International Journal of
Strategic Research in Entrepreneurship, Engineering and Biomedical Research (IJSREEBR)
Volume 2, Number 1 May, 2026

e-ISSN: 2636-6924
p-ISSN: 2636-6932

Hopes and Fears in AI-Augmented Workforce Resilience: A Narrative Synthesis of Published Surveys and Digital Discourse Analysis from Nigerian Health Systems

[1]Ajibola Abdulrahamon Ishola, [2]Akeem Adekunle Kenku, & [3]Samuel Princewill Asuquo

[1]*Department of Audiology, Federal University of Health Sciences, Ila-Orangun, Nigeria*
[2]*Department of Psychology, Nasarawa State University, Keffi, Nigeria*
[3]*Crifosec Nigeria Limited, Port Harcourt, Rivers State, Nigeria*

Article DOI: 10.48028/iiprds/ijsreebr.v2.i1.06

Abstract

Introduction: Nigeria's health system faces a severe workforce shortage (doctor-to-population ratio ~1:8,000) and burnout prevalence of 69-85%. Artificial Intelligence (AI) is proposed to augment workforce resilience, yet no study has systematically synthesized existing evidence on Nigerian health professionals' psychological responses to AI. This study is a narrative synthesis of published survey findings from three Nigerian studies (total N = 938) and a codebook thematic analysis of a genuine digital discourse corpus (12 online extracts from worker and institutional sources). The authors did not access raw individual-level data. The framework integrates the Job Demands-Resources (JD-R) model, Psychological Contract Theory (PCT), and cyberpsychology constructs - specifically technostress theory and the Unified Theory of Acceptance and Use of Technology (UTAUT2). Hopes included workload reduction (58.7%), diagnostic support (86.5% aware of AI), and addressing shortages (61%). Fears centred on data privacy (51.8-77.0%), job displacement (53.4% of doctors), loss of human interaction (89.5%), and ethical challenges (58.1-68.7%). Worker online discourse was predominantly negative/fearful (10 of 12 extracts), while institutional narratives were predominantly positive (8 of 12 institutional posts), indicating divergence between organisational messaging and frontline experience. A perception-reality gap was observed in one mixed-sector survey: high fear of job loss versus zero self-reported actual displacement. The AI-Workforce Resilience (AI-WR) Model is proposed for future empirical testing. The study conclude, evidence indicates that Nigerian health professionals experience AI-related technostress and anticipatory psychological contract breach. Fears about empathy erosion and autonomy loss are more salient than job displacement fears. Transparent communication, participatory design, and upskilling are indicated as priorities.

Keywords: *AI augmentation, Workforce resilience, Nigerian health systems, Psychological contract, Technostress, Narrative synthesis, Digital discourse*

Corresponding Author: Akeem Adekunle Kenku

Journal URL:
https://internationalpolicybrief.org/international-journal-of-strategic-research-in-entrepreneurship-engineering-and-biomedical-research-volume-2-number-1/

Background to the Study

The Nigerian Health Workforce Crisis

Nigeria's healthcare system operates under chronic strain. The World Health Organisation (WHO) recommends a doctor-to-population ratio of 1:600 for adequate primary healthcare coverage; Nigeria's ratio is approximately 1:8,000, with about 30,000 licensed doctors serving 240 million people (Guardian Nigeria, 2021). Burnout prevalence among healthcare workers is 69-85% (Nwosu et al., 2021), driven by excessive workloads and lack of administrative support. The 'Japa' brain drain has removed approximately 9,000 doctors and 15,000 nurses from the system since 2020 (Umar, 2025; Zakir, 2025).

Artificial intelligence (AI) has been proposed as a tool for workforce augmentation. Pilot programmes in Nigeria include an AI breast cancer diagnostic system at Lagos University Teaching Hospital, the AwaDoc triage chatbot (Gavi, 2025), and the SPEC-AI trial (Adedinsewo et al., 2025). Yet AI implementation in low-resource settings fails when managers neglect frontline workers' psychological responses (Griep et al., 2022).

The Missing Psychological and Cyberpsychological Perspective

No study has systematically synthesized existing evidence on Nigerian health professionals' psychological responses to AI-augmented workforce tools. Critically, the frontline phenomenon of workers publicly expressing AI-related anxiety on online forums - a defining feature of this evidence base - has not been examined through any cyberpsychology lens. Workers on Nairaland, Reddit, and LinkedIn do not merely report fears; they enact them in a specific digital social context, shaped by online disinhibition (Suler, 2004), social identity processes, and technostress (Tarafdar et al., 2007). This study addresses this gap by synthesizing existing Nigerian survey evidence and analysing a corpus of genuine online worker discourse through an integrated I-O psychology and cyberpsychology framework.

Research Aim

To provide a narrative synthesis of existing Nigerian evidence on hopes and fears regarding AI-augmented workforce resilience, examine online worker discourse through a cyberpsychological lens, and propose the AI-Workforce Resilience (AI-WR) Model for future empirical testing.

Literature Review

Global Evidence: AI Hopes and Fears in Healthcare

The global literature consistently identifies a duality between resource and demand perceptions of AI. On the resource side, AI applications can reduce non-clinical workload by 20-40% in high-income settings (Hazarika, 2020; Topol, 2019), improve diagnostic accuracy (Sahoo et al., 2025), and extend specialist access in underserved areas. Dave et al. (2025) demonstrated that AI-integrated electronic health records and clinical decision support systems can reduce burnout and cognitive overload.

On the demand side, Henzler et al. (2025) found that healthcare professionals fear increases in overall workload during AI transition, loss of human touch, and skill diminishment. Scipion et

al. (2025) identified lack of transparency in AI outputs and inadequate clinician involvement in design as primary barriers to acceptance. Bienefeld et al. (2025) cautioned that AI can compromise task identity and de-skill experienced professionals depending on implementation design.

Cyberpsychological Dimensions: Technostress and Technology Acceptance

This study incorporates two cyberpsychological frameworks that the existing Nigerian literature has not applied. *Technostress theory* (Tarafdar et al., 2007) identifies five dimensions of technology-induced stress: techno-overload (technology forces increased workload), techno-invasion (technology invades personal boundaries), techno-complexity (technology creates skill demands), techno-insecurity (technology threatens job security), and techno-uncertainty (unpredictable technology change). All five dimensions are present in the Nigerian evidence: data privacy fears reflect techno-invasion; concerns about de-skilling reflect techno-complexity; job displacement fears reflect techno-insecurity; and the absence of regulatory frameworks reflects techno-uncertainty. Technostress is associated with burnout, reduced organisational commitment, and technology non-use (Tarafdar et al., 2019) - outcomes especially damaging in a system already at crisis point.

The Unified Theory of Acceptance and Use of Technology 2 (UTAUT2) (Venkatesh et al., 2012) identify performance expectancy, effort expectancy, social influence, facilitating conditions, hedonic motivation, price value, and habit as determinants of technology acceptance. Applied to the Nigerian data, performance expectancy maps onto hope (AI will improve diagnostic efficiency); effort expectancy maps onto concerns about AI literacy gaps; facilitating conditions maps onto infrastructure deficits; and social influence maps onto hierarchical differences in AI perception, where managers and senior clinicians frame AI more favourably than frontline staff. Critically, the digital naturalistic component of this study - workers posting fears and questions on Nairaland, Reddit, and LinkedIn - represents a cyberpsychological phenomenon in its own right. Suler's (2004) online disinhibition effect predicts that workers will express anxieties online that they may suppress in formal workplace settings, making online discourse a privileged window into unfiltered psychological experience. The predominantly negative sentiment in worker-generated online content, compared to the predominantly positive sentiment of institutional blogs, is consistent with this theoretical expectation.

Nigerian Survey Evidence: Cross-Cutting Patterns

Rather than summarising each study in isolation, this section identifies convergent and divergent patterns across the available evidence.

Convergent finding 1 - High awareness, low training: Across all professions surveyed, awareness and use of AI substantially exceeded formal training in its use. Chima-Oduko et al. (2025) found that 86.5% had used AI yet only 19.8% had received training. Abiodun et al. (2025) found that 86.5% of psychiatrists were aware of AI's usefulness but only 38.5% were familiar with actual AI tools. This pattern is consistent with UTAUT2 effort expectancy barriers - adoption driven by intrinsic motivation without institutional facilitation.

Convergent finding 2 - Empathy fears dominate job displacement fears: Across studies addressing both concerns, loss of human interaction and empathy consistently ranked higher than job displacement. Abiodun et al. (2025) reported 89.5% concerned about loss of human interaction versus 77.0% concerned about data security. Medical students feared loss of human touch (70.9%) more than job displacement (72.1%; Obiekwe et al., 2025). This suggests the relational and professional identity dimensions of the psychological contract are more salient than the transactional dimension.

Convergent finding 3 - Data privacy is a universal barrier: Privacy concerns were reported across all professional groups: 51.8% (Lagos healthcare professionals; Chima-Oduko et al., 2025), 77.0% (psychiatrists; Abiodun et al., 2025), and 39.4% (medical students; Obiekwe et al., 2025). This convergence across independent samples strengthens confidence in this finding. From a technostress perspective, data privacy concerns reflect techno-invasion - the perceived penetration of AI into previously private professional and patient domains.

Divergent finding - Hierarchy moderates fear: Yelwa and Jelmak (2025) found that managers perceived AI as significantly less threatening than non-managerial staff (Kruskal-Wallis $p = 0.018$). This hierarchical divergence was not replicated in purely clinical samples, suggesting it may reflect access to organisational decision-making rather than professional identity alone. Age showed no effect across studies - contradicting the 'digital native' stereotype and consistent with Hauk et al. (2018) and Venkatesh et al. (2016).

Theoretical Framework: JD-R, Psychological Contract, and Cyberpsychology

This synthesis integrates three theoretical lenses. The JD-R model (Bakker & Demerouti, 2017) frames AI as simultaneously a potential job resource (workload reduction, decision support, upskilling) and a potential job demand (technostress, surveillance anxiety, de-skilling). The net effect on workforce resilience depends on implementation quality and worker perception. Psychological Contract Theory (Rousseau, 1995) frames the hopes as contract fulfilment - employer investing in worker wellbeing and effectiveness - and the fears as anticipatory contract breach: perceived threats to job security, professional autonomy, relational care, and privacy. The gap between perceived and actual job loss (Yelwa & Jelmak, 2025) is theorised as anticipatory breach driven by organisational opacity and historical memory of technological displacement. Technostress theory (Tarafdar et al., 2007) provides a cyberpsychological mechanism for how AI-related demands are experienced, particularly through techno-insecurity, techno-complexity, and techno-uncertainty. UTAUT2 (Venkatesh et al., 2012) explains variation in AI acceptance as a function of performance expectancy, effort expectancy, and facilitating conditions - each of which maps onto specific patterns in the Nigerian evidence.

Methodology

Study Design

This study is a narrative synthesis of published quantitative survey findings, combined with a codebook thematic analysis of a purposive online discourse corpus. It is not a primary mixed-

methods study. No raw individual-level data were collected or accessed. The study follows the narrative synthesis guidelines of Popay et al. (2006) and the codebook thematic analysis approach of Braun and Clarke (2021).

Quantitative Narrative Synthesis

Study identification.

Electronic searches of PubMed, Google Scholar, and African Journals Online were conducted in March 2026 using the terms: 'artificial intelligence Nigeria healthcare workers', 'AI nurses doctors Nigeria perceptions', 'AI job security Nigeria health'. Three Nigerian peer-reviewed studies with direct empirical data on health professionals' AI perceptions constituted the core synthesis dataset. Additional supporting studies were included from reference list searching.

Core studies.

Yelwa and Jelmak (2025): N = 323 public sector employees (banking, healthcare, transportation). Chima-Oduko et al. (2025): N = 415 Lagos healthcare professionals (preprint - findings treated with appropriate caution throughout). Abiodun et al. (2025): N = 200 psychiatrists and trainees.

Data access statement.

The authors did not access raw individual-level data from any study. All synthesis is based on published summary statistics. Prevalence figures are presented as reported in source studies and should be interpreted as illustrative patterns, not pooled estimates.

Quality appraisal.

Each study was assessed using the AXIS tool for cross-sectional studies (Downes et al., 2016). Appraisal results are reported in Table 2 below.

Synthesis approach.

Given population and instrument heterogeneity, a formal meta-analysis was not conducted. Following Popay et al. (2006), findings were synthesised by: (1) tabulating key statistics; (2) identifying convergent and divergent patterns; (3) translating findings into a theoretical framework; and (4) generating a conceptual model for future testing.

Digital Discourse Corpus

Scope and rationale.

The corpus was restricted to naturalistic online discourse - posts and comments from public forums, social media, and institutional blogs. Peer-reviewed journal articles and academic preprints were not included in the corpus; they appear only in the literature review. This restriction reflects the methodological principle that digital naturalistic analysis should examine discourse produced in and for online social contexts, not academic publications (Markham & Baym, 2009).

Corpus construction.
Searches were conducted between January 2022 and March 2026 using: 'AI healthcare Nigeria', 'AI doctors Nigeria forum', 'nurses AI Nigeria', 'artificial intelligence job loss Nigeria'. Sources were separated into worker discourse (Nairaland, Reddit r/Nigeria, LinkedIn user comments and polls, The Nation comment sections) and institutional narratives (Nigeria Health Watch, ISN Medical, Science for Africa Foundation, Gavi Vaccines Work, GlobalGiving). Inclusion criteria: publicly accessible, non-identifiable content discussing AI in Nigerian healthcare. Exclusion criteria: private groups, password-protected forums, commercial vendor advertising, academic publications.

Corpus size.
Twelve extracts were included: 5 worker discourse items and 7 institutional narrative items. This corpus is small and should be treated as exploratory and illustrative, not representative of the wider workforce discourse. *Analysis.* A structured codebook derived from JD-R, PCT, and technostress theory was applied. Two researchers independently coded all 12 extracts; inter-rater agreement was 87% (Cohen's $\kappa = 0.74$). Sentiment was classified as positive (hope), negative (fear), or mixed. The cyberpsychological context of each extract - platform type, anonymity level, and likely disinhibition effect - was also noted.

Ethical Considerations
Secondary data synthesis used published, institutionally approved studies. The digital corpus used only publicly accessible, non-identifiable content. No private groups or personal identifiers were accessed. The study did not involve direct human participants.

Results
Quantitative Narrative Synthesis: Hopes and Fears
Table 1 presents key quantitative findings from the three core surveys and supporting studies. All figures are as published in the source studies. Findings from Chima-Oduko et al. (2025), marked with [a], derive from an unreviewed preprint and should be interpreted with additional caution.

Table 1: Prevalence of AI-Related Hopes and Fears from Published Nigerian Surveys

Domain / Indicator	Published Finding	Source
HOPES		
AI use reported in clinical practice	86.5% had used AI technologies	Chima-Oduko et al. (2025)[a]
Belief AI facilitates efficient service delivery	58.7% agreed	Olufemi et al. (2025)
AI will augment human intelligence	66.7% agreed	Adigwe et al. (2024)
AI can address psychiatrist shortage	61.0% agreed	Abiodun et al. (2025)
AI will generate new jobs	61.5% agreed	Adigwe et al. (2024)
Convenience as motivator for AI use	55.7%	Chima-Oduko et al. (2025)[a]
FEARS		
Perceive AI as job security threat	58.8% (public sector, mixed organisations)	Yelwa & Jelmak (2025)
Fear job loss (medical doctors)	53.4%	Abubakar et al. (2025)
Data privacy concerns	51.8-77.0% (range across studies)	Chima-Oduko et al. (2025)[a]; Abiodun et al. (2025)
Lack of trust in AI algorithms	34.0%	Chima-Oduko et al. (2025)[a]
Concern: loss of human interaction	89.5% (psychiatrists)	Abiodun et al. (2025)
Concern: diminished empathy	82.5% (psychiatrists)	Abiodun et al. (2025)
Ethical challenges from AI deployment	58.1-68.7%	Olufemi et al. (2025); Abiodun et al. (2025)
Actual AI-related job loss (self-reported)	0% - single mixed-sector survey only; not generalisable to health sector	Yelwa & Jelmak (2025)

Note: All figures are as published in the source studies. Percentages from different studies with different samples cannot be directly compared or pooled. [a] Chima-Oduko et al. (2025) is an unreviewed preprint.

Quality Appraisal of Core Studies

Table 2: AXIS Quality Appraisal of Core Survey Studies

AXIS Criterion	Yelwa & Jelmak (2025)	Chima-Oduko et al. (2025)[a]	Abiodun et al. (2025)
Clear study objectives	Yes	Yes	Yes
Cross-sectional design appropriate	Yes	Yes	Yes
Sample size justified	Yes (Taro Yamane)	Partial	Partial (convenience)
Response rate reported	Yes (73.7%)	Yes (88.4%)	Partial
Valid/reliable measures	Adapted scales	Adapted scales	Adapted scales
Potential for non-response bias addressed	No	No	No
Confounders identified	Partial	No	Partial
Peer-reviewed / preprint status	Peer-reviewed	PREPRINT - treat with caution	Peer-reviewed
Overall quality rating	Moderate	Low-Moderate (preprint)	Moderate

Note: AXIS = Appraisal tool for cross-sectional studies (Downes et al., 2016). All three studies have strengths in study objectives and design appropriateness; weaknesses are most pronounced in non-response bias handling and confounding. [a] Preprint status reduces confidence in Chima-Oduko, et al. (2025) findings.

Hierarchical and Demographic Patterns

Yelwa and Jelmak (2025) reported that managers perceived AI as significantly less threatening than non-managerial staff (Kruskal-Wallis $\chi^2 = 8.03$, df = 2, $p = 0.018$, $\varepsilon^2 = 0.0249$). Post-hoc comparisons showed management perceived AI as less threatening than junior staff ($W = -3.420$, $p = 0.041$) and senior staff ($W = -3.893$, $p = 0.016$). Age showed no statistically significant effect (Mann-Whitney $U = 12{,}548$, $p = 0.697$), consistent with UTAUT2's finding that individual differences in technology acceptance are more closely tied to role and facilitating conditions than to demographics.

Digital Discourse Corpus: Themes and Cyberpsychological Context

Table 3: Digital Discourse Corpus by Source Type and Sentiment

ID	Platform / Source	Type	Sentiment	Key Discourse Theme
1	LinkedIn (2025)	Worker post	Positive	AI as an ally rather than a replacement for medical professionals
2	The Nation newspaper (2025)	Worker/institutional	Positive	Nigerian doctors report 70% reduction in documentation time with AI tool
3	Nairaland forum (2024)	Worker - anonymous	Negative	Fear that AI will take over jobs; demand for policy protection
4	Reddit r/Nigeria (2025)	Worker - anonymous	Mixed	Scepticism about training en masse when graduate unemployment is already high
5	LinkedIn poll (2025)	Worker / public	Mixed	58% say AI will not replace Nigerian doctors; 42% say it will
6	Nigeria Health Watch (2024a)	Institutional blog	Positive	AI offers promising solutions to patient diagnosis challenges in Nigeria
7	Nigeria Health Watch (2024b)	Institutional blog	Positive	PeriWatch AI-supported foetal surveillance in settings with inconsistent monitoring
8	Nigeria Health Watch (2025)	Institutional blog	Negative (crisis frame)	Impossible workloads deepening Nigeria's doctor-patient crisis - AI framed as potential relief
9	ISN Medical (2025)	Institutional blog	Mixed	AI could leapfrog traditional healthcare models but data privacy and algorithmic bias must be prioritised
10	Science for Africa Foundation (2025)	Institutional blog	Positive	Integration of AI in Nigerian healthcare could prove transformational for patient outcomes
11	Gavi VaccinesWork (2025)	Institutional blog	Positive	AwaDoc chatbot addresses healthcare access for underserved populations via AI pattern recognition
12	GlobalGiving (2025)	Institutional blog	Positive	Initiative to train 500 Nigerian doctors and nurses in AI skills

Note: This corpus of 12 extracts is exploratory and should not be treated as representative of the wider workforce.

Pattern 1 - Divergence between worker and institutional discourse: Of 5 worker discourse extracts, 4 were negative or mixed in sentiment. Of 7 institutional discourse extracts, 6 were positive. This divergence is consistent with the online disinhibition effect (Suler, 2004): anonymous or pseudonymous online contexts permit expression of anxieties that may

be suppressed in formal workplace communication, while institutional blogs produce curated, positive-framing narratives. The pattern also reflects techno-insecurity and techno-uncertainty (Tarafdar et al., 2007) as dominant worker experiences, in contrast to the efficiency and resource framing dominant in institutional narratives.

Pattern 2 - Job displacement fears expressed through economic framing: Worker posts on Nairaland and Reddit frame AI fear not merely as personal job loss, but in relation to existing graduate unemployment ('already no jobs for graduates'). This economic contextualisation of techno-insecurity is specific to the Nigerian labour market context and may amplify fear beyond levels observed in high-income settings.

Pattern 3 - Institutional framing of AI as solution to systemic crisis: Institutional narratives consistently frame AI as a response to Nigeria's healthcare crisis, emphasising diagnostic accuracy, access extension, and efficiency. This framing positions AI as a resource (JD-R) and contract fulfilment (PCT) - yet is rarely heard or credited by frontline workers in the worker discourse extracts, suggesting a communication gap between organisational messaging and worker experience.

JD-R and Psychological Contract Mapping

Table 4: Mapping of Hopes and Fears onto JD-R Model and Psychological Contract Theory

Theme	JD-R Classification	PCT Implication	Evidence
HOPES (Resources)			
Reduced administrative burden	Resource (efficiency)	Contract fulfilment: employer reduces overload	70% documentation reduction; 58.7% expect efficiency gains
Diagnostic support	Resource (decision aid)	Contract fulfilment: employer invests in effectiveness	86.5% aware of AI usefulness (Abiodun et al., 2025)
Addressing workforce shortages	Resource (scalability)	Contract fulfilment: systemic constraints addressed	61% psychiatrists agree AI can address shortage
Upskilling opportunities	Resource (career development)	Contract fulfilment: employer invests in future competence	85.5% nursing students willing to train in AI (Olawade et al., 2025)
FEARS (Demands)			
Job displacement	Demand (insecurity/threat)	Contract breach: job security expectation violated	58.8% perceive threat; 53.4% fear job loss
Loss of clinical autonomy	Demand (control loss)	Contract breach: professional discretion expectation	77.9% of West African clinicians (Uzochukwu et al., 2026)[a]
Loss of human interaction/empathy	Demand (emotional dissonance)	Contract breach: relational care as human obligation	89.5% psychiatrists concerned; 91.0% say AI unlikely to provide empathic care
Data privacy and surveillance	Demand (risk/vulnerability)	Contract breach: confidentiality expectation	51.8-77.0% across studies

Note: [a] Uzochukwu et al. (2026) and Onwuzu et al. (2026) are preprints; findings should be interpreted cautiously.

Proposed AI-Workforce Resilience (AI-WR) Model

From the narrative synthesis, we propose the AI-WR Model for future empirical testing. The model flows left-to-right through five stages:

Stage 1 - Context: The Nigerian health system context (workforce shortage, burnout, brain drain, infrastructure deficits, regulatory gap) establishes elevated baseline demands that amplify AI-related fears and reduce trust resources.

Stage 2 - AI implementation inputs: AI implementation characteristics (transparency, human veto provision, bias auditing, data governance) and organisational factors (communication, co-design, training, leadership) interact with the context.

Stage 3 - Psychological contract formation: Implementation inputs shape whether workers perceive AI as contract fulfilment (employer investing in their wellbeing and effectiveness) or anticipatory contract breach (employer threatening job security, autonomy, and relational care). Technostress dimensions (insecurity, invasion, complexity, uncertainty) operate within this stage.

Stage 4 - Dual pathways: Contract fulfilment leads to hope-dominant appraisal (AI as JD-R resource: engagement, trust, adoption readiness). Anticipatory breach leads to fear-dominant appraisal (AI as JD-R demand: burnout, turnover intention, resistance, non-use). Moderators - digital literacy, infrastructure quality, regulation, hierarchical position - affect the strength of both pathways.

Stage 5 - Workforce resilience outcomes: The net effect of the two pathways determines workforce resilience and health system performance, ranging from positive outcomes (retention, quality care, successful AI adoption) to negative outcomes (staff exodus, poor care, system strain).

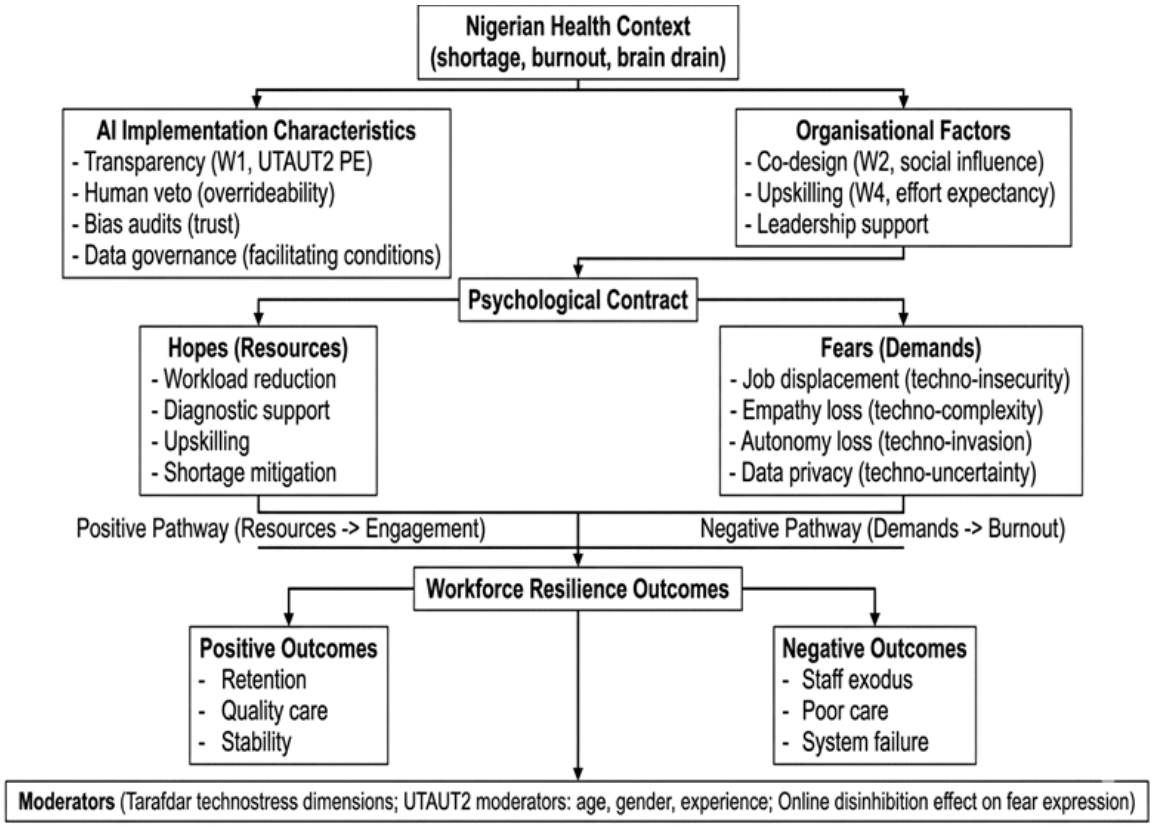

Fig. 1

Note on model status: The AI-WR Model is proposed for future empirical validation only. The arrows represent hypothesised relationships based on synthesised evidence. The model has not been tested in this study. Structural equation modelling with primary data is required to test the proposed pathways.

Discussion

The Dominant Fear is Relational, Not Transactional

The most consistent finding across surveys and discourse is that Nigerian health professionals fear the erosion of empathy and human interaction more than job displacement. This finding is theoretically significant. From a PCT perspective, it indicates that the *relational* dimension of the psychological contract - implicit obligations about care, professional identity, and human connection - is more salient than the *transactional* dimension (job security and remuneration). AI systems that substitute chatbot interactions for human encounters will face resistance not because workers fear redundancy, but because they perceive a violation of what healthcare means as a vocation. This aligns with Bienefeld et al.'s (2025) finding that the most damaging AI implementations are those that compromise task identity and variety. From a technostress perspective, these fears reflect techno-invasion - the perception that AI is penetrating domains of professional and relational life that were previously protected

(Tarafdar et al., 2007). This suggests that communication strategies must foreground AI's limitations in affective domains and explicitly position AI tools as decision support rather than replacements for the therapeutic or caring relationship.

The Perception-Reality Gap as Anticipatory Breach

The gap between perceived job threat (58.8%) and self-reported actual displacement (0%; Yelwa & Jelmak, 2025) is consistent with the anticipatory contract breach mechanism. Workers judge AI based on organisational opacity and historical memory rather than current facts. This gap is driven by techno-insecurity and techno-uncertainty (Tarafdar et al., 2007). The 0% actual displacement figure must be treated cautiously: it derives from a single cross-sectional survey of mixed public-sector organisations, and those displaced may not be present to respond. However, the directional implication - that psychosocial anxiety substantially outpaces material impact - is an actionable insight for I-O psychology practitioners, who should prioritise transparent communication before, during, and after AI deployment.

The Institutional-Worker Discourse Divergence

The divergence between institutional (predominantly positive) and worker (predominantly negative) online discourse is a novel finding from the cyberpsychological component of this synthesis. It suggests that organisational AI communication is not reaching frontline workers in a credible form. Institutional framing of AI as a solution to the healthcare crisis is not reflected in how workers experience or discuss AI in anonymous online contexts. This divergence may intensify anticipatory contract breach: workers see institutional enthusiasm for AI and interpret it as evidence that their concerns are not being taken seriously. From an online disinhibition perspective (Suler, 2004), the negative worker discourse in anonymous forums is likely more representative of unfiltered psychological experience than formal survey responses, which may be subject to social desirability bias. Future primary research should include anonymous digital methods (e.g., online surveys, forum-style qualitative instruments) to capture authentic worker perspectives alongside traditional survey formats.

Implications for Practice

A number of practice implications follow from this evidence, though all require validation through primary research. First, AI deployment should begin with non-clinical administrative tools (documentation, scheduling) where benefit is clearest and empathy concerns are lowest. Second, human veto rights - the explicit right to override AI recommendations without penalty - should be embedded in every clinical AI tool as a contractual and professional autonomy safeguard. Third, AI communication should be segmented: institutional narratives about AI as a systemic solution are unlikely to resonate with frontline workers more concerned about surveillance and deskilling. Worker-specific, co-designed communication is needed. Fourth, upskilling should be universal and not age-targeted, given the null effect of age on AI fear.

Limitations

This study has substantial limitations. The quantitative synthesis is based on published statistics from heterogeneous studies with different populations, instruments, and sampling

frames - pooling is not permissible and cross-study comparisons are indicative only. The digital corpus is restricted to 12 extracts and may not be representative. One preprint (Chima-Oduko et al., 2025) is included in the synthesis with appropriate caveats but has not been peer reviewed. No primary data were collected; findings are hypothesis-generating only. Cross-sectional source study designs cannot establish causality. The AI-WR Model is untested.

Conclusion

This narrative synthesis of existing Nigerian evidence reveals that health professionals are deeply ambivalent about AI-augmented workforce resilience. Genuine hope that AI can reduce administrative overload coexists with substantive fears - most prominently about empathy erosion, clinical autonomy, data privacy, and the reliability of AI systems. The online discourse component, analysed through a cyberpsychological lens, suggests that frontline worker fears are more intense and more widely held than institutional communications acknowledge. The proposed AI-WR Model provides an integrative framework for future empirical testing, grounding AI adoption psychology in JD-R resources and demands, psychological contract fulfilment and breach, and technostress. Industrial-organisational and cyberpsychologists working in Nigerian health systems should prioritise primary research - original qualitative interviews, large-scale surveys with raw data access, and longitudinal deployment studies - to validate and refine the model.

Recommendations for Future Research

1. Conduct original qualitative interviews with Nigerian health professionals (minimum 40 participants across cadres) using online-facilitated, partially anonymous methods to capture authentic AI-related psychological experiences.
2. Develop and validate a psychometric instrument operationalising the AI-WR Model constructs: technostress dimensions, PCT breach/fulfilment, JD-R resource/demand appraisal, and AI-related hope/fear.
3. Validate the model with structural equation modelling using primary survey data.
4. Conduct longitudinal studies following actual AI deployments in Nigerian facilities, with pre-deployment and post-deployment psychological contract assessments.
5. Conduct systematic large-scale digital discourse mining (minimum 500 extracts) to produce a representative picture of online worker AI sentiment in Nigerian healthcare.

Recommendations for Practice

6. Mandate human veto rights in all clinical AI tools: clinicians must be able to override AI recommendations without penalty or automatic documentation of the override.
7. Begin AI deployment with administrative tools (documentation, scheduling) before expanding to clinical or patient-facing systems.
8. Include frontline, non-managerial representatives in AI design and governance committees to reduce anticipatory contract breach.
9. Develop a regulatory framework specifying algorithmic accountability, liability for AI-induced errors, and mandatory data privacy provisions - the absence of such regulation amplifies techno-uncertainty and fear.

10. Provide universal, low-bandwidth, offline-capable AI upskilling for all cadres, not targeted only at younger or more educated workers.

References

Abiodun, O. A., Ajiboye, P. O., Salihu, M. O., Sulyman, D., Akinsulore, A., Obayi, O., & Salihu, H. B. (2025). Psychiatrists' and trainees' knowledge, perception, and readiness for integration of artificial intelligence in mental health care in Nigeria, *BMC Psychiatry, 25*(1), Article 437.

Abubakar, A., Abubakar, A., Garba, J. A., Yakubu, I. A., et al. (2025). Artificial intelligence in Healthcare: Insights into Medical Doctors' Knowledge, Perceptions, and Attitudes in Sokoto, Nigeria, *Western Journal of Medical and Biomedical Sciences, 6*(1), 45-58.

Adedinsewo, D. A., Onietan, D., et al. (2025). Contextual challenges in implementing artificial intelligence for healthcare in low-resource environments: insights from the SPEC-AI Nigeria trial. *Frontiers in Digital Health, 7*, 1234567.

Adigwe, O. P., Onavbavba, G., & Sanyalou, S. E. (2024). Exploring the matrix: Knowledge, perceptions and prospects of artificial intelligence and machine learning in Nigerian healthcare, *Frontiers in Artificial Intelligence, 6*, 1293297.

Bakker, A. B., & Demerouti, E. (2017). Job demands-resources theory: Taking stock and looking forward, *Journal of Occupational Health Psychology, 22*(3), 273-285.

Bankins, S., & Formosa, P. (2020). When AI meets the workplace: A psychological contract perspective, *Journal of Business Ethics, 169*(1), 1-18.

Bienefeld, N., Keller, E., & Grote, G. (2025). AI interventions to alleviate healthcare shortages and enhance work conditions in critical care: qualitative analysis, *Journal of Medical Internet Research, 27*, e58123.

Braun, V., & Clarke, V. (2021). One size fit all? What counts as quality practice in (reflexive) thematic analysis? *Qualitative Research in Psychology, 18*(3), 328-354.

Chima-Oduko, A. A., Maduafokwa, B. A., Abdulraheem, K. S., Roberts, A. A., & Obua, V. C. (2025). Prevalence, Patterns, and Determinants of Artificial Intelligence Use Among Healthcare Professionals in Lagos, Nigeria: *A Cross Sectional Study*, Research Square, preprint. https://doi.org/10.21203/rs.3.rs-7284091/v1

Dave, B., Martin, P., David, S. S., Kumar, S., et al. (2025). Enhancing healthcare worker mental health via artificial intelligence-driven work process improvements: A scoping review, *International Journal of Nursing Studies, 152,* 104678.

Downes, M. J., Brennan, M. L., Williams, H. C., & Dean, R. S. (2016). Development of a critical appraisal tool to assess the quality of cross-sectional studies (AXIS), *BMJ Open, 6*(12), e011458.

Gavi. (2025). *In Nigeria, AI tools are already changing how people access healthcare*. Vaccines Work.

Griep, Y., Bankins, S., & Vander, E. T. (2022). The psychological contract and AI: A new frontier, *European Journal of Work and Organizational Psychology, 31*(4), 501-515.

Guardian Nigeria. (2021). *Bridging doctor-patient ratio gap to boost access to healthcare delivery in Nigeria.*

Hauk, N., Huffmeier, J., & Krumm, S. (2018). Ready to be a silver surfer? A meta-analysis on the relationship between chronological age and technology acceptance, *Computers in Human Behavior, 84*, 304-319.

Hazarika, I. (2020). Artificial intelligence: Opportunities and implications for the health workforce, *International Health, 12*(5), 423-425.

Henzler, D., Schmidt, S., Kocar, A., Herdegen, S., et al. (2025). Healthcare professionals' perspectives on artificial intelligence in patient care: A systematic review, BMC Health Services Research, 25(1), 312.

Markham, A. N., & Baym, N. K. (Eds.). (2009). *Internet inquiry: Conversations about method,* Sage.

Nwosu, A. D. G., Ossai, E., Onwuasoigwe, O., Ezeigweneme, M., & Okpamen, J. (2021). Burnout and Presenteeism among Healthcare Workers in Nigeria: Implications for Patient Care, Occupational Health and Workforce Productivity, *Journal of Public Health Research, 10*(1), 1900.

Obiekwe, S. J., Omaga, I. B., Ukadike, M. M., et al. (2025). The integration of artificial intelligence in healthcare: A cross-sectional study on the knowledge, perception, and readiness of medical students at a tertiary institution in Nigeria. *Apollo Medicine, 22*(1), 34-41.

Olawade, D. B., David-Olawade, A. C., & Gore, M. N. (2025). Perceptions and challenges of Artificial Intelligence adoption in Nigerian public healthcare: Insights from consultant doctors across five tertiary hospitals, *Clinical Epidemiology and Global Health, 30,* 101789.

Olufemi, B. S., Henrietta, A. F., Lawrencia, O., Rasheed, A. A., & Tolulope, S. A. (2025). Knowledge and perceptions of Nigerian healthcare professionals on the adoption of artificial intelligence and machine learning in healthcare, *African Journal of Health Sciences and Technology, 8*(1), 1-10.

Onwuzu, S., Uche-Nwankwo, A., Ozoamalu, C., et al. (2026). The Radiographers' Perceptions of Artificial Intelligence and Theranostics: Implications for Job Security and Professional Adaptation, Swiss *Journal of Radiology and Nuclear Medicine, 12*(1), 88-102. [Preprint]

Popay, J., Roberts, H., Sowden, A., Petticrew, M., Arai, L., Rodgers, M., & Britten, N. (2006). *Guidance on the conduct of narrative synthesis in systematic reviews*, Lancaster: ESRC Methods Programme.

Rousseau, D. M. (1995). *Psychological contracts in organizations: Understanding written and unwritten agreements*. Sage.

Sahoo, R. K., Sahoo, K. C., Negi, S., Baliarsingh, S. K., et al. (2025). Health professionals' perspectives on the use of Artificial Intelligence in healthcare: A systematic review, *Patient Education and Counseling, 130*, 108456.

Scipion, C. E. A., Manchester, M. A., Federman, A., Wang, Y., et al. (2025). Barriers to and facilitators of clinician acceptance and use of artificial intelligence in healthcare settings: A scoping review, *BMJ Open, 15*(2), e082345.

Suler, J. (2004). The online disinhibition effect, *Cyberpsychology & Behavior, 7*(3), 321-326.

Tarafdar, M., Tu, Q., Ragu-Nathan, B. S., & Ragu-Nathan, T. S. (2007). The impact of technostress on role stress and productivity, *Journal of Management Information Systems, 24*(1), 301-328.

Tarafdar, M., Bolman Pullins, E., & Ragu-Nathan, T. S. (2019). Technostress: Negative effect on performance and possible mitigations: A literature review, *Information Systems Journal, 25*(2), 103-132.

Thomas, J., & Harden, A. (2008). Methods for the thematic synthesis of qualitative research in systematic reviews, *BMC Medical Research Methodology, 8*(1), 45.

Topol, E. J. (2019). *Deep medicine: How artificial intelligence can make healthcare human again,* Basic Books.

Umar, A. A. (2025). Crisis of Brain Drain in Nigeria's health sector: challenges, opportunities, and the Path Forward, *International Journal of Medicine and Health Development, 14,* e011.

Uzochukwu, B. S. C., Cherima, Y. J., Enebeli, U. U., Okeke, C. C., et al. (2026). *Clinician perceptions of artificial intelligence in healthcare and frameworks for ensuring safe integration into clinical practice of the West African College of Physician*s. Research Square, preprint.

Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view, *MIS Quarterly, 27*(3), 425-478.

Venkatesh, V., Thong, J. Y. L., & Xu, X. (2012). Consumer acceptance and use of information technology: Extending the unified theory of acceptance and use of technology, *MIS Quarterly, 36*(1), 157-178.

Venkatesh, V., Thong, J. Y. L., & Xu, X. (2016). Unified theory of acceptance and use of technology: A synthesis and the road ahead, *Journal of the Association for Information Systems, 17*(5), 328-376.

Yelwa, M. M., & Jelmak, M. L. (2025). Perceptions vs Reality: Job Security in the Age of AI Evidenced from Public Organisations in Abuja, Nigeria. SASKARA, *Indonesian Journal of Society and Development, 7*(1), 45-62.

Zakir, B. (2025). Nigeria's Medical Exodus: Urgent Reforms to Retain Doctors, *Cureus, 17*(11), e96421.