



Patient Safety: A Global Agenda for Healthcare Organization

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ABSTRACT

The safety of patients as well as healthcare is now a major global concern. Due to a variety of circumstances and worldwide research findings, patient safety and quality of care during hospitalization be major issues. Patient safety may be a burden in the healthcare system. However, it has been recognized as an area of development. Patient safety remains a challenge for developing countries like India. Patient harm is a major public health concern worldwide, particularly in developing and transitional nations. Millions of people can suffer disabling injuries or die as a result of medical practice. Patient safety aims to reduce harm from healthcare. There are compelling reasons for improving investment and intervention to reduce patient safety mishaps. However, we need to understand that patient safety is a discipline in healthcare that uses safety science to develop a reliable system of care delivery. The purpose of this study is to discuss the various factors responsible for patient safety and also to understand the global burden of unsafe patient care. So, after reviewing various national and international literature, the study reports that the local issues connected with patient safety through engaging in evolving a systems approach to enhance the safety of patient care in developing nations like India.

Keywords: Global burden, Healthcare, India, Patient Safety, Public Health

INTRODUCTION

Patient safety has become a priority in several nations, with international awareness encouraged by the World Health Organization's World Alliance for Patient Safety. However, there are still major challenges to the implementation of patient safety policies and practices. The common attitudes, beliefs, and values that employees in an organization have about patient safety are referred to as the patient safety culture.

The safety of healthcare has become a significant global issue. It is probable that millions of individuals experience disabling injuries or mortality that are directly associated with medical care. Patient injury is a worldwide public health issue, especially in emerging and transitional nations. A medical error is an avoidable adverse effect of care, regardless of its visibility or harm to the patient. Patient safety culture, a term indicating the conduct of healthcare practitioners aimed at decreasing the risk of hazardous care, has been employed across several industrialized scenarios to evaluate a health system's ability to enhance safety.

PATIENT SAFETY AS A GLOBAL CONCERN

It is estimated that 64 million disability-adjusted life years are lost every year because of unsafe care worldwide (WHO EB144/29, 144th session, 12 December 2018). This indicates that one of the top 10 global causes of death and disability is patient harm brought due to adverse events. According to available information, hospitals in low- and middle-income countries have 134 million adverse events related to inadequate care each year, which leads to 2.6 million deaths.

India has no mandatory regulation committee for healthcare organizations. Whereas other countries, like Australia, UK has implemented regulatory policies for patient safety India has a higher risk of adverse events compared to other countries, with an estimated risk of HAI up to 20 times higher than industrialized countries. India faces shortages of healthcare professionals, particularly in rural areas. But other countries are not experiencing this type of problem.

Patient safety in India has advanced quickly, yet there is always a need for improvement. In the last one and half decade several initiatives have been taken by the Government of India to improve the quality of healthcare services and strengthen patient safety. The introduction of the National Patient Safety Implementation Framework (NPSIF, 2018-2025) is a significant development that attempts to integrate major patient safety initiatives in India.



WHO interacts with international partners and governments to strengthen patient safety measures. The Global Patient Safety Network involves stakeholders from over 125 countries, especially significant international organizations. For the past 12 years, the organization has supported the WHO-established Patients for Patient Safety network, promoting patient and family engagement.

WHO FACTS ON PATIENT SAFETY

Fact 1: One in every 10 patients is harmed while receiving hospital care: According to estimates, one out of every ten patients in high-income countries suffers injuries while receiving hospital care. Several adverse events may result in harm; around half of them are thought to be avoidable.

Fact 2: The occurrence of adverse events due to unsafe care is likely one of the 10 leading causes of death and disability across the world: Adverse events resulting from unsafe care are expected to be among the top 10 causes of mortality and disability worldwide. According to recent evidence, 134 million adverse events occur each year as a result of unsafe care in hospitals in low- and middle-income countries (LMICs), accounting for 2.6 million deaths.

Fact 3: Investment in patient safety can lead to significant financial savings: Enhancing patient safety can result in significant savings in expenses as well as, perhaps more significantly, better patient outcomes. This is so because treating an injury resulting from prevention usually costs far less than treating it.

Fact 4: Inaccurate or delayed diagnosis is one of the most common causes of patient harm and affects millions of patients: About 5% of persons receiving outpatient care in the United States make diagnostic errors, which are defined as failing to accurately and promptly determine the nature of an illness. Roughly 50% of these mistakes could result in serious consequences. 3.6% of diagnostic mistakes were found in a study conducted in Malaysian primary care clinics.

Fact 5: Hospital infections affect up to 10 out of every 100 hospitalized patients: Seven hospitalized patients in high-income nations and ten in low- and middle-income countries will get one or more healthcare-associated infections (HAIs) out of every 100 patients at any moment. Every year, HAIs harm hundreds of millions of patients globally.

Fact 6: More than 1 million patients die annually from complications due to surgery: According to WHO data, there are still a lot of illnesses, diseases, and deaths worldwide associated with surgery. Up to 25% of patients suffer obstacles as a result of unsafe surgical care methods. Every year, around 7 million surgical patients experience acute problems; of them, 1 million passes away during or right after operation.

Fact 7: Medical exposure to radiation is a public health and patient safety concern: Radiation errors involve overexposure to radiation and cases of wrong-patient or wrong-site identification. A review of 30 years of published data on safety in radiotherapy estimates that the overall incidence of errors is around 15 per 10,000 treatment courses.

LITERATURE REVIEW

Rekliti et al. (2012) examined a few aspects related to improving patient safety and reported that by improving patient safety and quality standards, healthcare organizations can improve safety work procedures, hazard management, infection control, and safe use of equipment.

Anwar et al. (2016) investigated patient safety culture in healthcare organizations and found that providing training programs to healthcare workers can reduce lower perceptions about patient safety culture in healthcare organizations.

Mukhopadhyay and Sharma (2019) studied the need for patient safety improvement among healthcare organizations in developing countries. This study finds that contextual factors are positively associated with patient safety. This study also reports that targeting individuals can reduce medical errors.

John Landefeld et al. (2015) conducted a study on five focus group discussions among primary, secondary, and tertiary care centers to improve patient safety in Kerala. The group discussions were held within 16 doctors and 20 nurses. This study finds patient safety is a limited resource theme in healthcare organizations. This study also suggests that to improve medical culture, system issues, and addressing resource constraints are the most effective interventions to improve patient safety.

Akash Sharma et al. (2023) investigated that regulatory compliance is crucial in the healthcare industry for maintaining a patient safety culture. This study highlights the importance of solid compliance frameworks, effective monitoring systems,



and ongoing education to ensure regulatory compliance. And provides valuable insights to improve regulatory compliance efforts for maintaining safety culture in healthcare systems

Sandeep Boora et al. (2021) conducted a cross-sectional study in a tertiary care hospital on patient safety culture. The results of the study indicate a relationship between perceptions of patient safety and the position or primary unit in the hospital. And they suggested a blame-free framework to improve patient safety.

OBJECTIVES

- To study on the various factors responsible for patient safety.
- To study on the errors related to patient safety.
- To study on the techniques adopted to reduce errors.
- To assess the patient safety culture among healthcare organizations.

METHODOLOGY

Use either SI (MKS) or CGS as primary units. (SI units are strongly encouraged.) English units may be used as secondary units (in parentheses). **This applies to papers in data storage.** For example, write “15 Gb/cm² (100 Gb/in²).” An exception is when English units are used as identifiers in trade, such as “3½ in disk drive.” Avoid combining SI and CGS units, such as current in amperes and magnetic field in oersted’s. This often leads to confusion because equations do not balance dimensionally. If you must use mixed units, clearly state the units for each quantity in an equation.

The SI unit for magnetic field strength H is A/m. However, if you wish to use units of T, either refer to magnetic flux density B or magnetic field strength symbolized as $\mu_0 H$. Use the center dot to separate compound units, e.g., “A·m².”

I. FACTORS AFFECTING PATIENT SAFETY

Patient safety is the practice of ensuring that healthcare services are delivered in a way that reduces the risk of harm or injury to patients. It entails putting in place procedures and standards to prevent medical errors, infections, and adverse events while providing medical treatment and care. Here are some factors that can affect patient safety-

❖ **Work environment:**

In India work environment is a major problem to look after immediately. Not only administrative work but also patient safety is also facing difficulties in the worst work environment in the workplace.

- **Management side issues:** The first is unnecessary pressure from the management side. The nurses will be able to look after the patient more efficiently when they will be allocated to a smaller number of patients. But in reality, the nurses are responsible for a huge number of patients in each shift in every healthcare sector in India. For this reason, they cannot give their whole concentration on one patient. Thus, the medical safety of patients becomes disrupted. Not only the nurses but also the non-medical staffs face troubles for the pressure from management side. Heavy workloads and long hour duty schedules, complex administrative tasks without proper training, lack of decision-making authority, and lack of resources are responsible for administrative error.
- **Unnecessary hazards:** Poor communication among the staffs, lack of clarity in duty distribution, biases in organizational inner matters, nepotism, etc. are also a serious issue that creates a hazardous environment that leads to staffs dissatisfaction. For these reasons, they become unable to provide ultimate service to the patients.

❖ **Individual factors:**

- **Miscommunication:** Almost 70-75% of medical and surgical errors can occur from miscommunication among medical and non-medical individuals in healthcare sectors. The issue of miscommunication may occur from Language barriers, Human fatigue, Inadequate training, Lack of quality standardization, etc.
- **Leadership quality:** It can affect staffs’ retention, staffs and patient satisfaction in a large area. Good leadership can make the sub-ordinates more efficient and their efficiency reflects on patient safety.
- **Safety measures and policies:** It also maintains a good environment for the patients. They can feel a homely comfortable atmosphere as a whole that boosts their safety.
- **Good decision-making skills:** It can improve the efficacy of the service provider. For this reason, sound teamwork, high cognitive skills, and personal resources are badly needed.
- **Situational awareness:** It must be look after for the patient safety. What decision should be taken in an adverse situation and which should be fruitful to provide a patient physical and mental safety.
- **Stress:** The stressful mind of staffs is the result of a heavy workload, and complex work environment that can increase poor communication, fatigue, caring behavior, and poor concentration which affects patient safety in a rapid way.

II. ERRORS RELATED TO PATIENT SAFETY

Errors related to patient safety in healthcare organizations can include-

➤ **Medical Errors:**

Medical error is broadly defined as any error that occurs in the prescribing, dispensing, or administration of a drug. These errors can happen from- inaccurate labeling of drugs, misidentification of clients, unclear recording and transcribing, time and performance pressure of an organization, etc.

Medical errors can be caused by inexperienced physicians and nurses, innovation of new procedures, the complexity of treatment, improper documentation, illegible handwriting, and inadequate medical staff-patient ratios. Wrong diagnosis may lead to multi-morbidity of patients. Inadequate training and experience in healthcare providers, failure in prevalence acknowledgment, and lack of seriousness in medical errors can increase the risk.

➤ **Surgical Error:**

Surgical error is the unintentional mistakes that occur at the time of operation. It can be caused by the surgeon's lack of professional skill in the OT room, the negligence of surgical teams, miscommunication among the medical and non-medical staffs, the wrong dosage of anesthesia given to the patient, etc.

Giving too much or too little anesthesia can affect on human body. Too much anesthesia can lead to brain injury, stroke, or death and too little can cause post-traumatic stress disorder and anxiety also. Nerve and artery injury can also be happened from surgical error. Sometimes for the absence mind of doctors' surgical tools, sponges or other debris can be left inside the patient's body. This is also very harmful and can cause cancer in the future.

➤ **Administrative Error:**

Healthcare administrative error is the disruption in the daily operations of work and patient service. Some reasons behind this are lack of knowledge among the healthcare workers about the patient, their diagnosis or the medication, failure to maintain SOPs and procedures, delay timings in taking appointments, unprofessional management in operations, lack of seriousness, etc. Poor communication among medical and non-medical professionals or with patients is also harmful to the patients.

Lack of training and system misconfiguration can also affect the smooth workflow and increase the hazards for patients. Staff health issues are also a leading problem in the work area. Job role pressure, overtime duty, targets, and deadlines can increase stress, fatigue, and unconsciousness among patients.

➤ **Electrical Errors:**

Electrical error means any unexpected interruption in the external or internal power supply or malfunction of the equipment. It can lead to serious breakdowns, fire accidents, injury etc. This type of consequence may be happened from some external disruptions like using faulty equipment with damaged extension cords, and plugs; using many electrical devices from poor quality electrical sources, plugging in equipment with wet hands, not having properly a ground fault circuit interrupter, not being conscious in thunderstorms or grid problems, etc.

Some of the internal consequences are- interruptions in power supply, electrical storms, deterioration, age of the electrical installation, etc. This error is also very much harmful to patient safety.

III. TECHNIQUES ADOPTED TO REDUCE ERRORS

Several techniques can be developed to minimize errors in healthcare organizations when handling patients including-

- **Prioritize continuity of care:** The terms continuity of care and care coordination are sometimes used interchangeably; however, care coordination is only one part of continuity. Care coordination promotes teamwork, communication, and information exchange among all professionals involved in a patient's care.

However, strong provider-patient connections cannot be replaced by care coordination alone. The relationship between primary care doctors and their patients takes time to form, just like any other relationship.

By devoting thus much time and energy to fostering relationships between patients and providers, significant continuity of care is produced. PCPs (Primary Care Provider) can truly get to know their patients in a system that prioritizes the relationship between the patient, the physician, and the practice. Incorporating personal preferences and beliefs into care decisions can help prevent other bad outcomes, while this scenario supports medication and diagnostic accuracy suggested by this scenario, while avoiding other unfavorable outcomes can be achieved by incorporating personal preferences and beliefs into care decisions.

- **Improve effective communication:** Communication can help to prevent errors, correct them, and contribute to changes that reduce mistakes. Creating a collaborative, courteous climate in healthcare companies promotes effective



clinician communication. Recognizing that mistakes happen and incorporating communication tactics into staff training can help protect patients from needless damage.

- **Create a national reporting mechanism:** It should be reliable and enable incident reporting in real-time. Data from electronic health records can be used by leaders to identify and monitor safety incidents. Measures including expected versus actual mortality, hospital-acquired problems like pressure ulcers, infections, prescription errors, wrong-sided procedures, and staff injuries can now be automatically captured and uploaded by sophisticated EHR systems. Additionally, hospitals, surgery centers, and clinics can now view patient findings in a matter of hours or even minutes thanks to the development of sophisticated information systems.
- **Enhancing Medication Safety to Prevent Errors:** To reduce prescription errors, healthcare facilities must adopt comprehensive healthcare solutions that prioritize both human and technological factors. Using Barcoded Medicine Administration (BCMA) systems, which require medical personnel to scan a patient's wristband and medication before administering it, is one practical approach. Ensuring that the right patient gets the right drug at the right time in the right dose, significantly reduces errors.
- **Developing a Culture of Safety and Error Reporting:** To reduce medical errors in the healthcare industry, it is necessary to promote a safety culture. An important component is creating an environment in which healthcare professionals feel comfortable reporting errors, near misses, and other safety issues without fear of repercussions. This type of culture actively prevents mistakes from recurring and promotes growth.
By putting in place an error reporting system, the medical sector can identify areas for development and gather useful information about the trends in medical errors. The Patient Safety and Quality Improvement Act (PSQIA), which was established by the Patient Safety Act of 2005, promotes the voluntary and confidential reporting of adverse events, medical errors, and near misses.

IV. ASSES THE PATIENT SAFETY CULTURE AMONG HEALTHCARE ORGANIZATION

Patient safety is a major concern in the healthcare business. To improve patient safety, healthcare providers are required to reduce unintended injury to patients while also improving the quality of patient-centered care. Patient safety and harm prevention lead to a healthy patient safety culture and high-quality patient-centered care in many healthcare settings. Healthy patient safety cultures must be established and preserved by healthcare organizations in order to improve overall performance and provide high-quality patient-centered care.

- **Commitment of Leadership to Safety:** Establishing a safety culture within an organization depends heavily on the leadership's dedication to safety. Leadership actions that management can take include the following:
 - Providing formal training to learn safety culture concepts and practices
 - Motivating employees to raise questions about safety-related matters
 - Monitor safety trends to ensure that safety objectives are met.
- **Improve Teamwork:** When both clinical and non-clinical workers work together efficiently, the healthcare team can enhance patient outcomes, prevent errors, increase efficiency, and boost patient satisfaction.
- **Effective Communication:** Communication shrinks the risk of a breakdown in continuity of care and promotes connections and understanding. In contrast, organizations with a strong safety culture encourage free and open communication up and down the chain of command, as well as across organizational divisions.
- **Learning:** Learning is an innovative way that provides employees with the right information and understanding about tools, procedures, and events.
- **Frequent safety inspections:** To find possible hazards and areas for development, do assessments on a regular basis. Frequent audits assist in proactively addressing safety concerns before they become more widespread.

V. RECOMMENDATION

✓ **Initiatives from healthcare providers:**

First of all, to improve the safety of the patients India has to develop staff training program to achieve quality care as a whole, improve protocols that can emphasize on staffs' determination towards their work, motivate the employees to improve their communication and skills of teamwork and also standardize the methods of work scheduling to boost up inspiration within the employees.



✓ **Patient empowerment:**

To provide adequate safety to the patients the initiative from both sides (from healthcare providers and from the patient's side) is equally important. To achieve this goal patient's education about their rights and responsibilities is essential. Not only that, providing them with a clear idea about their ongoing treatment and prescribed medications, supporting them mentally and socially, show empathy for them are also very much needed to ensure a safe environment.

✓ **Technological structure:**

Implementation of Telemedicine facilities, using electronic health record (EHR), ensuring data protection and cyber security, develop data analytics in healthcare, improvement in safety monitoring systems are also important to strengthen patient safety in India.

✓ **Medical Education:**

Continuous assessment of the lack of medical training, developing safety education programs, and encouragement in the research process for future improvement are included in this field.

✓ **Government's action:**

Increasing funding for research and training purposes in the healthcare sector, improve mandatory rules and regulations to stop illegal works, continuous audit process, and implement national patient safety program should be the actions from the Government's side.

✓ **Internal infrastructure of the hospital:**

In India, hospital infrastructure should be improved to ensure the safety of patients. To achieve this goal we need to improve infection control programs and self-hygiene practices, emerge the emergency preparedness program, ensure quantity and quality of staffs and resources, etc.

✓ **Recognition and accreditation:**

Conduction of regular audits, maintaining the checklists, assessment of risks, developing programs of certification, and accreditation from various authorities like NABH, NABL, etc. are most important to increase and maintain the quality of safety measures in the healthcare sector.

CONCLUSION

Patient safety is a responsibility of healthcare providers that requires a collective initiative and comprehensive approach. By emphasizing patient safety, we can boost up the health outcomes and quality of care easily. The healthcare providers should prepare multifaceted actions, beneficial policies, user user-friendly technologies to provide the patients their fundamental right i.e. patient safety. In a culture of a safe environment, transparency is also important. Healthcare organizations must invest more resources to improve technological aspects and accountability as a whole. We need to remember that it is not only our duty but also our commitment too. A safe culture for patients will work in the decrease of mortality and morbidity rates in society. Effective strategies on patient safety involve detection, prevention, and action on adverse events. In a word, we can say that- "patient safety is a continuous process, not a destination."

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