

# Promoting a Culture of Safety in Healthcare: The Role of Nurses in Improving Patient Safety and Quality of Care During Crises and Pandemics

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## ABSTRACT

Patient safety is a critical component of healthcare quality, and the establishment of a safety culture within healthcare settings is key to reducing preventable errors and improving patient outcomes. This study aims to assess the perceptions of nurses regarding safety culture in primary healthcare settings in Saudi Arabia. A positive safety culture, characterized by trust, communication, transparency, and accountability, plays a significant role in preventing harm and ensuring the well-being of patients. Nurses, as frontline healthcare workers, significantly contribute to maintaining a safety culture through effective communication, adherence to safety protocols, and active participation in continuous training. This study highlights the importance of fostering a safety culture that promotes the reduction of medical errors, supports the well-being of healthcare professionals, and ultimately enhances the quality of care provided to patients. The findings are expected to offer valuable insights for policymakers to improve nursing practices and patient safety in hospitals and health centers across Saudi Arabia.

**Keywords:** Nurses, Patient Safety, Safety Culture, Primary Healthcare, Risk Management.

## Introduction

Scientists defined safety culture as the common values, attitudes and perceptions of safety within the institution to reduce the percentage of patients' harm or injury [1]. A safety culture consists of the main elements which are the recognition of extreme risks as faults in nature, a blame-free environment, and management participation in allocating resources to safety concerns and interdisciplinary cooperation in the search for solutions [2,3].

Patient safety is a critical component and serious element of healthcare quality [4]. Over the past few decades, the importance of a safety culture for enhancing the quality and safety of healthcare has been repeatedly emphasized because developing a safety culture is supposed to help avoid negative actions or correct mistakes quickly before damage occurs [5,6]. Organizations with positive safety cultures have established communication on confidence in the efficiency of protective measures, shared trust, shared perceptions about the consequence of safety, and support for the workforce [7,8].

Patient safety considered to be one of the main international health concerns manipulating patients in diverse healthcare locations in both developed and developing countries [9]. In addition to being a considerable economic burden [3,10].

The promotion of a safety culture, which allows ideal patient outcomes, is one of the most important steps in developing patient safety [11]. A culture of trust, integrity, reporting, and commitment to change are all dependent on accomplishing a culture of trust, transparency, reporting, and commitment to change. Patient safety is paramount particularly in primary healthcare [12].

Generating a safety culture in hospitals comprises an assessment and evaluation of the healthcare providers' perception of this culture. The safety protections applied may increase budgets and cause unexpected new hazards [13]. On the other hand, the application of safety culture protections will prevent health complications and progress nursing quality and advance healthcare systems [1]. In addition, it will improve survival rate and reduce negative consequences of the patients in primary healthcare [14]. On the other hand, nurses constitute a large part of the primary care staff, and their experiences, abilities, beliefs, values, and expectations contribute to the overall safety culture of the unit.

Therefore, this study aims to assess nurses' perception of safety culture in primary health care facilities in Saudi Arabia, with a focus on the role nurses play in maintaining patient safety during health crises.

### **Safety Culture and Patient Safety**

Safety culture is an essential and pivotal part of enhancing and improving the quality of healthcare. Safety culture includes both shared principles and attitudes within healthcare systems with the aim of reducing harm to the patient, especially during crises and pandemics [15]. Essentially, safety culture is formed by the collective behaviors of healthcare workers, especially nursing, based on values and attitudes, which determine how nursing tasks are performed. Hospitals and health centers with a positive safety culture are characterized by effective communication between nurses, a shared understanding of the importance of safety, and confidence in the preventive measures taken [16].

The ultimate goal of safety culture in healthcare is to reduce risks and prevent avoidable harm, especially during times of health crises [3]. According to the International Society for Quality in Health Care, safety culture is an integrated pattern of individual and collective behavior supported by shared values, aimed at reducing

harm that may arise from providing healthcare [6]. To achieve this, it is necessary to avoid mistakes and learn from them, while involving all relevant parties in healthcare, including health professionals, nurses, and patients [3,16].

Effective leadership, teamwork, transparency in communication, and learning from mistakes are essential components of a safety culture in healthcare. In addition, there should be continuous monitoring of policies and procedures in healthcare institutions, along with enhancing collaboration between medical teams [17]. Studies show that medical errors are associated with a significant number of patient deaths, highlighting the importance of promoting a safety culture [11,18]. In Saudi Arabia, the Saudi Ministry of Health, in partnership with all health systems and centers, is adopting a safety culture to ensure improved quality of healthcare and reduce potential harm to patients, in line with Saudi Arabia's Vision 2030 and the National Transformation Plan 2020 [19].

### **Crises, Epidemics and Safety Culture**

Globally, high-income countries are characterized by advanced health care systems, infrastructure and modern technologies, and one in ten patients are exposed to adverse events. In contrast, it is difficult to determine the number of patients who are harmed in low-income countries that suffer from a lack of technology, poor training of health and nursing personnel, and insufficient infrastructure [20]. According to the World Health Organization, in order to improve the culture of safety and reduce the number of errors, a multidisciplinary approach must be taken in the education of health professionals and nurses to promote a culture of safety, reduce errors and improve health care [21].

In the Kingdom of Saudi Arabia: The health sector is witnessing significant development in a unique political and economic environment. The Kingdom contributes significant resources to improve the capacity of the health sector, despite challenges related to population growth and pressures on the health system [22]. Studies indicate that one in seven patients is exposed to medical errors, as 59.3% of these cases are considered preventable. A fundamental aspect of safety culture is the attitude of healthcare nurses toward adverse events [23,24]. Training and education programs in patient safety are known to improve nursing attitudes and outcomes of care.

### **Importance of Safety Culture**

Patient safety (PS) is a fundamental concept in reducing risks associated with the healthcare system, as security cultures in hospitals and healthcare centers seek to reduce errors and learn from previous experiences. According to the World Health Organization, building a culture of patient safety is part of the behaviors of the institution and healthcare professionals, and includes essential components such as preventing errors and providing a safe environment that includes patients, healthcare workers and nurses [25].

Patient safety culture plays a pivotal role in improving health and administrative outcomes, as nursing behaviors and attitudes play a major role in maintaining patient

safety. Evaluating the security culture of hospitals and healthcare centers is an important step to understanding areas that require immediate improvement, which contributes to improving quality and safety management [26]. Despite advances in medical equipment and continuing education, healthcare in some systems still faces significant challenges in providing safe care, making patient safety a key issue. Improving patient safety can also prevent many negative incidents that may occur during healthcare and is one of the important criteria in assessing the quality of healthcare [27].

In the Kingdom of Saudi Arabia, patient safety is an important part of developing the healthcare sector, as it needs to promote a culture of patient safety among healthcare providers and patients themselves [28]. By understanding human behaviors and their relationship to tools and the work environment, this culture can be improved and errors reduced, enhancing the quality of healthcare in the Kingdom.

### **Role of Safety Culture in Improving Quality of Care**

Assessing patient safety culture is an important part of improving the quality of care, and safe treatment should be prioritized in healthcare settings [1]. During safety assessment, certain patient safety attributes that require special attention can be identified. Furthermore, this procedure allows hospital administrators to assess the strengths and weaknesses of safety culture and take remedial actions [29]. It is worth noting that the number of errors has been reported to be higher in healthcare organizations with poor commitment to patient safety culture, hence the importance of regularly assessing the safety culture of the organization. Assessing safety culture in intensive care units reveals a relationship between increased patient safety culture and improved quality of care. Smaller rates of prescription errors, shorter hospital length of stay, and lower risk of hospital-acquired infections are just a few examples [30].

### **The Role of Nurses in Ensuring Patient Safety**

#### ***Promoting Patient Safety:***

Nurses play a critical role in ensuring patient safety within healthcare settings. Their expertise and dedication are vital in preventing errors, promoting effective communication, and implementing necessary interventions. As frontline healthcare providers, nurses are at the forefront of patient care, making their perspectives and initiatives essential to improving patient safety outcomes [29].

#### ***Effective Communication:***

Effective communication is a cornerstone of patient safety, and nurses play a pivotal role in facilitating clear and accurate communication between healthcare providers. For example, nurses ensure that vital information is accurately conveyed during patient handoffs, ensuring continuity of care and reducing the risk of errors [31]. They also act as patient advocates, ensuring that their concerns and preferences are effectively communicated to the healthcare team. Through effective communication, nurses help prevent misunderstandings, promote collaboration, and improve patient safety [32].

### ***Medication Management:***

Medication errors are a major concern in healthcare, and nurses play an active role in preventing such errors. By diligently following medication administration protocols, double-checking dosages, and checking for patient allergies, nurses help ensure that patients receive the right medications in the correct doses. Additionally, nurses play a critical role in educating patients, explaining medication regimens and potential side effects, and empowering patients to be active participants in their own care [33]. Through their vigilance and patient-centered approach, nurses help reduce medication errors and improve patient safety.

### ***Infection Prevention and Control***

Infection prevention and control is another area where nurses play a vital role in ensuring patient safety. By adhering to strict hand hygiene protocols, using personal protective equipment, and implementing proper sterilization techniques, nurses help prevent the spread of infections within healthcare facilities. They also educate patients and their families about infection prevention measures, empowering them to actively participate in reducing the risk of healthcare-associated infections. Nurses' adherence to infection control practices is essential to protecting patients and maintaining a safe healthcare environment [34].

### **The Importance of Continuing Education and Training for Nurses**

Continuing education and training is essential for nurses to stay current with the ever-evolving healthcare landscape. Nurses are responsible for providing safe and effective care for their patients, making it essential that they have the necessary knowledge and skills. Continuing education and training also plays a vital role in ensuring patient safety by promoting interprofessional collaboration [35]. Healthcare is a team effort, and effective communication and collaboration are essential to providing safe and coordinated care. By participating in professional education sessions, nurses can learn to work collaboratively with other healthcare professionals, such as physicians, pharmacists, and social workers [14]. This collaboration enhances quality of care and preparedness to deal with crises and pandemics.

In addition, continuing education and training enables nurses to adapt to changes in healthcare procedures during crises and pandemics. Nurses who actively participate in education and training are better equipped to deal with these crises and pandemics. This adaptability ensures that nurses are able to provide the latest evidence-based care to their patients [36].

### **Conclusion**

The establishment and promotion of a robust safety culture are paramount to enhancing patient safety in healthcare settings. In Saudi Arabia, fostering a safety culture among healthcare workers, particularly nurses, is essential to reducing medical errors and improving the quality of care provided to patients. Nurses' role in communication, medication management, and infection control is critical in preventing harm and ensuring safe healthcare delivery. The findings underscore the need for ongoing education and training, as well as a supportive organizational

environment that encourages transparency and collaboration. By improving the perception and implementation of safety culture, healthcare institutions in Saudi Arabia can ensure better patient outcomes and contribute to the broader goal of improving healthcare quality in the country.

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