

Meaning, Machines and Medicine: Governing Human-Centred Innovation in Nigerian Healthcare

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Abstract

Background: Healthcare innovation in Nigeria must respond to culture, identity and lived experience while remaining scientifically sound, ethically governed and clinically safe. This editorial examines how locally relevant ideas can be translated into responsible healthcare without allowing novelty, technology or cultural appeal to substitute for evidence and accountability.

Methods: The editorial presents a critical synthesis of five papers in this issue of the *IMAN Medical Journal*. The papers address Islamic faith-informed psychoeducation, digital psychosocial support for people living with HIV, sleep-related impairment among night-shift nurses, cardiometabolic comorbidity among adults with obesity, and coordinated care following kidnapping-related trauma. They are considered in relation to cultural relevance, proportionality of claims, patient safety, service integration and implementation within Nigerian health systems.

Results: Faith-sensitive care may improve meaning, trust and engagement when it is patient-led, voluntary and clinically bounded. Digital interventions should be judged by accessibility, effectiveness, privacy, human oversight and capacity for risk escalation rather than by the use of artificial intelligence alone. Sleep deprivation and fatigue among health workers should be treated as organisational and patient-safety concerns requiring appropriate staffing, safer rosters and protected recovery periods. Obesity care should extend beyond body mass index to integrated assessment of hypertension, glucose, lipids and other cardiometabolic risks. Trauma care after kidnapping should combine evidence-based psychological treatment with restoration of safety, autonomy and social functioning, while protecting confidentiality. Across these areas, responsible innovation requires meaningful co-design, claims proportionate to evidence, safeguards under real service conditions and integration into sustainable care pathways.

Conclusion: Human-centred innovation requires disciplined governance rather than novelty alone. Nigeria needs health services that combine cultural intelligence, scientific rigour, ethical accountability and functioning referral systems. Research should increasingly evaluate effectiveness, equity, adverse effects, costs, retention and sustainability, while journals should reward methodological precision and transparent reporting rather than exaggerated certainty.

Keywords: Human-Centred Innovation, Artificial Intelligence, Faith-Sensitive Care, Patient Safety, Health-System Integration, Nigeria.

Health systems are increasingly asked to do two things that can pull in opposite directions: become more responsive to culture, identity and lived experience, while becoming more reliable, measurable and accountable. The papers in this issue show that the answer is not to choose context

over evidence, or evidence over context. The task is to govern their interaction.

This issue moves across Islamic faith-informed psychoeducation, digital psychosocial support for people living with HIV, sleep-related impairment among night-shift nurses, cardiometabolic

comorbidity among adults with obesity, and coordinated care after kidnapping-related trauma. These subjects appear disparate. They are connected, however, by a common question: when does a promising idea become responsible healthcare?

Innovation should not be confused with novelty. A culturally adapted conversation, a protected rest period, an integrated metabolic assessment, a low-data messaging service or a carefully coordinated trauma pathway may transform care more than an impressive technology deployed without evidence or accountability. The strongest contributions in this issue therefore resist easy claims. They ask what is plausible, what is established, what remains uncertain and what must be built before implementation.

Meaning without medicalisation

The article on faith-informed psychoeducation addresses a persistent challenge in culturally responsive mental healthcare. For many Muslims, religious language shapes identity, suffering, hope, responsibility and help-seeking. Ignoring this dimension may weaken therapeutic alliance and make otherwise sound interventions feel foreign. Yet incorporating faith without competence can introduce coercion, spiritual blame, theological overreach or treatment delay.

The proposed domains of reflective learning, gratitude and prosocial action are clinically useful because they can be linked to observable psychological processes: mental-health literacy, cognitive reappraisal, attentional balance,

behavioural activation, meaning and social connection. The important editorial achievement is not the assertion that these practices are therapeutic in themselves. It is the insistence that proposed mechanisms remain testable, that participation remains voluntary and that religious resources complement rather than replace assessment and evidence-based care.

Competent spiritual and religious practice requires respectful enquiry, awareness of diversity, examination of professional bias and clear limits of expertise [1]. Meta-analytic evidence suggests that integrating a client's own religious or spiritual framework may improve psychotherapy outcomes for some people, but benefit depends on preference, method and context [2]. Faith-sensitive care should therefore begin with permission: Does the patient want religion included, and in what form? The same standard applies to the kidnapping-related PTSD case in this issue, where family and imam support were potentially helpful because they were patient-led and clinically bounded.

Digital reach without AI exceptionalism

The evidence map on psychosocial support for people living with HIV offers a timely warning against artificial-intelligence exceptionalism. Of 17 verified publications, only two clearly evaluated AI-enabled systems. Most favourable psychosocial findings came from mobile applications, social networks, telephone support, messaging or other non-AI interventions. An AI label therefore signals neither effectiveness nor innovation.

This distinction matters in Nigeria, where low bandwidth, device access, language, cost, privacy and service fragmentation shape digital usefulness. A simple two-way SMS service linked to peer navigation may be more equitable than a sophisticated conversational agent that requires continuous data, assumes high literacy or cannot escalate risk. Digital mental-health support for HIV should be judged by whether it reduces distress, improves coping, strengthens treatment engagement and connects users with human care - not by whether it uses a fashionable model.

The ethical requirements are already clear. AI for health should preserve autonomy, transparency, safety, accountability, inclusiveness and sustainability [3]. Systems that process HIV status, mental-health symptoms, medication information or conversational data also require strong privacy protection, data minimisation and understandable consent. Clinical trials should report the intervention's architecture, version, data inputs, human oversight and intended role rather than treating 'AI-enabled' as an adequate description [4]. In practice, the safest starting point is a clinician-supervised, low-data stepped-care tool with validated screening, explicit crisis rules and immediate transfer to human services when suicidality, violence, psychosis or urgent medical symptoms emerge.

Protecting the people who deliver care

The night-shift nursing study makes a different but equally important argument: workforce conditions are clinical conditions. Fatigue affects attention,

memory, reaction time, decision-making and medication safety. Shift work can disrupt sleep and alertness even among experienced professionals [5]. When nurses report inadequate recovery, poor institutional support and impaired performance, the response cannot be limited to lectures on sleep hygiene.

Early-career and lower-cadre nurses may have less control over rosters, fewer opportunities to negotiate rest and greater exposure to difficult assignments. Their vulnerability is therefore organisational as well as biological. Fatigue-risk management should include safer roster design, sufficient recovery intervals, protected breaks, appropriate staffing, rest facilities, non-punitive incident reporting and confidential access to occupational-health support. Reviews of interventions for nurses and midwives show that education may help, but individual strategies cannot compensate for unsafe systems [6].

This has a broader implication for health policy. Patient safety initiatives often focus on individual error after harm occurs. A mature system identifies the predictable conditions under which error becomes more likely. Sleep deprivation, excessive workload and inadequate staffing should be treated as preventable system hazards, not private failures of resilience.

From weight categories to cardiometabolic pathways

The study of adults with obesity in a general outpatient clinic shifts attention from body size alone to the clustering of hypertension,

dyslipidaemia, diabetes and metabolic syndrome. This is clinically important. Obesity is heterogeneous, and BMI class does not map neatly onto every individual risk. The paper appropriately reports that some cardiometabolic outcomes increased across obesity classes while others followed non-linear patterns.

The practical message is not that higher BMI should trigger greater blame. It is that every encounter with obesity should create an opportunity for integrated risk assessment. Blood pressure, glucose status, lipids, waist-related risk, medication exposure, sleep, physical activity, mental health and social constraints should be considered together. Global analyses document the continuing rise of obesity [7], while cardiometabolic disease in low- and middle-income countries reflects rapid nutritional transition, urbanisation, inequality and constrained access to prevention and long-term care [8].

Primary care must therefore move beyond episodic weight advice. It needs longitudinal risk registers, affordable laboratory pathways, counselling that avoids stigma, treatment of established conditions and follow-up systems that recognise transport, food cost and medication affordability. The study's hospital-based sample cannot estimate population prevalence, but it identifies a high-risk clinical population that should not leave outpatient care with obesity recorded and cardiometabolic risk unaddressed.

Trauma care after kidnapping: restore safety and autonomy

The case report of PTSD after kidnapping brings the issue's themes together. Kidnapping threatens life, bodily integrity, control and trust. Survivors may present with nightmares, intrusive memories, avoidance, hyperarousal, depression, somatic anxiety and continuing fear. Evidence-based trauma-focused psychotherapies remain central to treatment [9]. Medication, when indicated, should support a coherent formulation rather than substitute for trauma-focused care.

The case also shows why recovery cannot be reduced to symptom reduction. Survivors need restoration of safety, agency, family functioning and participation in ordinary life. Family support can assist adherence and re-engagement, but overprotection may unintentionally reinforce avoidance. Faith support can provide meaning and companionship, but it must not introduce blame, disclosure without consent or pressure to abandon clinical care.

Case reports in contexts of kidnapping require exceptional confidentiality. Removing a name is insufficient when age, location, route, occupation, family structure and timing can identify the survivor. The CARE framework emphasises transparent clinical timelines, diagnostic reasoning, interventions, outcomes, patient perspective and informed consent [10]. In trauma reporting, these requirements are not merely editorial; they protect dignity and safety.

A four-question test for responsible innovation

Taken together, the five papers suggest a practical test for any proposed health innovation in Nigeria.

First, is it meaningful to the intended users? Relevance requires co-design, language and cultural fit, attention to gender and disability, and respect for different levels of religious commitment, literacy and digital access.

Second, is the claim proportionate to the evidence? Conceptual plausibility, acceptability and usability are not equivalent to clinical effectiveness. Cross-sectional association is not causation. Improvement in a case report cannot identify the active treatment component. Researchers should state precisely what the design can and cannot establish.

Third, is it safe under real service conditions? Safety includes clinical escalation, privacy, consent, adverse-event monitoring, non-stigmatising communication, worker fatigue, treatment contraindications and protection from coercion. It also includes the ability to recognise when an intervention should not be used.

Fourth, is it integrated into a functioning pathway? Stand-alone innovations often fail after pilot funding ends. Faith-informed programmes need referral and supervision. Digital HIV support needs counsellors, clinics and data governance. Fatigue interventions require staffing and roster authority. Obesity screening needs treatment and follow-up. Trauma recognition needs access to skilled psychological care. Integration converts a promising activity into a service.

An editorial agenda for Nigerian health research

These papers also indicate where Nigerian journals and research institutions should move next. Descriptive and cross-sectional studies remain valuable, particularly where basic service data are absent. They should increasingly lead to prospective registries, pragmatic trials, implementation studies, qualitative process evaluations and health-economic analyses. Researchers should measure not only uptake and symptom change, but also equity, retention, adverse effects, referral completion, costs and unintended consequences.

Reporting quality is equally important. Technology studies should identify what the system actually does. Cultural interventions should define which elements were adapted and how fidelity was preserved. Occupational studies should distinguish individual sleep behaviour from roster and staffing exposure. Obesity studies should report participant flow and missing laboratory data. Trauma case reports should document treatment sequence, dose, consent and confidentiality safeguards.

The editorial responsibility is to reward precision rather than certainty. A well-designed study that finds limited effect may be more useful than a weak study that promises transformation. Local relevance should raise, not lower, methodological expectations because decisions made from Nigerian evidence affect Nigerian patients, workers and communities.

Conclusion

The central lesson of this issue is that human-centred innovation requires disciplined governance. Meaning can strengthen care when it is patient-led and clinically bounded. Digital tools can extend reach when they solve a defined problem and remain connected to human services. Workforce wellbeing is a patient-safety responsibility. Obesity care should integrate cardiometabolic risk without stigma. Trauma care should restore safety and autonomy while respecting culture and confidentiality.

Nigeria does not need to choose between tradition and technology, or between cultural intelligence and scientific rigour. It needs services that combine them responsibly. The decisive question is not whether an intervention is new, digital, faith-informed or locally appealing. It is whether people can trust it, clinicians can govern it, systems can sustain it and evidence shows that it helps.

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Funding: Nil

Conflicts of Interest: Nil