Patient Safety in Nigerian Health Care Facilities: A Review

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

Review Article

ABSTRACT

Background: Patient safety has been regarded as the basic structure which enhances the reduction of risk and adverse effects in health care. However, in various healthcare systems, guaranteeing patient safety is a challenging problem. The Nigerian health system presents patient safety concerns and opportunities. Therefore, the aim of this review was to examine the strategies for ensuring patient safety in health care facilities in the Nigerian health care system. Method: This review synthesizes the literatures on each tier's risk mitigation, patient outcomes, and patient safety initiatives. Results: Findings revealed that challenges in patient safety culture in the Nigeria Health System occur as a result of limited resources, poor regulation, inadequate training and education, and limited use of technology among other factors. Strategies proposed to tackle these problems in the three levels of care included strengthening the capacity of healthcare workers through training and retraining, improving infection prevention and control measures, implementing patient safety protocols and guidelines, among others. Conclusion: Patient safety procedures must be tailored to each tier of the Nigerian health system. Healthcare stakeholders can collaborate to improve patient safety, clinical outcomes, and Nigeria's healthcare delivery by acknowledging these levels' different challenges as well as seek to implement these strategies wholesomely.

1. INTRODUCTION

Patient safety culture refers to the attitudes, beliefs, and behaviors that shape the safety of patients in healthcare facilities. A positive patient safety culture involves an environment that prioritizes patient safety, values open communication and transparency, and encourages reporting and learning from adverse events [1]. This concept is a holistic snapshot of enacted norms, policies and procedures related to patient safety that guides the behaviours, attitudes and cognitions of care providers [2]. Safety concerns spring up from practice gaps and challenges such as poor communication, as well as intra- and inter-specific units of the health-care delivery system [1,3].

In Nigeria, patient safety culture is a critical area of concern for healthcare providers, policymakers, and patients alike. There have been numerous reports of medical errors, medication errors, and other adverse events that have led to harm or even death of patients [4]. Improving patient safety culture is, therefore, a priority for the Nigerian healthcare system and its implementation requires a comprehensive approach that addresses the underlying causes of safety issues [4]. To maintain patient safety, the emphasis is placed on the system of care delivery that prevents errors; learns from occurred errors and is built on a culture of safety that involves health-care professionals, organizations, and patients [5]. To effectively maintain patient safety, the Agency for Healthcare Research and Quality (AHRQ), recommends an annual assessment of safety culture which is useful for unraveling odds and inefficiencies inherent in a health care system [6].

The Nigerian health system can be classified into three tiers: primary healthcare, secondary healthcare, and tertiary healthcare. Primary healthcare is the first point of contact and provides basic curative and preventive healthcare services. Secondary healthcare provides more specialized services such as surgery, obstetrics, and imaging, while tertiary healthcare provides the most advanced and specialized services such as open-heart surgery and organ transplant. However, there is a significant disparity in the availability and quality of healthcare services across these different tiers of the Nigerian health system [7]. The federal government has a responsibility to organize tertiary health services. Meanwhile, the state government provides secondary health services, and local government- primary health services. Federal tier appears to be under control of the Federal Ministry of Health. State Ministry of Health manages the operations of primary secondary health services and state-owned general hospitals and health centers including the employment, remuneration and dismissal of state employed health workers. Finally, local government is meant to be in charge of primary health services, however, this is not really the case in Nigeria, as most primary health services and centres are state owned [8].

The Nigerian health system faces various challenges that impact patient safety. Notable among these challenges include inadequate infrastructure and equipment, a shortage of healthcare workers, low funding, poor regulation and enforcement of safety standards, and limited patient education and involvement. These challenges can lead to various patient safety concerns such as medication errors, misdiagnosis, delayed treatment, and hospital-acquired infections [9,7]. Additionally, the lack of effective communication and collaboration among healthcare providers can further exacerbate these issues [10]. In this review, the problems in the Nigerian health system that could affect patient safety in health care facilities and the strategies for overcoming these have been discussed.

2. METHODOLOGY

Literature for this review was obtained by conducting a search of the Google Scholar research database using the keywords: Nigerian health system, Patient safety, Primary healthcare, secondary healthcare, tertiary healthcare. Evidence was synthesized from identified literature on the risk mitigation, and patient safety initiatives conducted at the primary, secondary and tertiary levels of health care delivery in Nigeria. This was then elaboratively used to describe the various review concepts.

2.1 Problems of the Nigerian Health Care System Capable of Impacting Patient Safety

Challenges in patient safety culture in the Nigeria Health System stem from limited resources, poor regulation and enforcement, inadequate training

and education, cultural factors, limited patient involvement, and limited use of technology culture [4,11]. The Nigeria health system faces numerous challenges in patient safety culture. Limited resources such as inadequate funding, poor infrastructure, and a shortage of healthcare workers can affect patient safety culture [4]. This can lead to a lack of essential medical equipment and supplies, inadequate staffing levels, and increased workload for healthcare workers, all of which can compromise patient safety. Also, inadequate regulation and enforcement of safety standards can contribute to patient safety culture challenges in Nigeria. This is pertinent considering that a lack of oversight, accountability, and transparency in healthcare facilities, can result in ineffective safety protocols and a lack of consequences for patient safety violations [12].

Healthcare workers may not receive adequate training and education on patient safety principles and best practices [13]. This can lead to a lack of awareness and knowledge about safety protocols, poor communication and teamwork among healthcare providers, and inadequate reporting and learning from adverse events. Cultural factors such as deference to authority, hierarchy, and reluctance to speak up can hinder effective communication and teamwork, which are critical for patient safety [14]. Patients may not be adequately involved in their care, which can result in a lack of engagement in promoting safety and a lack of knowledge about their roles and responsibilities in preventing adverse events. The limited use of technology such as electronic health records, patient monitoring systems, and other digital tools can also hinder the implementation of effective safety protocols and processes [15].

Addressing these challenges requires a comprehensive approach that addresses the underlying causes of the issues. There has been a lot of focus on the epidemiology of errors and adverse events, but not as much on the behaviours that can actually reduce these occurrences. Several studies in different parts of the world have reported 'punitive response to error' reporting and 'staffing' as weak areas of their safety culture [16,17,18]. In Nigeria, studies have reported weakness in the safety culture of patients to occur due to inadequate staff strength [11], poor punitive response to error, poor staffing and communication [19] (Ogbolu *et al.*, 2015), poor teamwork and leadership support (Farokhzadian, *et al.* 2018). The situation seems a general picture, as several other studies have reported similar challenges including a study in Bayelsa state tertiary hospital pharmacy section where poor staff strength, work pressure and workspace were concerns related with poor patient safety culture [11].

3. RESULTS AND DISCUSSION

3.1 Overview of Strategies for Ensuring Patients Safety in Healthcare Facilities

Ensuring patient safety in healthcare facilities is essential to providing high-quality healthcare services and preventing adverse events. Patient safety strategies must be implemented across all levels of healthcare in Nigeria, including the primary, secondary, and tertiary levels of healthcare facilities.

3.2 Primary Healthcare Level

Strategies for ensuring patient safety include strengthening the capacity of healthcare workers through training and retraining, ensuring adequate staffing levels, improving infrastructure and technology, educating patients as a way of involving them in their care, and implementing effective monitoring and evaluation systems [20].

Healthcare workers can be trained on patient safety principles, infection prevention and control, and communication skills [21]. Healthcare providers can benefit from increased education and training on patient safety concepts and best practices. According to Russ et al. [22], training in the recognition and reporting of adverse events, as well as in the use of patient safety tools like checklists, efficient communication, and teamwork, are crucial areas in improving health care delivery. This type of training can help healthcare professionals to identify potential safety hazards, communicate effectively with patients and colleagues, work collaboratively as a team, and ultimately improve the overall safety and quality of patient care [23,22]. Additionally, ongoing training and professional development opportunities can help healthcare professionals stay up-to-date on the best practices, technologies, and policies related to patient safety, which further enhances their ability to provide safe and effective care [24].

Adequate staffing levels can also be achieved in this level of health care through the recruitment

and retention of healthcare workers. Overburdened healthcare providers may be more prone to errors that could compromise patient safety. Hospitals should from time to time ensure that staffing levels are adequate to meet patient needs. Lower nurse staffing levels have been associated with greater rates of in-patient mortality [25], nurse burnout, and poor job satisfaction [26]. The study also reported that better nurse-patient ratios had a significant impact on better patient outcomes, and improved nurse employee outcomes, including lower levels of burnout and job dissatisfaction.

Regarding infrastructural improvements, it should be noted that technological advancements such as electronic health records and telemedicine services can be deployed to boost the attainment of patient safety efforts [27]. Authors have discussed the use of technology to improve patient safety in hospitals. Specifically, they focus on the implementation of electronic health records (EHRs) and computerized physician order entry (CPOE) systems. They also describe other technologies such as barcode medication administration systems and automated dispensing cabinets which all help to reduce errors and improve patient safety. This is due to their ability in providing clinicians with more accurate and up-to-date information, improving communication among healthcare providers, and reducing the risk of medication errors [28,29].

Patient education and involvement can help to prevent medical errors, increase patient satisfaction, and improve the quality of care provided. Patients and their families should be educated about their condition, treatment options, and potential risks. This can help them make informed decisions about their care and identify potential safety issues. Patient safety from the patient's perspective can better educate patients about safety. Patients and their families can play an important role in improving safety during healthcare delivery. The importance of patient education in promoting informed decision-making cannot be over-emphasized [30].

Finally, effective monitoring and evaluation systems can help to ensure that patient safety strategies are implemented and are effective [32]. It is important that hospitals should implement systems to monitor and measure patient safety outcomes. This can help identify areas for improvement and ensure that safety initiatives are effective [32]. In order to ensure patient safety and prevention of medical errors, a strong safety culture involving the engagement of frontline staff, leadership support, and ongoing evaluation and feedback are required [33]. Tools for evaluating safety culture have however been reported to be culturally dependent on the context of specific geographic areas [34].

3.3 Secondary Healthcare Level

Strategies for ensuring patient safety include improving infection prevention and control measures, reducing medication errors, and improving communication between healthcare providers [35,21]. Infection prevention and control measures can be improved through the use of personal protective equipment, hand hygiene, and isolation precautions. Medication errors can be reduced through the use of computerized physician order entry systems and medication reconciliation processes [35].

Communication between healthcare providers can be enhanced through the use of standardized communication tools and engagement of multidisciplinary teams for patient care [21]. Effective communication among healthcare providers is essential for patient safety. Hospitals should implement communication protocols that ensure timely and accurate transfer of patient information between providers [36,21]. Ease of communication among health care personnel is also an essential factor in limiting the likelihood of medico-legal entanglements [37] as well as for improved patient survival in emergency situations [38]. Collectively, effective communication is critical for creating a culture of patient safety in healthcare organizations. By adopting evidence-based strategies and tools, healthcare providers can improve communication and enhance patient safety [21].

3.4 Tertiary Healthcare Level

Strategies for ensuring patient safety include implementing patient safety protocols and guidelines, improving clinical decision-making processes, and promoting a culture of safety. Patient safety protocols and guidelines can help to standardize care and reduce the risk of adverse events [39].

Clinical decision-making processes can be improved through the use of evidence-based medicine and clinical decision support systems. A culture of safety can be promoted through the use of safety training programs, incident reporting systems, and the involvement of patients and families in the care process [40].

This is a crucial step required for improving patient safety within health care facilities. It requires that all staff members should be committed to identifying and reporting potential safety issues. Establishing a culture of safety is an important goal for any organization or system that aims to provide high-quality and safe care. It is important to provide practical guidance on how to establish a culture of safety in healthc2are organizations, including strategies for leadership, communication, and training [41]. It is also pertinent that this safety culture is regularly assessed and modified to meet current requirements for patient safety. Assessment tools have been provided by the World Health Organization (WHO) as well as the Canadian Patient Safety Institute. These toolkits provide practical resources and tools for healthcare organizations to assess and improve their safety culture [41]. These problems, the patient safety concerns they could cause and the possible solutions to mitigate them at the three different levels of health care delivery are illustrated in Fig. 1.
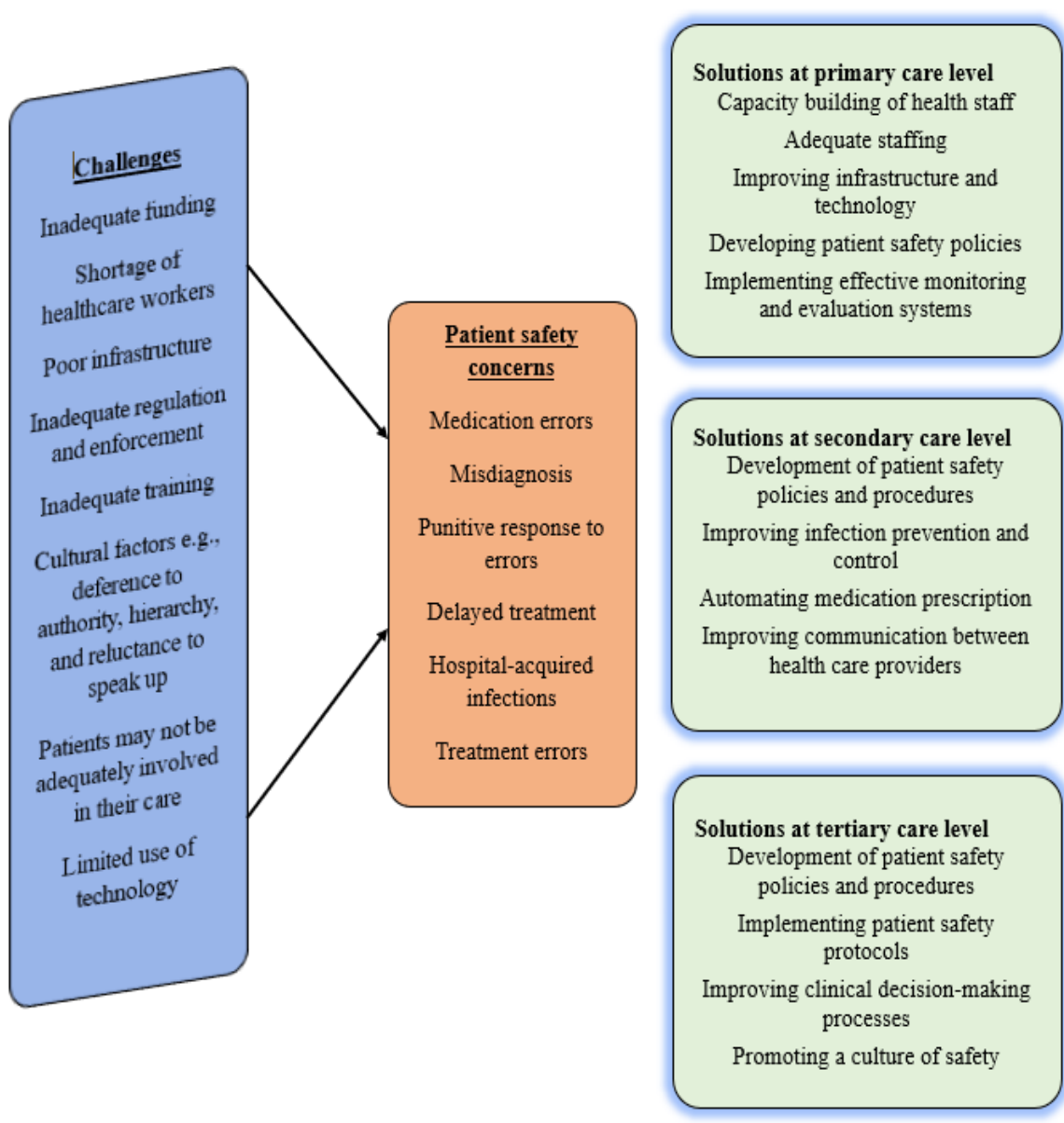

Fig. 1. Illustration of patient safety concerns and how to mitigate them at different levels of care

In addition to these level-specific strategies, there are also cross-cutting strategies that can be implemented across all levels of healthcare. These include the use of quality improvement methodologies, effective leadership, regular safety audits and assessments, and the development of patient safety policies and procedures [42]. Regarding the development and implementation of policies and procedures, it is essential that hospitals should develop and implement policies and procedures to avoid the occurrence of potential safety issues, such as medication errors, falls, infections and so on [35]. Reports have been made which show that effective policies and procedures can have a positive impact on patient safety culture by promoting adherence to best practices and creating a shared understanding of how to provide safe and high-quality care [35,43].

On the contrary, policies and procedures can have a negative impact on patient safety culture if they are not clear, are overly complex, or are not consistently enforced. This can lead to confusion among staff and a lack of accountability for patient safety [35,44]. The effectiveness of these policies is however dependent on various factors, including staff buy-in, leadership support, staff training for improved policy awareness and adherence, communication as well as adequate resources [44,45].

Quality improvement methodologies can help to identify areas for improvement and implement solutions to prevent adverse events. Risk management programs can help to identify and manage risks before they result in harm to patients alongside patient safety policies and procedures that can help to ensure that patient safety is prioritized and that healthcare providers are held accountable for providing safe care [42]. In terms of providing effective leadership for promoting and establishing good patient safety culture in health facilities, there needs to be the commitment and support of top-level management. Leaders should be able to prioritize patient safety and provide an atmosphere conducive to the disclosure of, and reflection upon bad incidents. They should also encourage responsibility and openness, and provide projects to improve patient safety. They provide insights into why a leadership commitment to a culture of patient safety is so crucial, as well as provide advice for how leaders can build a culture of safety in healthcare organizations [46].

It is also important to promote a culture of safety that emphasizes continuous improvement, accountability, and transparency. By implementing these strategies, the Nigerian health system can improve patient safety and provide high-quality care to all patients [47]. Strategies for ensuring patient safety involve a comprehensive approach that includes implementing standardized protocols and guidelines, improving communication between healthcare providers and patients, ensuring adequate staffing levels and training, implementing technology solutions, and conducting regular audits and monitoring of hospital processes [47].

These strategies are crucial in minimizing the risk of errors and improving patient outcomes. Finally, for effective attainment of patient safety, it is necessary to ensure the conduct of regular safety audits and assessments. Safety culture problems and improvement opportunities can be linked to the use of regular audits and assessments. The results can inform the design of effective interventions to address problems in organizational safety cultures. These assessments offer advice on how to successfully monitor and enhance patient safety culture in healthcare organizations [48-51].

4. CONCLUSION

There are many obstacles facing effective maintenance of a culture of safety in health care facilities, including insufficient training and retraining programmes, lackluster team spirit and communication among professionals, concerns over receiving a negative response after reporting an error, and understaffed departments with excessively long work days. Ultimately, ensuring patient safety in the Nigerian Health System requires a comprehensive approach that addresses the unique challenges faced by each level of care. These steps would inadvertently yield better patient safety, happier patients, better treatment outcomes, fewer adverse events, and less complaints from health care personnel.

CONSENT AND ETHICAL APPROVAL

It is not applicable.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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