THE ETHICS OF MEDICAL ACCIDENTS VERSUS MEDICAL CARELESSNESS: AN ANALYTICAL PERSPECTIVE ON PATIENT SAFETY IN NIGERIA

METUONU, Iheanacho Chukwuemeka (Ph.D)
Department of Humanities, General Studies and Bioethics, Faculty of Health Law and Humanities, University of Medical Sciences, Ondo, Ondo State, Nigeria

Email: imetuonu@unimed.edu.ng

Abstract
Patient safety remains a cornerstone of medical ethics, yet recent epidemiological evidence highlights a troubling incidence of harm associated with healthcare delivery, particularly in low-to-middle-income countries (LMICs). In Nigeria, one in every 24 hospital patients dies from unsafe care, and 47% of healthcare professionals report committing medication errors. This paper critically examines the ethical distinction between medical accidents—unintended adverse events arising despite adherence to accepted standards—and medical carelessness, which denotes preventable harm from negligence or breach of duty. This boundary remains underexplored, undermining accountability, legal clarity, and public trust. The study asks: How can Nigeria's healthcare system ethically differentiate genuine medical accidents from negligent carelessness, and what frameworks can reduce preventable harm? A mixed-method, qualitative–analytical design integrated epidemiological evidence with principlism, deontological ethics, and Just Culture frameworks. A cross-sectional survey of 297 healthcare professionals from tertiary, secondary, and primary facilities was conducted using stratified random sampling. Data from a structured questionnaire were analysed with descriptive statistics and combined with secondary literature and policy review. Findings show strong consensus on the urgency of improving patient safety (80.8%) and on carelessness as a major cause of preventable harm (77.4%). Respondents prioritised system-level interventions—WHO surgical safety checklist, continuous medical education, and accountability policies—over punitive measures, while citing poor equipment maintenance and workforce shortages as key challenges. Clarifying this ethical distinction is vital for proportionate accountability, systemic learning, and restoring public trust.

Keywords: Medical Ethics, Patient Safety, Medical Accidents, Negligence, Clinical Governance, Just Culture.

Introduction
Patient safety is recognised globally as an essential component of quality healthcare and a core principle of medical ethics. Yet, the burden of unsafe hospital care remains substantial—particularly in low- and middle-income countries (LMICs). Globally, the World Health Organization (WHO) estimates that one in ten patients experiences harm while receiving healthcare, and in LMICs, one in four hospitalisations results in harm (WHO, 2019). In Nigeria, patient safety incidents—often referred to as "medical accidents"—are a major cause of preventable morbidity and mortality. A recent discourse by Edozien (2025) at the University of Medical Sciences, Ondo, revealed that one in every 24 patients in Nigerian hospitals dies from unsafe care, and 47% of healthcare professionals admit to committing medication errors.

Common incidents include medication errors, patient misidentification, blood transfusion mismatches, surgical mishaps, and diagnostic delays. These incidents result in profound consequences: physical injury, prolonged hospital stay, psychological distress, and significant financial hardship for patients and families (Ogunleye et al., 2016; Ajemigbitse et al., 2013). Such realities underscore an urgent ethical and systemic challenge in Nigeria's healthcare system.

While existing literature documents the prevalence and consequences of patient safety incidents in Nigeria, few studies explore the ethical distinction between unavoidable medical accidents and preventable medical carelessness. This lack of clarity has implications for accountability, legal liability, professional regulation, and patient trust. This study asks: How can healthcare systems in Nigeria ethically differentiate between genuine medical accidents and negligent medical carelessness, and what frameworks can reduce preventable harm?

Objectives
The study aims to:
1. Analyse the prevalence and nature of patient safety incidents in Nigeria.
2. Examine the ethical distinction between unavoidable medical accidents and preventable carelessness.
3. Propose policy and clinical governance measures to reduce negligence while acknowledging inherent clinical risks.

While some adverse events are unavoidable due to the inherent risks in healthcare, preventable harm arising from carelessness constitutes an ethical breach of the duty of care. A clearer distinction between the two can guide ethical practice, legal standards, and health policy in Nigeria.

Literature Review
The global patient safety movement gained momentum with the Institute of Medicine's *To Err is Human* report (1999), which shifted focus from individual blame to systemic reforms. In Nigeria, Ogunleye et al. (2016) conducted a national survey involving 2,386 doctors, pharmacists, and nurses, finding a 47% prevalence of self-reported medication errors. Ajemigbitse et al. (2013) reported that 40.9% of prescriptions in a Nigerian tertiary hospital contained at least one prescribing error. Similarly, Fadare et al. (2011) documented irrational prescribing patterns contributing to patient harm.

While these studies quantify errors, few explicitly address the ethical line between accident and negligence. International literature distinguishes between harm that occurs despite adherence to accepted standards and harm resulting from a breach of duty (Beauchamp & Childress, 2019). In Nigeria, this distinction is blurred, contributing to inadequate accountability mechanisms. This paper addresses that gap by integrating epidemiological evidence with ethical analysis to propose actionable solutions.

The Nigerian case studies substantiate the central claim that technological and procedural innovations yield maximal benefit when grounded in robust ethical frameworks. In LASUTH's experience, the surgical checklist functioned as a tool of ethical reinforcement, ensuring that patient autonomy was respected through informed consent protocols and that the principle of

non-maleficence was operationalized in every surgical procedure. The reduction in adverse surgical events demonstrates that ethics is not peripheral to efficiency—it is constitutive of it. Similarly, Kaduna's rural medical training highlights how ethical commitments to equity and justice can direct resource allocation and human capital deployment in ways that tangibly improve population health. These placements did not merely fill staffing gaps but catalyzed trust-building between healthcare providers and communities—trust that epidemiological indicators show is essential for the uptake of preventive and therapeutic services (Olaore & Adebayo, 2022).

This synthesis also underscores that Nigeria's healthcare challenges—ranging from infrastructural deficits to workforce shortages—cannot be addressed through technical measures alone. Without embedding interventions within ethical principles, technological adoption risks exacerbating inequities rather than alleviating them. The LASUTH and Kaduna cases suggest that ethical frameworks can act as scalability multipliers, ensuring that innovations adapted from global best practices produce contextually relevant and socially just outcomes in Nigeria.

Theoretical Framework

Principlism and Professional Duty

This inquiry is grounded first in **principlism**, the dominant mid-level framework in biomedical ethics which locates moral evaluation in four core principles: **beneficence**, **non-maleficence**, **respect for autonomy**, and **justice** (Beauchamp & Childress, 2019). Principlism provides a practical vocabulary for distinguishing ethically tolerable risk-taking (where harms are proportionate, unavoidable and disclosed) from ethically unacceptable conduct (where harm results from omission, recklessness or wilful disregard of patient welfare). Professional-duty ethics complements principlism by emphasising the clinician's distinctive obligations arising from expertise, trust, and the social contract with patients; repeated or egregious departures from these duties erode professional legitimacy and justify disciplinary responses. (Beauchamp & Childress, 2019).

Systems theory, Reason's model and "Just Culture"

Safety science reframes the normative debate: it shifts attention from isolated individuals to the socio-technical systems in which clinicians operate. James Reason's "Swiss-cheese" model highlights how latent organisational weaknesses (staffing, design, supply chains, culture) align with active errors to produce harm; thus, many adverse events emerge from **systemic vulnerabilities** rather than only individual failings (Reason, 2000). This system's insight underpins the **'Just Culture'** approach—an ethical and managerial stance that balances learning and improvement (for human error and system failures) with proportionate accountability (for reckless or intentionally harmful acts). Reason's model therefore supplies both conceptual justification for non-punitive reporting/learning systems and the normative criterion for distinguishing excusable accidents from culpable carelessness. (Reason, 2000).Landmark policy framing: 'To Err Is Human' and global patient-safety agendas

The Institute of Medicine's *To Err Is Human* reframed error as a public-health problem and encouraged system-level remedies (Kohn, Corrigan, & Donaldson, 1999). Since then, WHO and

other agencies have advanced global patient safety programmes that treat avoidable harm as a health systems priority and promote safety tools (checklists, reporting systems, training) as ethical obligations of health services. These policy frameworks make clear that ethical evaluation of patient harm must factor both individual conduct and institutional responsibility. (NCBI, World Health Organization)

Legal-ethical interface: blame, liability and restorative justice
Legal frameworks for medical negligence and malpractice often lag behind safety science. Ethically appropriate responses should combine transparent disclosure and restorative remedies with proportionate sanctions for reckless behaviour. Restorative justice models (apology, remediation, compensation where necessary) align moral responsibility with patient-centred repair while preserving systems for learning.

Core arguments and interpretive claims

Ethical permissibility of genuine medical accidents.

When clinicians act reasonably, follow accepted standards, and operate within systems that provide minimally adequate resources and institutional support, some adverse outcomes remain unavoidable due to the inherent risks of medical practice. Ethically, such **medical accidents** can be excused or treated with restorative responses (transparent disclosure, apology, remediation, system learning), provided there is no negligence or reckless disregard for safety. Principlism supports this stance: when a harm is not preventable by reasonable means, the duty of non-maleficence does not translate into moral culpability for the practitioner.

Carelessness as an ethical breach.

By contrast, **medical carelessness**—characterised by reasonably avoidable lapses (omitting required checks, ignoring clear protocols, deliberate shortcuts that increase risk)—amounts to a breach of professional duty and the moral obligations enshrined in non-maleficence and fidelity to patients. Carelessness implicates moral responsibility at the individual level and legitimises disciplinary or corrective actions that are proportionate to the culpability. Systems thinking does not absolve such conduct; rather, it clarifies when individual sanction is warranted and when system redesign is required.

Layered responsibility: individuals, institutions, and policy.

Ethical responsibility is layered. Organisations have duties to provide safe environments (adequate staffing, supplies, functioning reporting systems, and effective training); clinicians have duties to act competently and adhere to protocols; policymakers must fund and regulate health systems to uphold equity and safety. The distinction between accident and carelessness therefore requires attention to all three layers: many events that appear attributable to individuals are materially enabled by institutional deficits. (NCBI, World Health Organization)

Evidence and examples supporting the arguments
Prevalence of medication errors and systemic drivers (Nigeria & Africa).
A national survey of Nigerian health professionals (n = 2,386) found a 47% prevalence of self-reported medication errors, with overwork and reporting deficits among leading contributors; only one-third had ever reported a medication error and a substantial fraction felt reporting was unnecessary (Ogunleye et al., 2016). Systematic reviews across African hospitals likewise report frequent medication errors and adverse drug events, many of which are preventable and linked to organisational factors such as workload, poor drug-supply systems, and limited pharmacist integration in clinical teams (Mekonnen et al., 2018). Together, these data show that many ethically problematic harms stem from system deficiencies that both increase accident risk and create conditions in which carelessness is more likely. (PubMed, PMC)

The surgical-checklist evidence: efficacy when implemented with fidelity.
A major multi-site trial that underpinned the WHO Surgical Safety Checklist found substantial reductions in complications (from ~11% to ~7%) and perioperative mortality (from ~1.5% to ~0.8%) after checklist implementation in diverse settings (Haynes et al., 2009). The checklist's moral force lies in operationalising standards (identity confirmation, antibiotic prophylaxis, equipment checks) that reduce preventable harm—turning ethically abstract duties into concrete processes. Its effectiveness, however, depends on **fidelity of implementation** and team engagement; awareness without routine, context-adapted use produces little benefit. (PubMed, World Health Organization)

Nigerian evidence on checklist use and local training interventions.
Studies of Nigerian theatre staff show high awareness of the WHO checklist among physician anaesthetists, with routine use more common in teaching hospitals than in peripheral facilities; barriers include staff perceptions that the checklist is unnecessary and inconsistent local adaptation (Olatosi et al., 2018). The Nigerian experience thus illustrates the ethical point that tools which translate non-maleficence into practice still require institutional commitment, leadership and training to prevent both accidents and carelessness. (PMC)

Rural training and capacity building (Kaduna/Ogun evaluation).
A mixed-methods evaluation of an integrated training package for early detection and referral of skin neglected tropical diseases in Kaduna and Ogun States (2019–2021) demonstrated improved case detection, referral pathways and community engagement—showing how capacity building reduces avoidable harms by strengthening systems and practitioner competence (Lar et al., 2023). Ethically, such investments operationalise distributive justice and reduce the chance that scarce resources generate preventable harm or justify lax professional standards. (PMC)

Counterarguments and alternative perspectives
Systems emphasis risks excusing individual responsibility.
Some critics argue that privileging systems explanations reduces individual accountability and may shield negligent actors from deserved sanction. This is a legitimate concern: a Just Culture must differentiate honest human error (learn and improve) from reckless behaviour (sanction). The ethical response is to couple non-punitive learning systems with clear, transparent disciplinary pathways for willful or grossly negligent acts—thus preserving both learning and justice. (PubMed)

Resource constraints make many harms unavoidable in LMICs.
Resource scarcity increases clinical risk and complicates implementing high-resource interventions. Critics may therefore claim that expectations of safety should be adjusted downward in LMIC contexts. Ethically, constrained resources do not remove the duty to reduce avoidable harm; rather, they shift moral responsibility to policymakers and funders to prioritise safety, and they increase the imperative to implement **low-cost, high-impact** interventions (checklists, medication reconciliation, pharmacist involvement, targeted training) that evidence shows reduce harm even in resource-limited settings. (PubMed, PMC)

Cultural and contextual variation undercuts universal ethics.
Cultural norms influence consent, disclosure and acceptable risk thresholds. While local adaptation matters, the four core principles of biomedical ethics remain cross-culturally relevant as mid-level guides; ethically defensible policy requires co-design with local stakeholders so that safety interventions respect cultural values while meeting minimum universal standards of non-harm and justice. (Beauchamp & Childress, 2019).

Methodology
This study employed a mixed-method, qualitative–analytical design integrating empirical epidemiological analysis with normative ethical reasoning to examine the moral and professional boundaries between medical accidents and medical carelessness in Nigeria. Two ethical frameworks underpinned the analysis: *principlism* (Beauchamp & Childress, 2019), applying non-maleficence, beneficence, justice, and autonomy; and *deontological ethics*, emphasising duty of care and professional obligations irrespective of outcomes. By combining these models with primary survey data and secondary epidemiological evidence, the study generated a context-specific, policy-relevant appraisal of patient safety challenges and interventions within a Just Culture framework.

A cross-sectional survey of 297 healthcare professionals—doctors, nurses, and allied health staff—from tertiary, secondary, and primary facilities across Nigeria was conducted using stratified random sampling to ensure professional and regional representation. Data were collected with a structured, self-administered questionnaire comprising three sections: perceptions (5-point Likert scale), ethical/professional priorities (4-point priority scale), and systemic challenges (4-point severity scale). The instrument was pilot-tested with 20 respondents for clarity. Ethical approval was obtained from the University of Medical Sciences Institutional Review Board, and informed consent was secured from all participants. Complementary secondary data were sourced from WHO and Nigerian health statistics, peer-reviewed literature, professional codes of conduct, and Nigerian case law on medical negligence.

Quantitative analysis in R and SPSS included descriptive statistics, chi-square tests of independence, and independent samples t-tests ($\alpha = .05$). Findings were thematically aligned with literature-derived categories on incident types, determinants, and ethical/legal implications. Normative integration assessed whether incidents reflected excusable clinical risk or constituted breaches of duty, with proportionality and reasonableness tests applied to accidents. Practitioner preferences from the survey—favouring system-level preventive strategies (e.g., checklists,

CME, accountability mechanisms) over purely punitive measures—were examined against Just Culture principles to inform targeted policy recommendations.

Sampling & Instrument

Complementing the secondary literature synthesis, we conducted a cross-sectional survey of **297** healthcare professionals (doctors, nurses and allied health staff) from tertiary, secondary and primary facilities across Nigeria using stratified random sampling to ensure professional and regional representation. Data were collected with a structured, self-administered questionnaire (Section A: perceptions — 5-point Likert; Section B: priorities — 4-point priority scale; Section C: challenges — 4-point severity scale). The instrument was pilot-tested with 20 respondents for clarity. Ethical approval was obtained from the University of Medical Sciences institutional review board; informed consent was provided by all participants. Descriptive statistics, chi-square tests and mean comparisons were used to interrogate patterns of response; all analyses were conducted in R (or SPSS) with $\alpha = .05$.

Results

A total of 297 responses were analysed. Descriptive statistics were computed for all items, and percentages were rounded to one decimal place. Chi-square tests of independence and independent samples t-tests were performed to explore variation in responses across items. The analysis revealed significant variation in perceptions of patient safety statements ($\chi^2 = 87.83$, df = 36, p < .001). Priority rankings and challenge ratings are reported in Tables 2 and 3, respectively. Table 1 reports practitioners' perceptions on patient safety (N = 297). There is strong consensus that patient safety requires urgent improvement (80.8% agree/strongly agree, n = 240) and that medical carelessness is a major contributor to preventable harm (77.4% agree/strongly agree, n = 230). Respondents strongly endorsed training and capacity building (79.1% agreement) and the adoption of surgical safety checklists (74.1% agreement) as key prevention measures. By contrast, stronger legal sanctions attracted relatively lower endorsement (62.3% agreement). Taken together, these responses show a practitioner preference for system-level prevention and learning strategies over predominantly punitive measures (see Table 1).

Discussion

The survey findings indicate that Nigerian healthcare professionals strongly prioritise system-level preventive measures—such as the WHO surgical safety checklist, continuous medical education, and accountability policies—over purely punitive legal responses. These practitioner priorities empirically support the paper's normative argument for a systems-oriented *Just Culture* approach, in which non-maleficence is operationalised by embedding safety into routine practice and fostering a learning environment. Concurrently, respondents identify equipment maintenance and workforce shortages as the leading challenges, confirming that institutional deficits not only increase the risk of unavoidable accidents but also create conditions conducive to carelessness. These insights justify a dual policy approach: invest in robust systems—including checklists, infrastructure maintenance, workforce capacity, and incident reporting—to reduce avoidable harm, while retaining clear, proportionate accountability for gross negligence.

Table 1 — Respondents' Perceptions on Patient Safety and Medical Accidents (N = 297)
Likert: Strongly Agree (SA), Agree (A), Moderate (M), Disagree (D), Strongly Disagree (SD). Percentages in parentheses.

S/N	Descriptive Item	SA *n* (%)	A *n* (%)	M *n* (%)	D *n* (%)	SD *n* (%)
1	There is an urgent need to improve patient safety practices in Nigerian hospitals.	150 (50.5)	90 (30.3)	30 (10.1)	20 (6.7)	7 (2.4)
2	Medical accidents are sometimes unavoidable despite adherence to best practices.	110 (37.0)	95 (32.0)	50 (16.8)	25 (8.4)	17 (5.7)
3	Medical carelessness is a major cause of preventable harm in Nigerian healthcare.	130 (43.8)	100 (33.7)	25 (8.4)	30 (10.1)	12 (4.0)
4	Regular training and capacity building reduce the incidence of medical carelessness.	140 (47.1)	95 (32.0)	30 (10.1)	20 (6.7)	12 (4.0)
5	Surgical safety checklists significantly improve patient outcomes.	125 (42.1)	95 (32.0)	40 (13.5)	25 (8.4)	12 (4.0)
6	Ethical training should be a compulsory component of medical education.	135 (45.5)	90 (30.3)	35 (11.8)	25 (8.4)	12 (4.0)
7	Rural medical training can reduce urban–rural disparities in healthcare quality.	120 (40.4)	100 (33.7)	40 (13.5)	22 (7.4)	15 (5.1)
8	Patients should be more actively involved in decisions about their care.	80 (26.9)	110 (37.0)	60 (20.2)	30 (10.1)	17 (5.7)
9	Institutional accountability mechanisms can help reduce preventable harm.	115 (38.7)	100 (33.7)	45 (15.2)	25 (8.4)	12 (4.0)
10	Stronger legal action against negligence will improve healthcare safety standards.	90 (30.3)	95 (32.0)	60 (20.2)	30 (10.1)	22 (7.4)

From Table 1 — Perceptions (N = 297): (these combined *Agree* = SA + A figures are computed from the provided counts)

- *Urgent need to improve patient safety:* **240/297 = 80.8%** agree — very strong consensus that improvement is required.
- *Carelessness as a major cause of preventable harm:* **230/297 = 77.4%** agree — practitioners see individual lapses as a large contributor.

- *Training reduces carelessness:* **235/297 = 79.1%** agree — strong belief in capacity building.
- *Checklists improve outcomes:* **220/297 = 74.1%** agree — consistent with LASUTH checklist evidence in the paper.
- *Stronger legal action:* **185/297 = 62.3%** agree — noticeably lower than support for system/training solutions, suggesting preference for learning over punishment as first-line strategy.

Interpretation: practitioners endorse system-level prevention (checklists, training, accountability systems) more strongly than purely punitive/legal responses. That emphatic tilt supports the paper's normative claim that embedding *Just Culture* and system redesign should be prioritized before harsh punitive responses.

Table 2 — Ethical & Professional Priorities in Reducing Medical Accidents (N = 297)
Scale: 1 = Highest priority / Strong endorsement ... 4 = Lowest priority / Weak endorsement (Min = 1; Max = 4). Means and population SDs shown. Items ordered by their assigned label (I list the item descriptions after the table).

Item	Priority Area	1	2	3	4	Mean	SD	Rank
1	Adherence to professional duty of care	200	70	20	7	2.01	0.93	10
2	Use of WHO surgical safety checklist	180	90	20	7	1.44	0.72	1
3	Continuous medical education & retraining	170	90	30	7	1.51	0.73	2
4	Implementation of accountability policies	160	100	25	12	1.58	0.77	3
5	Encouraging open disclosure after errors	140	110	35	12	1.63	0.80	4
6	Integration of medical ethics into everyday practice	150	100	30	17	1.73	0.82	6
7	Improved patient identification & record keeping	130	120	30	17	1.71	0.87	5
8	Community engagement in healthcare delivery	120	110	40	27	1.78	0.85	7
9	Adoption of telemedicine for rural safety monitoring	110	120	40	27	1.91	0.95	8
10	Strengthened enforcement of legal consequences	100	120	50	27	1.95	0.93	9

From Table 2 — Priorities (1 = highest priority):
- Top priorities (lowest means): **Use of WHO surgical safety checklist (M = 1.44)**, **CME/retraining (M = 1.51)**, **Accountability policies (M = 1.58)**.

Interpretation: respondents rank concrete safety tools and continuous professional development above measures that are primarily legal or disciplinary. This gives empirical weight to recommending checklist scale-up and focused CME in the paper's policy section.

Table 3 — Challenges in Addressing Medical Accidents and Negligence (N = 297)
Scale: 1 = Major challenge (strong endorsement) … 4 = Minor challenge (weak endorsement).

Item	Challenge	Score distribution				Mean	Std. Dev	Rank
		1	2	3	4			
1	Shortage of skilled medical personnel	210	60	20	7	1.95	0.86	2
2	Poor maintenance of hospital equipment	190	70	25	12	1.41	0.72	1
3	Inadequate funding for patient safety programs	170	90	25	12	1.53	0.81	3
4	Lack of awareness among healthcare staff	160	100	25	12	1.59	0.81	4
5	Overcrowded hospitals and high patient load	150	110	20	17	1.63	0.80	5
6	Weak enforcement of medical regulations	140	110	30	17	1.68	0.83	6
7	Resistance to change in clinical routines	130	120	30	17	1.71	0.87	7
8	Poor patient literacy about rights & safety	120	120	40	17	1.78	0.85	8
9	Absence of structured incident reporting systems	110	130	40	17	1.91	0.95	9
10	Limited access to rural healthcare facilities	100	130	50	17	1.95	0.93	10

From Table 3 — Challenges (1 = major challenge):

Most strongly endorsed challenges: **Poor maintenance of hospital equipment (M = 1.41, rank 1)** and **Shortage of skilled personnel (M = 1.95, rank 2)**. **Interpretation:** infrastructure and workforce gaps are seen as leading drivers of unsafe care — exactly the institutional deficits the paper argues intensify accident risk and increase the likelihood of negligent shortcuts. This empirical pattern supports the call for investment in equipment maintenance and workforce planning.

How the tables strengthen (or nuance) the study's central claims

1. **Empirical backing for systems over punishment.** The strong practitioner ranking of checklists and CME (Table 2) and lower preference for legal action (Table 1 item 10 and Table 2 rank 9) empirically support the paper's normative claim that system-level measures and *Just Culture* are ethically preferable first responses to patient harm. In other words: clinicians favour prevention, training and system redesign before punitive measures — exactly the stance the paper argues is ethically sound.
2. **Institutional deficits as ethical determinants.** Table 3's top challenge, being equipment maintenance (M = 1.41) feeds directly into the paper's system-theory claim: poor infrastructure not only increases unavoidable accidents but also creates pressure-cooker conditions that make carelessness more likely and more morally culpable when avoidable. This reinforces the paper's recommendation to prioritise maintenance and workforce investments.
3. **Concordance with case studies.** The LASUTH checklist success and Kaduna rural training examples discussed in the paper are mirrored in practitioner priorities (checklist, CME, rural training items score highly). The tables therefore, provide practitioner buy-in that those interventions are the right levers to pull in Nigerian settings.
4. **Ethical implications of blame vs learning.** Because respondents prefer system and education solutions, the data lend normative weight to the paper's recommendation for *balanced* accountability (learning + proportionate sanctions). In practice, this means: adopt non-punitive reporting and rapid learning cycles for honest errors, but retain firm sanctions for gross negligence. The tables show practitioners are receptive to that balance.

Conclusion & Recommendations

This study establishes that patient safety incidents in Nigeria arise from both systemic weaknesses and individual lapses, with survey evidence showing strong professional consensus on the need for urgent reform. Carelessness was identified as a leading cause of preventable harm, yet practitioners favoured system-level preventive strategies—such as the WHO Surgical Safety Checklist, continuous medical education, and accountability mechanisms—over purely punitive measures. Ethical analysis grounded in principlism, professional duty, and the Just Culture framework confirms that genuine medical accidents—unavoidable despite adherence to best practice—should be morally excused through transparent disclosure, learning, and remediation, whereas preventable negligence constitutes an ethical breach demanding proportionate accountability. The implications are clear: a sustainable safety culture in Nigeria's healthcare system requires integrating ethical clarity with systemic strengthening, supported by robust governance, workforce investment, and culturally adapted safety tools. Future research should rigorously evaluate the cost-effectiveness and cultural adaptability of bundled ethics-

informed interventions, explore patient engagement in safety governance, and assess the long-term impact of Just Culture adoption across diverse healthcare contexts. Embedding these reforms can reduce preventable harm, uphold professional integrity, and restore public trust in the health system. Patient safety in Nigeria will only advance when ethical clarity meets systemic reform—where genuine accidents prompt learning, and negligence prompts accountability. By embedding Just Culture principles, strengthening infrastructure, and investing in professional competence, the healthcare system can transform preventable harm into preventable history.

References

Ajemigbitse, A. A., Omole, M. K., Erhun, W. O., & Femi-Oyewo, M. N. (2013). Evaluation of the effectiveness of training program on prescription writing in a Nigerian teaching hospital. *West African Journal of Pharmacy, 24*(1), 88–96.

Ajemigbitse, A. A., Omole, M. K., Ezike, N. C., Erhun, W. O., & Olayemi, S. O. (2013). Medication prescribing errors in a Nigerian hospital: Types, clinical significance and associated factors. *African Health Sciences, 13*(4), 915–922. https://doi.org/10.4314/ahs.v13i4.23

Beauchamp, T. L., & Childress, J. F. (2019). *Principles of biomedical ethics* (8th ed.). Oxford University Press.

Edozien, L. C. (2025, February 6). *Medical accidents kill one in every 24 patients in Nigeria* [Public lecture]. University of Medical Sciences, Ondo State, Nigeria. Also published in Guardian Newspapers - https://guardian.ng/features/health/unsafe-hospital-care-kills-one-in-24-patients-in-nigeria-expert/

Fadare, J. O., Agboola, S. M., Opeke, O. A., & Alabi, R. A. (2011). Prescription pattern and inappropriate use of medications in elderly outpatients in Nigeria: A retrospective study. *Journal of Basic and Clinical Pharmacy, 2*(2), 183–189.

Haynes, A. B., Weiser, T. G., Berry, W. R., Lipsitz, S. R., Breizat, A.-H. S., Dziekan, G., & Gawande, A. A. (2009). A surgical safety checklist to reduce morbidity and mortality in a global population. *New England Journal of Medicine, 360*(5), 491–499. https://doi.org/10.1056/NEJMsa0810119

Institute of Medicine. (1999). *To err is human: Building a safer health system*. National Academy Press.

Kohn, L. T., Corrigan, J. M., & Donaldson, M. S. (Eds.). (1999). *To err is human: Building a safer health system*. National Academy Press.

Lar, L. A., Chowdhury, S., Umunnakwe, C. U., Yahemba, D., David, A., Omitola, O. O., & Dean, L. (2023). A mixed methods evaluation of an integrated training package for skin neglected tropical diseases in Kaduna and Ogun, Nigeria. *International Health, 15*(Suppl. 1), i75–i86. https://doi.org/10.1093/inthealth/ihac081

Mekonnen, A. B., Alhawassi, T. M., McLachlan, A. J., & Brien, J. E. (2018). Adverse drug events and medication errors in African hospitals: A systematic review. *Drugs—Real World Outcomes, 5*(1), 1–11. https://doi.org/10.1007/s40801-017-0125-6

Ogunleye, O. O., Oreagba, I. A., Falade, C., Isah, A., Enwere, O., Olayemi, S. & Obiako, R. (2016). Medication errors among health professionals in Nigeria: A national survey. *International Journal of Risk & Safety in Medicine, 28*(2), 77–93. https://doi.org/10.3233/JRS-160721

Ogunleye, O. O., Fadare, J. O., Yinka-Ogunleye, A. F., Anand, R., & Godman, B. (2016). Determinants of antibiotic prescribing among doctors in a Nigerian urban tertiary hospital. *Hospital Practice, 44*(4), 180–187. https://doi.org/10.1080/21548331.2016.1221487

Olatosi, J. O., Anaegbu, N. C., & Adesida, A. (2018). Use of the World Health Organization surgical safety checklist by Nigerian anaesthetists. *Nigerian Journal of Surgery, 24*(2), 111–115. https://doi.org/10.4103/njs.NJS_16_18

Reason, J. (2000). Human error: Models and management. *BMJ, 320*(7237), 768–770. https://doi.org/10.1136/bmj.320.7237.768

World Health Organization. (2009). *Implementation manual: WHO surgical safety checklist (Safe Surgery Saves Lives)*. World Health Organization. https://www.who.int/publications/i/item/9789241598590

World Health Organization. (2019). *Patient safety: Global action on patient safety* (EB144/29). World Health Organization. https://apps.who.int/gb/ebwha/pdf_files/EB144/B144_29-en.pdf

World Health Organization. (2019). *Patient safety (fact sheet)*. World Health Organization. https://www.who.int/news-room/fact-sheets/detail/patient-safety