

Challenges for enhancing patient safety culture in hospitals

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Abstract

Background: Building a patient safety culture is a crucial step in minimizing and preventing adverse patient incidents. Patient safety culture is influenced by the implementation of a patient safety management system. **Objective:** This study aims to analyze the challenges of implementing a patient safety management system to improve patient safety culture in hospitals. **Methods:** A qualitative study was conducted in two hospitals in Jambi Province. Data were collected through in-depth interviews with purposively selected informants. Data were analyzed using content analysis. **Results:** This study identified several challenges in the patient safety management system, including the lack of leadership involvement in ensuring that the patient safety management system and practices are understood by all staff. Leadership support is also needed to improve service facilities and infrastructure, and promote policies that support patient safety. Lack of patient safety information, less open communication, fear of reporting due to a blame culture, improvement processes not based on patient safety standards, policies that are not well documented, and not reviewed are indicators of a weak organizational culture. The existence of a patient safety team is not clearly visible, does not have systematic procedures, and uneven staff training. **Conclusion:** Hospitals face challenges in implementing a patient safety management system to improve their patient safety culture. It requires leadership involvement and support, strengthening organizational culture, redesigning policies, building learning work teams with a systematic approach, and implementing professional training to strengthen systems that ensure sustainable patient safety.

Keywords: Challenges; hospitals; patient safety management system

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INTRODUCTION

Patient safety is a system that makes patient care safer, minimizes risks, and prevents avoidable injuries (adverse events). Poor patient safety measures indicate that patients are not adequately protected [1]. Globally, adverse events rank 14th among the leading contributors to the burden of disease [2]. The WHO reports that adverse events due to medical errors are responsible for approximately 134 million patient incidents annually worldwide, and 2.6 million of them result in death. Approximately two-thirds of adverse events and disability in patients due to medical errors occur in hospitals, especially in low- and middle-income countries [1].

Other data reports that 1 in 10 patients suffers an injury due to unsafe medical care in hospitals, resulting in more than three million deaths [3]. These patient safety incidents range from medication and procedural errors, patient falls, surgical complications, and nosocomial infections in hospitals[4]. This situation results in longer hospital stays and a poor reputation for hospitals, healthcare workers, and the healthcare system as a whole[5], as well as inefficiency, as 15% of total healthcare costs are spent on addressing the impacts of these medical errors[6]. In Indonesia, despite being considered a serious issue, patient safety incident data is difficult and scarce due to poor recording [7]. The National Patient Safety Committee reported an increase in patient incidents from 1,489 cases (2018) to 7,465 cases (2019) [8].

Approximately 40% of hospitals have experienced patient incidents that impact the quality of their services, such as misidentification of patients and treatment, and nosocomial infections[9]. The Ministry of Health reports that approximately 20% of hospitalized patients are infected with nosocomial diseases and experience incidents due to medical errors [10]. In Jambi province, more than 300 patient incidents occurred in hospitals within a one-year period, mostly due to errors in medication administration, patient identification, and nosocomial infections[11].

One effort to reduce the number of incidents resulting from medical errors is to build a safety culture as a key initial step [12,13]. A patient safety culture is the integration of individual and organizational behavior patterns based on beliefs and values to minimize conditions that continuously endanger patients[14]. The importance of building a patient safety culture is increasingly recognized, and further investigation is needed to identify more promising interventions, namely patient safety management systems (PSMS).

The implementation of a PSMS involves not only strict safety procedures but also efforts to build a patient safety culture that involves all parties in the hospital, from management to medical personnel. Several elements of a PSMS, such as policies, training, and ongoing reporting, tend to enhance a patient safety culture[15]. In addition, information systems and improved working conditions influence the culture of improving patient safety in hospitals[16]. The effective implementation of a PSMS encourages performance improvements in the form of continuous improvement in patient safety in hospitals. This process is crucial to ensure that hospitals can respond to changing needs, new technologies, or emerging challenges in healthcare. This study aims to analyze the challenges in implementing a PSMS to improve a patient safety culture in hospitals.

METHODS

Study design and setting

Qualitative research with an exploratory descriptive approach was conducted to investigate and analyze in depth the challenges to improving patient safety culture

arising from the implementation of SMKP in hospitals. This study was conducted at two government hospitals with type C in Jambi Province, which were selected purposively.

Population, samples and sampling

The research informants were selected based on the principles of adequacy and appropriateness, consisting of 16 informants including hospital leaders, patient safety program managers, hospital quality committee chairpersons, and health practitioners who were selected purposively representing five units in the hospital, namely the emergency unit, intensive care unit, operating room, pharmacy, and internal medicine inpatient room.

Instruments and criteria

We conducted in-depth interviews to explore informants' understanding and experiences regarding the challenges faced in implementing a patient safety management system in hospitals, which encompasses six criteria: leadership involvement and support, organizational culture, policies, patient safety team, systematic approach, and training.

Procedure and data collection

Data collection was conducted through in-depth interviews, observations, and document reviews. We also reviewed supporting documents related to policies, guidelines, and standard procedures at the research sites.

Statistical analysis

Data analysis using content analysis techniques includes the following stages: data reduction, data display, and verification.

RESULTS

Patient Safety Incidents

Research revealed that patient incidents are very underreported, despite potential risks of harm to patients in each service unit being identified. This low level of incident reporting is due to, among other factors, reluctance to report due to fear of being blamed and career disruption, a low understanding of patient incidents, a lack of awareness of the importance of incident reporting as a learning process, and limited supporting infrastructure, such as the lack of standard operating procedures and incident reporting forms. Interviews with informants revealed that several reported patient safety incidents involved patient misidentification, medication errors, negligence in recording patient medical records, delays in administering medications, errors in administering oxygen, errors in administering intravenous fluids, patients experiencing drug allergies, nosocomial infections, and patient falls.

"Incidents are rarely reported, usually due to fear of being blamed... even though the potential risks are easily identified, such as in the emergency room, operating room, ICU, and elsewhere... the risk of a patient safety incident can be identified..."

"The reason for not reporting is fear of being blamed, as it could disrupt their career... and some also don't understand what constitutes an incident that needs to be reported"

"Why is reporting important? There's no obligation, no SOP, and no report form either..."

Challenges in implementing a patient safety management system

1. Leadership Involvement and Support

Informant interviews revealed that hospital leadership involvement in patient safety efforts generally involves motivating and encouraging all healthcare workers to provide healthcare services according to standards, prioritizing patient safety, and striving to create a comfortable work environment and atmosphere. This is frequently conveyed by leaders at every roll call, meeting, and training event at the hospital. Leaders also provide prompt feedback on reports of patient safety incidents, especially those that have received public attention. However, according to informants, leaders have been inadequate in disseminating information about the management system and approach to implementing patient safety practices in the hospital, resulting in many healthcare workers lacking understanding and participation in patient safety efforts, including reporting, improvement efforts, and follow-up. This situation suggests that patient safety is not yet a full priority at the hospital.

"The leaders often encourages all staff to work well, adhering to patient safety standards... during morning roll call, meetings, or training."

"If there's an incident report, the leadership goes down to the unit to monitor it and provide guidance... especially for adverse events or those that go viral on social media."

"I feel like when there's a problem, the leader rarely intervenes; usually the department head or the section head. Unit issues are often handled by the ward head."

"Many of us don't understand the patient safety program system, whether it's reporting or follow-up, which is why there are no reports..."

Interview results revealed varying opinions regarding hospital leadership support for patient safety programs. Some informants assessed that hospital leadership strongly supports patient safety program related to improving patient service infrastructure, staff management and development, conducted technical and administrative service training, and providing moral support by consistently motivating staff to maintain patient safety. Other informants considered hospital leadership support to be less than optimal, where the sense of responsibility and urgency was still considered limited, such as a lack of attention to the condition of damaged and inadequate facilities and infrastructure, equipment that was still incomplete and some had not been calibrated, and minimal initiation and updating of policies including standard procedures (SOPs). Patient safety programs in hospitals seem to be a neglected agenda even though most health workers have made individual efforts, but the leadership does not seem to have given maximum support to patient safety initiatives.

"The leadership is very supportive, repairing and enhancing infrastructure, recruiting and managing staff in each unit, conducting training, and providing work motivation with patient safety as a priority..."

"We submit facility requests, but they either go unanswered or take a long time to be fulfilled. Many of the equipment hasn't been calibrated..."

"The damaged building is neglected, the roof leaks, and the floors are often flooded... all of which can endanger both patients and staff."

"I haven't heard of any specific patient safety policies. There may be some... but they've never been updated; they're usually waiting for accreditation."

2. Organizational Culture

Informant interviews indicate that the organizational culture in the hospital does not fully support patient safety efforts, even though staff likely understand the importance of patient safety. This is reflected in the lack of information about patient safety strategies and practices for all staff, the lack of transparent communication regarding issues encountered in patient care, inadequate organizational commitment and support, minimal incident reporting, and the absence of discussion regarding potential patient safety issues in service units and follow-up on improvement processes.

"We rarely receive information about patient safety practices. There's a little information from the ward heads, and that's very rare..."

"Everyone is busy with their own work. Patient safety is important, but many don't understand how to implement it..."

"There's the problem of holding back, being reluctant to protest for fear of being judged as rebellious and reprimanded... If there's a minor incident, handle it themselves, reluctant to report it..."

"So far, there's been no discussion of patient safety in unit; the only issues discussed are quality and facilities... except when the hospital accreditation assessment period approaches..."

3. Policy

Based on interviews and observations, it was discovered that hospitals have established guidelines for general healthcare services from the Ministry of Health as evidence of the requirements supporting patient safety practices. These policies cover infrastructure, healthcare personnel (HR), medical equipment, medications and vaccines, healthcare practices, infection prevention and control, waste management, reporting systems, and more. However, hospital policies specifically focused on patient safety are still considered lacking. Policies implemented within the hospital's service system tend to be developed as minimum quality assurance standards, such as resource allocation policies, governance policies, minimum levels of clinical practice, nursing and management policies, education policies, patient incident response policies, and others. These hospital policies are not fully grounded in patient safety standards.

Hospitals also have developed standard operating procedures for patient care, ranging from admission (registration) procedures, doctor call processes, inter-unit consultations, patient care/service processes, clinical diagnostic examinations, and patient discharge. The study also identified various protocols with or without flowcharts, examination checklists, and other documentation forms. However, the informant was unable to provide documentary evidence of a patient safety incident reporting form at the service unit.

"Policy documents related to patient safety, such as laws, regulations, and their derivatives in the form of guidelines or general work manuals from the Ministry of Health..."

"Guidelines related to infrastructure such as treatment rooms, operating rooms, etc.; human resources such as recruitment and credentialing; medical devices, medications, vaccines; healthcare practices; infection prevention and control; waste management; and many others..."

"Hospital policies are usually aimed at improving quality... I'm not aware of any policies that focus on patient safety..."

"We also develop standard operating procedures (SOPs) that serve as a reference to reduce service variation and standardize everything from patient admission, calling the patient's attending physician (DPJP), consultation processes within and between units, SOPs for patient care and treatment, supporting clinical diagnostic examinations, and SOPs for patient discharge."

"Protocols are available, such as the six steps of handwashing, effective coughing, service flow, resuscitation, storage and use of high-risk medications, and more. There are many forms, such as Sign In, Time Out, and Sign Out checklists for patient safety in the operating room, informed consent forms, and more..."

Based on interviews, most informants acknowledged that policy documents such as guidelines, manuals, standard operating procedures, and protocols currently in place in hospitals are poorly documented. Furthermore, some documents are rarely, if ever, reviewed and adapted to the context of hospital services. Reviews and adjustments are typically only conducted during hospital accreditation assessments.

"I don't know where the service guidelines, manuals, and SOPs are stored. They're sometimes difficult to find... the documentation is messy..."

"Policy documents are rarely reviewed, and some are never revised except during hospital accreditation assessments..."

4. Patient Safety Team

The study found that the hospital has a team infrastructure responsible for improving patient safety efforts. According to informants, the hospital has appointed and established a patient safety team integrated within the Quality and Patient Safety Committee (KMKP) based on a decree from the hospital director referring to Minister of Health Regulation Number 80 of 2020 concerning the Hospital Quality Committee. Members of the patient safety team include representatives from various hospital professionals, including medical, nursing, pharmaceutical, other healthcare, and non-healthcare personnel, drawn from various service units within the hospital. Some of the functions previously performed by the hospital's patient safety team include socializing the hospital's patient safety program, handling patient incidents through investigation and analysis of the causes of incidents, and monitoring the recording and reporting of patient safety incidents. However, most informants explained that they did not fully understand the duties and functions of the patient safety team and how staff in the service units work to support patient safety, as this has not been implemented for a long time.

"There's a patient safety team, part of the quality and patient safety committee... its members come from various professions and represent service units in the hospital."

"It includes doctors, nurses, pharmacists, laboratory analysts, and other personnel, including non-healthcare personnel."

"As far as I know, the team's functions include outreach, incident management, case investigations and root causes, and monitoring incident recording and reporting..."

"I don't really understand the functions of the hospital's patient safety team. The staff also don't understand what they're supposed to do... What we do know is that if there's an incident, like a patient falling, they come to ask about the chronology... that was a long time ago..."

5. Systematic Approach

Informant interviews revealed that patient safety efforts, particularly at the unit level, have not been implemented systematically. Upon learning of a patient incident due to staff error or negligence, an internal unit discussion is held to discuss the cause and corrective solutions. This tends to focus on improving individual or team work patterns, and the process is not well documented. Another informant emphasized that the hospital has standard procedures for handling patient safety incidents, including incident reporting, investigation and analysis by the patient safety team to assess the risk level (grading) and identify the cause of the incident, and discussions to generate recommendations and follow-up plans. Informants acknowledged that this process has been largely discontinued in the past five years due to the lack of incident reports, which has potentially diminished the team's ability to conduct analysis.

"Incident information usually comes from staff, not patients. We discuss the cause and how the staff and team can improve to prevent a recurrence... but it's never recorded."

"The patient safety team has standard operating procedures (SOPs) for incident handling, such as conducting investigations, analyzing risk levels, conducting interviews to analyze the causes of incidents, and discussing recommendations and follow-up plans..."

"Because reports are rare, analytical skills may have declined."

6. Training

Research findings revealed that the hospital routinely conducts technical and management training, both internally and externally, to improve the knowledge and competency of officers and staff, including training on patient safety and the use of new technology for patient care. According to informants, challenges faced include uneven training for all staff, limited training budgets, and staff rotation and transfer processes, which increase training needs. Although rare, certain units, such as the Emergency Department and the ICU, sometimes conduct internal training as part of ongoing refresher training and development.

"Training is conducted annually, both technical and managerial, including training on the use of new technology, including medical devices..."

"Not all staff receive training due to budget constraints... the rotation or transfer system requires additional staff training... this is a constraint."

"Sometimes, certain units, such as the Emergency Department and ICU, conduct internal technical training, such as bed teaching, etc., to refresh and learn technical service skills, as well as to develop staff."

DISCUSSION

An effective, anonymous, and non-punitive reporting system without fear of sanctions allows for accurate identification and analysis of incidents to prevent recurrence. Strategies that can be implemented include encouraging active reporting and implementing a user-friendly, non-punitive incident reporting system. A positive culture guides behavior that prioritizes patient safety and encourages service providers to report and analyze patient incidents as an effective instrument of patient safety.

Leader involvement in patient safety efforts significantly impacts a hospital's organizational culture. If leaders are not actively involved in fostering a culture of safety, it will impact staff engagement and commitment to patient safety practices. Strong and supportive leadership is crucial for implementing and maintaining a culture of patient safety[17]. High perceptions of the implementation of a culture of patient safety can only arise from positive and supportive leadership. Previous studies have proven that leadership has a positive influence and is a dominant factor in patient safety culture in hospitals[18]. Hospital leaders also play a role in providing support to overcome various challenges in patient safety practices.

Leaders must establish strategic plans and prioritize the implementation of a culture and infrastructure that supports patient safety programs, actively monitor the situation and review patient safety incident data regularly, ensure the availability of adequate service infrastructure, and establish patient safety methods and measures. Leaders must manage and develop various innovative problem-solving solutions so that the hospital business continues to run, patients are well served and remain safe[19]

Patient safety culture is part of the organizational culture of a hospital that is manifested in integrated individual and organizational behavior patterns based on shared beliefs and values that continuously minimize conditions that endanger patients[20] A lack of emphasis on patient safety within an organization's culture can hinder initiatives that ensure patient safety. This manifests as a lack of commitment and support, and a failure to prioritize patient safety. This can lead to a higher likelihood of medical errors and adverse events. A weak organizational culture can also discourage staff from reporting incidents or speaking up about potential safety issues that could jeopardize patient safety[21].

Improving patient safety requires initiatives to promote quality care, minimize medical errors, and protect patients from harm, including infection control, safe medication use, and a safe patient care environment. These efforts are achieved through the development and implementation of policies, guidelines, protocols, and standard operating procedures as essential elements of a patient safety system. Standard operating procedures are designed to reduce practice variation and define steps that help standardize safe care and avoid adverse events.

These standards are intended to provide accurate operational information for patient care procedures from registration to discharge. Developing patient safety policies is also beneficial for building public trust, reducing costs, and demonstrating regulatory compliance. This study revealed that hospitals have developed several formal policies to ensure patient safety within their quality systems, but these policies are rarely empirically and scientifically reviewed, making them inaccurate in supporting patient safety efforts. Patient safety policy documents must also be critically and scientifically validated as a process of continuous learning and service improvement to enhance patient safety[22].

In the complexities of healthcare, the work team is a crucial aspect of patient safety, tasked with ensuring and improving patient safety by developing, monitoring, and evaluating patient safety programs, including handling patient incidents, analyzing them, and reporting the results. The team also plays a role in developing patient safety policies, conducting outreach, and managing risks to prevent recurrence of adverse events[23]. An effective work team will protect patients from harm and create a positive and engaging workplace[24]. Several previous studies have shown that the effectiveness of the work team influences patient safety culture[25,26].

The delivery of effective and safe healthcare relies heavily on patient-centered collaboration between healthcare professionals working as a team. This can be achieved through independent collaboration, open communication, and shared decision-making. The need for interprofessional teamwork in hospitals is increasing due to the demands of professionals with more complex and specialized tasks[27]. The differences between team members have the potential to create a creative and innovative team. Therefore, to achieve good teamwork, it is necessary to develop positive attitudes, such as the habit of listening to each other to create good communication, providing support to members in need, and appreciating the contributions and achievements of each team member[25]

A patient safety program fosters a culture of continuous improvement, demonstrating that the organization has invested in systematic steps to improve the quality of care [8]. Ideally, safety improvement efforts are a systematic process in which incidents that cause harm or have the potential to harm patients are promptly recognized and handled appropriately, documented, and reported. Based on reports, incidents are investigated and analyzed by the patient safety team to identify causes and potential risks. Investigations are conducted in an atmosphere of mutual trust, without blame or retaliation, and analyses are conducted to determine the cause of the incident using the Root Cause Analysis (RCA) method and identify risks using the Failure Mode and Effect Analysis (FMEA) method, which focuses on system improvement.

Solutions are then formulated that are more directed towards policy redesign and changes in clinical practice and work patterns, while disciplinary action or sanctions will only be taken in appropriate situations and efforts are made to avoid them. Redesign encourages standardization as a best practice, so it needs to be socialized and then implemented consistently by all staff. Implementation requires measurement to ensure its effectiveness[28]. A systematic approach to patient safety programs is a learning process for continuous improvement in quality and patient safety. Designing solutions to reduce the risk of incidents requires extensive discussions, expertise, and independence, making learning from experience crucial. While incident reporting-based learning has often drawn criticism, this approach is still considered effective and beneficial[29].

The implementation of patient safety is heavily influenced by knowledge of how to navigate the complexities of services that can leave patients vulnerable to risk of harm. Healthcare requires specific understanding and skills for healthcare workers to implement patient safety more effectively through training to prevent and reduce patient incidents with minimal adverse effects. Sharon Myers (2012) states that training experience is closely related to healthcare workers' ability to assess their own proficiency in implementing patient safety[30]. Training interventions have the potential to improve the safety culture in hospital emergency department services and positively influence patient outcomes.³⁷ Training programs have the ability to

improve the overall perception of patient safety culture[30,31]. Lack of training can also hinder the timely identification and prevention of potential patient safety hazards, thereby exacerbating the challenges facing hospitals [32].

CONCLUSIONS

Reporting of patient incidents in hospitals remains very low due to reluctance to report due to fear of being blamed and career disruption, a low understanding of patient incidents, a lack of awareness of the importance of a reporting culture as a learning process, and limited supporting infrastructure. Hospital leadership is involved in motivating service standards and providing feedback on patient incident reports. However, the implementation of patient safety management systems and practices in the hospital remains unclear, resulting in many staff members lacking understanding and participating. Leadership support also needs to be strengthened for improving service facilities and infrastructure and updating patient safety policies and regulations.

The organizational culture does not fully support patient safety efforts, as evidenced by the lack of information on patient safety practices, incomplete communication, inadequate organizational support, and minimal incident reporting, resulting in improvement processes and policies not fully grounded in patient safety standards. Policy products are poorly documented and have never been reviewed within the context of hospital services. The hospital has a multi-professional team responsible for the patient safety program, but its duties and functions are not yet fully visible, including in incident handling. Consequently, the hospital has not implemented patient safety improvement efforts with a systematic approach. Staff training to improve service competency is not evenly distributed due to budget limitations, while rotation and transfer processes increase the need for training.

Hospitals face significant challenges in implementing patient safety management systems to improve their patient safety culture. This requires active leadership involvement and support, strengthening organizational culture, policy redesign, building a strong work team and learners through a systematic approach, and conducting professional training to strengthen systems, skills, and mindsets that ensure sustainable patient safety.

CONFLICT OF INTEREST

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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DECLARATION OF ARTIFICIAL INTELLIGENCE USE

We hereby confirm that no artificial intelligence (AI) tools or methodologies were utilized at any stage of this study, including during data collection, analysis, visualization or manuscript

preparation. All work presented in this study was conducted manually by the authors without the assistance of AI-based tools or systems.

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