

Strengths and Weaknesses of Patient Safety Culture at Kendari City Regional General Hospital

Hilda Harun^{1*}, Jamaluddin ², Fifi Nirmala³

¹ Department of Health Administration and Policy, Faculty of Public Health, University of Halu Oleo, Kendari, Jalan H.E.A. Mokodompit, Kota Kendari 93232, Southeast Sulawesi, Indonesia

² Faculty of Public Health, University of Halu Oleo, Kendari, Jalan H.E.A. Mokodompit, Kendari City 93232, Southeast Sulawesi, Indonesia

³ Faculty of Medicine, University of Halu Oleo, Jalan H.E.A. Mokodompit, Kendari City 93232, Southeast Sulawesi, Indonesia

*Corresponding Author, Email: hildamr2011@gmail.com

ABSTRACT

Patient safety is a core component of high-quality healthcare provision. A patient safety-oriented culture plays a vital role in reducing adverse events, enhancing care quality, and promoting patient-centered services. This study sought to evaluate the patient safety culture at Kendari City Regional General Hospital and to identify dimensions representing key strengths and areas for improvement. A quantitative cross-sectional survey design was applied, involving 100 respondents from both clinical and non-clinical service units. Data were collected using the Hospital Survey on Patient Safety Culture (HSOPSC 1.0) instrument, comprising twelve safety culture dimensions. The findings showed that the overall mean positive response rate for patient safety culture was 61%, indicating a good level of implementation. Key strengths were observed in organizational learning (92%), management support for patient safety (89%), and teamwork within units (89%). In contrast, weaker performance was found in the non-blaming approach to errors (37%), inter-unit collaboration (48%), and patient handover and transition processes (10%). Conclusion: The Kendari City Regional General Hospital has a solid foundation of patient safety culture; however, strengthening is required in non-punitive reporting systems, cross-unit communication, and standardization of patient handover processes to sustainably prevent patient safety risks.

Keywords: HSOPSC Instrument; Hospital; Patient Safety Culture; Patient Safety

INTRODUCTION

Patient safety is a key indicator of healthcare quality and a strategic priority in hospital management. Regulation of the Indonesian Minister of Health No. 11 of 2017 mandates healthcare facilities to implement patient safety systems through risk identification, incident reporting, learning mechanisms, and the development of a safety culture that supports non-punitive reporting (Indonesian Ministry of Health, 2017). In addition, the Indonesian National Hospital Accreditation Standards (SNARS) edition 1.1 require the integration of patient safety principles across all stages of care, particularly within the chapters on Quality Improvement and Patient Safety, Facility Management and Safety, and Patient Assessment (Sutoto, KARS., 2018)

The World Health Organization (WHO) reports that approximately one in ten patients receiving healthcare services is exposed to risks within healthcare systems, with more than three million deaths annually attributable to unsafe care. In low- and middle-income countries, an estimated four out of every 100 people die as a result of unsafe healthcare, and more than half of these risks (approximately one in 20 patients) are preventable (WHO., 2023). A cross-

sectional study conducted in five hospitals in Iran reported a medical error incidence of 49.74% (95 of 191 cases), accompanied by a very low reporting rate of 50.26% (96 of 191 cases) (Poorolajal et al., 2015). In the United States, adverse drug events within healthcare systems represent the third leading cause of mortality, while in low- and middle-income countries approximately one-third of deaths are attributed to medication-related adverse effects (Nauman et al., 2020). According to (WHO., 2014), medication errors in hospital pharmacies range from 0.02% to 2.7%. It is important to recognize not only unavoidable medication errors but also preventable ones, as the majority of hospital errors can, in fact, be avoided. Therefore, hospitals must make continuous efforts to protect patients from errors, injuries, accidents, and infections.

In Indonesia, patient safety began to receive serious attention around the year 2000. Early studies involving 15 hospitals and 4,500 medical records revealed wide variations in the incidence of adverse events, ranging from 8.0% to 98.2% for diagnostic errors, 4.1% to 91.6% for medication errors, and 8.2% to 98.4% for procedural errors (Utarini & Djasri., 2014); (Nasif et al., 2023). One of the key determinants of patient safety success is patient safety culture. Patient safety culture encompasses the shared values, beliefs, perceptions, skills, and behavioral practices of individuals and teams that shape organizational commitment, management style, and the capacity to promote safety (Westat et al., 2021). A major challenge in many healthcare organizations is the persistence of a blame culture, characterized by a tendency to assign individual fault rather than identifying and addressing systemic issues (Afolalu et al., 2021).

Many hospitals continue to face challenges in establishing a strong patient safety culture. Common barriers include low incident reporting rates, inadequate dissemination of safety policies, limited training opportunities, and insufficient managerial support. These conditions underscore the importance of conducting a comprehensive evaluation to assess the extent to which patient safety culture has been effectively implemented in hospitals. A study conducted by (Pagala et al., 2017) at Hospital X in Kendari City revealed that nurses' knowledge of Standard Operating Procedures (SOPs) and patient safety was still insufficient (31.3%), while the rate of non-compliance among nurses in implementing SOPs for patient fall risk prevention remained high (60.4%).

Patient safety culture plays a critical role in improving healthcare quality and preventing adverse events in hospitals. However, variations in teamwork, communication, incident reporting, and management support may influence the implementation of patient safety practices across healthcare units. Assessing patient safety culture is therefore important to identify organizational strengths and areas requiring improvement. This study aimed to describe the profile of patient safety culture at Kendari City Regional General Hospital using the Hospital Survey on Patient Safety Culture (HSOPSC) 1.0 instrument and to identify dimensions categorized as strengths and areas requiring improvement.

Since the Agency for Healthcare Research and Quality (AHRQ) introduced the original version of the Hospital Survey on Patient Safety Culture (HSOPSC 1.0) in 2004, comprising 42 items across 12 patient safety culture dimensions, accompanied by user guidelines, the instrument has been extensively adopted to assess patient safety culture in healthcare settings. (AHRQ, 2004); (Westat et al., 2021) along with its user guidelines, a number of hospitals across different countries have adopted this instrument to assess patient safety culture. A systematic review by (Tartaglia Reis et al., 2018) examined the strengths and weaknesses of patient safety culture across diverse healthcare settings. Similarly, (Gebeyehu

et al., 2024) assessed the current status of patient safety culture in healthcare facilities in low- and middle-income countries. While these studies share similarities with the present study in identifying strengths and weaknesses of patient safety culture dimensions, they did not provide dimension-specific improvement recommendations. In this study, HSOPSC version 1.0 was employed because it has been extensively used and validated across many countries, including Indonesia, allowing for broader comparability with previous studies on patient safety culture.

In Indonesia, several studies have employed the HSOPSC instrument that has been validated and adapted into the Indonesian language, as reported by (Suryani et al., 2022). Studies conducted by (Wahyuningsih et al., 2024); (Muhtar et al., 2020); and (Mandriani & Yetti, 2019) used HSOPSC to describe the implementation of patient safety culture in hospitals. However, most previous studies were limited to reporting descriptive positive response rates without providing dimension specific analyses to guide organizational quality improvement strategies. In addition, evidence regarding patient safety culture in hospitals located in Eastern Indonesia, particularly Southeast Sulawesi Province, remains very limited. To date, no published study has comprehensively evaluated patient safety culture at Kendari City Regional General Hospital using the HSOPSC 1.0 framework. Therefore, this study addresses an important contextual gap by identifying both strengths and areas requiring improvement across patient safety culture dimensions within a regional public hospital setting. The findings are expected to provide locally relevant evidence to support hospital management in developing targeted patient safety improvement strategies and strengthening internal quality benchmarking.

METHODS

Research Design

This study employed a quantitative survey design with a cross-sectional approach to evaluate patient safety culture using the Hospital Survey on Patient Safety Culture (HSOPSC 1.0) instrument.

Population and Sample

The study was carried out at Kendari City Regional General Hospital from January to February 2025. The study population consisted of 309 healthcare professionals working at Kendari City Hospital during the data collection period. The minimum required sample size was calculated using a standard formula for estimating a population proportion, assuming a 95% confidence level, a margin of error of 5%, and a conservative proportion estimate (10%), resulting in a minimum sample size of 96 respondents. To enhance statistical precision and account for potential incomplete responses, a total of 100 respondents were included in the study. A purposive sampling technique was employed to recruit participants who met the inclusion criteria. The sampling frame included nurses, physicians, and other clinical staff actively working during the study period. Questionnaires were distributed directly to eligible respondents. A total of 100 questionnaires were distributed and all were returned, yielding a response rate of 100%. Whereby respondents were intentionally chosen based on predefined inclusion criteria to ensure their relevance to the assessment of patient safety culture.

Data Collection Technique

Data collection was conducted during a single measurement period without follow-up.

Data were collected from primary sources obtained directly from respondents through self-administered questionnaires.

The inclusion criteria for respondents include; (1) Healthcare professionals or support staff who were officially registered and actively employed at Kendari City Regional General Hospital during the study period (January-February 2025), including permanent employees and contract/BLUD staff performing hospital service functions. (2) Individuals directly involved in clinical patient care (e.g., nurses, physicians, midwives, clinical pharmacists, laboratory analysts, radiographers, physiotherapists, nutritionists, etc.); or those indirectly involved but contributing to processes that influence patient safety (e.g., pharmacy, laboratory, radiology, Central Sterile Supply Department/CSSD, medical records, infection prevention and control/PPI, quality and patient safety/PMKP, risk management, safety-related facilities and infrastructure, nutrition services, laundry/linen services, housekeeping/wastewater treatment/IPAL in clinical areas, etc.). (3) Individuals who spent the majority of their working time in relevant clinical or supporting service units (e.g., emergency department, ICU, inpatient wards, outpatient clinics, operating rooms, delivery rooms, pharmacy, laboratory, radiology, CSSD, etc.), thereby possessing practical experience related to work coordination, incident reporting, and handover processes. (4) Ability to read and understand the Indonesian language and willingness to complete the HSOPSC questionnaire independently in accordance with study procedures.

Exclusion criteria for respondents include: 1. Employees on extended leave, study leave, or those not actively working during the data collection period. (2) Interns, medical clerks, residents (PPDS), or students undertaking clinical practice. (3) Questionnaires with incomplete responses in key sections (e.g., more than 20% missing items), rendering them unsuitable for analysis.

Data Analysis

Data analysis was conducted descriptively in accordance with the HSOPSC guidelines issued by the Agency for Healthcare Research and Quality (AHRQ). Microsoft Excel and SPSS software were used to organize and analyze the data. Descriptive statistics, including frequencies, percentages, and mean positive response rates, were calculated to summarize patient safety culture dimensions and questionnaire items. No inferential statistical analyses were performed, as the study was intended to provide a descriptive assessment of patient safety culture. All HSOPSC item codes, dimension classifications, and percentage calculations were cross-checked against the original dataset to ensure consistency across tables, figures, and narrative descriptions. The HSOPSC 1.0 instrument used in this study has been previously validated and widely applied in various healthcare settings. Prior studies, including the Malay version, have demonstrated strong content validity (S-CVI = 0.96), face validity (S-FVI = 0.98), and acceptable internal consistency (Cronbach's α = 0.60–0.80) (Imran Ho et al., 2024). In the present study, additional validity and reliability testing was not performed, as the study employed a standardized and previously validated instrument and was primarily descriptive in nature. The use of an established instrument without revalidation is considered acceptable for descriptive studies focusing on outcome measurement.

Prior to analysis, data screening was conducted to assess completeness. Questionnaires with more than 20% missing responses were predefined as exclusion criteria. However, all returned questionnaires met the completeness requirement, with no questionnaire exceeding the 20% missing data threshold. Therefore, no respondents were

excluded at this stage. Missing responses within questionnaires (less than 20%) were treated as missing values and excluded from denominator calculations for each item and dimension. Unreadable responses, incorrect markings, or multiple markings were categorized as missing data and excluded from calculations. Analysis involved calculating the mean percentage of positive responses at both the item and patient safety culture dimension levels. For positively worded items, responses of Strongly Agree/Agree or Most of the Time/Always were classified as positive responses. For negatively worded items, reverse coding was applied, whereby responses of Strongly Disagree/Disagree or Never/Rarely were classified as positive responses. The mean percentage of positive responses for each dimension was calculated by dividing the total number of positive responses across all items within that dimension by the total number of valid responses (excluding missing data), and then multiplying by 100. The results were presented in bar charts to illustrate the distribution of patient safety culture across dimensions as well as across individual questionnaire items. Interpretation of the findings followed HSOPSC guidelines, whereby dimensions with a positive response rate of $\geq 75\%$ were categorized as strengths of patient safety culture, while dimensions with a positive response rate of $\leq 50\%$ were identified as areas requiring improvement.

Ethical Approval

Ethical approval for this study was obtained from the Research Ethics Committee. All respondents were provided with information regarding the study and signed informed consent forms prior to completing the questionnaire. Ethics approval number: No. 39/UN29.20.1.2/PG/2025.

RESULTS AND DISCUSSION

Table 1 presents the demographic and professional profile of HSOPSC 1.0 respondents, including their work area, position, patient contact, service duration, professional experience, working hours, and patient safety training. Most worked in inpatient units (58%), with others in intensive care (17%), other units (16%), emergency (4%), outpatient (2%), pharmacy (2%), and operating room (1%). The majority were staff nurses or staff (75%), while the rest held managerial, supervisory, medical, technical, or other roles. Nearly all (99%) had direct patient contact, demonstrating broad involvement in care. Over half had worked at the hospital for 1–5 years, and most had similar experience in their current unit. Professional experience was mostly 1–5 years (57%), with smaller proportions having more or less experience. Most (85%) worked 40–59 hours weekly, reflecting significant clinical engagement. Almost all (97%) had received patient safety training. While some data were missing, the overall findings provide a comprehensive snapshot of respondents' backgrounds, experience, and engagement with patient safety, forming a strong basis for interpreting their perspectives on safety culture.

Table 1. Distribution Of Respondents' Demographic and Professional Characteristics Based On The HSOPSC 1.0 (N=100)

Respondent Characteristics	Frequency	Presentation (%)
Work Area/Unit		
Emergency Department (ED)	4	4%
Inpatient Unit	56	58%
Outpatient Unit	2	2%
Intensive Care Unit (ICU)	16	17%
Operating Room	1	1%
Pharmacy	2	2%
Others	15	16%
Missing	4	
Staff Position		
Head of Department/Division	5	5%
Section Head/Coordinator	2	2%
Team Leader/Supervisor	5	5%
Staff Nurse / Staff Member	73	75%
General Practitioner	1	1%
Specialist Doctor	1	1%
Technician (ECG, Laboratory, Radiology)	1	1%
Nutritionist	5	5%
Others	5	5%
Missing	2	
Interaction with Patients		
Yes, direct interaction	98	99%
No, direct interaction	1	1%
Missing	1	
Length of service at the hospital		
1 - 5 years	54	57%
6 - 10 years	31	33%
11 - 15 years	9	10%
Missing	6	
Length of service in current unit		
1 - 5 years	68	72%
6 - 10 years	21	23%
11 - 15 years	5	5%
Missing	6	
Length of professional experience		
Less than 1 year	7	7%
1 – 5 years	56	57%
6 – 10 years	25	25%
11 – 15 years	11	11%
Missing	1	
Working Hours per Week		
<20 hours/week	5	6%
20 – 39 hours/week	3	3%
40 – 59 hours/week	75	85%
60 - 79 hours/week	3	3%
80 – 99 hours/week	3	3%
Missing	11	
Participation in Patient Safety Training While Working at the Hospital		
Ever participated	96	97%
Never participated	3	3%
Missing	1	

Assessment of Patient Safety Culture in Kendari City Hospitals

Table 2 summarizes the patient safety culture assessment across hospitals in Kendari City, highlighting the strongest and weakest items within each of the twelve evaluated dimensions. The findings offer a comprehensive overview of areas where patient safety practices are perceived positively and highlight aspects that require further improvement. These results demonstrate variations in teamwork, managerial support, communication, incident reporting, staffing, and coordination, thereby identifying organizational strengths and potential priorities for enhancing patient safety culture within these hospitals.

Table 2. Summary of Patient Safety Culture Assessment Outcomes in Kendari City Hospitals

Dimensions	Strongest Items	Weakest Items	Findings
D1: Teamwork within units	A1 (98%) "Everyone helps each other in our unit."	A11 (64%) "When other areas are busy, nurses from those areas will help."	Internal solidarity and teamwork are already strong, but coordination across areas within units needs to be strengthened.
D2: Managerial and supervisory commitment and actions toward safety	B2 (92%) "Managers are receptive to and take into account staff input."	B3 & B4 (14%) "Supervisors encourage faster work performance, sometimes at the expense of standard procedures/failing to anticipate problems"	Participative leadership is present, yet still inconsistent in maintaining safety during periods of high workload.
D3: Organizational learning and ongoing improvement	A6 (96%) "We take proactive steps to enhance patient safety"	None	A strong culture of learning and reflection has been established, representing one of the hospital's key strengths.
D4: Managerial commitment to patient safety	F9 (94%) "Management shows concern for patient safety. when incidents (adverse or near-miss events) occur."	None	Management demonstrates good policy-level commitment, but greater operational-level support is needed.
D5: Overall assessment of patient safety	A15 (86%) "Staff do not sacrifice safety just to increase work productivity"	A17 (30%) "Patient safety issues frequently arise in this unit."	Awareness of patient safety importance is high, although there remains a perception of safety risks in daily practice.
D6: Feedback and	C1 (85%) "Managers provide	None	Feedback mechanisms exist, but the culture of

Dimensions	Strongest Items	Weakest Items	Findings
communication about errors	feedback for improvement based on incident reports (adverse or near-miss events)."		open communication is not yet psychologically safe.
D7: Communication openness	C2 (87%) "We feel free to speak up if we see something that may be unsafe"	C6 (10%) "Staff hesitate to ask questions when problems arise"	There is a duality of perception: some staff feel free to speak up, while others still fear expressing their opinions.
D8: Frequency of events reported	D1 (71%) "Mistakes are corrected before they affect patients."	D2 (47%) "Mistakes that do not result in harm are rarely reported."	Incident reporting is functioning but does not yet cover all event types; reporting awareness remains selective.
D9: Teamwork across departments	F10 (99%) "Hospital departments collaborate effectively to deliver optimal patient care"	F6 (4%) "I feel uncomfortable working with staff from other units in this hospital."	Significant disparities across units exist: some are already collaborative, while others remain weak in patient coordination and communication.
D10: Staffing	A7 (73%) "Our unit employs many temporary staff for patient safety activities."	A14 (24%) "We work in a crisis mode and rush to get things done."	The healthcare staffing ratio is still suboptimal, leading to fatigue risks and potential service errors.
D11: Non-punitive response to errors	None	A12 (12%) "Discussions focus on the person who made the error, not the problem itself."	A culture of blame continues to prevail and needs to shift toward a just culture oriented toward problem resolution, thereby fostering openness in incident reporting
D12: Handoffs and transitions in the hospital	None	F11 (4%) "Shift changes in this hospital often cause problems for patients."	Handover procedures are not yet effective and require standardized communication across shifts and units.

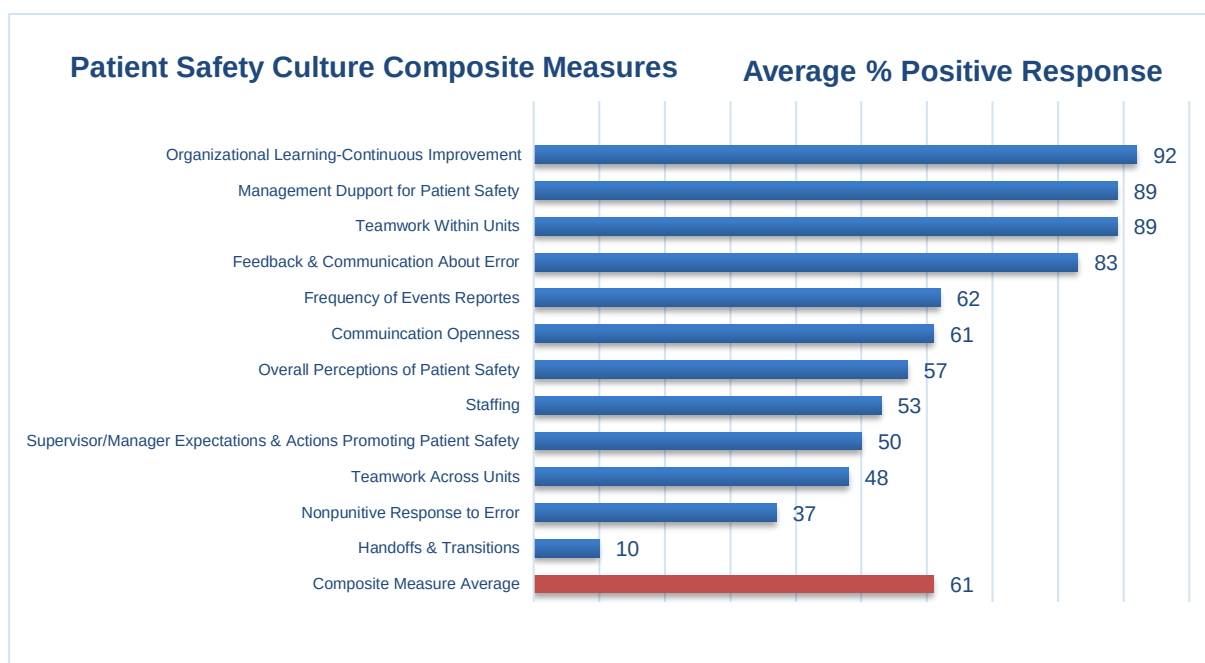


Figure 1. Analysis Results of Patient Safety Culture At Kendari City Regional General Hospital Based On HSOPSC

Overall, patient safety culture at Kendari City Hospital is classified as good, with an average positive response rate of 61%. The distribution of scores across dimensions reveals a clear pattern: several dimensions demonstrated strong performance (>80%), while others were moderate to weak (<50%), with one critical dimension scoring as low as 10%. This indicates that the hospital has a solid foundation in patient safety culture, particularly at the levels of organizational learning and management support, although significant gaps remain in the consistent application of safety practices.

Key strengths were identified in organizational learning processes and ongoing quality improvement (92%), leadership commitment to patient safety (89%), intra-unit team collaboration (89%), and error-related feedback and information sharing (83%). These findings reflect a learning-oriented culture supported by leadership commitment and strong intra-unit collaboration, enabling staff to use incidents as learning opportunities and continuously improve care processes.

Conversely, several dimensions require priority improvement, including a blame-free response to mistakes (37%), inter-unit collaboration (48%), and handoffs and transitions (10%). Moderate scores were also observed in incident reporting frequency (62%), communication openness (61%), overall perception of patient safety (57%), staffing adequacy (53%), and supervisor/manager expectations and actions (50%), indicating challenges related to workload, cross-unit coordination, and psychological safety in reporting incidents.

Table 3. Summary of Patient Safety Culture Dimensions

No.	Patient Safety Culture Dimension		Strongest Item	Weakest Item
1	Teamwork	Within Units	A1 – Staff help each other (98%)	A11 – Assistance from other areas during high workload (64%)
2	Managerial Support and Actions for Patient Safety		B2 – Manager considers staff suggestions (92%)	B3 & B4 – Pressure for faster work / lack of proactive management (14%)
3	Organizational Learning and Ongoing Improvement		A6 – Proactive measures to improve patient safety (96%)	A13 – Evaluation of safety improvement effectiveness (88%)
4	Hospital Leadership Support for Patient Safety		F9 – Leadership concern for patient safety incidents (94%)	F1 – Leadership supports a safe work environment (81%)
5	Overall Assessment of Patient Safety		A15 – Safety is not compromised despite workload (86%)	A17 – Patient safety concerns frequently arise (30%)
6	Communication and Feedback on Errors		C1 – Manager provides feedback on incident reports (85%)	C3 – Staff are informed about adverse events/near misses (81%)
7	Openness in Communication		C2 – Staff are free to speak up about safety risks (87%)	C6 – Staff hesitate to speak up about problems (10%)
8	Event Reporting Frequency		D1 – Near-miss errors are reported (71%)	D2 – Errors without potential harm are reported (47%)
9	Inter-Unit Teamwork		F10 – Units collaborate effectively for optimal care (99%)	F6 – Discomfort when working with staff from other units (4%)
10	Human Resource Availability		A7 – Temporary staff are used for patient safety activities (73%)	A14 – Unit operates in “crisis mode” (24%)
11	Non-Punitive Response to Errors		A8 – Mistakes may be held against staff (55%)	A12 – Discussion focuses on the person rather than the problem (12%)
12	Handoffs and Transitions in the Hospital		F3 – Problems when patients move across care units (16%)	F11 – Shift changes cause problems for patients (4%)

Table 2 summarizes the outcomes of the HSOPSC across 12 dimensions and 42 items. Overall, the average positive response rates indicate that most staff at Kendari City Hospital have a good awareness of patient safety, although notable variation exists across dimensions, with several areas still requiring fundamental improvement.

Patient safety culture was strongest in continuous organizational learning (D3), management support for patient safety (D4), and intra-unit teamwork (D1). High scores across all items in D3 (highest A6 at 96%) reflect an active learning culture in which errors contribute

to ongoing improvement processes. Strong management commitment was evident in D4, with F9 scoring 94%, indicating that patient safety constitutes a key organizational focus. Teamwork within units also emerged as a key operational strength, with very high scores for A1 (98%) and A3 (97%), demonstrating strong collaboration and mutual support among staff, particularly during high workloads. In addition, Feedback and Communication About Errors (D6) showed favorable results (highest score 87%), suggesting that learning mechanisms from incidents are functioning effectively.

In contrast, several critical weaknesses were identified. The lowest-scoring dimensions were a non-blaming approach to error response (D11), patient handover and transition processes (D12), and inter-unit teamwork (D9). Extremely low scores in D11 (lowest A12 at 12%) indicate persistent fear of blame and punishment, suggesting the continued presence of a blame culture that discourages open incident reporting. The very low score for handoffs and transitions (F11 at 4%) highlights serious deficiencies in shift changes and patient information transfer, increasing the risk of information loss. Teamwork across units showed substantial inconsistency, with one item scoring very high (F10 at 99%) while others were extremely low, indicating uneven inter-unit coordination and communication.

Additional weaknesses were observed in safety-promoting expectations and actions of supervisors and managers (D2) and Staffing (D10), where low scores suggest that high workloads, staffing constraints, and shortcut behaviors may compromise patient safety.

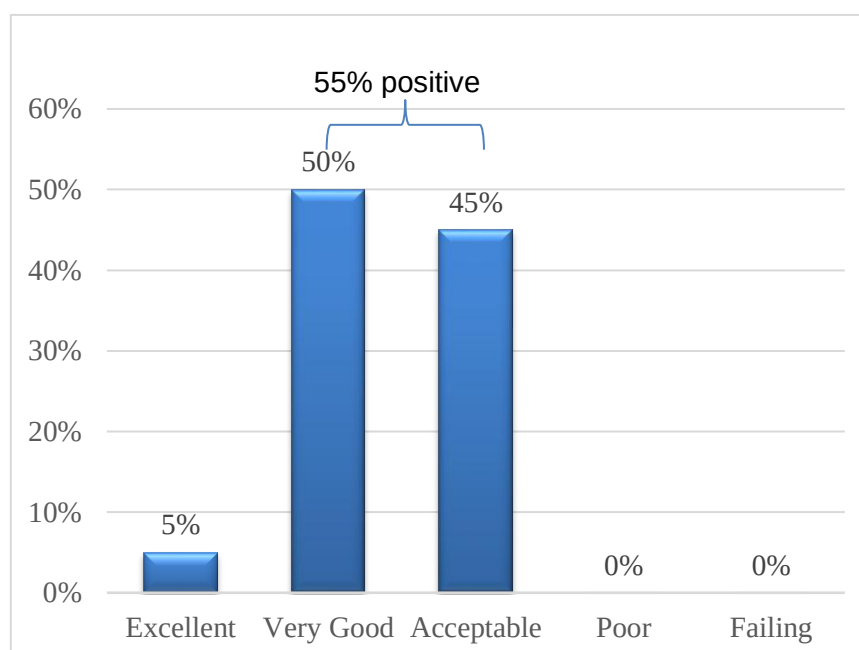


Figure 2. Percentage of responses on the level of patient safety at kendari city hospital

Figure 2 presents respondents' overall rating of patient safety. A total of 55% of respondents rated patient safety as high (outstanding or very good), while 45% rated it as acceptable. This indicates that more than half of the respondents perceived patient safety conditions positively, although a substantial proportion still viewed them as moderate rather than optimal. This positive assessment indicates that most healthcare workers have sufficient confidence and professional experience to promote a safe clinical care environment. The findings are consistent with the dimensional analysis in Figures 1 and 2, which identified

teamwork, management support, and continuous learning as the main strengths of the hospital's patient safety culture.

However, the substantial proportion of respondents rating patient safety as only acceptable (45%) suggests that safety practices are not yet consistently implemented across all units. Persistent challenges remain in cross-unit communication, patient handovers, and non-punitive incident reporting, reflecting the disparities observed in Figure 2. These results indicate that while the patient safety system is functioning, it has not yet reached optimal operational maturity.

Overall, Figure 3 demonstrates that patient safety culture at Kendari City Hospital is generally well established and positively perceived by staff, but further strengthening of implementation is required to progress toward a high-reliability organization, where patient safety is fully embedded in all workflows and decision-making processes.

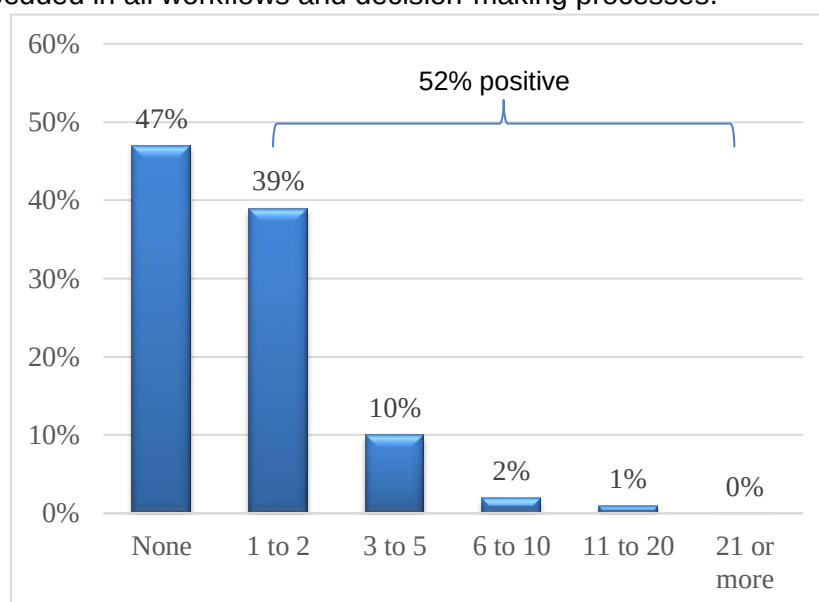


Figure 3. Percentage Of Responses By Number Of Events Reported During The Past 12 Months At Kendari City Hospital

Figure 3 shows the frequency of incident reporting over the past 12 months. A total of 52% of respondents reported at least one incident, while 47% reported no incidents. This suggests that although more than half of the staff have engaged in reporting activities, a considerable proportion remain non-reporters, indicating gaps in reporting culture and system utilization. This indicates a moderate level of awareness regarding the importance of incident reporting as a tool for organizational learning and prevention of recurring adverse events.

These findings are consistent with the strong performance of the Organizational Learning and Continuous Improvement dimension, suggesting that reporting has begun to function as part of the hospital's quality improvement process. However, the substantial proportion of staff who never reported incidents highlights persistent gaps in both the reporting culture and operational mechanisms.

Low reporting rates may be attributed to an underdeveloped non-punitive response to error, limited training on confidential reporting procedures, and insufficient feedback following incident reports. While awareness of reporting is emerging, a psychologically safe environment that supports open reporting has not yet been fully established. Therefore, Figure 4 reinforces earlier findings that Kendari City Hospital has laid the foundation for a patient safety reporting

culture but requires further strengthening of just culture principles, managerial support, and feedback systems to ensure reporting becomes an integral component of continuous organizational learning and patient safety improvement.

Recommendations for Priority Improvements in Patient Safety Culture at Kendari City Hospital

Table 3 outlines the priority areas for improving patient safety culture in Kendari City Hospital, together with the recommended actions, improvement objectives, and measurable indicators of success. The proposed strategies focus on addressing key weaknesses identified in the assessment, particularly the need to strengthen a non-punitive culture for incident reporting, improve patient handover processes, enhance communication, and promote greater managerial and staff involvement in patient safety practices. These recommendations are intended to provide practical guidance for hospital management in developing targeted interventions and monitoring progress toward a safer and more supportive patient care environment.

Table 4. Priority Areas for Improvement in Patient Safety Culture at Kendari City Hospital

No	Main Priority	Recommended Actions	Improvement Objectives	Success Indicators
1	Strengthening the Non-Punitive Culture for Incident Reporting Strengthening a Non-Punitive Culture in Incident Reporting	✓ Issue a protection policy for incident reporters ✓ Conduct socialization and training sessions for all staff ✓ Train managers to focus on system solutions rather than individual blame.	To create a psychologically safe work environment (<i>just culture</i>) and increase staff participation in incident reporting.	✓ Non-punitive policy approved and disseminated ✓ ≥20% increase in the number of incident reports within one year. ✓ Survey results show improved perceptions of safety in reporting.
2	Improving the Quality of Patient Handover Processes	✓ Develop a standardized handover format (e.g., SBAR) and patient transition checklist.	To enhance the consistency, completeness, and clarity of communication between shifts/units, minimizing the loss of critical	✓ A standardized handover SOP is available and implemented ✓ Compliance with handover

No	Main Priority	Recommended Actions	Improvement Objectives	Success Indicators
		✓ Mandate its use in all hospital units. ✓ Conduct regular compliance audits.	patient information.	- procedures increases to >90%. ✓ A decrease in incidents related to miscommunication.
3	Strengthening Cross-Unit Coordination and Communication Strengthening Cross-Unit Coordination and Communication	✓ Establish regular cross-unit forums to discuss patient transition cases and safety incidents ✓ Assign a contact person between units during patient transfers. ✓ Develop standardized inter-unit communication flow procedures.	To ensure continuity of information and collaboration in patient care across units.	✓ Coordination forums held regularly (at least once per month). ✓ Improved cross-unit teamwork scores in the next survey ✓ Reduction in complaints related to inter-unit miscommunication.
4	Optimizing the Role of Supervisors/Managers in Patient Safety Culture	✓ Conduct safety coaching and effective communication training for supervisors/managers ✓ Encourage positive and constructive feedback to staff.	To strengthen patient safety leadership and increase staff trust in managerial support.	✓ All supervisors participate in training. ✓ Improving the scores for the dimension of supervisor/manager expectations and actions. ✓ Increasing staff

No	Main Priority	Recommended Actions	Improvement Objectives	Success Indicators
				satisfaction with leadership support.
5	Improving Allocation Workload Management	Staff and ✓ Conduct a workload analysis for each unit. ✓ Develop a plan for workforce redistribution or additional resource allocation in critical units	Reducing excessive workload and minimizing the risk of errors caused by healthcare worker fatigue.	✓ A workload analysis report is completed. ✓ Adjustment of healthcare worker ratios in accordance with standards. ✓ Reduction in incident reports related to high workload.
6	Strengthening the mechanisms for patient safety incident reporting and feedback	✓ Providing an easily accessible digital or anonymous reporting system. ✓ Ensuring that every report receives transparent follow-up and feedback.	Improving the effectiveness of the reporting system and staff confidence in the follow-up process.	✓ The digital reporting system is functional and actively used. ✓ Each report receives written feedback. ✓ Increased frequency of incident reporting and improved reporter satisfaction.

Key Strengths of Patient Safety Culture: Organizational Learning, Leadership Support, and Team Collaboration

An overall positive response rate of 61% indicates that patient safety culture at Kendari City Hospital is good and still requires further improvement. Key strengths include organizational learning (92%), management support (89%), intra-unit teamwork (89%), and

feedback on errors (83%), reflecting a learning-oriented and leadership-supported environment. This condition may be explained by the quality culture values embraced by healthcare professionals, which include participatory engagement, mutual respect among colleagues, recognition of work performance, and openness to sharing best practices. Collectively, these four indicators create an organizational climate conducive to learning and continuous improvement, in which patient safety and service quality are promoted through a safety culture that is internalized across all levels of the organization (Alabdullah & Karwowski, 2024). Similar patterns have been reported in previous studies, where organizational learning and teamwork consistently ranked highest, non-blaming response to errors and handoffs were weaker (Liu et al., 2024); (Gampetro et al., 2019); (Hassan et al., 2024). These findings align with the HSOPSC framework, which highlights learning culture and management support as core drivers of patient safety (AHRQ., 2004); (Westat et al., 2021). Research evidence consistently shows that team collaboration within units receives the highest ratings across various settings, underscoring that effective teamwork, peer support, and organizational leadership are critical for ensuring patient safety and improving clinical outcomes (Gebeyehu et al., 2024); (Murray, Sorra, & Gale, 2024).

Weak Areas: Handoffs and Transitions, Non-Punitive Response, and Cross-Unit Communication

The two weakest areas identified were handoffs and transitions (10% positive response) and non-blaming response to errors (37%), followed by inter-unit teamwork (48%). In line with this, (Hassan et al., 2024) reported that non-blaming response to errors and handoffs/transitions ranked as the lowest patient culture of safety dimensions. Similarly, (Gampetro et al., 2019) found very low scores for handoffs and transitions in U.S. pediatric hospitals (mean score 2.64). The weak performance observed in patient handoffs and transitions, as well as cross-unit communication, may be attributed to resource limitations, including the lack of standardized handoff procedures and insufficient healthcare workforce ratios. Such conditions may increase the risk of staff burnout, which may subsequently compromise the quality of communication and inter-unit coordination.

(Poku et al., 2023) emphasized that patient handoff processes become more effective and efficient when supported by effective communication and teamwork among healthcare team members, thereby improving the management of patient safety incidents and ensuring timely and appropriate responses. Similarly, (Kim et al., 2021) argued that accurate and efficient handoffs can be facilitated through the use of structured communication tools such as SBAR (Situation–Background–Assessment–Recommendation), which standardize communication content during handoff processes using formats/templates that can be consistently implemented by healthcare professionals. Improvements in the quality of handoff communication, both written and verbal, provide strong evidence that structured handoff interventions contribute significantly to reducing patient safety incidents.

Other studies recommend the application of a structured SBAR-based handover communication system framework, which has been shown to reduce communication errors during handovers and effectively improve nurse communication (Shinta & Bunga, 2024). According to (WHO., 2007), SBAR (Situation, Background, Assessment, Recommendation) enables healthcare professionals to convey critical information clearly by describing the current patient situation, relevant medical background, clinical assessment, and recommended next

steps. This method is particularly useful in both emergency situations and routine nurse–physician interactions (Kosim & Saimi, 2025)

Incident Reporting Behavior: Emerging but Uneven

Approximately 52% of respondents reported having submitted at least one patient safety incident report (mostly 1–2 incidents per year), while 47% had never reported an incident. A prevailing blame culture within healthcare organizations may foster self-protective behaviors among healthcare professionals, thereby contributing to the underreporting of patient safety incidents (Dhamanti et al., 2021). Reluctance to report errors is strongly influenced by perceived punitive consequences, including professional sanctions, legal repercussions, and potential damage to individual reputation (Mahmoud et al., 2023). Such conditions create a vicious cycle in which incidents remain unreported, systemic root causes are left unidentified, and the likelihood of recurrent adverse events remains high (Vikan et al., 2023). This observation is in agreement with (Fekadu et al., 2025), who found that 56% of healthcare workers had never reported a patient safety incident in the previous 12 months, with only 25% reporting 1–2 incidents annually. (Shemsu et al., 2024) documented an overall incident reporting rate of 28.7%. A systematic review across Africa and other low-income countries revealed that the majority of healthcare workers rarely or never report incidents (Fekadu et al., 2025), indicating that underreporting is a global issue rather than a purely local phenomenon.

(Alrasheeday et al., 2024) reported that the majority of nursing staff in Hail City, Saudi Arabia, identified inadequate knowledge of reporting procedures and fear of punitive consequences as the main barriers to incident reporting. According to (Yang & Liu, 2021), a supportive work environment is a critical factor in encouraging nurses' willingness to report incidents, thereby contributing substantially to patient safety improvement. (Alsobou et al., 2025) further noted that more positive staff perceptions of patient safety culture correspond to with more favorable attitudes toward incident reporting.

The WHO emphasizes that patient safety cannot rely solely on individual compliance, but rather requires robust reporting-and-learning systems capable of capturing incidents, transforming them into learning opportunities, and translating that learning into measurable process improvements (WHO., 2020); (Kumah, 2025).

CONCLUSION

Overall, the hospital's patient safety culture is in a developing-to-mature stage, requiring greater consistency across all organizational levels to become a fully embedded and sustainable collective practice. By reinforcing weak areas and maintaining the existing strong dimensions, Kendari City Hospital has substantial potential to build a patient safety culture that is strong, adaptive, and sustainable.

These findings indicate the need for a transformation from a blame culture to a just culture, emphasizing the importance of psychological safety to encourage open incident reporting. Improving cross-unit communication and implementing standardized handover protocols, such as SBAR, are essential steps to ensure continuity of care and patient safety. From a managerial perspective, strong leadership commitment is required through consistent policies, adequate human resources, and strengthened reporting systems and patient safety training. This study provides a comprehensive mapping as a basis for dimension-based interventions. Future research is needed to evaluate the effectiveness of interventions and to examine the longitudinal development of patient safety culture.

REFERENCES

- Agency for Healthcare Research and Quality (AHRQ). (2004). Surveys on Patient Safety Culture (SOPS) hospital survey. <https://www.ahrq.gov/sops/surveys/hospital/index.html> [Accessed 16 Nov 2025]
- Afolalu, O. O., Jordan, S., & Kyriacos, U. (2021). Medical error reporting among doctors and nurses in a Nigerian hospital: A cross-sectional survey. *Journal of Nursing Management*, 29(5), 1007–1015. <https://doi.org/10.1111/jonm.13238>
- Alabdullah, H., & Karwowski, W. (2024). Patient Safety Culture in Hospital Settings Across Continents: A Systematic Review. In *Applied Sciences (Switzerland)* (Vol. 14, Number 18). Multidisciplinary Digital Publishing Institute (MDPI). <https://doi.org/10.3390/app14188496>
- Alrasheeday, A. M., Alkubati, S. A., Alrubaiee, G. G., Alqalah, T. A., Alshammari, B., Abdullah, S. O., & Loutfy, A. (2024). Estimating Proportion and Barriers of Medication Error Reporting Among Nurses in Hail City, Saudi Arabia: Implications for Improving Patient Safety. *Journal of Multidisciplinary Healthcare*, 17, 2601–2612. <https://doi.org/10.2147/JMDH.S466339>
- Alsobou, N., Rayan, A. H., Bageas, M. H., ALBashtawy, M. S., Oweidat, I. A., Al-Mugheed, K., & Abdelaliem, S. M. F. (2025). The relationship between patient safety culture and attitudes toward incident reporting among registered nurses. *BMC Health Services Research*, 25(1). <https://doi.org/10.1186/s12913-025-12763-0>
- Dhamanti, I., Leggat, S., Barraclough, S., & Rachman, T. (2021). Factors contributing to under-reporting of patient safety incidents in Indonesia: leaders' perspectives. *F1000Research*, 10, 367. <https://doi.org/10.12688/f1000research.51912.1>
- Fekadu, G., Marshall, A. P., Muir, R., Tobiano, G., & Ireland, M. J. (2025). Psychometric Evaluations of the Hospital Survey on Patient Safety Culture Version 2.0 in Ethiopia (E-HSoPSC 2.0): A Cross-Sectional Study. *BMJ Open*, 15(11), e106109. <https://doi.org/10.1136/bmjopen-2025-106109>
- Gampetro, P. J., Segvich, J. P., Jordan, N., Velsor-Friedrich, B., & Burkhart, L. (2019). *Perceptions of Pediatric Hospital Safety Culture in the United States: An Analysis of the 2016 Hospital Survey on Patient Safety Culture Introduction: Medical errors in the pediatric population can quickly*. <https://doi.org/10.1097/pts.0000000000000602>
- Gebeyehu, N. A., Tegegn, K. D., Admass, B. A., Shewangashaw, N. E., Atalay, Y. A., Sewuyew, D. A., Gebremariam, A. E., & Gelaw, K. A. (2024). Patient Safety Culture Among Healthcare Settings in Low and Middle-Income Countries: A Systematic Review and Meta-Analysis. *Patient Experience Journal*, 11(3), 185–201. <https://doi.org/10.35680/2372-0247.1909>
- Hassan, A. E., Mohammed, F. A., Zakaria, A. M., & Ibrahim, I. A. (2024). Evaluating the Effect of TeamSTEPPS on Teamwork Perceptions and Patient Safety Culture among Newly Graduated Nurses. *BMC Nursing*, 23(1). <https://doi.org/10.1186/s12912-024-01850-y>
- Imran Ho, D. S. H., Jaafar, M. H., & Mohammed Nawi, A. (2024). Revised Hospital Survey on Patient Safety Culture (HSOPSC): cultural adaptation, validity and reliability of the Malay version. *BMC Health Services Research*, 24(1). <https://doi.org/10.1186/s12913-024-11802-6>
- Kementerian Kesehatan RI. (2017). Peraturan Menteri Kesehatan Republik Indonesia Nomor 11 Tahun 2017 Tentang Keselamatan Pasien
- Kim, J. H., Lee, J. L., & Kim, E. M. (2021). Patient safety culture and handoff evaluation of

- nurses in small and medium-sized hospitals. *International Journal of Nursing Sciences*, 8(1), 58–64. <https://doi.org/10.1016/j.ijnss.2020.12.007>
- Kosim, N., & Saimi, S. (2025). Enhancing patient safety outcomes through SBAR communication: A systematic review. *Malahayati International Journal of Nursing and Health Science*, 8(7), 843–857. <https://doi.org/10.33024/minh.v8i7.1046>
- Kumah, A. (2025). Adverse event reporting and patient safety: the role of a just culture. *Frontiers in Health Services*, 5. <https://doi.org/10.3389/frhs.2025.1581516>
- Liu, Y., Xu, J., Yang, X., Yue, L., Li, G., & Mah, A. P. (2024). Patient safety culture in private hospitals in China: a cross-sectional study using the revised Hospital Survey on Patient Safety Culture. *Frontiers in Public Health*, 12. <https://doi.org/10.3389/fpubh.2024.1323716>
- Mahmoud, H. A., Thavorn, K., Mulpuru, S., Mclsaac, D., Abdelrazek, M. A., Mahmoud, A. A., & Forster, A. J. (2023). Barriers and facilitators to improving patient safety learning systems: A systematic review of qualitative studies and meta-synthesis. *BMJ Open Quality*, 12(2). <https://doi.org/10.1136/bmjog-2022-002134>
- Mandriani, E., Hardisman, H., & Yetti, H. (2019). Analisis Dimensi Budaya Keselamatan Pasien Oleh Petugas Kesehatan di RSUD dr Rasidin Padang Tahun 2018. *Jurnal Kesehatan Andalas*, 8(1), 131–137. <https://doi.org/10.25077/jka.v8i1.981>
- Muhtar, M., Aniharyati, A., & Ahmad, A. (2020). Pelaksanaan Budaya Keselamatan Pasien pada Masa Pandemi Covid-19 di Rumah Sakit Umum Daerah Bima. *Bima Nursing Journal*, 2(1), 55–61. <https://doi.org/10.32807/bnj.v2i1.664>
- Murray J., Sorra J., & Gale B. (2024). Ensuring Patient and Workforce Safety Culture in Healthcare.
- Nasif, H., Juwita, D. A., & Ayunda, H. (2023). Level of Writing and Evaluation of Completeness Writing Integrated Patient Development Record (CPPT) Pharmacist at M Hatta Tertiary and Achmad Mochtar Tertiary Hospital in Bukittinggi Indonesia. In *Quest Journals Journal of Research in Pharmaceutical Science*. 9(5).
- Nauman, J., Soteriades, E. S., Hashim, M. J., Govender, R., Al Darmaki, R. S., Al Falasi, R. J., Ojha, S. K., Masood-Husain, S., Javaid, S. F., & Khan, M. A. (2020). Global Incidence and Mortality Trends due to Adverse Effects of Medical Treatment, 1990–2017: A Systematic Analysis from the Global Burden of Diseases, Injuries and Risk Factors Study. *Cureus*. <https://doi.org/10.7759/cureus.7265>
- Poorolajal, J., Rezaie, S., & Aghighi, N. (2015). Barriers to medical error reporting. *International Journal of Preventive Medicine*, 2015-October. <https://doi.org/10.4103/2008-7802.166680>
- Pagala, I., Shaluhayah, Z., & Widjasena, B. (2017). Perilaku Kepatuhan Perawat Melaksanakan SOP Terhadap Kejadian Keselamatan Pasien di Rumah Sakit X Kendari. *Jurnal Promosi Kesehatan Indonesia*, 12(1), 138-149. <https://doi.org/10.14710/jpki.12.1.138-149>.
- Poku, C. A., Attafuah, P. Y. A., Anaba, E. A., Abor, P. A., Nketiah-Amponsah, E., & Abuosi, A. A. (2023). Response to patient safety incidents in healthcare settings in Ghana: the role of teamwork, communication openness, and handoffs. *BMC Health Services Research*, 23(1). <https://doi.org/10.1186/s12913-023-10000-0>
- Shemsu, A., Dechasa, A., Ayana, M., & Tura, M. R. (2024). Patient safety incident reporting behavior and its associated factors among healthcare professionals in Hadiya zone, Ethiopia: A facility based cross-sectional study. *International Journal of Nursing Studies Advances*, 6. <https://doi.org/10.1016/j.ijnsa.2024.100209>

- Shinta, N. D., & Bunga, A. L. (2024). The implementation of SBAR communication method for patient safety: A literature review. *Malahayati International Journal of Nursing and Health Science*, 7(5). <https://doi.org/10.33024/minh.v7i5.190>
- Suryani, L., Letchmi, S., & Said, F. B. M. (2022). Cross-culture adaptation and validation of the Indonesian version of the Hospital Survey on Patient Safety Culture (HSOPSC 2.0). *Belitung Nursing Journal*, 8(2), 169–175. <https://doi.org/10.33546/bnj.1928>
- Sutoto, dr. (2018). Sambutan Ketua Eksekutif Komisi Akreditasi Rumah Sakit (KARS). Standar Nasional Akreditasi Rumah Sakit Edisi 1
- Tartaglia Reis, C., Paiva, S. G., & Sousa, P. (2018). The patient safety culture: A systematic review by characteristics of Hospital survey on patient safety culture dimensions. In *International Journal for Quality in Health Care* (Vol. 30, Number 9, pp. 660–677). Oxford University Press. <https://doi.org/10.1093/intqhc/mzy080>
- Utarini, A., & Djasri, H. (2014). Keselamatan Pasien dan Mutu Pelayanan Kesehatan: Menuju Kemana? *Jurnal Manajemen Pelayanan Kesehatan*, Volume 15, Halaman 159–160. <https://doi.org/10.1136/bmjqs.2011.051284>
- Vikan, M., Haugen, A. S., Bjørnnes, A. K., Valeberg, B. T., Deilkås, E. C. T., & Danielsen, S. O. (2023). The association between patient safety culture and adverse events – a scoping review. *BMC Health Services Research*, 23(1). <https://doi.org/10.1186/s12913-023-09332-8>
- Wahyuningsih, C. S., Asih, E. B., Masitoh, R., & Rahmawati, K. (2024). Patient Safety Culture in Hospitals based on Agency For Health Care Research And Quality (AHRQ). *Journal of Health Policy and Management*, 09(02), 197–210. <https://doi.org/10.26911/thejhpm.2024.09.02.06>
- Westat, J., Sorra, N., Yount, T., Famolaro, M. P. S., & Gray, M. B. A. L. (2021). *AHRQ Hospital Survey on Patient Safety Culture Version 2.0: User's Guide*.
- World Health Organization. (2007). Communication During Patient Hand-Overs. <https://cdn.who.int/media/docs/default-source/patient-safety/patient-safety-solutions/ps-solution3-communication-during-patient-handovers.pdf> [Accessed 16 Nov 2025]
- World Health Organization. (2014). Reporting and Learning Systems for Medication Errors: the role of pharmacovigilance centres. WHO Library Cataloguing-in-Publication Data
- World Health Organization. (2020). Global Patient Safety Webinar Series Patient Safety Incident Reporting and Learning Systems. Technical report and guidance. <https://iris.who.int/server/api/core/bitstreams/49947589-0a06-4708-8cc9-379bc8d2f9f2/content>
- World Health Organization. (2023). Patient Safety. <https://www.who.int/news-room/fact-sheets/detail/patient-safety>
- Yang, Y., & Liu, H. (2021). The effect of patient safety culture on nurses' near-miss reporting intention: the moderating role of perceived severity of near misses. *Journal of Research in Nursing*, 26(1–2), 6–16. <https://doi.org/10.1177/1744987120979344>