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Research Article

Patient Safety Culture at Rumah Sakit Mata Undaan in 2023: An HSOPSC Survey

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ABSTRACT

The cornerstone of patient safety is a culture of safety, which can significantly reduce adverse events. According to the 2022 Hospital Accreditation Standards, hospitals are required to measure and evaluate patient safety culture annually. This research aims to assess the level of patient safety culture at Rumah Sakit Mata Undaan so it can serve as a reference for developing policies to enhance patient safety culture. This study employs a cross-sectional design and a quantitative methodology to conduct a descriptive investigation. This study includes the entire population, with a total sample size of 189 respondents, consisting of non-health workers, medical staff, and other healthcare workers. Measurement was conducted using the ten safety culture variables from the Hospital Survey on Patient Safety Culture (HSOPSC) questionnaire developed by AHRQ. The result indicate that 69.4% of respondents, on average, agreed with the patient safety culture dimensions. Among them, "Teamwork" received the highest percentage of favorable responses (86%), while "Communication Openness" had the lowest percentage (55%). Overall, the patient safety culture at Rumah Sakit Mata Undaan in Surabaya falls into the "Moderate" category. Improvements are needed to strengthen safety dimensions that are currently in the moderate category, aiming to elevate them to the strong category.

Keywords: *hospital, patient safety culture, HSOPSC, AHRQ*

INTRODUCTION

The Indonesian Ministry of Health defines patient safety as a system designed to reduce risks associated with patient care. It encompasses risk assessment, patient risk identification and management, incident reporting and analysis, the ability to learn from events and their consequences, and the implementation of preventive measures. By integrating risk management into all aspects of healthcare services, patient safety aims to improve the overall standard of care.

A patient safety incident can negatively impact hospital personel, patients, and overall quality of care.. Indonesian hospital regulations mandate the implementation of patient safety measures (Rochmah et al., 2019). Since 1999, patient safety has become a global concern. Incidents related to patient safety are unintentional events or situations that cause, or have the potential to cause, preventable harm to patients. Estimates suggest that patient safety incidents are among the leading causes of death worldwide (Sheridan et al., 2021).

According to the World Health Organization (2023), 1 in 10 patients experiences harm while receiving treatment, and unsafe healthcare practices contribute to over 3 million deaths annually. In low- to middle-income countries, unsafe care is responsible for up to 4 out of every 100 deaths, and 1 in 20 patient injuries is considered preventable. Furthermore, despite estimates suggesting that 4 out of 10 patients in primary and outpatient care suffer harm, up to 80% (23.6-85%) of these incidents can be prevented.Patients encounter a variety of safety risks, including medication errors, hazardous surgical procedures, healthcare-associated infections, diagnostic errors, falls, pressure sores, improper patient identification, unsafe blood transfusions, and venous thromboembolism.

In 2019, Indonesia recorded 171 deaths, 80 serious injuries, 372 moderate injuries, and 1,183 minor injuries resulting from unsafe patient care in hospitals (Toyo et al., 2022). Based on data fromthe Ministry of Health (2023), as reported to the National Committee for Hospital Patient Safety (KNKPRS), hospital safety incident reports recorded in the dashboard as of February 2023 included 1,723 (33.9%) Near-Injury Events, 1,566 (30.8%) Non-Injury Events, and 1,793 (35.3%) Adverse Events/Sentinel Events. Additionally, , based on incident reports, there were 120 (2.3%) deaths, 43 (0.8%) serious Injuries, 350 (6.9%) moderate Injuries, 810 (16%) minor injuries, and 3,759 (74%) incident with no reported injuries..

Incidents involving patient safety resemble the "icebergphenomenon", as not all occurrences are reported. . Significantly contributes to the low reporting rate among healthcare staff and the persistence of the blame culture. To address this issue, hospitals must establish a comprehensive safety culture that applies to all staff members, aiming to reduce the frequency of patient safety incidents. A strong patient safety culture serves as the foundation for improving patient safety, significantly decreasing adverse events and enhancing hospital accountability in the eyes of the public. Therefore, encouraging a culture of patient safety is essential to minimizing the risk of adverse incidents and promoting safer healthcare practices.

Changing cultural norms is the biggest challanges to improving patient safety (Claridge & Sandars, 2007). Hospital patient safety event reporting is significantly influenced by the existing patient safety culture (Karmila et al., 2023). Research by Marselina et al (2023) indicates that patient safety incidents are influenced by the characteristics of the patient safety culture. Additionally, a study by Utami et al. (2023) found that attitudes toward reporting patient safety incidents are significantly influenced by safety cultures factors, including openness, reporting, justice, and learning cultures. Several obstacles hinder the implementation of patient safety in hospitals, including non-compliant behaviour among hospital staff', lack of management support,absence of standard operating procedures (SOPs) for patient safety, unsupportive facilities, and a lack of oversight and evaluation of safety culture implementation (Nugraheni et al., 2021).

The Hospital Accreditation Standards, established by the Ministry of Health in 2022, emphasize the importance of developing a strong patient safety culture. The PMKP (Quality Improvement and Patient Safety) and TKRS (Hospital Governance) standards provide further guidelines for this aspect. Hospitals are required to conduct annual assessments of their patient safety culture. This study aims to evaluate the commitment of the staff at Rumah Sakit Mata Undaan in Surabaya to fostering a culture of patient safety. Additionally, The research seeks to identify the characteristics of patient safety culture that need to be reinforced so that policies for patient safety may be implemented.

MATERIAL AND METHODS

This research examines aspects of patient safety culture at Rumah Sakit Mata Undaan in Surabaya using a cross-sectional design and quantitative methodology. Measurements were conducted between September and October 2023. The criteria were determined as folloes, and the sample was using purposive sampling:

a) Clinical staff, such as nurses, or non-clinical staff working in hospital units, who are directly involved with patient care;
b) Hospital staff who do not have direct patient interaction but contribute to patient care, , such as those working in the pharmacy and laboratory;
c) Medical professionals who work in hospitals or spend the majority of their working hours there, including physicians in the emergency room or inpatient department;
d) Staff meeting criteria (a), (b), or (c) with a minimum of one year of work experience;
e) Managers, supervisors, and hospital unit administrators involved in patients care and safety management.

The patient safety culture questionnaire utilized in this study was adopted from the Hospital Survey on Patient Safety Culture (HSOPSC) version 2, published by The Agency for Healthcare Research and Quality (AHRQ) in 2019. The questionnaire consists of 40 statemnets covering 10 aspects of patient safety culture. These dimensions include communication openness ; feedback and communication about mistakes; teamwork; staffing and productivity; organizational learning; error response; supervision, management, or clinical leadership support for patient safety; patient safety incident reporting; hospital management support for patient safety; handover and information exchange (AHRQ, 2019).

This questionnaire instrument was designed for all groups, with validity and reliability score indicated by Cronbach's Alpha > 0.60. The questionnaire uses a likert scale, and data collection ws conducted through Online surveys distributed to each unit. The research results are presented in frequency and percentage tables. The 10 dimensions studied are presented in tables, showing the average percentages of positive and negative responses. Respondents are classified as positive if respondents strongly agree or agree with positive and strongly disagree or disagree with negative statements. To classify patient safety culture, three categories were used:

1) Weak culture
   Patient safety culture is considered weak if the average percetangeof respondents with a positive response is less than 50%.
2) Moderate culture
   Patient safety culture is classified as moderate if the average percentage of respondents with a positive response is between 50% -75%.
3) Strong culture
   Patient safety culture is considered strong if the average percentage of respondent with a positive response is 75% or more.

RESULTS AND DISCUSSION

The survey results are divided into two sections. The first section comprises the characteristics of the study participants, such as their occupation, unit/installation/department, duration of employment in the hospital, and weekly working hours. The second section examines the level of patient safety culture in ten (10) aspects.

Table 1. Respondent Characteristics Based on Profession

Profession	Frequency	Percentage
Doctor	22	11.6%
Nurse	82	43.4%
Nutritionist	1	0.5%
Dietitian	1	0.5%
Refractionist optician	13	6.9%
Pharmacist	2	1.1%
Pharmacist assistant	11	5.8%
Health analyst	4	2.1%
Medical record staff	9	4.8%
Administration	27	14.3%
Manager	8	4.2%
Ocular prosthesis	1	0.5%
Cashier	4	2.1%
CSSD staff	2	1.1%
Courier	1	0.5%
Facet/ lens cutter	1	0.5%
Total	**189**	**100%**

Respondent Characteristics

This study uses a total population approach with a sample size of 189. The response rate for this survey is 100%, indicating that all respondents completedthe survey. Based on the survey results presented in table 1, the three largest respondents groups were nurses, (43.4% or 82 respondents) , administrative staff (14.3% or 27 respondents), and doctors (11.6% or 22 respondents) . The lowest number of respondents were nutritionists, dietitians, couriers, ocular prostheses, and facet/lens cutters with a percentage of 0.5% each. The largest work unit/installation according to the number of staff assigned were the Outpatient Installation with a percentage of 18.5% or 35 respondents and the Inpatient Installation with 16.9% or 32 respondents.

Table 2. Respondents Characteristics Based on Unit/Department

Unit/Department	Frequency	Percentage
Outpatient	35	18.5%
Pharmacy	13	6.9%
Surgical Room and CSSD	26	13.8%
Inpatient	32	16.9%
Diagnostic and Therapeutic Support	15	7.9%
Premium Service	9	4.8%
Emergency Department	7	3.7%
Nutrition	3	1.6%
Functional Medical Staff	19	10.1%
Medical record	20	10.6%
Finance	10	4.2%
Total	**189**	**100%**

In accordance with one of the survey criteria, namely staff who have worked for more than one year, the largest number of respondents had a work tenure of 1-5 years, accounting for 36.5% (69 respondents), followed by those with more than 11 years of service at 34.4 % (65 respondents). Based on the weekly working hours variable, 51.3% 997 respondents) re[orted working 30–40

hours per week. This is in accordance with applicable regulations, that there is no excessive overtime that affects the performance of staff at the Rumah Sakit Mata Undaan.

Table 3. Respondents Characteristics Based Work Period

Working Period at the Hospital	Frequency	Percentage
1-5 Years	69	36.5%
6-10 Years	55	29.1%
> 11 Years	65	34.4%
Total	**189**	**100%**

Table 4. Respondents Characteristics Based on Working Time in a Week

Working Hours in a Week	Frequency	Percentage
< 30 Hours/Week	4	2.1%
30 – 40 Hours/Week	97	51.3%
> 40 Hours/Week	88	46.6%
Total	**189**	**100%**

Safety Culture Level Based on Ten Dimensions According to AHRQ

Based on Table 5, the dimension of patient safety culture at the Rumah Sakit Mata Undaan with the highest positive response is Teamwork (86%) and the lowest is Openness of Communication (55%). Table 5, also shows that out of 10 (ten) dimensions of patient safety culture, 2 (two) dimensions are classified as a "strong" culture, namely “Teamwork” and “Organizational Learning” with percentages of 86% and 81% respectively. The remaining eight dimensions are classified as "moderate" , although two dimensions-staffing and work speed (57%) and Openness of communication (55%)- are close to the “weak” category.

AHRQ instruments were used in 2019 by RSUD Dr. Soetomo Surabaya to monitor patient safety culture. According to the findings of these assessments, the employee dimension ranked second in terms of the highest percentage of positive responses, followed by the openness of communication dimension (Rochmah et al., 2019). Similarly, a 2019 study conducted across hospitals in Sweden showed similar result to this study. The staffing dimension had the lowest percentage, while the teamwork dimension had the highest (Danielsson et al., 2019).

Table 5. Level of Patient Safety Culture at Rumah Sakit Mata Undaan in 2023

Dimensions	Percentage	Category
Teamwork	86%	Strong
Staffing and Work Speed	57%	Moderate
Organizational Learning	81%	Strong
Response to Errors	67%	Moderate
Support for patient safety from a manager, supervisor, or clinical leadership	72%	Moderate
Feedback and Communication about Errors	66%	Moderate
Communication Openness	55%	Moderate
Patient safety incident reporting	68%	Moderate
Hospital Management Support for Patient Safety	73%	Moderate
Handover and Exchange of Information	69%	Moderate
Average	**69%**	**Moderate**

The “communication openness” dimension received a positive response of 55%, placing it in the "moderate" category, but close to the minimum limit of 50%. Communication in patient safety is one of the assessment categories in the Hospital Accreditation Standards, especially in the medical and nursing fields (Ministry of Health, 2022). Communication openness needs to be implemented during patient handover, patient transfer, patients and families education, explanation of rights and obligations, and reporting of patient conditions regarding incident ris. Staff members should feel free to inquire about safety and receive various types of information concerning patient safety concerns. Daily interactions also present opportunities to enhance patients safety. However, some staff may still hesitate to ask questions or express concern when they find out thatis not right in patient care. A study by Kusumapradja at RSUD DKI Jakarta in 2017, found that communication has a significant influence on patient safety culture. Communication patterns in the form of trust and openness will create good information flows and processes so that safety culture will also improve (Mandriani & Yetti, 2019).

The staffing dimension had the lowest positive response with a percentage of 57%. Most studies that measure patient safety culture using the HSOPSC instrument show that the staffing dimension consistently ranks the lowest (Danielsson et al., 2019; Gunawan & Hariyati, 2019; Azyabi et al., 2021). The human resource element in a health service plays a central role in achieving organizational goals. Human factors, such as working hours, workload, shifts schedules, and fatigue, often influence performance outcomes. A study by Al Ma'mari et al. (2020) provides evidence that physical and mental exhaustion, work environment condition, and individual patient safety culture achievement have a noteworthy impact on clinical nurses working in hospitals. The percentage in this dimension has improved compared to 2022 when it was still categized as weak (46%).

Teamwork and organizational learning are the dimensions with the most positive responses at 86% and 81% respectivelly. Gunawan and Hariyati (2019) stated in their study that there are four strenght dimensions in patient safety culture. These dimensions are reporting frequency, managerial support for patient safety, organizational learning, and teamwork. Research conducted in Indonesia in 2020 also produced similar results (Yanriatuti et al., 2020).

In line with Badu (2023) reserach, teamwork has a strong relationship with safety culture and a positive impact on it. This indicates that feelings of unity, closeness and attraction between individuals in a work team play crucial role in determining the success of teamwork. Strong team collaboration ensures that each member takes responsibility fortheir duties, creating empathy and a high sense of trust within the group/team. Other researchers also found that teamwork has a significantly influence patient safety incidents. Effective collaboration between units, strong relationships, and smooth communication contribute to the realisation of a safety culture (Wianti et al., 2021).

The level of collaboration among members of a unit or department demonstrates their degree of unity and teamwork. The definition of collaboration is when a group of people with specialized expertise working together and communicating effectivelly to achieve shared objective. The high percentage of positive responses to the survey indicates that the personnel at the Rumah Sakit Mata Undaan felt mutual respect for one another, supported one another, and collaborated as a team when there was a lot of work to be done.

Based on the survey results, staff have used the errors as a trigger for improvement and have actively evaluated service effectiveness . Errors are considered part of ongoing improvement efforts within their units to enhance patient safety at the hospital. This evident in the follow-up to action taken for patient safety incidents that occurred during the 2023 period. Research conducted

in Iran shows that the organisational learning dimension is the strongest aspect of patient safety culture in both government and private hospitals (Khoshakhlagh et al., 2019). Similarly, Rumah Sakit Mata Undaan conduct annual training for all employees regarding improving quality and patient safety. This training helps enhance staff understanding of patient safety and emphasize the importance of teamwork.

On average, the level of patient safety culture at the Rumah Sakit Mata Undaan in Surabaya in 2023 falls into "Moderate" category (69%),based on the respondent's answers to the HSOPSC questionnaire. Further interviews with selected staff are necessary to identify challenges in their work and determine factors influencing the implementation of patient safety culture.

CONCLUSION AND SUGGESTION

Conclusion

The average positive response to patient safety culture according to AHRQ at the Rumah Sakit Mata Undaan, Surabaya, was classified as moderate, with a percentage of 69.4%, according to a 2023 patient safety culture survey conducted using HSOPSC among employees. Two dimensions were categorized as strong, namely Teamwork (86%) and Organizational Learning (81%) . Notably, no dimensions fell into the weak category.

Suggestion

Comprehensive monitoring and evaluation are needed for every service activity at Rumah Sakit Mata Undaan in Surabaya, involving all hospital's employees. Additionally, awareness champaigns on "Patient Safety Culture" should be conducted using various media and facilities available at the hospital. Especially through health promotion media, such as posters for "Speak Up" initiative and safety culture awareness. Furthermore, efforts should be made to enhance effective communication skills, reporting incidents, how to handle incidents, making improvement plans, through training for employees.

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CONFLICT OF INTEREST

The authors state that no significant conflicting financial, professional, or personal interests affected the performance.

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