ISSN: 6739 - 7466
Volume 10, Number 1, 2026
Journal of Management, Marketing, and Accounting Innovations

PROACTIVE CRISIS PREPAREDNESS AND PATIENT SAFETY OUTCOMES IN PUBLIC TEACHING HOSPITALS IN RIVERS STATE

Barikor Livinus Baribuma[1] & Jacob, Madighi, Ph.D[2]
[1,2]Department of Business Administration
Ignatius Ajuru University of Education, Port Harcourt, Rivers State, Nigeria
barikorlivinus@gmail.commadighi.jacob@iaue.edu.ng

Abstract
This study "examined the relationship between proactive crisis preparedness and patient safety outcomes in public teaching hospitals in Rivers State. Patient safety outcomes, measured in terms of patient satisfaction and error reduction, are critical indicators of healthcare quality, especially in complex hospital environments characterized by high patient volumes and increasing clinical risks. The study was guided by the High Reliability Organization (HRO) Theory, which emphasizes anticipation, continuous monitoring, and error prevention in high-risk settings. A cross-sectional survey design was adopted, using a sample of 80 respondents drawn from University of Port Harcourt Teaching Hospital and Rivers State University Teaching Hospital, including doctors, nurses, hospital administrators, and emergency unit staff. Data were collected using a structured questionnaire titled Proactive Crisis Preparedness and Patient Safety Outcomes Index (PCPPSOI) and analyzed using Spearman Rank Order Correlation at 0.01 significance level. Findings revealed a significant positive relationship between proactive crisis preparedness and patient satisfaction ($r = 0.502$, $p < 0.01$) as well as error reduction ($r = 0.635$, $p < 0.01$). This implies that hospitals with stronger crisis preparedness systems experience improved patient satisfaction and fewer medical errors. The study concludes that proactive crisis preparedness enhances patient safety outcomes by improving coordination, communication, and responsiveness in both routine and emergency care situations. It recommends that hospital management should strengthen crisis planning through regular drills, clear role assignment, and continuous updating of emergency response plans. Additionally, patient safety checks such as standardized protocols, effective communication systems, and incident reporting mechanisms should be embedded in daily hospital operations to minimize errors and enhance" care quality.

Keyword: ***Proactive crisis preparedness, patient safety outcomes, patient satisfaction and error reduction***

INTRODUCTION

Patient "safety outcomes constitute a vital component of healthcare quality, emphasizing the prevention of harm and the delivery of safe and effective patient care within hospital environments. In contemporary healthcare systems, the increasing complexity of clinical procedures, technological innovations, and rising patient populations have significantly increased the likelihood of medical errors, adverse events, and system failures (Asiri et al., 2024; Chance et al., 2024; Moslehi et al., 2024; Konlan & Shin, 2022). Consequently, patient safety outcomes have become a key measure for assessing hospital performance and healthcare service delivery. These outcomes demonstrate not only the effectiveness of clinical practices but also the efficiency of organisational processes, communication channels, and the prevailing safety culture within healthcare institutions. In this study, patient safety outcomes were assessed using indicators such as patient satisfaction and the reduction of medical errors.

Findings from various public hospital contexts indicate that healthcare environments that effectively reduce adverse events, including medication errors, wrong prescriptions, infections, and other preventable complications, tend to record improved health outcomes, reduced healthcare costs, and greater patient trust and satisfaction (Botchwey et al., 2024; Chance et al., 2024; Mistri et al., 2023; Asiri et al., 2024). Patient satisfaction is largely influenced by teamwork, prompt staff response to errors, open communication, efficient handovers, positive service attitudes, quality physical facilities, and the hospital's ov

erall safety culture (Botchwey et al., 2024; Hussain et al., 2019; Chen et al., 2016). In hospitals where s afety culture is poor, adverse events occur more frequently and patients often express dissatisfaction with the quality of care received (Ali et al., 2018; Mistri et al., 2023). Strengthening safety culture throu gh the use of structured mechanisms such as checklists, error-reporting systems, and continuous orga nisational learning has been shown to substantially reduce errors and improve patients' perceptions of healthcare quality (Chance et al., 2024; Khirekar et al., 2023). These routine safety outcomes are closel y connected to the extent to which hospitals can anticipate, manage, and respond to crises effectively. Studies on crisis-resilient and surge-ready hospitals emphasize that proactive preparedness involving s taff, stuff, space, and systems, alongside clear emergency plans, staff training, simulation exercises, an d resilient infrastructure, improves communication, coordination, and error prevention during both nor mal and emergency situations (Hasan et al., 2023; Talab et al., 2024; Ali et al., 2021; Khalil et al., 2022). Hospitals that prioritize disaster preparedness, evacuation readiness, emergency communication syste ms, and resilience frameworks are better positioned to sustain safe, uninterrupted, and patient-centred healthcare services during crises and unexpected disruptions (Khalil et al., 2022; Goniewicz & Goniewic z, 2020; Khirekar et al., 2023; Ali et al., 2021). Against this background, the present study investigated t he relationship between proactive crisis preparedness and patient safety outcomes in public teaching h ospitals in Rivers State.

Statement of the Problem

Patient safety outcomes in many low- and middle-income countries continue to remain poor, as eviden ced by consistently high incidences of medication errors, wrong prescriptions, infections, and other adv erse events that escalate healthcare costs, extend hospital stays, deteriorate patients' health condition s, and weaken public confidence in healthcare systems (Botchwey et al., 2024; Konlan & Shin, 2022). Al though patient safety culture is increasingly being assessed, positive evaluations are generally low to moderate, particularly in essential areas such as staffing adequacy, non-punitive response to errors, co mmunication openness, and incident reporting. Within African and Nigerian healthcare contexts, the di sconnect between established safety policies and actual clinical practice is further intensified by inadeq uate resources, ineffective reporting mechanisms, irregular staff training, and insufficient managerial s upport, all of which hinder error prevention and reduce patient satisfaction (Ali et al., 2018; Botchwey e t al., 2024). Similarly, studies across sub-Saharan Africa and Nigeria indicate that hospitals demonstrat e only moderate levels of preparedness for disasters and health emergencies, with notable shortcomin gs in surge capacity, availability of critical resources, staff welfare, leadership, and coordination system s (Ogoina et al., 2021; Farah et al., 2023).

Findings from disaster preparedness and proactive patient safety studies suggest that organised readi ness strategies such as simulation-based systems testing, use of checklists, structured evacuation and emergency training, as well as effective error-reporting and learning systems, are capable of identifying hidden safety threats, improving teamwork and communication, and minimizing medical errors and ad verse events (Ahsani-Estahbanati et al., 2022; Mistri et al., 2023; Chance et al., 2024; Moslehi et al., 202 4). Nevertheless, proactive crisis preparedness remains inadequately coordinated and poorly institutio nalised in many public hospitals in Nigeria, including those located in Rivers State, where persistent sys temic weaknesses, recurring crises, and limited resources continue to pose major challenges (Tamuno-Opubo et al., 2024; Ogoina et al., 2021; Joshua, 2021). Against this backdrop, the study examined the r elationship between proactive crisis preparedness and patient safety outcomes in public teaching hosp itals" in Rivers State.

Conceptual Framework

Fig. 1.1: Conceptual Framework Showing Relationship between Proactive Crisis Preparedness and Patient Safety Outcomes
Source:Researcher's Conceptualisation (2026)

Aim and Objectives of the Study
The aim of the study was to examine the relationship between proactive crisis preparedness and patient safety outcomes in public teaching hospitals in Rivers State. The specific objectives of the study were to:

1. determine the relationship between proactive crisis preparedness and patient satisfaction in public teaching hospitals in Rivers State.
2. examine the relationship between proactive crisis preparedness and error reduction in public teaching hospitals in Rivers State.

Research Questions
The following research questions were raised for the study:

1. What is the relationship between proactive crisis preparedness and patient satisfaction in public teaching hospitals in Rivers State?
2. What is the relationship between proactive crisis preparedness and error reduction in public teaching hospitals in Rivers State?

Research Hypotheses
The following hypotheses were tested to guide the study:

Ho_1: There is no significant relationship between proactive crisis preparedness and patient satisfaction in public teaching hospitals in Rivers State.

Ho_2: There is no significant relationship between proactive crisis preparedness and error reduction in public teaching hospitals in Rivers State.

REVIEW OF RELATED LITERATURE

Conceptual Review

Concept of Proactive Crisis Preparedness

Proactive crisis "preparedness refers to the intentional and forward-thinking capacity to anticipate, prevent, and efficiently manage possible disruptions before they develop into serious crises. Within healthcare settings particularly, it encompasses structured risk identification, surveillance systems, and early warning mechanisms designed to detect clinical, operational, or environmental threats such as disease outbreaks, medical errors, and system failures (Zajíc et al., 2025; Zarei, 2016). Instead of responding only after damage has occurred, hospitals focus on preparedness through comprehensive emergency response plans, infection prevention protocols, and effective communication systems that facilitate coor

dinated actions during critical incidents. Continuous training, drills, and simulation exercises also ensur e that healthcare professionals are adequately prepared to respond promptly and accurately under str essful conditions.

In organisations, especially hospitals, proactive crisis preparedness depends on strong leadership com mitment and an organisational culture that emphasizes safety, vigilance, and continuous improvemen t. Investments in health technologies, data management systems, and real-time monitoring tools stren gthen decision-making processes and improve responsiveness (Mori et al., 2025; Khirekar et al., 2023; Hasan et al., 2023; Mistri et al., 2023). In addition, collaboration with external stakeholders such as reg ulatory authorities, emergency responders, and public health agencies enhances preparedness capabili ties. Regular assessment and revision of crisis management strategies further ensure that organisatio ns remain aligned with emerging risks and evolving healthcare challenges (Talab et al., 2024; Ali et al., 2 021; Goniewicz & Goniewicz, 2020).

Proactive crisis preparedness enhances patient safety, minimizes the occurrence of adverse events, an d guarantees continuity of care in hospitals while maintaining operational stability within organisation s. It also fosters trust among patients, healthcare workers, and other stakeholders, strengthens organi sational resilience, and enables healthcare institutions to respond effectively to uncertainties. Consequ ently, it contributes to long-term efficiency, sustainability, and quality service delivery (Ogoina et al., 202 1; Farah et al., 2021; Joshua, 2022).

Concept of Patient Safety Outcomes

Patient safety outcomes represent the measurable results that demonstrate the degree to which healt hcare services prevent harm and promote patients' well-being within hospital environments. They funct ion as essential indicators of the quality, effectiveness, and reliability of healthcare delivery. These outc omes cover several dimensions, including the reduction of medical errors, prevention of hospital-acquir ed infections, minimization of surgical complications, and reduction in mortality rates. Patient safety o utcomes further indicate the ability of healthcare systems to manage risks effectively, comply with clini cal standards, and ensure accurate diagnosis and treatment procedures (Botchwey et al., 2024; Mistri et al., 2023; Asiri et al., 2024). In contemporary healthcare settings characterized by increasing comple xity and technological advancement, sustaining high standards of safety remains highly important.

Effective patient safety outcomes are strongly associated with efficient communication among healthc are professionals, proper record documentation, and strict compliance with established protocols. The y are equally shaped by organisational culture, leadership support, and the provision of adequate reso urces and staff training. Positive patient safety outcomes improve patient trust, confidence, and satisf action with healthcare services (Tamuno-Opubo et al., 2024; Chen et al., 2016; Tuyen & Hung, 2022). O n the other hand, poor safety outcomes may result in extended hospital stays, rising healthcare costs, and reduced public confidence in healthcare institutions. Monitoring patient safety outcomes allows h ospitals to detect weaknesses, introduce corrective actions, and continuously enhance healthcare deliv ery processes. These outcomes are commonly evaluated using indicators such as patient satisfaction, error rates, infection rates, and incident reporting systems. Furthermore, patient safety outcomes supp ort accountability, accreditation, and compliance with healthcare regulations. In developing healthcare systems, the improvement of patient safety outcomes is especially necessary because of persistent res ource limitations and systemic challenges. Overall, patient safety outcomes provide a broad framework for assessing how effectively hospitals protect patients from harm while ensuring efficient and quality healthcare services (Ali et al., 2018; Konlan & Shin, 2024). However, in this study, patient safety outcom es were measured using patient satisfaction and error reduction.

Patient satisfaction: Patient satisfaction is an important measure of patient safety outcomes because it refers to patients' perceptions of the quality and safety of care received. When patients feel listened t o, respected, and properly informed, it often indicates effective communication and reduced risk of erro

rs. High satisfaction levels suggest that care processes are well-coordinated, responsive, and patient-c entered (Botchwey et al., 2024; Hussain et al., 2019; Tuyen & Hung, 2022). It also signals trust in healt hcare providers and confidence in treatment decisions. Therefore, patient satisfaction serves as a valu able indicator of how safely and effectively healthcare services are delivered.

Error reduction: Error reduction refers to the extent to which hospitals minimize preventable mistakes i n care delivery. It includes reducing medication errors, diagnostic inaccuracies, surgical mistakes, and s ystem failures (Chance et al., 2024; Ahsani-Estahbanati et al., 2022). Lower error rates indicate effectiv e safety protocols, strong communication, and adherence to clinical standards. Continuous monitoring of errors helps healthcare providers identify risks and implement improvements. Therefore, error reduct ion serves as a critical indicator of safer, higher-quality" patient care.

Theoretical Review

The High "Reliability Organization (HRO) Theory was used to illuminate the concept under study. High Reliability Organization (HRO) Theory was advanced by Karl E. Weick and Kathleen M. Sutcliffe, buildin g on earlier studies by Todd LaPorte in the late 1980s and further developed in 2001. The theory assu mes that organisations operating in high-risk environments can achieve consistently safe and error-fre e performance despite inherent hazards (Dwyer et al., 2023). It posits that such organisations maintai n a preoccupation with failure, sensitivity to operations, and reluctance to simplify interpretations. HRO s are expected to anticipate potential errors, detect early warning signals, and respond swiftly to preve nt crises. Ultimately, the theory assumes that continuous learning, strong communication, and collectiv e mindfulness are essential for ensuring reliability and safety outcomes.

Implications of High Reliability Organization (HRO) Theory to the Study

The theory implies that proactive crisis preparedness strengthens patient safety outcomes by emphasi zing anticipation, continuous monitoring, and rapid response to potential risks in public hospitals. It su ggests that hospitals that invest in structured preparedness systems are more likely to reduce medical errors and adverse events. The theory further explains that reliability in high-pressure environments de pends on coordination, communication, and learning from near-misses. Consequently, proactive prepar edness enhances resilience, enabling hospitals to maintain safety standards even during emergencies. Fianlly, it underscores that patient safety outcomes are significantly improved when preparedness is e mbedded as a core organizational" practice.

Empirical Review

Zajíc et al. (2025) "carried out a study on enhancing crisis preparedness in healthcare facilities through a risk-based assessment tool aimed at preventing targeted violent attacks. The study adopted a mixed-methods approach that integrated both qualitative and quantitative techniques. The quantitative phas e utilized the Analytic Hierarchy Process involving 30 experts drawn from 30 outpatient healthcare facil ities. Data were generated through pairwise comparisons provided by crisis preparedness specialists a nd healthcare professionals. The findings exposed major weaknesses in the crisis preparedness of the outpatient healthcare facilities examined. Six major preparedness dimensions were identified, namely pl ans development, technical protection, physical security systems, staff awareness and preparedness e nhancement, updating measures based on international experiences, and evaluation and feedback. Am ong these dimensions, plans development, technical protection, and physical security systems were ran ked as the highest priorities by the experts. Consequently, the researchers developed a tool for evaluati ng the existing level of crisis preparedness, which could be utilized in the internal auditing of similar hea lthcare facilities. The proposed tool was found to support the protection of soft targets within the heal thcare sector and facilitate systematic security planning. Furthermore, the study provided a methodolo gical framework that could be applied by junior professionals and healthcare policy makers.

Mori et al. (2025) examined the critical domains and resilience factors that support hospitals in recover ing during extraordinary crises, using the COVID-19 pandemic as a case study. The study employed a t wo-round Delphi method involving 13 experts from six major hospitals in Lombardy. The purpose was t o identify important resilience factors across eight domains, including supply and storage, layout redes ign, strategic decision-making, organizational flexibility, human resource management, procedures, kno wledge management, and information and communication. The results indicated that resourcefulness and redundancy were the most important resilience factors, stressing the need for interdisciplinary coll aboration, organized decision-making, and spatial restructuring. The findings further demonstrated th at adaptability, collaboration, and redundancy are fundamental for improving hospital preparedness a nd response during health emergencies. The study therefore offered practical insights and a structured framework that hospitals can use to evaluate and strengthen resilience, thereby enhancing preparedne ss for future health crises.

Zarei (2016) conducted a study on the emergency preparedness of hospitals in Tehran and its relations hip with crisis management measures. The study aimed to assess the level of hospital emergency prep aredness and determine its association with crisis management measures. The research adopted a de scriptive-analytical and cross-sectional design and was conducted in 2015. The study population comp rised nurses working in selected hospitals in Tehran. Data collection was carried out using the Emergen cy Preparedness Information Questionnaire (EPIQ). A total of 80 questionnaires were randomly distrib uted among nurses, while 56 were returned and analyzed. Information relating to accreditation measur es was also obtained from the crisis management departments of the hospitals studied. Data analysis was conducted using the Kolmogorov-Smirnov test and Pearson correlation in SPSS. Findings showed that the emergency preparedness of the hospitals was below satisfactory levels, with an overall mean score of 3.6 out of 5 on the Likert scale. Among the preparedness dimensions, access to resources rec orded the lowest score, while ethical issues achieved the highest score. In addition, the average crisis m anagement measure score of the hospitals was 75.5 percent, and its correlation coefficient with hospit al emergency preparedness was 0.64, although the relationship was not statistically significant (P valu e > 0.05). The study concluded that the implementation of risk management standards alone could not significantly improve hospital disaster preparedness under the prevailing conditions.

Talab et al. (2024) conducted a study on the organizational resilience model of hospitals during emerg encies and disasters. The study adopted a mixed-method approach in 2023 and was implemented in th ree phases, namely identification of factors influencing hospital organizational resilience, evaluation of the influential factors by an expert panel, and administration of standardized questionnaires. A total of 371 questionnaires were distributed to participants including university staff managers, supervisors, n ursing managers, and research unit managers. The sample size was derived by multiplying the identifie d components by 10, resulting in 360 participants, though 371 respondents were eventually selected. S tructural Equation Modeling (SEM) was used to examine the causal relationships among variables, whil e SPSS 25.0 and AMOS 22 software were utilized for analysis. The study applied SEM with a significan ce level of 0.05 to determine the relationships among variables. Findings revealed that the model identi fied five major dimensions with 36 components, including vulnerability, preparedness, support manage ment, responsiveness and adaptability, and post-disaster recovery. The model demonstrated a good fit with indices such as X2/d = 2.202, GFI = 0.832, RMSEA = 0.057, CFI = 0.931, and NFI = 0.901. The stu dy concluded that strengthening hospital resilience is essential for effective preparedness and respons e to disasters and emergencies. It further emphasized that developing a localized resilience measureme nt tool would assist in identifying vulnerabilities, ensuring continuity of healthcare services, and guiding rehabilitation programmes.

Knowledge Gap

Studies related to proactive crisis preparedness and patient safety outcomes have been carried out (Za

jíc et al., 2025; Mori et al., 2025; Zarei, 2016; Talab et al., 2024). However, from extant literature, the relationship between proactive crisis preparedness and patient safety outcomes in public teaching hospitals in Rivers State is yet to be established. Therefore, there is need for such empirical study to be carried out in order to establish its evidence" of relationship.

METHODOLOGY

The study "adopted the cross sectional survey research design. A sample of 80 respondents drawn from the population of 2 public teaching hospitals (University of Port Harcourt Teaching Hospital and Rivers State University Teaching Hospitals) in Rivers State was used for the study. These respondents include doctors (consultants and residents), nurses, hospital administrators, and emergency unit staff. Data were collected through primary (questionnaire) and secondary (textbooks, journal articles and internet). A structured questionnaire titled Proactive Crisis Preparedness and Patient Safety Outcomes Index (PCPPSOI). The questionnaire was designed in four point likert rating scale format with the following response options: Strongly Agreed (SA) 4, Agreed (A) 3, Disagreed (D) 2, and Strongly Disagreed (DS) 1. The instrument was validated by two management experts. The reliability coefficient of the instrument (0.72) was elicited using Cronbach Alpha. Spearman Rank Order Correlation Coefficient (r) was used for the test of hypotheses. Out of the questionnaires administered, the researcher was able to retrieve 65(81%) copies. A bivariate analysis (test of hypothesis) was done using SPSS Version 25 at 0.01 level" of significance.

RESULTS AND DISCUSSION OF FINDINGS

Ho_1: There is no "significant relationship between proactive crisis preparedness and patient satisfaction in public teaching hospitals in Rivers State.

Table 1 Relationship between Proactive Crisis Preparedness and Patient Satisfaction

		Proactive Crisis Preparedness	Patient Satisfaction
Proactive Crisis Preparedness	Correlation Coefficient	1.000	.502**
	Sig. (2-tailed)	.	.000
	N	65	65
Patient Satisfaction	Correlation Coefficient	**.502****	1.000
	Sig. (2-tailed)	.000	.
	N	65	65

**. Correlation is significant at the 0.01 level (2-tailed).

Source: Survey Data, 2026

Table 1 above shows r value of 0.502 at a significance level of 0.00 which is less than the chosen alpha level of 0.01. Since the significance value 0.000 is less than the alpha level of 0.01, the null hypothesis (Ho_1) which states that there is no significant relationship between proactive crisis preparedness and patient satisfaction in public teaching hospitals in Rivers State was rejected and the alternate hypothesis accepted. This implies that there is a significant relationship between proactive crisis preparedness and patient satisfaction in public teaching hospitals in Rivers State.

Ho_2: There is no significant relationship between proactive crisis preparedness and error reduction in public teaching hospitals in Rivers State.

Table 1 Relationship between Proactive Crisis Preparedness and Error Reduction

		Proactive Crisis Preparedness	Error Reduction
Proactive Crisis Pr	Correlation Coeffic	1.000	.635**

	Sig. (2-tailed)	.	.000
	N	65	65
Error Reduction	Correlation Coefficient	**.635****	1.000
	Sig. (2-tailed)	.000	.
	N	65	65

**. Correlation is significant at the 0.01 level (2-tailed).

Source: Survey Data, 2026

Table 2 above shows r value of 0.635 at a significance level of 0.00 which is less than the chosen alpha level of 0.01. Since the significance value 0.000 is less than the alpha level of 0.01, the null hypothesis (Ho_2) which states that there is no significant relationship between proactive crisis preparedness and error reduction in public teaching hospitals in Rivers State was rejected and the alternate hypothesis accepted. This implies that there is a significant relationship between proactive crisis preparedness and error reduction in public teaching hospitals" in Rivers State.

Discussion of Findings

The "analyses of data showed that there is a significant relationship between proactive crisis preparedness and patient safety outcomes in public teaching hospitals in Rivers State. This finding agrees with the position of Zajíc et al. (2025), who asserted that improving crisis preparedness in healthcare facilities contributes to the prevention of targeted violent attacks, thereby enhancing patient safety outcomes. Based on these findings, proactive crisis preparedness improves patient safety outcomes in public hospitals by ensuring that hospital systems, personnel, and resources are adequately prepared before emergencies arise. Through effective risk assessment and strategic planning, hospitals are able to identify vulnerabilities in communication, evacuation procedures, equipment availability, and workflow processes that could otherwise result in delays, mistakes, or unsafe conditions during emergencies. In addition, regular simulation-based drills and training enable healthcare workers to strengthen non-technical competencies such as teamwork, communication, situational awareness, and decision-making, thereby minimizing miscommunication and human errors during actual crisis situations (Khirekar et al., 2023; Zarei, 2016; Talab et al., 2024; Ahsani-Estahbanati et al., 2022; Botchwey et al., 2024; Hussain et al., 2019; Zajíc et al., 2025). Clearly defined protocols for triage, evacuation, surge capacity, and infection control also facilitate coordinated and timely healthcare delivery instead of disorganized responses that may frustrate patients and their families. Furthermore, when healthcare personnel clearly understand their responsibilities, feel supported, and have confidence in hospital emergency plans, their stress levels are reduced, enabling them to provide more attentive, precise, and compassionate care that improves patient satisfaction. Effective communication systems and incident command structures equally ensure that patients remain well informed and experience less uncertainty during crises (Mori et al., 2025; Zajíc et al., 2025). Therefore, advance preparedness enables hospitals to sustain safe, organized, and patient-centred healthcare services, reducing preventable errors and strengthening patient confidence even during" crisis conditions.

CONCLUSION

Proactive crisis "preparedness is vital for strengthening patient safety outcomes in public hospitals. By anticipating potential disruptions and planning clear response strategies, hospitals can reduce medical errors and foster higher patient satisfaction. Finally, a culture of readiness ensures continuous, safe, and reliable care, even in the face of unexpected challenges.

RECOMMENDATIONS

Based on the conclusions, the following recommendations were made:

1. Management of public hospitals should strengthen proactive crisis planning by updatin g response plans regularly, conducting routine drills, and clearly assigning staff roles, a s such would improve patient satisfaction through faster, more coordinated emergency care.
2. Management of public hospitals should embed patient-safety checks by using simple c hecklists, clear communication steps, and routine incident reporting as such would red uce errors by ensuring consistent and careful clinical" practice.

REFERENCES

Ahsani-Estahbanati, E., Gordeev, V., & Doshmangir, L. (2022). *Interventions to reduce the incidence of medical error and its financial burden in health care systems: A systematic review of systemati c reviews*. https://www.frontiersin.org/journals/medicine/articles/10.3389/fmed.2022.875426/full#cite

Ali, H., Desha, C., Ranse, J., & Roiko, A. (2021). *Planning and assessment approaches towards disaster resilient hospitals: A systematic literature review*. https://www.sciencedirect.com/science/articl e/abs/pii/S2212420921002855?via%3Dihub

Ali, H., Ibrahem, S., Mudaf, B., Fadalah, T., Jamal, D., & El-Jardali, F. (2018). Baseline assessment of pati ent safety culture in public hospitals in Kuwait. *BMC Health Services Research, 18,* 158 (2018). https://doi.org/10.1186/s12913-018-2960-x

Asiri, R., Alharbi, A., Al-Hawasawi, N., Nursing, N., Al-Rabiaa, M., Alanazi, A., Almehmadi, W., Marzouq, S., Al-Rashidi, S., Alruwaythi, A., & Alrashidi, A. (2024). Patient safety and quality of healthcare Services. *Saudi Journal of Medicine and Public Health, 1*(2), 1373–1383

Botchwey, C., Boateng, A., Ahimah, P., Acquah, F., Adoma, P., Kumah, E., Boakye, D., Boahen, E., Kruh, V., & Koomson, J. (2024). Patient safety culture and satisfaction in Ghana: a facility-based cros s-sectional study. *BMJ Open*, 2024;14:e073190. doi:10.1136/ bmjopen-2023-073190

Botchwey, C., Boateng, A., Ahimah, P., Acquah, F., Adoma, P., Kumah, E., Boakye, D., Boahen, E., Kruh, V., & Koomson, J. (2024). *Patient safety culture and satisfaction in Ghana: a facility-based cros s-sectional study*. https://bmjopen.bmj.com/content/14/1/e073190.

Chance, E., Florence, D., & Abdoul, I. (2024). The effectiveness of checklists and error reporting system s in enhancing patient safety and reducing medical errors in hospital settings: A narrative revie w. *International Journal of Nursing Sciences, 11*(2024), 387-398.

Chen, H., Li, M., Wang, J., Xue, C., Ding, T., Nong, X., Liu, Y., & Zhang, L. (2016). Factors influencing inpa tients' satisfaction with hospitalization service in public hospitals in Shanghai, People's Republi c of China. *Patient Preference and Adherence, 10*(1), 469 - 477.

Dwyer, J., Karanikas, N., & Sav, A. (2023). Scoping review of peer-reviewed empirical studies on implem enting high reliability organisation theory. *Safety Science 164* (2023) 106178

Farah, B., Pavlova, M., & Groot, W. (2023). Hospital disaster preparedness in sub-Saharan Africa: a syst ematic review of English literature. *BMC Emergency Medicine, 23*, 71 (2023). https://doi.org/1 0.1186/s12873-023-00843-5

Goniewicz, K., & Goniewicz, M. (2020). Disaster preparedness and professional competence among he

althcare providers: Pilot study results. *Sustainability, 12*(12), 4931. https://doi.org/10.3390/su12124931

Hasan, M., Nasrullah, S., Quattrocchi, A., González, A., & Castro-Delgado, R. (2023). Hospital surge capacity preparedness in disasters and emergencies: a systematic review. *Public health, 225*(2023), 12-21.

Hussain, A., Sial, M. S., Usman, S. M., Hwang, J., Jiang, Y., & Shafiq, A. (2019). What factors affect patient satisfaction in public sector hospitals: Evidence from an emerging economy. *International Journal of Environmental Research and Public Health*, *16*(6), 994. https://doi.org/10.3390/ijerph16060994

Khalil, M., Ravaghi, H., Samhouri, D., Abo, J., Ali, A., Sakr, H., & Camacho, A. (2022). What is hospital resilience? A scoping review on conceptualization, operationalization, and evaluation. *Front. Public Health 10*:1009400. doi: 10.3389/fpubh.2022.1009400

Khirekar, J., Badge, A., Bandre, G., & Shahu, S. (2023). Disaster preparedness in hospitals. *Cureus, 15*(12), e50073. doi:10.7759/cureus.50073

Konlan, K., & Shin, J. (2022). The status and the factors that influence patient safety in health care institutions in Africa: A systematic review. *PLOS Global Public Health, 2*(12), e0001085. https:// doi.org/10.1371/journal.pgph.0001085

Mistri, I., Badge, A., & Shahu, S. (2023). *Enhancing patient safety culture in hospitals*. https://assets.cureus.com/uploads/review_article/pdf/199967/20231227-16530-5l05rq.pdf?utm

Mori, E., Cantoni, F., Bisogni, P. G., & Zuffada, E. (2025). Hospitals' resilience: An evidence-based frameworkfor sustaining the coping phase in non-linear and continuous crises. *Journal of Public Affairs*, 2025; 25:e70085. https://onlinelibrary.wiley.com/doi/epdf/10.1002/pa.70085

Moslehi, S., Masbi, M., Noori, N., Taheri, F., Soleimanpour, S., & Narimani, S. (2024). *Components of hospital personnel preparedness to evacuate patients in disasters: a systematic review*. https://doi.org/10.1186/s12873-024-00942-x

Ogoina, D., Mahmood, D., Oyeyemi, A., Okoye, O., Kwaghe, V., Habib, Z., Unigwe, U., Iroezindu, M., Garbati, M., Rotifa, S., Adekanmbi, O., Garba, I., Dayyab, F., Ibrahim, S., Kida, I., Adamu, A., Alasia, D., Awang, S., Ohaju-Obodo, J., Usman, R., Mohammed, Y., Omololu, A., Tobin, E., Okogbenin, S., Asogun, D., Kelly, I., Waziri, B., Nauzo, A., Jibrin, Y., & Habib, A. (2021). A national survey of hospital readiness during the COVID-19 pandemic in Nigeria. *PLoS ONE, 16*(9): e0257567. https://doi.org/10.1371/journal. pone.0257567

Talab, F., Ahadinezhad, B., Khosravizadeh, O., & Amerzadeh, M. (2024). *A model of the organizational resilience of hospitals in emergencies and disasters*. file:///C:/Users/User/Downloads/s12873-024-01026-6.pdf

Tamuno-Opubo, A., Uthman, T., Ojuope, A., Adeleke, A., Oluwasegun, J., & Tuwleh, L. (2024). Patient safety initiatives and practices in Nigerian healthcare settings: A comprehensive analysis of current knowledge, challenges, and barriers. *Global Journal of Health Sciences and Research, 2*(2), 70-81.

Tuyen, P., & Hung, P. (2022). Factors influencing patients' satisfaction with healthcare services: A case study of public hospitals in Hue City. *Hue University Journal of Science: Economics and Development, 130*(5b), 117–128.

Zajíc, M., Tušer, I., & Jánský, J. (2025). *Enhancing crisis preparedness in healthcare facilities: A risk-based assessment tool for preventing targeted violent attacks*. https://www.dovepress.com/enhancing-crisis-preparedness-in-healthcare-facilities-a-risk-based-as-peer-reviewed-fulltext-article-RMHP

Zarei, V. (2016). Emergency preparedness of hospitals in Tehran and its relation with crisis management measures. *International Journal of Medical Research and Health Science, 5*(9S), 471-478.