sample in this study was 276 staff who could provide information about their units and 10 years of work experience.

Sample size, strength, and precision

Two hundred and seventy-six respondents were selected out of 390 people obtained from employee data of the Nganjuk General District Hospital. The data collection instrument was a questionnaire that refers to the theory and has been modified. The supervision variable was referred to the Manchester Clinical Supervision Scale (MCSS), and the leadership variable was measured by using a MLQ (multifactor) questionnaire. The communication variable used Communication Openness Measure (COM), the commitment variable was referred to the theory of Allen and Meyer (1990), and the teamwork variable was measured using the Team STEPPS Teamwork Attitudes Questionnaire. The conflict management variable was measured according to the theory of Dawn (1993), and the patient safety culture variable was measured using a patient safety culture instrument adopted from the Agency for Health Care Research and Quality (AHRQ). Consent agreement and informed consent were first given to the respondents. To support primary data, secondary data were also collected from the 2019 Nganjuk General District Hospital's profile as well as their 2019 Quality and Patient Improvement Report.

Size and Covariate

The variables measured in this study consist of independent variables which are supervision, leadership, communication, teamwork, commitment, conflict management as well as dependent variable which is patient safety culture. Variables were only measured at one particular time; thus, the overview obtained would only represent that particular time.

Data Analysis

Descriptive analysis was conducted to elaborate on the variables mentioned. Analysis using a cross-tabulation table demonstrated that both independent and dependent variables could affect each other if the percentage difference was > 20%.

Based on Table 1, there were 276 respondents of which 190 (68.8%) were female, and 86 (31.2%) were male. The majority of latest education was associate degree III or equivalent, and the least was master's degree or equivalent. All of the respondents have demonstrated 10+ years of tenure at the Nganjuk General District Hospital, and the majority of them had taken patient safety training provided by the hospital. A study by Setiowati, Allenidekania, and Sabri (2013) state that age, tenure, and gender influence nurses' behavior in implementing patient safety culture. On the other hand, training and education have no relationship with the implementation of patient safety culture. However, in line with a study by Hwang (2015 in Seon & Jisun, 2018), there was a significant relationship between competence and patient safety culture.

Organizational Factors of The Work Units

Supervision

Table 2 shows that 63.7% of work units applied formative supervision. It indicates that most work units viewed the supervisory function from the formative dimensions that relate to tasks, decisions, and practices to develop knowledge, skills, constructive criticism, feedback, evaluation, and problem-solving.

The assessment of supervision variable was divided into two categories (the implementation of good supervision and the implementation of poor supervision). Overall, the implementation of supervision at the Nganjuk General District Hospital has been considered good (86.4%). Only three work units demonstrated poor supervision results (Radiology Installation, Operating Room, and Wijaya Kusuma Room). Good supervision results mean that the implementation of supervision in the work unit was going well in order to improve patient safety culture. The Heads of the work units had provided guidance and motivation to their staff regarding the implementation of patient safety based on the Hospital's policies and procedures. The results suggest that the supervision was done well, indicated by motivated staff with increased knowledge regarding patient safety culture at the Hospital.

Leadership

Table 2 shows that 77.3% of work units in the Nganjuk General District Hospital employed a transformational leadership type. This shows that the leadership in the majority of work units at the Hospital was focused on positive changes on staff. The Heads of the work units assured that every staff was part of the team, and thus they were supposed to follow the Heads' orders in achieving the work units' goals. The Heads of the work units had promoted patient safety culture; contributed to positive results in their work units; effectively facilitated ongoing services to promote patient safety culture through integrated services, educated and supervised staff to have better teamwork in providing good services; considered patient safety issues as a team problem rather than an individual problem; and committed to solving them rather than pinpointing who was wrong.

Communication

Table 2 shows that 41% of work units had open peer communication. This means that the majority of work units were open to fellow staff compared to their superiors. The

RESULTS AND DISCUSSIONS

Respondents' Characteristics

Table 1
Respondents' Characteristics of the Nganjuk General District Hospital in 2020

Variables	Total (n)	Percentage (%)
Gender		
Male	86	31.2
Female	190	68.8
Latest Education		
Associate Degree III/ equivalent	159	57.6
Bachelor's Degree/ equivalent	116	42.0
Master's Degree/ equivalent	1	0.4
Tenure		
>10 years	276	100.0
Patient Safety Training		
Yes	270	97.8
No	6	2.2

majority of staff were willing to convey and express their opinions to staff who were at the same age or the same level.

The assessment of communication variable was divided into two categories (open communication and covert communication). Overall, communication openness at the Hospital was considered good (77.2%). Only five work units had less open communication (Sedudo Room, Alamanda Room, Wijaya Kusuma Room, Operating Room, and Nutrition Installation). It shows that the staff were willing to report every patient safety incident in their respective work units to their leaders.

Table 2
Distribution of Organizational Factors of the Work Units at the Nganjuk General District Hospital

Variables	Frequency (n)	Percentage (%)
Supervision		
Dominant Aspects		
Normative	8	36.3
Formative	14	63.7
Intensity	0	0.0
Good		
Poor	19	86.4
Leadership Type	3	13.6
Transformational		
Transactional	17	77.3
Situational	1	4.6
<i>Laisses-faire</i>	1	4.5
Communication Openness	3	13.6
Open Downward Communication		
Open Peer Communication	5	22.7
Open Upward Communication	9	41.0
Combined Communication	1	4.5
Intensity	6	27.3
Open	1	4.5
Covert		
Teamwork	17	77.2
Good	5	22.8
Poor		
Commitment		
Dominant Aspects	2	9.1
Affective	11	50.0
Continuous	9	40.9
Normative		
Intensity	19	86.3
Strong	3	13.7
Weak		
Conflict Management	18	81.9
Collaborative	4	18.1
Compromising		
Accommodative	8	36.4
Conglomerate	3	13.6
Supervision	5	22.7
Dominant Aspects	6	27.3
Patient Safety Culture		
Strong	15	68.2
Weak	7	31.8

Commitment

Table 2 shows that 50% of work units applied continuous commitment. Nurlaily (2017) suggests that continuance commitment is the most common commitment type.

Continuous commitment leads to the calculation of costs and benefits for staff. This calculation relates to staffs' desire to survive at their job or not. Continuous commitment must be improved so that costs and benefits do not become the determiner of staff loyalty instead of psychological strength to work comfortably for the hospital. This is crucial to avoid staff leaving a workforce due to unmet expectations as well as high staff turnovers.

In addition, 40.9% of work units applied normative commitment. This shows that staff continued their jobs because they perceived certain obligations. It causes staff to morally oblige their jobs. Meanwhile, 9.1% of work units applied affective commitment. It involves staff affective or psychological attachment to their jobs. This commitment type must be increased because it incorporates staff emotional attachment, identification, and involvement in their jobs. As a result, it may increase their loyalty as they gradually want the job.

The assessment of the commitment variable was divided into two categories (strong commitment and weak commitment). Overall, the commitment at the Hospital was considered strong (86.3%). This shows that the staff have a desire to continue their work as long as possible.

Teamwork

Table 2 shows that 81.9% of work units applied good teamwork. This indicates that staff roles and activeness in the work units had gone well. The Nganjuk General District Hospital has clearly written the main tasks and functions of each team and its members. Team performance is related to the internal team assessment process. The performance demonstrates the service output provided by staff. With well-planned teamwork, the work units met certain requirements and achieved the desired goals. It can influence team performance or service outputs. Teamwork is when team members work together to achieve the desired goals using team skills (Wood et al, 2013).

Team skills are related to the ability of staff to communicate, make decisions, be responsive, and take responsibility for work carried out. Team leadership is related to the leader's assessment of the team. Team climate and atmosphere are related to the working atmosphere of the team. Team identity is related to the interpersonal assessment of team members in the work units (Suryatin, 2018). Overall, teamwork at the Hospital was considered good. The working atmosphere brings about mutual trust, support, and high team spirit. This reflects the identity and good perception about team members in the work units.

Safety Culture

Table 2 shows that 68.2% of work units had a strong patient safety culture. This indicates that the staff demonstrated good habits and behavior regarding the awareness of the importance of patient safety in hospitals. Staff perception of patient safety in hospitals is an important factor in preventing patient safety incidents. Good implementation of patient safety culture provides a just culture and accurate information.

Patient safety culture is a culture of supporting and promoting patient safety based on the beliefs, values, and norms expressed by the prominent health care practitioners in the organization (Arini, 2018). Work units that have strong patient safety culture tend to have staff who support each other at work, have good organizational learning, cooperate well, communicate overtly, welcome feedback, have

tolerance and patient-oriented mindset (Suryatin, 2018). Patient safety culture is an important factor in increasing patient safety and reducing adverse risks at hospitals (Najihah, 2018).

Analysis Organizational Factors Influence on Patient Safety Culture

Supervision

The result of cross-tabulation between supervision variable and patient safety culture in 22 work units at the Hospital shows that the variable influenced patient safety culture with a percentage difference of 40.4% (> 20%). The better the supervision implemented in the work units, the stronger the patient safety culture. This is reinforced by the results of cross-tabulation between types of supervision

(normative, formative, and restorative) and patient safety culture which shows a percentage difference of 48.2% (> 20%). This strongly indicates that patient safety culture was influenced by the supervision variable. The better the formative aspect of the supervision implemented, the stronger the patient safety culture.

This finding is in accordance with Irawan, Yulia and Mulyadi (2017) who state that supervision has a significant effect on patient safety culture. Good supervision enables nurses to have 7,429 opportunities to implement patient safety culture properly and effectively. Bardan (2017) also mentions that leaders who provide more supervision on patient safety culture will increase staff openness to patient safety incident reporting. Snowden, Leggat and Taylor (2017) also mention that supervision on patient services can improve service processes, including patient safety culture.

Table 3
Cross-tabulation of the Influence of Organizational Factors on Patient Safety Culture

Variables	Patient Safety Culture			
	Strong		Weak	
	N	%	n	%
Supervision				
Dominant Aspects				
Normative	3	37.5	5	62.5
Formative	12	85.7	2	14.3
Intensity				
Good	14	73.7	5	26.3
Poor	1	33.3	2	66.7
Leadership Type				
Transformational	14	82.3	3	17.6
Transactional	0	0.0	1	100.0
Situational	1	33.3	2	66.7
<i>Laisses-faire</i>	0	0.0	1	100.0
Communication Openness				
Open Downward Communication	0	0.0	1	100.0
Open Peer Communication	7	77.8	2	22.2
Open Upward Communication	3	60.0	2	40.0
Combined Communication	5	71.4	2	28.6
Intensity				
Open	14	82.4	3	17.6
Covert	1	20.0	4	80.0
Teamwork				
Good	14	77.7	4	22.2
Poor	1	25.0	3	75.0
Commitment				
Dominant Aspects				
Affective	2	100.0	0	0.0
Continuence	8	72.7	3	27.3
Normative	5	55.6	4	44.4
Intensity				
Strong	14	73.7	5	26.3
Weak	1	33.3	2	66.7
Conflict Management				
Collaborative	7	87.5	1	12.5
Compromising	1	33.3	2	66.7
Accommodative	2	40.0	3	60.0
Conglomerate	5	83.6	1	16.7

Leadership

The result of cross-tabulation between leadership variable and patient safety culture in 22 work units at the Nganjuk General District Hospital shows that the variable

influenced patient safety culture with a percentage difference of 49.0% (> 20%). Transformational leadership demonstrated a positive effect on patient safety culture. This finding is in line with Kristen et al. (2016) which states that leadership can be a catalyst in improving patient safety

culture. Suryatin (2018) states that the type of leadership can affect patient safety incidents. Several previous studies reinforced the finding by stating that leadership correlates with the improvement of patient safety implementation. One of the most difficult obstacles is the lack of leadership commitment in improving patient safety (Herawati, 2015; Sulistiani, 2015; Bardan, 2017; Idris, 2017). The critical role of leadership is set upon the hospital patient safety standards in Indonesia (Setiowati, et al 2013). Faridah, et al (2019) mention that there is an influence between leadership and the implementation of patient safety culture. Poor leadership is three times more likely to implement a poor patient safety culture compared to good leadership. Rachmawati (2012) states that transformational leadership has the most direct positive effect on patient safety culture.

Communication

The result of cross-tabulation between communication variable and patient safety culture in 22 work units at the Nganjuk General District Hospital shows that the variable influenced patient safety culture with a percentage difference of 62.4% (> 20%). This is reinforced by the results of cross-tabulation between types of communication and patient safety culture. The results demonstrate that the communication variable had the most influence on patient safety with a combination of multiple communication types which consists of three types of communication models (open downward communication, open peer communication, and open upward communication). This finding is in line with Bardan (2017) who also states that silence will lead to higher patient safety incidents that are hard to detect. Idris (2017) mentions that communication is one of the key factors that influence patient safety culture.

Commitment

The result of cross-tabulation between commitment variable and patient safety culture in 22 work units at the Nganjuk General District Hospital shows that the variable influenced patient safety culture with a percentage difference of 40.4% (> 20%). The stronger the commitment of the work units, the stronger the patient safety culture. This finding is in accordance with Nurlaily (2017) who shows a relationship between affective commitment, continuance commitment, and normative commitment to the prevention of patient safety incidents at the Sukoharjo General District Hospital.

Measurement of three types of commitment (affective commitment, continuous commitment, and normative commitment) was also carried out in this study. The results show that continuance commitment had the most direct positive effects in the implementation of patient safety culture. Noyumala et al. (2012) state that there is a significant relationship between affective and continuance commitment with professional caring behavior. It is reasonable that staff likely had an inner bond (affective) and thus continued to maintain professional caring behavior because they had chosen to do so.

Teamwork

The result of cross-tabulation between team work variable and patient safety culture in 22 work units at the Nganjuk General District Hospital shows that the variable influenced patient safety culture with a percentage difference of 52.7% (> 20%). However, the percentage difference between types of teamwork in patient safety

culture is weak (52.8%). This is in line with Suryatin (2018) who states that teamwork has a significant effect on patient safety culture at hospitals. Teamwork can affect service performance such as patient safety culture (Rochiati, 2018).

Not all results regarding teamwork in this study are in line with the previous studies. Normally, good teamwork should create a good patient safety culture. However, this study found that four rooms (Sedudo Room, Alamanda Room, Operating Room, and Nutrition Installation) at the Nganjuk General District Hospital did not demonstrate good patient safety culture despite good teamwork. Similarly, Cahyono (2008) states that medical errors rarely occur due to a single factor. Instead, they are mostly caused by system errors. After all, good teamwork is intended to create an open, safe, respectful, and flexible relationship between staff in order to achieve good patient safety culture.

Conflict Management

The result of cross-tabulation between leadership variable and patient safety culture in 22 work units at the Nganjuk General District Hospital shows that the variable influenced patient safety culture. Types of conflict management with the most direct positive effects are collaborative conflict management and conglomerate conflict management. Collaborative conflict management demonstrates a percentage difference of 54.2% and 47.5% respectively from compromising and accommodative conflict management. Meanwhile, conglomerate conflict management demonstrates a percentage difference of 50.3% and 43.6% respectively from compromising and accommodative conflict management.

Collaborative conflict management is an agreement between conflicting parties to jointly achieve the desired goals. This type of conflict management is assumed to be conflict resolution done by sorting out the problem together and respecting the interests of other parties. Meanwhile, conglomerate conflict management has many considered factors before it can achieve the desired goals. This finding is in line with Lombogia (2013) who suggests that the majority of Heads at the Bethesda Tomohon General District Hospital implemented collaborative conflict management. It is reasonable that collaborative conflict management provides quicker and safer services to patients. Sinaga (2010) states that collaborative conflict management has a significant effect on performance because it is assertive and cooperative. With collaboration, all parties put aside their interests and work together to determine priority goals. This type of conflict management requires decision-making based on mutual respect, open communication, and honesty.

CONCLUSIONS AND SUGGESTIONS

Regarding the organizational factors in general, the work units at the Nganjuk General District Hospital have good supervision, open communication, strong commitment, and excellent teamwork. Further, the variables were dominated by formative supervision, transformational leadership, open peer communication, continuous commitment, and collaborative conflict management. Patient safety culture in the majority of work units was considered strong (68.2%). The work unit with the highest score is Hemodialysis Unit (76.3%). On the other hand, seven work units with weak safety culture include Emergency Room, Bougenville Room, Alamanda Room, Wijaya Kusuma Room, Dahlia Room,

Operating Room, and Nutrition Installation. This study shows that all variables in the organizational factors had a significant influence on patient culture safety. It is recommended that the Nganjuk General District Hospital pay attention to aspects that may influence patient safety culture to avoid poor patient safety culture in other units.

ACKNOWLEDGMENT

The researchers would like to express their gratitude to the Nganjuk General District Hospital for their assistance in this study. The researchers also would like to thank other parties for their support. The researchers also would like to declare that there is no conflict of interest with the parties involved in the community engagement.

Ethical considerations

Competing interests: The authors declare that there is no conflict of interest.

Ethical approval: The protocol of this study was approved by Sub Komite Etik Penelitian Kesehatan Rumah Sakit Umum Daerah Nganjuk (certificate number 893/93/411.801/2020). All participants provided informed written consent before taking part in the study.

REFERENCES

- Arini, T. (2018) *Budaya Keselamatan Pasien Berbasis Pemberdayaan Struktural dengan Kepuasan Kerja Perawat*. Skripsi. Surabaya: Universitas Airlangga. Retrieve from: https://repository.unair.ac.id/77538/2/TKP%2049_18%20Ari%20b.pdf
- Bardan, R.J. (2017) Analisis Penerapan Keselamatan Pasien di Rumah Sakit Umum Daerah Inche Abdoel Moeis Tahun 2017. Tesis. Makassar: Universitas Hasanudin. Retrieve from: http://digilib.unhas.ac.id/uploaded_files/temporary/DigitalCollection/MmNINWVhYzMxYWVmYmlyNjZkOTE3YmE4MmYxNjJmMjU1YTU3ZmNjZA==.pdf
- Cahyono. (2008). *Membangun Budaya Keselamatan Pasien*. Yogyakarta: Kanisius.
- Herawati, Y. T. (2015). Budaya Keselamatan Pasien di Ruang Rawat Inap Rumah Sakit X Kabupaten Jember, *Jurnal IKESMA*, 11(1), 52–60. Retrieve from: <https://jurnal.unej.ac.id/index.php/IKESMA/article/view/4350>
- Idris, H. (2017) 'Dimensi Budaya Keselamatan Pasien', *Jurnal Ilmu Kesehatan Masyarakat*, 8(1), 1–9. doi: <https://doi.org/10.26553/jikm.2017.8.1.1-9>.
- Institute of Medicine. (2000) *To Err Is Human: Building a Safer Health System*. Edited by I. of M. Committee on Quality of Health Care in America. Washington, D.C: National Academy Press. Retrieve from: https://www.ncbi.nlm.nih.gov/books/NBK225182/pdf/Bookshelf_NBK225182.pdf.
- Irawan, A. G., Yulia, S. and Mulyadi. (2017). Hubungan Supervisi dengan Penerapan Budaya Keselamatan Pasien di Ruang Rawat Inap Rumah Sakit XX, *Masker Medika*, 5(1). 241–254. Retrieve from: <http://jmm.ikestmp.ac.id/index.php/maskermedika/article/view/164>
- Kementerian Kesehatan Republik Indonesia. (2017) *Peraturan Menteri Kesehatan Republik Indonesia Nomor 11 Tahun 2017 Tentang Keselamatan*. Jakarta: Kemenkes RI.
- Kristen, S., Christensen, K. B., Jaquet, A., Beck, C. M., Sabroe, S., Bartels, P., and Mainz, Jan. (2016) Strengthening Leadership as a Catalyst for Enhanced Patient Safety Culture: a Repeated Cross-Sectional Experimental Study. *BMJ Open*, 6, 1–10. doi: <http://dx.doi.org/10.1136/bmjopen-2015-010180>
- Lee, Y.-H. and Yang, C.-Ch. (2013). A Multi-Level of Patient Safety Culture Effect on Safety Performance-The Case of Nurse, *Global Journal of Management and Business Research*, 13(1), 11–20. Retrieve from: <https://journalofbusiness.org/index.php/GJMBR/article/view/942>
- Lombogia, M. (2013). *Hubungan Gaya Kepemimpinan dengan Manajemen Konflik Kepala Ruangan di Rumah Sakit Umum Bethesda Tomohon*. Tesis. Makassar: Universitas Hasanuddin.
- Najihah. (2018). Budaya Keselamatan Pasien Dan Insiden Keselamatan Pasien Di RS: Literatur Review. *Journal of Islamic Nursing*, 3(1), 1–8. doi : <https://doi.org/10.24252/join.v3i1.5469>
- Noyumala, S. A & Bahar, B. (2012). Hubungan Komitmen Perawat Dengan Perilaku Caring Profesional Melalui Pelaksanaan Patient Safety Di Rumah Sakit Umum Kota Makassar. *Jurnal Program Studi Magister Keperawatan Universitas Hasanudin*. Makassar.
- Nurlaili, A. P. (2017) *Hubungan Komitmen Organisasi dengan Pencegahan Kejadian Tidak Diharapkan (KTD) dalam Keselamatan Pasien di Rumah Sakit Umum Daerah Kabupaten Sukoharjo*. Tesis. Universitas Diponegoro. Retrieve from: <http://eprints.undip.ac.id/51745/>
- Piersma, H.J. (2015) *The Role of A Nurse Leader: Process Improvement in Patient Safety Culture*. Utica College.
- Rochiati. (2018) *Pengaruh Kepribadian dan Gaya Kepemimpinan Kepala Unit terhadap Efektivitas Teamwork di RS Darmo Surabaya*. Surabaya: Universitas Airlangga.
- Seon Mi Cho & JiSun Choi. (2018). Patient Safety Culture Associated With Patient Safety Competencies Among Registered Nurses. *Journal of Nursing Scholarship*, 50(5), 549–557. doi: <https://doi.org/10.1111/jnu.12413>
- Setiowati, D., Allenidekania and Sabri, L. (2013). Kepemimpinan Efektif Head Nurse Meningkatkan Penerapan Budaya Keselamatan Pasien oleh Perawat Pelaksana di RSUPN Dr. Cipto Mangunkusumo Jakarta. *Makara Seri Kesehatan*, 17(2), 55–60. doi: 10.7454/msk.v17i2.xxxx.
- Sinaga, H. H. (2010). Pengaruh Manajemen Konflik terhadap Kinerja Karyawan pada PT BPR Mitradana Medan. Retrieve from: www.repository.yusu.ac.id
- Snowdon, D. A., Leggat, S. G. and Taylor, N. F. (2017). Does clinical supervision of healthcare professionals improve effectiveness of care and patient experience? A systematic review. *BMC Health Services Research*, (November). doi: 10.1186/s12913-017-2739-5.
- Sulistiani, L. A. (2015). *Korelasi Budaya Keselamatan Pasien dengan Persepsi Pelaporan Kesalahan Medis oleh Tenaga Kesehatan Sebagai Upaya Peningkatan Keselamatan dan Kesehatan Kerja di Rumah Sakit X dan Rumah Sakit Y tahun 2015*. Jakarta: Universitas Syarif Hidayatullah.
- Suryatin, J. (2018) *Pengaruh Tipe Kepemimpinan, Kerjasama Tim (Teamwork), dan Budaya Keselamatan Pasien (Patient Safety Culture) Terhadap Insiden Keselamatan Pasien di Rumah*

Sakit Mitra Keluarga Surabaya. Surabaya: Universitas
Airlangga.