



## PERCEIVED CHALLENGES AND BARRIERS TO NURSES IN IMPLEMENTING INTERNATIONAL PATIENT SAFETY GOALS AT TERTIARY CARE HOSPITALS PESHAWAR

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### ABSTRACT:

**Introduction:** Patient safety is a paramount concern in healthcare, transcending borders and cultures. The International Patient Safety Goals (IPSGs) set forth by international healthcare organizations serve as a global framework for promoting patient safety. However, the successful implementation of IPSGs relies heavily on the active participation of nurses, who are at the forefront of patient care. **Objectives:** This study has explored the perceived challenges and barriers faced by nurses in a tertiary care hospital in Peshawar, Pakistan regarding implementation of patient's safety goal. **Methodology:** This was a descriptive qualitative study carried out in tertiary care hospitals of Peshawar. Data were collected from a sample of 15 participants via interview guide. The sample size was based on data saturation and purposive sampling technique was used. Managerial, administrative Nurses and Head nurses who experienced in JCI accredited hospital for six months now working in public hospital Peshawar were included in the study. The study was approved by ethical review board KMU, consents were granted from all the included participants. Results were extracted following thematic analysis. **Results:** The results highlight a range of challenges and barriers encountered by nurses in implementing IPSGs. Five themes i.e. Nurse related Factors, Barriers to implementations, Policy and

compliance, Constrained Resource and resistance to change were extracted. Conclusion: This study provides valuable insights into the challenges and barriers faced by nurses in a tertiary care hospital in Peshawar when implementing IPGs. Understanding these obstacles is crucial for healthcare leaders, policymakers, and educators to develop tailored strategies and interventions that can enhance patient safety practices in this specific healthcare context. Addressing these challenges and fostering a patient safety culture is essential for improving the quality of care and patient outcomes in Peshawar and beyond.

**Keywords:** Perceived Challenges, Barriers, Nurses, Implementation of Patient's Safety Goal, Tertiary Care Hospitals

## **INTRODUCTION:**

This chapter provides a brief overview of the study topic, including its goal, and purpose, moreover it is consisting of objectives, purpose and significance of the study.

## **1.2 BACKGROUND OF THE STUDY:**

Nowadays, patient safety is a new healthcare issue in healthcare organizations that encompasses avoiding and eliminating medical errors that frequently result in negative health outcomes (1). Healthcare has become more efficient as well as more complex, with increased application of new technologies and therapies, which requires alignment with international patient safety goals to improve the patient safety environment in order to simulate international competition and increase the competitive advantages of healthcare organizations at the national and international levels (2).

Patient safety has been conceptualized in a variety of ways. Patient safety is the foundation of healthcare allocation, much as physiological and biological demands are the foundation of Maslow's hierarchy (3). Similarly, if the patient does not feel comfortable or is not genuinely safe, the safety cannot be accomplished. However, the healthcare system is extremely complicated, and guaranteeing patient safety necessitates the continuous and dedicated efforts of every member of the healthcare team (4).

All healthcare providers, government entities, and regulatory bodies are responsible for fostering a culture of patient safety. Patient safety is simply defined by an institute of medicine as the prevention of patients from suffering harm or injury. Patient safety is viewed as the cornerstone and fundamental human right (5). Concerns regarding the safety of patients are a significant problem in the healthcare industry and a priority for healthcare organizations based all over the world. As a result, the idea of patient safety itself is defined in a variety of different ways, employing a wide range of concepts that are related to it. Both healthcare personnel and patients have been paying a lot of attention to the potential for injury and dangerous practice in healthcare organization (6,7).

Errors in medical care constitute a significant threat to the nation's public health and the primary cause of mortality in the United States. It is a complex problem since it is difficult to discover a consistent source of errors and, even if a cause is discovered, it is challenging to provide a consistent feasible remedy that minimizes the possibilities of a repeated occurrence happening again. It is possible to improve patient safety if adverse events are acknowledged when they take place, lessons are drawn from them, and efforts are made to avert future occurrences (8).

According to the World Health Organization (WHO), Patient safety aims to prevent medical errors and negative effects on patients while providing health services (9). Similarly, the rate of injury to people in healthcare facilities is significant, roughly 1:300 compared to aero plane accidents, which are 1: 1000,000. Despite increased efforts in patient safety measures around the world, patient injury is the 14th biggest cause of mortality and morbidity worldwide (10). According to the WHO (2018), 42.7 million adverse events are registered annually among hospitalized patients worldwide; patient safety is thus seen as a severe concern. Furthermore, there are other elements connected with the complexity of expanding patterns of safety accidents, such as increased hospital admissions, vulnerability to healthcare-related infections, and higher medical service expenses (10,11).

Patient safety, harm, and unsafe care continue to be issues in both developed and developing countries, posing difficulties to healthcare systems worldwide (12). The annual number of deaths that can be avoided in inpatient settings in the United States (US) is typically estimated to fall somewhere between 44,000 and 98,000. Mortality rates are utilized for quality assessments and compensation since many inpatient deaths are thought to be preventable (13).

According to statistics it is estimated that about 400,000 deaths per year are caused by potentially preventable harms (14). More recently, a research based on multiple other studies indicated that medical error causes more than 250,000 inpatient deaths in the United States each year, ranking it third only to cancer and heart disease (15).

Because of the growing clinical and economic impact of unsafe care, international healthcare systems are focusing on patient safety. It is believed that one out of every twenty patients in healthcare settings globally is subjected to avoidable damage (16,17). Preventable injury happens as a result of a modifiable cause, and its recurrence can be averted through process modification or adherence to recommendations (18).

Preventable patient injury can occur in a variety of ways, including errors made by healthcare personnel, healthcare system failures, a combination of human errors, system flaws, and patient characteristics (19). Unsafe practices of health care providers lead to compromised patient safety and lead to injury, disability, and even death of the patient (20). As reported by WHO millions of patients suffer from adverse events due to medical errors and unsafe practices (21). Medical errors or detrimental episodes to patients have been identified as a severe hazard to patient safety since they can have an influence on patients' physical, psychological, emotional, and social lives. It is argued that the patient may suffer significant psychological trauma as a result of both the unpleasant occurrences and the handling of the issue (22,23).

A Study on patient safety has also found a link between a safety culture and patient outcomes, implying that high levels of patient safety can enhance patient outcomes while simultaneously lowering healthcare costs (24). Violating patient's safety not only affects the patients but also the health care professionals. Similarly, it is claimed that inadequate safety management and involvement in medical errors can have an impact on healthcare providers in a variety of ways, including feelings of guilt, mental discomfort, and depression (25).

Because of the serious and significant risk to patients in hospitals, developing countries like Pakistan also have a lot of concern about patient safety (26). The risk of patient infection, prescription mistakes or overuse, the standard and availability of maternal and perinatal care, and the general standard of healthcare delivery were all shown to be associated with deficiencies in patient safety, according to a systematic review that focused on research from Southeast Asia (27).

Nurses play a very crucial role in patient safety due to the nature of their work which include coordination of care and ongoing monitoring, A study shown that nursing education level, positive work environment and identifying mistake have a positive impact on patient safety (28). Nursing staff has an important role to understand and implement the international patient safety goals to reduce errors and minimize hazards. In addition to they work and practice in almost every aspect of healthcare delivery, they perceive patient safety is the core responsibility of nurses (29).

One of the reasons of not implementing the patient's safety is lack of knowledge with the hospital staff and their poor practices. One of the studies in Pakistan reported that 84% of the nurses are unaware regarding the high alert medication (30). Patients' safety is compromised by a lack of competency and knowledge of clinical staff, the unavailability and lack of implementation of policies and protocols, communication and reporting, and not merely the lack of resources (31). Given the significance of nurses in terms of patient safety, understanding their perspectives of the elements that influence patient safety could aid in the creation and implementation of better solutions. It is also possible that their perceptions will aid in the identification of lesser-known patient safety hazards. Furthermore, interventions based on nurses' perspectives are more likely to be beneficial. The goal of this study, which was conducted through interviews, was to investigate critical factors influencing patient safety as seen by registered nurses in general hospital care in Pakistan.

### **1.3 STATEMENT OF THE PROBLEM:**

Many studies have found that patient safety is linked to the global public health problem in a variety of ways, but few have focused on the perceived challenges and barriers to nurses in implementing international patient safety goals. The concepts of patient safety and patient safety culture are the foundations for excellent health care delivery. Patient safety must be strong enough to allow us to move quickly to the final stage of data reality, accept the challenge and responsibility of ensuring that patients are safe while we are providing care theme, and do everything in our power and beyond to create patient safety cultures that nurture and support our staff and our patients.

Investing in patient safety improves health outcomes, lowers costs associated with patient harm, increases system efficiency, and aids in comforting communities and restoring faith in health care systems (32).

### **1.4 PURPOSE OF THE STUDY:**

The basic purpose of the study is to explore the perceived challenges and barriers to nurses in implementing international patient safety goals. This study focus on nurse who works in public hospitals of Peshawar related to the implementation of international patient safety and their correlation with patient safety. In addition, the findings of this study could be generalized over many government and non-government hospitals, since most of the hospitals are affected by the International patient safety goals. Finally, the results from this study would benefit the hospitals concerning how to deal with international safety goals and take benefit of having patient safety standards. So that to handle them correctly. This would lead to a successful sustainable hospital, on the other hand these results may be applied to reduce medical errors and improving the entire system of health care.

### **1.5 OBJECTIVE OF THE STUDY:**

- To explore perceived challenges and barriers to nurses in implementing international patient safety goals at tertiary care hospital of Peshawar.

### **1.6 RESEARCH QUESTION:**

- What are the perceived challenges and barriers to the nurses in implementing international patient safety goals at tertiary care hospital of Peshawar?

### **1.7 RATIONALE OF THE STUDY**

- There is a scarcity of literature regarding International patient safety goals at national level.
- Moreover, this study may help nurses to ensure patient safety by providing meticulous care to the patients.
- Additionally, this study may inform policy makers to introduce and implement policies and protocols regarding international patient safety goals in the healthcare setting.
- Finally, the results from this study might benefit the hospitals concerning how to deal with international safety goals and take benefit of having patient safety standards and handle them correctly which lead to a successful sustainable hospital, on the other hand these results may be applied to reduce medical errors and improving the entire system of health care.

## **METHODS AND MATERIALS**

### **3.2 Study design:**

This study was aimed to explore the challenges and barriers to nurses in implementing international patient safety goals. Therefore, Qualitative Descriptive study design was used to explore the challenges and barriers in implementing international patient safety goals(33). Qualitative research explores the world from the perspective of participants. It is characterized by an emphasis on understanding the other person's perspectives and their experiences as well as the interpretation they bring and give to events or situations. To achieve the research objective in-depth interviewing

procedure was utilized to gather information. In depth interviewing is a subjective exploration technique that includes doing comprehensive individual meetings with few members to investigate their observations on a particular thought (33).

### **3.3 Study setting:**

The study was carried out in district Peshawar Khyber Pakhtunkhwa. Participants were recruited from tertiary care hospitals of Peshawar including PIC, KTH and HMC.

### **3.4 Study duration:**

This study was the requirement of university for the degree program of master in nursing. The study was carried out in a period of six months.

### **3.5 Sample size:**

In qualitative research, there is no prescribed sample size. Sample size is usually decided on the basis of data saturation. The point at which data collection becomes redundant with no new information emerging is called data saturation (33). The main aim of qualitative researcher is to contextualize the meaning of human experience rather than generalizability. Sampling was purposive, which is the selection by the researcher of cases that will highly be beneficiary to the study. Data saturation was reached after 8 interviews when no new information emerged. The researcher concluded that the possibility of new information with more interviews was very slight and interviews were stopped. (33).

### **3.6 Sampling technique:**

Purposive sample technique was used to recruit the participants in the study.

### **3.7 Sample selection:**

#### **3.7.1 Inclusion criteria:**

- Managerial and administrative Nurses and head nurses who experienced in JCI accredited hospital for six months now working in public hospital Peshawar were included in the study.

#### **3.7.2 Exclusion criteria:**

- The Managerial and administrative Nurses and head nurses who were on leave and who were not willing to participate in the study were excluded from the study.

### **3.8 Data collection tool:**

In the initial phase, the investigator received approval from the Institute of Nursing Sciences at Khyber Medical University. The ASRB (Academic and Scientific Review Board) and the ethical review board at KMU (Khyber Medical University) granted approval for data collection. Before conduct of the study, permission was also granted by the administration of the tertiary care institutions, and participants' consent was obtained. Initially interview topic guide was reviewed from three experts and they were agreeing that the content and face validity were accurate and also conducted three interview in validation phase of topic guide. So Using a semi-structured interview topic guide, information was gathered through semi-structured in-depth interviews (IDIs). To ensure accuracy and completeness, audio recordings and field notes were used to record each data item. Each interview lasted between 30 and 50 minutes on average. For the purpose of gaining a more comprehensive understanding of the participants' perspectives, strategic probing questions were asked to elicit responses that were more in-depth and to obtain a deeper understanding of their perspectives.

### **3.9 Data analysis:**

Data were analyzed using Braun and Clarke (2006) method of thematic analysis. The data were analyzed using a process that consisted of six steps:

1. Transcription: Interviews were transcribed verbatim from audio recordings into written form.
2. Familiarization: Interview transcripts were thoroughly read multiple times to gain familiarity.
3. Coding: Relevant information was labeled through coding.
4. Categorization: Open codes were categorized using an axial coding strategy.
5. Themes: Categories sharing similar ideas were combined to form overarching themes.
6. Final Report: Themes were substantiated through explanatory narratives and illustrative quotes(34).

## RESULTS

### 4.1 THEMATIC ANALYSIS:

Thematic analysis was done and a total of 76 codes, 20 categories and five themes were extracted. The extracted themes are Nurse related Factors, Barriers to implementations, Policy and compliance, Resources constrain and resistance to change (Figure 1).

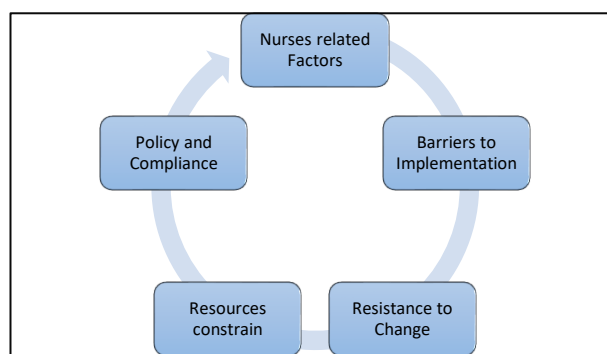


Figure 1: Thematic extracted from categories and codes

### 2 Theme 1: Nurses related factors:

The first extracted theme was “Nurses Related Factors”. This theme was generated from categories such as Knowledge and Awareness, Training and Education, Skills and Competencies, and Workload and staffing (Figure 2).

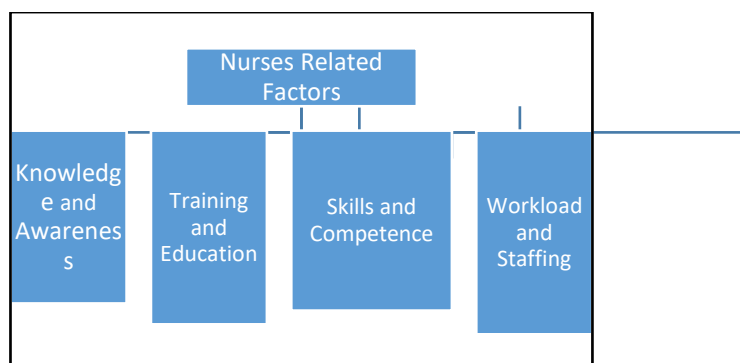
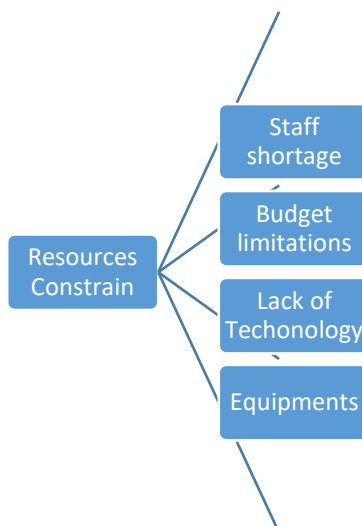


Figure 2: Categories for the theme “Nurses Related factors”.

### 4.3 Theme 2: Resources constrain:

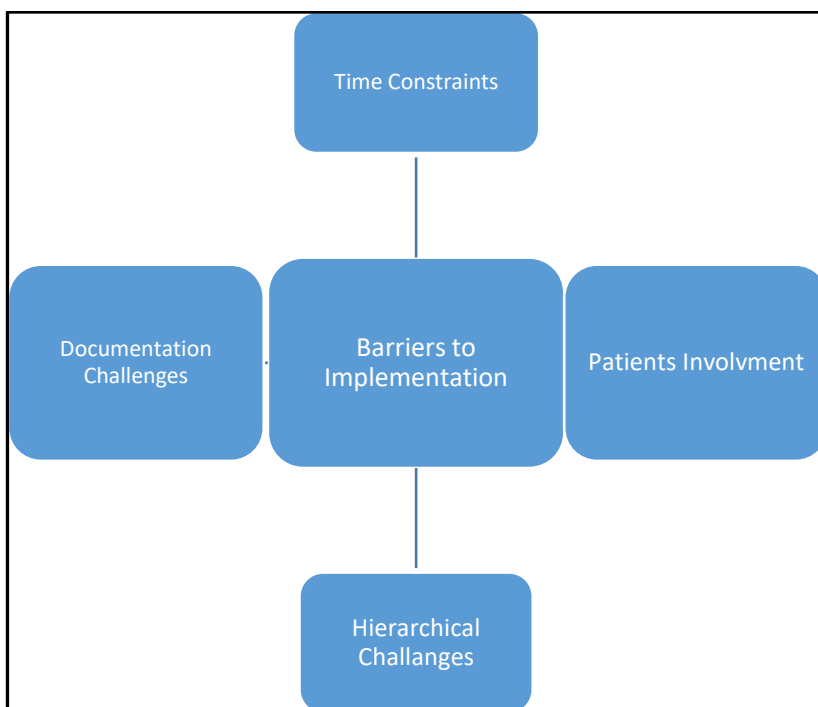
The second generated theme is “Resources Constrain”. Several categories such as staff shortage, budget limitations, lack of technology and lack of Equipment’s were arranged to extract theme “Resources constrain” (Figure 3.)



**Figure 3: Categories for the theme “Resources constrain**

#### **4.4 Theme 3: Barriers to implementations**

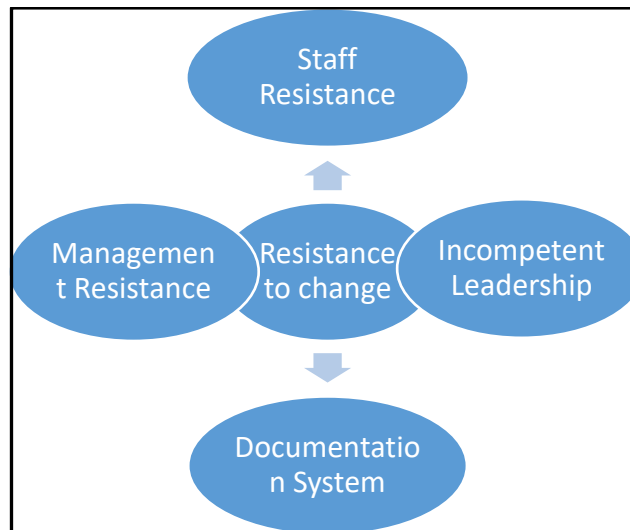
The third generated theme was “Barriers to implementations”. This theme was generated from four categories such as Documentation challenges, time constrains, patient’s involvement and hierarchical challenges (Figure 4).



**Figure 4: Categories for the theme “Barriers to Implementation”**

#### **4.5 THEME 4: RESISTANCE TO CHANGE**

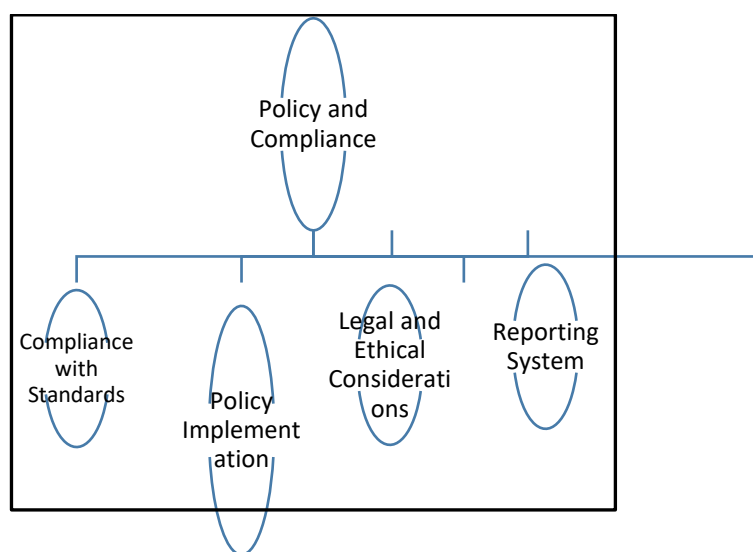
The fourth extracted theme was “Resistance to Change”. This theme was extracted from several categories such as Staff Resistance, Management resistance, documentation system and Incompetent Leadership (Figure 5).



**Figure 5: Categories for the theme “Resistance to Change”**

#### 4.6 THEME 5: POLICY AND COMPLIANCE

The fifth extracted theme is policy and compliance. This theme was extracted from four categories such as Compliance with standards, policy implementations, legal and ethical considerations and reporting system (Figure 6).



**Figure 6: Categories for the theme “Policy and Compliance”**

#### DISCUSSION:

Patient safety is a fundamental concern in healthcare, with numerous initiatives and goals in place to ensure the well-being of patients. This research has focused on identifying and analyzing the barriers that impede the achievement of these safety goals, with a specific emphasis on the following themes: Nurse-related Factors, Barriers to Implementation, Policy and Compliance, Resource Constraints, and Resistance to Change. In this discussion, we reach into the findings within each theme, exploring their implications, and offering recommendations for overcoming these barriers to improve patient safety (35).

In this study the first generated theme was “Nurses related factors”. Several categories such as Knowledge and Awareness, Training and Education, Skills and Competencies and Workload and staffing were extracted for this theme. Nurses' knowledge and awareness of patient safety protocols and best practices are fundamental in preventing adverse events. This includes understanding



infection control measures, medication safety, proper documentation, and fall prevention strategies (36). Insufficient knowledge in these areas can lead to errors, jeopardizing patient safety.

Similarly, another study also supported the findings of the current study and reported that training is pivotal in equipping nurses with the necessary skills and knowledge to handle complex healthcare situations. The absence of comprehensive and up-to-date training programs can hinder their ability to respond effectively to patient needs. Training deficiencies may result in mismanagement of critical situations (37).

Moreover, another study also provided inline findings and highlighted the importance of nurse's skills and competences and patient's safety. The practical application of skills and competencies is essential for ensuring patient safety. Nurses must not only possess the skills but also the competence to adapt and use them effectively in various situations. A lack of competencies can lead to incorrect clinical judgments and suboptimal patient care (38). Similarly, high workload, often exacerbated by nurse shortages, can lead to fatigue and burnout, which in turn can impact patient safety (39).

When nurses are overwhelmed with excessive patient loads, they may struggle to adhere to safety protocols, communicate effectively, and provide timely interventions, increasing the risk of adverse events. To address these challenges, healthcare organizations must invest in comprehensive training and continuous education programs for nurses, regularly assess their competencies, and optimize nurse-to-patient ratios to ensure manageable workloads. Furthermore, fostering a culture of safety that encourages reporting and learning from errors is vital (40). In addition, knowledge and awareness, adequate training, robust skills and competencies, and workload management are inextricably linked to patient safety in nursing practice. Identifying deficiencies in these areas and implementing targeted interventions is imperative for providing high-quality, safe patient care (41).

In the current study, staff shortage, budget limitations, lack of technology and lack of Equipment's were also reported to have effect on patient's safety. A shortage of healthcare staff, particularly nurses, has significant implications for patient safety. Overworked and overwhelmed healthcare professionals are more prone to fatigue, which can lead to errors, compromised patient monitoring, and delayed responses to critical situations (42). Inadequate staffing levels can reduce the quality of care and increase the risk of adverse events. Summarily, another study also supported the findings of the current study and reported that Budget constraints can affect patient safety through various avenues. Underfunding may result in cost-cutting measures that compromise the quality and safety of healthcare services. This might include reduced training opportunities for staff, less investment in modern equipment and technology, and limited access to essential resources (75).

Supporting the current findings, a study reported that advanced healthcare technology plays a pivotal role in improving patient safety. Technologies like Electronic Health Records (EHRs), barcode medication administration, and patient monitoring systems enhance the accuracy of care and reduce the risk of medical errors (76). A lack of access to these technologies or their underutilization can have negative consequences for patient safety.

Similarly, adequate and properly functioning equipment is essential for delivering safe patient care. Shortages or inadequacies in medical equipment can impede clinicians' ability to diagnose, treat, and monitor patients effectively. For example, a lack of ventilators during a respiratory disease outbreak can directly impact patient outcomes (77). Consider the situation of an underfunded community hospital grappling with staff shortages and outdated technology. Overworked nurses with insufficient resources may face challenges in administering medications accurately and timely. The absence of modern health information systems could hinder the exchange of critical patient data, leading to missed diagnoses or medication errors. Eventually, staff shortage, budget limitations, lack of technology, and inadequate equipment can have profound effects on patient safety in healthcare settings. Addressing these challenges requires a holistic approach, involving policy changes, resource allocation, and a commitment to a culture of patient safety.

In this study some of the barriers in implementing patient's safety goal such as documentation challenges, time constrain, lack of patient's involvement and Hierarchical Challenges was highlighted. The current findings were supported by another study and reported that effective and

accurate documentation is a cornerstone of patient safety. It ensures that healthcare providers have access to critical patient information, such as medical histories, medication records, and care plans. Documentation challenges, such as incomplete or error-ridden records, can lead to miscommunication and hinder timely decision-making, increasing the risk of patient harm (43).

Similarly, time constraints are a significant barrier to patient safety goals. Healthcare professionals often work in high-stress, time-sensitive environments. Pressured by tight schedules, they may be compelled to rush through tasks, omit safety checks, or overlook necessary precautions (44). Time pressures can compromise the quality of care and contribute to medical errors. Supporting the current findings, engaging patients in their care is essential for patient safety. Patients can provide critical information about their conditions, allergies, and preferences. However, challenges related to patient involvement, such as communication barriers or patients' reluctance to voice concerns, can impede the sharing of vital information (45). This can result in misdiagnoses, medication errors, and other adverse events.

Moreover, similar to the current findings, a study reported that hierarchical challenges within healthcare settings can negatively impact patient safety. A culture of hierarchy, where lower-ranking staff are hesitant to question or challenge decisions made by superiors, can deter open communication and the reporting of errors (46). This hierarchical culture can hinder the identification and mitigation of potential safety risks. To address these issues, healthcare institutions must prioritize effective documentation practices, implement measures to mitigate time constraints, encourage patient involvement through clear communication strategies, and work to foster a culture of open communication and non-punitive reporting (47). Eventually, documentation challenges, time constraints, patient involvement barriers, and hierarchical challenges significantly impact patient safety. To ensure patient safety, healthcare organizations and professionals must address these challenges proactively and systematically.

In the current study, some suggestions to the barriers were also reported such as Compliance with Standards of Care, Policy Implementations, Legal and Ethical Considerations, and nursing reporting system. These findings were supported by other study, and reported that compliance with established standards of care and clinical guidelines is a fundamental aspect of ensuring patient safety. Adherence to these standards is crucial in providing evidence-based and consistent care that minimizes errors and enhances patient outcomes. Failure to comply with these standards can lead to suboptimal care, potentially compromising patient safety (48).

Similar to the current findings, healthcare institutions develop and implement policies and procedures to create a structured and standardized approach to care delivery. Effective policy implementation can improve patient safety by promoting consistency and reducing the risk of errors. However, challenges in policy compliance and implementation may hinder the intended positive effects on patient safety (49).

Likewise, a study reported that patient safety is closely tied to legal and ethical considerations. Healthcare professionals have a legal and ethical duty to protect the well-being and autonomy of their patients. Neglecting these responsibilities can result in legal actions and ethical dilemmas that affect patient safety. For example, conflicts of interest or breaches of patient confidentiality may lead to adverse events (50).

Supporting the findings of the current study, a study reported that robust nursing reporting systems are crucial for identifying and mitigating patient safety issues. These systems allow nurses to report near misses, adverse events, and unsafe conditions, facilitating organizational learning and improvement. However, underreporting due to fear of retaliation or lack of awareness about reporting systems can hinder the identification and resolution of patient safety concerns (51). Compliance with standards of care, policy implementations, legal and ethical considerations, and nursing reporting systems are intricately connected to patient safety. Addressing these elements collectively is essential for providing high-quality, safe patient care.

### **STUDY STRENGTHS:**

- This was the first study in Peshawar Khyber Pakhtunkhwa to explore the perceived challenges and barriers to nurses in implementing international patient safety goals.
- The study addresses a highly relevant and important issue in healthcare, which is the implementation of International Patient Safety Goals. Patient safety is a critical concern, and understanding nurses' perceived challenges and barriers in this context can contribute to improving healthcare practices and patient outcomes.
- The study engaged a diverse group of nurses who have experienced in JCIA accredited hospital, representing various specialties and levels of experience. This diversity enhances the study's ability to capture a broad spectrum of perspectives and experiences related to patient safety implementation.
- By exploring the perspectives of nurses in implementing International Patient Safety Goals, the study contributes to the growing evidence base on patient safety and can inform policy development and healthcare quality improvement initiatives.

### **5.4 STUDY LIMITATION:**

- The study primarily focused on nurses' perceptions. While nurses play a critical role in patient safety, the study did not comprehensively explore the perspectives of other healthcare professionals, which could provide a more holistic view of the challenges and barriers in implementing International Patient Safety Goals.
- In this study we have only included public sector nurses and unfortunately due to time constraints we did not included private sector nurses.
- Participants want to share something but was not felt comfortable disclosing all challenges and barriers they face when implementing patient safety goals, potentially leading to an underreporting of issues.

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